

ETHOS URBAN

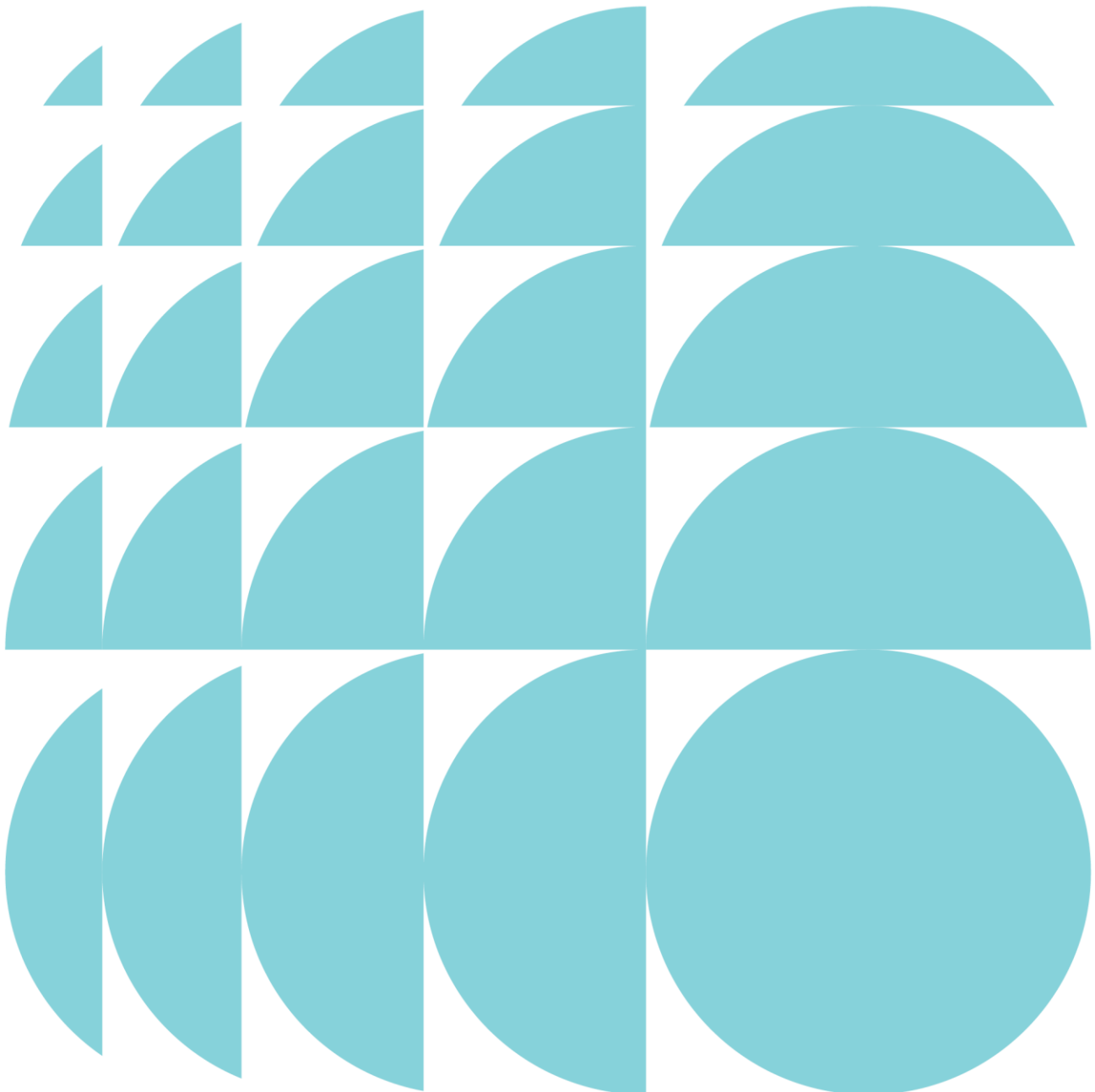
Submissions and Amendment Report – SSD 15822622

Ivanhoe Estate, Macquarie Park
Stage 2 'Midtown' State Significant Development
Application

Submitted to Department of Planning and
Environment

Frasers Property Australia on behalf of NSW Land
and Housing Corporation

25 March 2022 | 17156



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Submitted under separate cover:

- TUFLOW flood model

1.0 Introduction

1.1 Overview

A State Significant Development Application (SSDA-15822622) and accompanying Environmental Impact Statement (EIS) was lodged with the Department of Planning and Environment (DPE) on 26 August 2021 and publicly exhibited between Tuesday 19 October 2021 and Monday 15 November 2021. The SSDA seeks consent for the detailed design and construction of Stage 2 of the Ivanhoe Estate redevelopment comprising the construction of Block C2 (community centre, pool, gym and open space), Block C3 (mixed use residential and retail), and Block C4 (market and social housing apartments).

The exhibited EIS was prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the project and the Department's guidelines for SSD applications lodged under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The submissions received during the exhibition of the EIS form the subject of this report, known as the Submissions and Amendment Report. Design amendments have come about as a result of this response process. Further details of these amendments are provided in **Section 4.0** and in the accompanying documents.

1.2 Purpose of this Report

The purpose of this Submissions and Amendment Report is to respond to submissions raised by both community and government stakeholders during the exhibition of the EIS. This Submissions and Amendment Report has been prepared to satisfy the provisions of Section 4.39(e) of the EP&A Act. It has been prepared in accordance with the July 2021 DPE *State Significant Development Guidelines – Preparing a Submissions and Amendment Report*. Each of the submissions received has been collated, analysed and the relevant issues have been addressed (**Section 5**).

This Submissions and Amendment Report also provides a description of the design amendments made to the proposed development pursuant to Clause 37 of the EP&A Regulation, which have been undertaken to address submissions received and refine the proposal (**Section 4.0**). In addition to this amendment description, this Submissions and Amendment Report provides further environmental assessment to accommodate the changes to the proposal and serves as an addendum to the technical specialist reporting provided within the EIS (**Section 5.0** and **6.0**).

1.3 State Significant Development

The EP&A Act establishes the assessment framework for development in NSW. Pursuant to Part 4 of the EP&A Act development consent is required for the proposed facility.

State Environmental Planning Policy (State and Regional Development) 2011 (the SRD SEPP) identifies development that is declared to be State Significant. Clause 8 of the SRD SEPP states that any development of a type specified in Schedule 1 or 2 of the SRD SEPP is declared to be SSD pursuant to Section 4.36 of the EP&A Act.

The Ivanhoe Estate is identified as a State Significant Site in Schedule 2 of State Environmental Planning Policy (State and Regional Development) 2011. Development within the Ivanhoe Estate with a capital investment value of more than \$20 million is SSD for the purposes of the EP&A Act.

The Minister for Planning and Public Spaces is the consent authority for SSD where the application to carry out the development is made by or on behalf of a public authority (Clause 8A of SEPP SRD). LAHC is a public authority, and therefore the Development Application will be assessed by DPE and determined by the Minister.

1.4 Overview of the Proposal as Exhibited

The SSDA, as lodged, sought approval for the following development:

- The detailed design, construction, and operation of Blocks C2, C3 and C4 of Ivanhoe Estate, Macquarie Park:
 - C2 comprising the community centre, pool, gym, and Village Green central open space area;
 - C3 comprising a 17-storey mixed use building with 162 market housing residential apartments, 9 ground floor retail tenancies, and 3 levels of basement parking; and
 - C4 comprising 4 townhouses each three storeys in height, a 24-storey building with 268 market residential apartments, and a 17-storey building comprising 216 social housing apartments with 3 shared levels of basement parking.
- Relevant excavation and detailed earthworks, including for building basements and to achieve the required levels for the community centre and Village Green.
- Utilities and services infrastructure to tie into the requirements of the proposed buildings.
- New driveways and public domain areas to tie into the approved internal road network and road reserves.
- Stratum subdivision to correspond with the proposed buildings.

1.5 Pre-Lodgement Consultation

During the preparation of the EIS, a number of consultation activities with key stakeholders took place in order to create an open dialogue. This included that of the following:

- Department of Planning and Environment (DPE);
- City of Ryde Council;
- The NSW Government Architect through the State Design Review Panel (SDRP) process;
- Relevant utilities and service providers; and
- The local community (public consultation).

The pre-lodgement consultation details is documented in Section 4 of the exhibited EIS.

1.6 Actions Taken Since Lodgement

The following actions have taken place since the EIS was placed on exhibition. Further discussion is provided in **Section 3** below.

- Following receipt of agency and public submissions, DPE issued a Key Issues Letter dated 16 December 2021 requesting further information be provided in response to the submissions raised;
- During the exhibition and post-lodgement processes, the Proponent has undertaken further consultation with key stakeholders including the NSW Government Architect State Design Review Panel, City of Ryde Council, and DPIE-Water/NRAR with respect to the detailed design of the project and the matters raised in submissions.
- The design has been amended to respond to submissions and further consultation; and
- The Proponent has updated and/or prepared project documentation where relevant to respond to submissions raised and to address design refinements.

2.0 Analysis of Submissions

2.1 Overview

A total of seven (7) submissions were received in response to the public exhibition of the EIS, including submissions made by government authorities, and the public, as set out in the following sections.

A response to each of these submissions has been prepared. An overview of the submissions and a summary of the process undertaken to ensure the submissions have been accurately responded to is provided below.

2.2 Government Agency Submissions

In addition to the Key Issues letter prepared by Department of Planning and Environment, submissions were received from a total of six (6) government agencies as follows:

- City of Ryde Council
- NSW Environmental Protection Agency (NSW EPA)
- DPIE Water
- Transport for NSW (TfNSW)
- Heritage Council
- The Energy, Environment and Science Group (EESG)

A detailed response to these submissions is provided in **Section 5.0** below, noting that TfNSW and the Heritage Council did not raise any objection or request any additional information in response to the Environmental Impact Statement. These agencies confirmed the following:

- **Heritage Council:** *Based on the above considerations, Heritage NSW agrees that the archaeological potential of the subject area is of nil to low archaeological potential, and that there is no further investigation required with respect to Aboriginal cultural heritage. Heritage NSW supports all four recommendations presented in the ACHAR, and requires that they be followed, should the next stage in Ivanhoe Estate Redevelopment, Stage 2 be approved.*
- **Transport for NSW:** *TfNSW has reviewed the submitted EIS and notes Stage 2 of the Ivanhoe Estate redevelopment seeks approval for the detailed design and construction of blocks C2, C3, and C4 in accordance with the approved Master Plan of the site (SSD 8707). As such, TfNSW advises that the proposed development (SSD15822622) will have a negligible impact on the surrounding classified road network and therefore raises no objections.*

The outstanding matters raised by the State Design Review Panel (SDRP) in the third meeting have also been addressed in the following response for completeness.

2.3 Public Submissions

A total of one (1) public submission was received, with no submissions received from organisations and special interest groups. A detailed response to this submission is provided at **Section 5.2**.

3.0 Actions Taken Since Lodgement

Table 1 outlines the actions undertaken by the Proponent to progress the project in response to submissions.

Table 1 Actions taken since exhibition

Action	Description
Further engagement	<p>The following consultation has occurred since the exhibition of SSD-15822622:</p> <ul style="list-style-type: none"> • Engagement with the State Design Review Panel (SDRP), with the 3rd SDRP meeting of the panel following lodgement on 23 September 2021. • Design development meeting held with the Department of Planning and Environment and a representative of GANSW on 10 March 2022. • Further as needed consultation conducted with City of Ryde Council, including with respect to waste management issues. • A meeting held with DPIE-Water on 16 February 2022 with respect to their submission, and follow-up written consultation with NRAR.
Project amendments	<p>The Proponent has proposed amendments to the design of Blocks C2, C3 and C4 in response to the submissions received and as part of ongoing design progression with the State Design Review Panel. These amendments are detailed in Section 4.0 below.</p>
Further assessment	<p>Additional assessment has been undertaken by the project team where necessary to respond to submissions, and to quantify any changes to conclusions, recommendations and mitigation measures resulting from the proposed amendments. The additional assessment is appended to this Submissions and Amendment Report (refer to Table of Contents) and comprise:</p> <ul style="list-style-type: none"> • Updated Architectural and Landscape Plans and supporting information on public art, planting and other requests for additional information • Revised stormwater and drainage assessment and Civil Plans corresponding to the amended Architectural and Landscape Plans • Revised Transport Assessment and engineering response • Updated Waste Storage Details • Environmental Wind Tunnel Study • Further acoustic assessment of retail tenancies • Area calculations plan in accordance with the Concept Masterplan conditions of consent <p>An environmental assessment of the project as amended by this RTS is detailed through this report and summarised in the updated project justification and final Mitigation Measures in Sections 6.0 and 8.0.</p>

4.0 Proposed Amendments

4.1 Design amendments

As part of the actions taken since exhibition as described in **Section 1.6** above, the architectural and landscape teams have continued to progress the design of Blocks C2, C3 and C4 and doing so have identified opportunities to refine the proposal. The proposed amendments are detailed in the amended plans at **Appendices A to E** and summarised as follows.

- **Building C2:**

- Substation removed as a result of further services coordination and an understanding of electrical loads. This has enabled the usable space surrounding the community centre to increase by 16m² and provide public bicycle parking spaces adjacent to this space.
- Design development of the children’s playground that incorporates aspects of Connecting with Country, sustainability, and landscaping in response to the SDRP comments.
- Including skylights for increased amenity to the pool in response to the SDRP comments (see **Figure 1**).
- Revising the levels for the community garden and balcony nook in response to the SDRP comments.



Figure 1 Inclusion of skylights to the pool

Source: Chrofi

- **Building C3:**

- Revising the basement layout to address comments in relation to waste management and bicycle parking and to capture general design coordination.
- Revising the internal design for the retail tenancies to increase the number of tenancies from seven (7) to nine (9) tenancies and adjusting waste rooms in response to City of Ryde Council’s comments.
- Amending the façade facing the Village Green to replace lightweight materials used in the ‘forest rooms’ with precast concrete to maximise building articulation in response to the SDRP comments (see **Figure 2**).
- Providing additional operable louvres to corridors to enable cross ventilation in response to the SDRP comments.
- Revising the internal layouts and apartment mix as a result of design development, replacing three (3) x one (1) bedroom units with two (2) x two (2) bedroom units and reducing the number of apartments in Building C3 to 162 apartments.



Figure 2 Design development of the forest rooms to be distinct spaces in the façade

Source: Fox Johnston

- **Building C4:**

- General design coordination adjustments to internal layouts and in response to specific submission commentary explored in the following section. This includes replacing a one (1) bedroom unit with a studio.
- Design development of ground floor private terraces and access stairs on the Shrimptons Creek side of the building in response to the specific submission commentary explored in the following section.
- Rearrangement of social lobby to provide a clear and generous physical and visual link between the central courtyard ('The Grove') and the street in response to the SDRP comments.
- Including planter boxes to contribute to the privacy of the ground floor terraces at the street edge.
- Design development of the art wall for Building C4.2, including identifying concepts and schemes to be explored further at the detailed design phase, in response to the SDRP comments.
- Removal of blade façade elements on Building C4.1 in response to the SDRP comments.
- Inclusion of a landscaped breakout space for Social Lobby A in response to the SDRP comments.
- Inclusion of landscaped break-out spaces with seating at intermittent levels along communal corridors throughout Building C4.2.
- Inclusion of metal fins to provide greater depth, intermediate scale, variation, and colour to the western façade of Building C4.2
- Removal of the end-of-line raingardens with consideration of the site constraints.

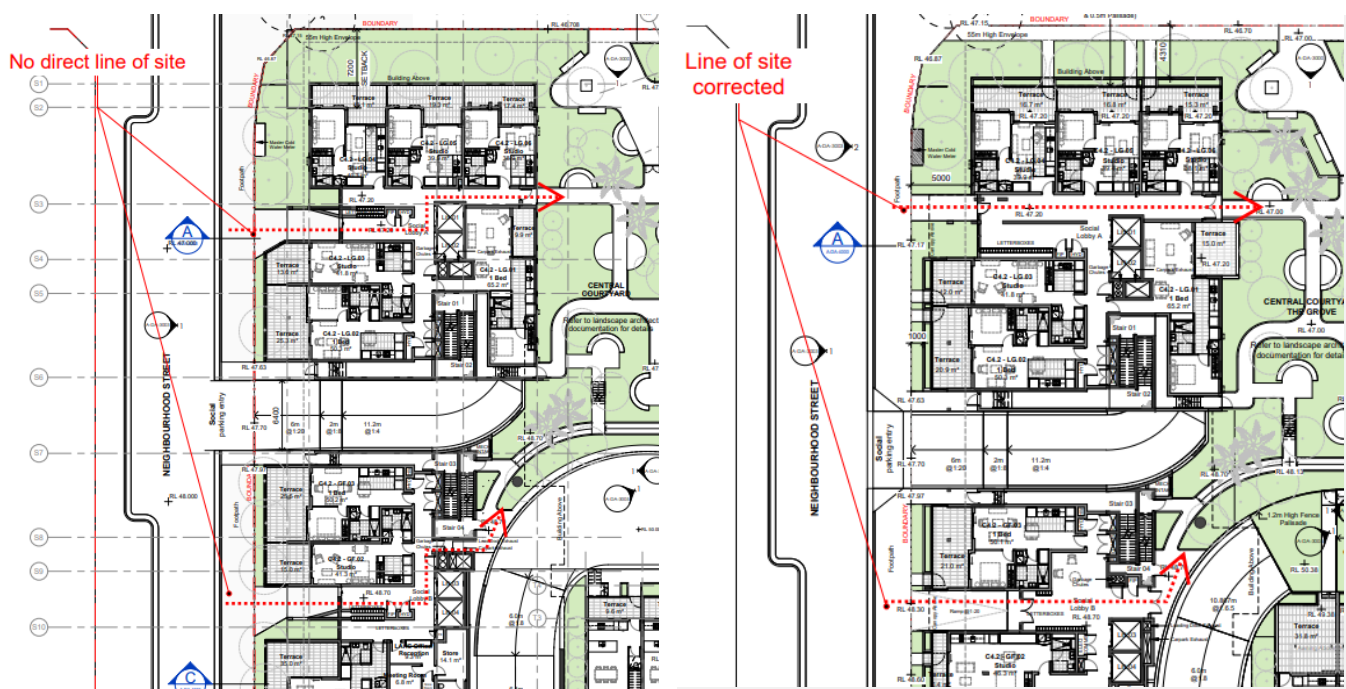


Figure 3 Proposed changes to the social housing lobby line of sight

Source: COX Architecture

4.2 Operational amendments

The exhibited EIS sought consent for the use of the ground floor of Building C3 as retail premises in accordance with the Concept Masterplan, but stated that the fit-out and operation of each of the ground floor retail tenancies would be the subject of a separate and future application.

Consent is now sought for the use and the overarching operational parameters for the tenancies to be defined in this Stage 2 SSDA to provide consistency and clarity to future tenants, while the detailed fit-out works will still be pursued via a further application or other planning pathway as applicable. Consent is sought for the following:

- The use of the ground floor tenancies within Building C3 as ‘retail premises’.
- The operation of these tenancies between 6am and 10pm daily.

Acoustic Logic has undertaken an acoustic assessment of the proposed operating hours (see **Appendix L**), which is discussed further in **Section 6.0** of this report.

For the avoidance of doubt, no change is proposed to the intended use and operation of Building C2:

- The community centre use and operation is proposed as part of this Stage 2 SSDA, noting that this building will be subject to the Plan of Management to be developed by Mission Australia in accordance with Mitigation Measure D/O-BF4. This Plan of Management details the operational model for the community centre and is to be made with reference to the preliminary Operational Management Plan provided at Appendix AA of the EIS.
- Consent is also sought for the use of the indoor recreation facilities as part of Building C2. However, the indoor pool and gym within Building C2 will be subject to a further detailed application (or alternative planning pathway if available) for any detailed operations, fit-out, or signage required when the operator is known.

The final proposed Mitigation Measures are detailed in **Section 8.0** of this report.

5.0 Response to Submissions

5.1 Agency and Authority Submissions

This section provides a response to the key issues raised in the submission from government agencies. It is noted that the responses provided in this table have been authored with the technical consultant team and include additional environmental assessments as detailed with the technical consultant teams.


5.1.1 Department of Planning and Environment

Table 2 below provides a response to the DPE Key Issues Letter dated 16 December 2021.

Table 2 Response to DPE Key Issues Letter

Issue Raised	Applicant Response
Consistency with Concept Approval	
Provide details regarding how Condition A12 will be satisfied concerning the provision of a minimum 2,011m ² gross floor area for community centres.	<p>Condition A12 specifies the minimum requirement for non-residential GFA as 7,711m², including 2,011m² of community space across the Concept Masterplan site. Condition A14 clarifies that the development must include a community centre with a minimum 700m² of GFA.</p> <p>In this respect, community spaces are provided as part of the approved Stage 1 and the proposed Stage 2 areas. This includes 200m² of community floor space within the approved Building C1, and 501m² of community floor space within the proposed Building C2.</p> <p>The cumulative total of Stage 1 and Stage 2 satisfies the requirements of Condition A14.</p>
Provide further justification regarding how the proposed community centre satisfies Condition A14 given 121m ² (17%) of the community centre comprises a café, noting a café was not included in the list of elements to be delivered as part of the community centre under the note to Condition A30.	<p>The proposed social enterprise café is a not a traditional retail space, but rather an essential component of the Mission Australia programming for the site that serves a significant community function as part of the community centre.</p> <p>A social enterprise café provides people with the opportunity to up-skill and re-enter the workforce through vocational training – as a journey towards independence that gives participants a sense of pride, achievement, dignity, and inclusion. It functions as a community space that is used by members of the Midtown community to service events and community activities, including hosting cooking classes, barrister classes and health and wellbeing sessions.</p> <p>The social enterprise café will be operated with the Mission Australia Community Development Team and will be the largest of this type of facility in NSW. Similar programs have been developed in Queensland and the Northern Territory, including a social enterprise café truck: https://www.missionaustralia.com.au/stories/people-and-communities/changing-lives-one-coffee-at-a-time</p> <p>It is emphasised that the social enterprise café is not a leasable retail space, rather it is an ancillary component of the community centre that operates as a supporting amenity and community/meeting area.</p>

Issue Raised	Applicant Response
<p>Provide details demonstrating how the proposal satisfies the requirements of Condition A15 of the Concept Approval, specifically:</p> <ul style="list-style-type: none"> • a minimum 3,300m² Village Green plus a minimum 2,393m² Village Green formal and informal gathering spaces • a minimum 566m² Town Square. 	<p>An area plan is provided at Appendix J demonstrating how the current proposal provides the minimum areas for the Village Green and the Town Square. The following is noted:</p> <ul style="list-style-type: none"> • The 3,300m² for the Village Green is achieved ensuring there is a sufficient and high-quality public open space area provided. • The 2,393m² Village Green formal and informal gathering spaces is also achieved at the interfaces to the Village Green and the approved and proposed community rooms, providing breakout, socialising and circulation spaces across multiple levels for these key destinations. In accordance with the subdivision plans at Appendix K, these spaces are treated with public access easements to align with their proposed use. • The 566m² Town Square as publicly accessible circulation space with opportunities for outdoor dining at the ground plane of Block C3.
<p>Reconsider the proposed narrow building separation between the eastern terrace dwelling and Building C4 (market) as this appears to be significantly less than illustrated in the plans submitted in support of the concept application.</p>	<p>Since the preparation of the reference plans that accompanied the Concept Masterplan DA, significant design development has been completed in consultation with a range of technical consultants in the preparation of the Stage 2 SSDA. As part of this process, the design of the access driveway was tested and revised to achieve engineering requirements and access for waste removal trucks. As a result, the exact location of the terraces as indicated in the reference plans has been moved slightly east to allow for the construction and operation of the driveway.</p> <p>This relationship between the terraces and Building C4.1, however, does not compromise the privacy or amenity of residents, and contributes to the Midtown Estate streetscape. It is considered to be an appropriate and supportable outcome for the following reasons:</p> <ul style="list-style-type: none"> • Solar access: owing to the location of units C4.1-GF.10, C4.1-2.10, and C4.1-3.09 in the south western corner of the market housing building, there is no potential to capture significant additional solar access for these apartments by increasing the setback to the terraces akin to the indicative location shown in the reference plans. The setback proposed in the detailed design plans, therefore, does not impact compliance with solar access. • Natural ventilation: as evidenced in the appended Architectural Plans at Appendix D, the subject ground floor units are naturally cross ventilated to achieve adequate ventilation and a comfortable indoor environment. • Privacy: the interface between the eastern terrace and units C4.1-GF.10, C4.1-2.10, and C4.1-3.09 has been designed to maintain privacy to these dwellings. Windows to this setback are offset, high-level windows, ensuring there is no potential for overlooking. • Streetscape: the terraces have been designed to address the Neighbourhood Mews and create a consistent streetscape between the C4.1 and C4.2 buildings. The terraces are three (3) storeys in height and finished in face brick, creating a consistent scale and visual language between the two towers to read as a single complementary development from the street.

Issue Raised	Applicant Response
	 <p data-bbox="920 746 1995 799">Figure 4 Artist's impression of the streetscape and relationship between townhouses and Building C4.1</p> <p data-bbox="920 810 1149 834"><i>Source: Cox Architecture</i></p>
<p data-bbox="152 858 857 962">Provide further information regarding the operation of the community centre given the note to Condition A30 includes a requirement for free access to the broader community rather than only residents of the redeveloped Ivanhoe Estate.</p>	<p data-bbox="920 858 2063 938">The preliminary Operational Management Plan provided as Appendix AA of the EIS details the intended operation of the community centre by Mission Australia. In accordance with the Mitigation Measures, it is required that this Plan be finalised prior to the operation of the centre.</p> <p data-bbox="920 965 1787 989">All proposed facilities will be accessible to residents as well as the broader community.</p> <p data-bbox="920 1018 2074 1201">The community rooms will be free and open to all residents as well community groups and charities. This ensures free access is provided to the broader community in addition to residents in accordance with Condition A30 of the consent. Users of the community centre will only be subject to a fee when using these spaces for private events on weekends and outside of the centres ongoing programs and scheduled activities. This fee is for maintenance and cleaning, and is not for profit. This management framework is not inconsistent with Condition A30 of the consent and is aligned with the operation of community centres by Council throughout the Ryde City Council local government area, which are also subject to minimal admin or maintenance fees depending on the user.</p>
<p data-bbox="152 1220 358 1244">Design Excellence</p>	
<p data-bbox="152 1264 902 1390">Address the comments and recommendations of the State Design Review Panel (SDRP) following the meeting on 23 September 2021, particularly with regard to maximising building articulation and residential amenity and present the updated proposal to the SDRP and address any further comments, prior to lodgement of the RTS.</p>	<p data-bbox="920 1264 1984 1315">The SDRP comments are addressed separately in Section 5.3 of this report and detailed in the appended architectural plans and design reports.</p>

Issue Raised	Applicant Response
Future Residential Amenity	
<p>Implement measures to ensure suitable privacy and amenity is provided between dwellings located in the social and market elements of Building C4 above level 8, noting the proposed building separation distances at the north-eastern end do not fully satisfy the recommended ADG building separation distance of 24 m.</p>	<p>Privacy screens have been added to Unit C4.1 - 8.01 as well as units in this location on upper levels (i.e. Level 8 to Level 16) to mitigate privacy concerns in accordance with the ADG design guidance for visual privacy. Apartments have been designed with view directors ensuring there is no overlooking between apartments. Refer to updated Architectural Plans prepared by Cox Architecture (Appendix D).</p>
<p>Provide further justification for the provision of less than 70% of dwellings in Building C4 receiving a minimum of two hours solar access in midwinter between 9 am and 3 pm.</p>	<p>The proposed Stage 2 buildings remain consistent with the Concept Masterplan (SSD-8707) approval that has been obtained for sitewide compliance, rather than individual building compliance. The assessment of the Masterplan determined that while the Block C4 buildings would not achieve the numeric control, Building C3 would exceed this amenity criteria. This detailed design phase of the project, therefore, remains consistent with the Concept Masterplan that recognised some individual buildings within the Masterplan will not achieve 70% solar access but that Midtown will provide an appropriate degree of solar access and amenity at a precinct scale.</p> <p>A key reason for the numerical non-compliance for Block C4 is the comparatively higher number of 3 bedroom units being provided as part of Stage 2 Midtown, contributing to housing choice and providing more opportunities for families to form part of the developing Midtown Estate. Numerical compliance could be achieved if the northern building facades were revised to include a high proportion of one bedroom and studio units, however, this would not achieve the same social benefits or provide a housing typology that is currently underrepresented in the market.</p>
<p>Confirm the extent of solar access that would be received within the communal open spaces of Building C4.</p>	<p>While there is significant communal space for socialising and passive recreation between the social and market housing buildings ('The Grove'), owing to the location of this open space, it will be overshadowed at times of the year. There is, however, a significant area of communal open space within the site fronting the Shrimptons Creek corridor as well as the neighbourhood garden at Main Street, which all offer opportunities for respite and socialising and receives excellent solar access. Hassell has confirmed that 50% of the principal usable part of the communal open space area for Block C4 achieves the minimum 2 hours of solar access between 9am and 3pm on 21 June. This is detailed in the plans at Appendix D.</p>
<p>Provide further information demonstrating Buildings C3 and C4 achieve a minimum of 60% cross-ventilation of dwellings in the first nine storeys.</p>	<p>Architectural drawings A-DA-8300 and A-DA-8301 prepared by COX Architecture for Building C4 demonstrate that 63% of the apartments within the first 9 storeys are cross ventilated.</p> <p>Architectural drawing A-730 prepared by Studio Johnson for Building C3 also demonstrates that 75% of the apartments within the first 9 storeys are cross ventilated.</p>
<p>Reconsider the proposed single core arrangement for the market portion of Building C4, noting significantly more than 40 dwellings share a single lift.</p>	<p>Block C4 has been designed so that the social housing building has no more than 7 apartments accessed from a circulation core on a single level, and the market housing building has no more than 12 accessed from a circulation core on a single level, in accordance with the ADG. However, both towers will seek to service more than 40 apartments with a single lift. In view of this, the building corridors have been designed to be well ventilated and with windows provided in the notches of the building to ensure these corridors have access to views and daylight. Further design development has also enabled the inclusion of landscaped break-out spaces with seating at intermittent levels along communal corridors throughout Building C4.2. It is emphasised that this achieves the design guidance principles in the ADG. Further, an assessment of the ability of future lifts to service the proposed number of apartments has been completed by DSC Engineers (Appendix GG of the EIS), which confirms that these buildings will meet international benchmarks and are acceptable in the circumstances. They further state that "the</p>

Issue Raised

Applicant Response

quantity of lifts prescribed by the ADG would be an over provision in this instance and therefore the ADG non-compliance is justified.”

It is also noted that the approved Building A1 within the Ivanhoe Estate has a commensurate arrangement of 12 units per floor (on average) that are accessed from a 45m long corridor (see below comparison). Frasers Property Australia has successfully delivered other buildings of this scale and arrangement as detailed in the table below.

Building	No. of units to floorplate	No. of lifts	No. units per lift per floor
Midtown C4	12	3	4
Midtown A1	12	3	4
Central Park Block 5C	20	5	4
Central Park Block 5B	14	3	4.7
Central Park East Tower	17	5	3.4
Central Park Connor	21	3	7

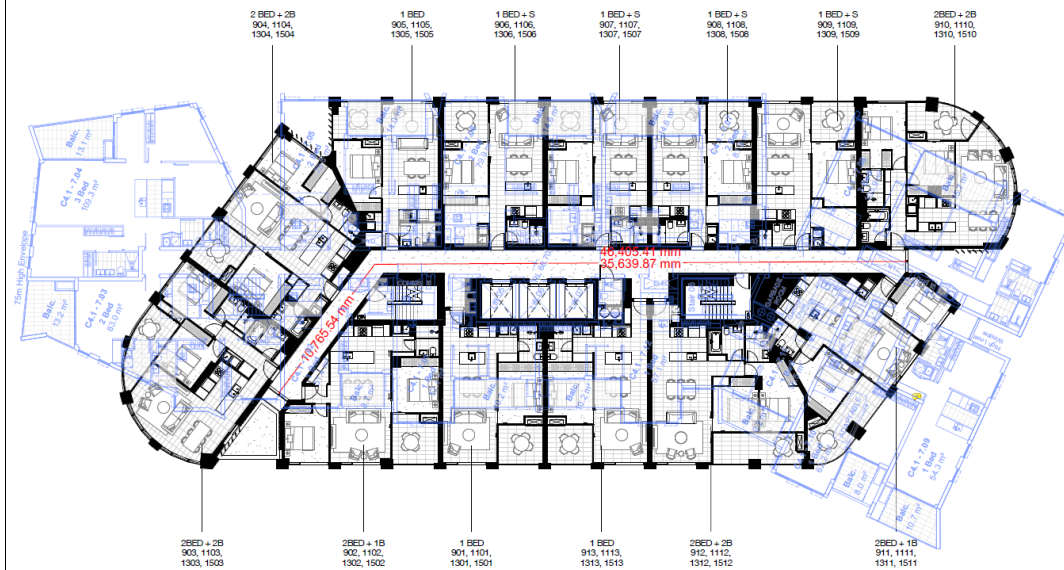


Figure 5 Overlay of the approved Building A1 and proposed Building C4

Issue Raised	Applicant Response
<p>Demonstrate sufficient amenity will be provided to dwellings in Building C4 that receive poor/zero solar access and zero cross-ventilation, including design revisions to improve the amenity of these dwellings.</p>	<p>The proposed Stage 2 buildings remain consistent with the Concept Masterplan (SSD-8707) approval that has been obtained for sitewide compliance, rather than individual building compliance.</p> <p>All dwellings are provided with privacy balconies or courtyards and have access to communal open space, contributing to the amenity of apartments.</p>
<p>Demonstrate sufficient acoustic privacy and amenity will be provided to ground floor market dwellings located between the main entry from Main Street and the lift core within Building C4.</p>	<p>Any potential noise generated from the main entry from Main Street will be from local residents using the central courtyard. Acoustic Logic confirms that this is typical neighbourhood noise, and in accordance with NSW EPA Noise Policy for Industry, this is not applicable to the proposed development. Notwithstanding this, providing, 6.38mm Laminated or 6.38mm/12mm air gap/6mm glazing with minimum Rw 31 have been specified for the project building in the Noise Impact Assessment provided at Appendix V of the EIS, to exclude the noise intrusions from neighbourhood activities including people using the entry from Main Street.</p> <p>The lift core will similarly be further detailed at the relevant Crown Certificate stage to satisfy the requirements of the Part F5 of the BCA and the NCC for the sound insulation for walls.</p> <p>In addition to the above, the amended Landscape Plans prepared by Hassell (Appendix E) confirm that the communal open space paths and recreation spaces are screened from private open spaces through landscape buffering with small trees, shrubs and grasses in addition to fencing. Raised garden beds further limit views between spaces while seated, ensuring that sufficient privacy and amenity is afforded to the ground floor market dwellings.</p>
<p>Provide further justification for the proposed 15% of the site area as communal open space for Building C3, noting the ADG and Ivanhoe Estate Design Guidelines requirements for a minimum of 25%.</p>	<p>The Ivanhoe Estate Design Guidelines specify that 25% of the lot be provided as a mix of communal or public space, which Block C3 complies with.</p> <p>The proposed communal open space for Building C3 has been designed as 3-storey rooms, which allows for larger plants, a variety of quality spaces and more breakout rooms. Numerical compliance with the ADG may be achieved if these three-storey rooms were reduced to one storey each, however, this would represent an inferior outcome and would reduce the amenity and grandeur of these communal spaces, as well as reducing the opportunity for more significant vegetation, and adversely impact the articulation of the building façade.</p> <p>Building C3 is not able to provide substantive communal open space areas at the ground plane because of the smaller size of this block and its location with the Estate which requires the building to prioritise active building frontages. Each of the proposed Building C3 apartments are provided with balconies that achieve or exceed the area requirements in the ADGs and residents will also have direct access to the Village Green opposite the building, ensuring opportunities for active and passive recreation are provided. Non-trafficable landscaped gardens are also provided on all levels, most prominently levels 1-3 (the podium residential levels), level 15, and the building roof, ensuring that a green outlook is achieved.</p>
<p>Provide further information/address the following matters:</p> <ul style="list-style-type: none"> the size of the terrace for dwelling C4.2-LG.01 which is significantly smaller than the ADG recommendation for a ground level dwelling the privacy of ground floor dwellings and private open space in Building C4 in relation to the proximity of footpaths and communal open space the proposed external access to dwelling C4.1-GF.07 which connects to a terrace serving only bedrooms 	<ul style="list-style-type: none"> The terrace of C4.2 - LG.01 has been extended to comply with the ADG recommendation for ground floor dwelling, achieving a min depth of 3m and 15m². Visual screening from communal open space paths/ dwell spaces to private open spaces are provided through landscape buffering including small trees, shrubs and grasses. Raised garden beds further to limit views between spaces while seated. Paths through the central courtyard are for resident access only, limiting frequency of passing pedestrians. The terrace access stair has been relocated to the living area of unit C4.1 - GF.07.

Issue Raised	Applicant Response
<ul style="list-style-type: none"> demonstrate acceptable acoustic privacy would be achieved to the bedrooms of dwellings C4.1-GF.01 and C4.1-GF.12 (and identical dwellings above) given they are located adjacent to the lift core demonstrate Building C3 satisfies ADG minimum storage volume recommendations confirm the number of dwellings in Building C3 that would incorporate the Liveable Housing Guideline's silver level universal design features. 	<ul style="list-style-type: none"> Wardrobes are provided at the interface of the bedrooms with the lift core, providing an acoustic buffer, and the delivery of these apartments will comprise discontinuous construction between C4.1 - GF.01 and C4.1 - GF.12. Further acoustic strategies can be employed in the detailed design of the lift core to achieve the sound insulation requirements under Part F5 of the BCA and the NCC. Each apartment comprises at least 50% of the minimum storage requirements within the apartment, this includes linen cupboards, overhead bulk storage in bedroom cupboards, and additional shelving units in laundry cupboards. In addition, each unit in the development comprises a corresponding basement carpark storage cage with over the 50% storage requirement. This is detailed in the Architectural Plans provided at Appendix C. Building C3 does not comprise any affordable or social housing. Accordingly, this building is not required to incorporate a Liveable Housing Guideline's silver level commitment as per the Ivanhoe Estate Design Guidelines. However, 8 adaptable units have been designed to be capable of achieving the silver level.

Landscape, Open Space and Deep Soil				
Provide a breakdown of the following for each building/block within Stage 2:				
Item	Building C3	Building C4	Building C2	
<ul style="list-style-type: none"> proposed landscaped area proposed deep soil area proposed publicly accessible open space and ground level communal open space proposed number of trees to be planted minimum proposed soil depth above structures. 	<p>136m² of ground floor soft landscaping, and a significant 1,767m² podium and lobby landscaping on upper levels, planter boxes, forest rooms and rooftop landscaping.</p> <p><i>Note: Building C3 does not provide any affordable or social housing and as such the landscape area control under the State Environmental Planning Policy (Affordable Rental Housing) 2009 does not apply.</i></p>	<p>2,073m² (30%) is treated as soft landscaping at ground level. A further 234m² is provided as a green roof on Building C4.2.</p>	<p>Over 3,000m² within the Village Green and on the roof of Building C2</p>	
	<p>Nil</p> <p><i>Note: Building C3 is consistent with the Concept Masterplan which approves a precinct wide approach of total deep soil zones as detailed in the stamped plan DA01.MP.200[6].</i></p>	<p>1,041m² (over 20%)</p> <p><i>Note: the deep soil area provided is larger than that approved in the Concept Masterplan by 48m² (see DA01.MP.200[6]).</i></p>	<p>2,550m²</p> <p><i>Note: the deep soil area provided is larger than that approved in the Concept Masterplan (see DA01.MP.200[6]).</i></p>	

Issue Raised	Applicant Response			
	Publicly accessible open space and ground level communal open space	566m ²	3,508m ²	3,300m ² in the Village Green, plus additional publicly accessible areas across as part of Building C2
	Number of trees to be planted	20 trees	170 trees, including 44 at rooftop level	90 trees
	Soil depth above structures	On-structure soil depths are designed in accordance with Ryde Council's Macquarie Park DCP (specifically Section 8.3) which includes specifications for planting on structures. This is also commensurate with best industry standards - illustrated in the City of Sydney Landscape Code Volume 4 'Minimum Soil Depths'. Specifically, small trees will have 800mm depth, medium trees 1000mm depth, large trees 1300mm depth, shrubs 500mm, and groundcovers 450mm. These depths are achieved in a combination of retaining walls and mounding. Structural allowance has been made for the associated weights.		
Clarify the proposed landscaping within the riparian corridor and ensure no structures/ pathways are located within the riparian corridor.	<p>Some minor pathways and planting have been provided in the interface area between Block C4 and the riparian corridor, however, no structures will be provided within the 20m riparian corridor zone as part of this application. All rehabilitation works, including any new boardwalks, shared paths and the like within the 20m setback zone to Shrimptons Creek will be addressed as part of the separate and future Stage 3 application in accordance with the requirements of Condition A30 of the Concept Masterplan.</p> <p>Further, all planting within the 5m setback zone to the riparian edge will be native species. While a combination of exotic and native species are proposed in zones where solar access is limited and planting is on slab, Hassell confirms that this microclimate is unsuitable for many native and/or endemic species requiring a more deliberate selection of plants in these internal locations. These species mixes are limited to the building footprint only, and will be maintained by building maintenance.</p>			
Community Centre				
Clarify the Title arrangements for the room within Building C1 which is proposed to form part of the Building C2 community centre.	As per the Stratum Plans provided at Appendix M of the EIS and the revised plans at Appendix K , the community space within the approved C1 will be allocated to Lot 121 of the stratum plan which is also the same lot as the Community Centre proposed as part of this stage. The C1 and C2 community spaces operate together and are connected via a proposed community plaza fronting Main Street.			
Provide further details regarding measures to ensure reduced cost for use of the gym and swimming pool by social housing residents.	<p>The indoor pool and gym also within Building C2 would be subject to a further detailed application (or alternative planning pathway if available) for any operation changes or signage required. These spaces will be available for use by the residents as well as the greater surrounding area subject to the terms of a future lease. As detailed in the preliminary Operational Management Plan submitted with the EIS (Appendix AA), the onsite Community Development Team will work closely with operators to ensure they utilise these community assets for the benefit of the Midtown and broader Macquarie Park residents. Some examples of potential programs the team will partner with the operators to deliver are:</p> <ul style="list-style-type: none"> • Low-cost outdoor exercise classes • Health and fitness workshops 			

Issue Raised	Applicant Response
	<ul style="list-style-type: none"> Swimming schools Aqua classes for seniors <p>While not a requirement, every effort will be made to facilitate fair and equitable access with the future operator.</p>
Village Green	
<p>The Department notes Council does not support the proposed dedication of the Village Green to Council. Please provide further details about the future ownership, management and mechanism for ensuring public access is provided to the Village Green in perpetuity.</p>	<p>The Village Green is to be dedicated in accordance with Condition A30. Notwithstanding this, the approved staged subdivision plans that formed part of Stage 1 confirm that a public access easement is to be provided over the Village Green until such time as the park is dedicated.</p>
Quantity Survey Report	
<p>Confirm whether all of the early works costs have been apportioned to the community centre, noting Building C2 also contains a swimming pool and gym separate to the community centre. As such, any offset of contributions sought under the note to Condition A30 should relate only to the community centre.</p>	<p>The letter prepared by the QS (Slattery) provided the breakdown to isolate the community centre costs only.</p>
<p>Note the Department will engage an independent Quantity Surveyor to review the valuation of works. Any issues raised by the review will be forwarded to you under separate cover.</p>	<p>Noted.</p>
Car Parking	
<p>Confirm the breakdown of the number of car parking spaces proposed within Stage 2 as the Transport Assessment (TA), EIS and architectural plans provide varying figures.</p>	<p>Parking spaces for each building have been confirmed in updated Transport Assessment and response prepared by Ason Group at Appendix G.</p>
<p>Justify the provision of visitor car parking for social housing dwellings in Building C4 given Condition A18(k) of the Concept Approval specifies a parking rate of 0.5 spaces per social housing dwelling with no provision for visitor parking (and as per the Building C1 approval).</p>	<p>Condition A18 does not define a visitor parking rate specifically for social housing vs market housing, rather part (d) of Condition A18 nominates that parking for 'residential visitors' may be provided at a rate of 1 space per 20 apartments. Accordingly, this rate has been applied for the residential uses proposed as part of this Stage 2 SSDA.</p> <p>The provision and allocation of visitor parking to social housing units is, therefore, not inconsistent with Condition A18 of the Concept Masterplan consent. In this respect, we note that visitor parking has already been approved for the social housing units in Block C1. Accordingly, in-line with demand, and to adhere to the objectives of Midtown and the Communities Plus program in achieving tenure-blindness and equitable amenity for market and social housing where possible, visitor parking has also been provided for the social housing units of Block C4.</p> <p>Further, Ason Group confirm that the level of visitor demand does not vary between social housing and market housing and there is no known data or evidence to suggest that visitors to social housing units are lower, or that the use of active travel modes is higher for visitors to social housing. Ason Group also confirm that the proposed visitor parking was captured in traffic modelling, and as detailed in the updated Transport Assessment at Appendix G, which demonstrates that the traffic generated by the development aligns with the approved allowances under the Concept Masterplan and as such is supportable on traffic generation grounds. The proposed visitor parking, therefore, does not result in adverse traffic conditions.</p>

Issue Raised	Applicant Response
	Further, as demonstrated in the Architectural and Landscape Plans for Block C4, the proposed basement can accommodate the proposed visitor parking spaces while still achieving (and exceeding) the deep soil area requirements of the Concept Masterplan.
Confirm the number of car share parking spaces proposed within Stage 2 and how this relates to the minimum of 50 car share spaces required under Condition A18(j).	No care share spaces are proposed as part of Stage 2. Thirty (30) car share spaces are to be provided within the basement of the approved Building C1, which is adjacent to the Community Centre and Village Green. The remaining 20 car share spaces are to be located on the streets to maximise access and do not form part of this SSDA.
Confirm public access arrangements for any proposed car share spaces.	No carshare spaces are proposed as part of this SSDA. Thirty (30) car share spaces are approved to be provided in the adjacent C1 building, with access provided to these spaces via the public lift within C2 which connects to basement level 3 of the C1 Building.
Clarify why the EIS states 19 car parking spaces are allocated to Building C2 within the Building C1 basement car park when the consent for Building C1 (as modified) allocates 20 spaces for community facilities located within Building C2.	Parking was provided in the basement of Building C1 for use by the adjoining Building C2, which does not have its own basement. Accordingly, the parking for Building C2 was designed and approved in the Stage 1 application based on the assumed demand generated by the Community Centre. The detailed design of Building C2 as part of this subsequent Stage 2 application confirms that there will be demand for 19 spaces rather than the 20 spaces proposed. When the certainty of this Stage 2 application is known, a Modification Application will be prepared and lodged with DPE to address minor interface areas between the approved Building C1 and the proposed Building C2. A condition of consent may also be imposed to this effect.
Review the basement layout, access design and provision of electric vehicle charging stations in response to Council's comments.	<p>There is no obligation or commitment for electrical vehicle (EV) charging. However, the proponent is designing the building to be 'EV ready' with sufficient provisions in place and providing the option for EV charging to customers at point of sale.</p> <p>As detailed in the Sustainability Assessments at Appendix N of the EIS, the proposed development will be consistent with sustainability outcomes adopted by the Ivanhoe Concept Masterplan including 5-star Green Star Design and As-Built v.1.3, 6-star Green Star Communities v1.1, and Carbon neutral in operations. Accordingly, the proposed development is consistent with the Concept Masterplan targets and does not rely on or require EV charging stations in this respect.</p>
Bicycle Parking	
Confirm the location of the proposed 25 visitor bicycle parking spaces within the public domain. In addition, provide further information regarding the intended location of the remaining minimum 75 visitor bicycle spaces required within the public domain across the overall site.	<p>McGregor Coxall has amended plans LD-SK-02 to demonstrate the 25 proposed publicly accessible bicycle parking spaces to be provided around the Village Green.</p> <p>The remaining 75 bicycle parking spaces will be provided as part of separate and future stages pursuant to Concept Masterplan Condition A23, and do not form part of this application. Notwithstanding this, for context we note that it is likely that 15 spaces will be provided as part of the Forest Playground, 5 spaces will be provided in the Green Link between B2 and B3, 30 spaces will be provided within the Mew Streets, and 25 spaces will be provided to Shrimptons Creek.</p>
Confirm the number of bicycle spaces for Building C3 noting the EIS states 168 residential and 10 visitor spaces are proposed whereas the architectural plans state 163 spaces are proposed.	The revised architectural plans confirm that 186 bicycle spaces are proposed including 162 residential bicycle spaces within individual storage cages, 10 visitor bicycle spaces provided on Level B1, and 4 End-of-Trip bicycle spaces for staff provided on Level B1. A further 10 visitor spaces for public use are provided in the public domain as part of the Masterplan commitments which may also be used by visitors to Building C3.

Issue Raised	Applicant Response
Confirm the location of visitor bicycle parking spaces within Buildings C3 and C4, including details of public access, and the location of bicycle spaces for retail workers within Building C3.	<p>For Building C3, retail staff and visitor bicycle spaces are located on Level B1 adjacent to End of Trip facilities with access via the carparking ramp. Further visitor parking is provided within the public domain.</p> <p>For Building C4, visitor bicycle parking spaces are provided in sheltered locations within the public domain and residential parking is provided within the residential storage cages in the basement.</p>
Water and Licensing	
Provide a consolidated site water balance and demonstrate adequate groundwater entitlements can be obtained for the projects expected water take during construction and operation.	A separate response to the matters raised by DPIE-Water/NRAR will be provided in a subsequent response to submissions package. This response will address the items raised in DPIE-Water/NRAR's submission and align with the approach confirmed through further consultation undertaken with these agencies. No changes are proposed to the extent of the building basements, rather, it is expected that a condition of consent will be sought requiring that the requested licenses/entitlements are purchased for this Development Application in accordance with the updated modelling to be submitted to DPE separately.
Provide an assessment of potential groundwater impacts.	
Other Matters	
Provide further information and clarification regarding the proposed GFA for Stage 2 as Table 2 in the EIS states the total GFA is 54,376m ² but the associated figures add up to 55,403m ² .	<p>As confirmed in the Architectural Plans at Appendices A, C and D:</p> <ul style="list-style-type: none"> • Building C2 – 1,635m² of GFA (excluding the approved community space within the approved Building C1 that is not subject to this DA) • Building C3 – 15,000m² of GFA • Building C4 – 37,758m² of GFA <ul style="list-style-type: none"> - Social housing: 14,587m² - Market housing: 22,554m² - Townhouses (also market housing): 617m² <p>Total GFA across Stage 2 is therefore 54,393m². Each block complies with the GFA cap set for these blocks under Condition A11 of the consent.</p>
Provide maximum height RLs and setback dimensions to the Shrimptons Creek riparian corridor, including upper storeys (5m and 8m setback control in the design guidelines) on the Building C4 architectural plans.	The amended architectural plans for Block C4 (Appendix D) detail the maximum building height to rooftop plant and the setbacks to the Shrimptons Creek corridor. It confirms that Building C4 is located outside of the 5m setback zone, and only minor components of the building up to 4 storeys are included in the 8m setback zone.
Revise the terrace of dwelling C4.1-GF.07 to comply with the 5 m setback control.	The terrace of C4.1 - GF.07 has been revised to comply with the 5m setback to the riparian corridor.
Provide a table confirming future intended DA stages, including timing, buildings and number of dwellings and delivery of the Forest Playground and Epping Road underpass upgrade.	Noted, a staging plan has been provided under the Masterplan (SSD-8707). As outlined within Condition A30 of SSD-8707, delivery of the Forest Playground and Epping Road underground pass be undertaken once 2,550 and 3,307 dwellings have been occupied, respectively. These works do not form part of this Stage 2 SSDA.
Note that fitouts and use of community centre, gym, swimming pool and retail tenancies will require separate DAs to Council.	<p>The intended operation of the retail tenancies in Building C3 and Building C2 is discussed in Section 4.2 above and summarised below.</p> <ul style="list-style-type: none"> • Building C3:

Issue Raised	Applicant Response
	<ul style="list-style-type: none"> - The use of the ground floor tenancies as 'retail premises' consistent with the Concept Masterplan, which may include shops, food and beverage tenancies, a supermarket, and the like as permitted under this land use definition. - The operation of these tenancies between 6am and 10pm daily. - The fit-out of these tenancies will occur as part of a separate application or other planning pathway as applicable. • Building C2: <ul style="list-style-type: none"> - The use, fit-out and operation of the community centre. Mitigation Measure D/O-BF4 requires that the final Operational Management Plan for the centre, including the community rooms and social enterprise café, be made by Mission Australia prior to the occupation of this building. A condition of consent may also be proposed to this effect. - The use of the indoor recreation facilities. The fit-out and detailed operation of these facilities will be subject to a further application (or alternative planning pathway if available) when the operator is known.

5.1.2 City of Ryde Council

Table 3 below provides a response to the City of Ryde Council submission for SSD-15822622.

Table 3 Response to City of Ryde Council

Issue Raised	Applicant Response	
1. Open Space		
a. Open Space (Village Green) dedication – not acceptable to Council	Council does not accept the dedication of the Village Green.	The Village Green is to be dedicated in accordance with Condition A30.
	Council has raised issues in respect to the note in Condition A30 of the Concept Development and the proposed Mod 1 that is yet to be determined. Please refer to letter dated 16 September 2021 addressed to The Hon Rob Stokes MP, Minister for Planning and Public Spaces, GPO Box 5341, SYDNEY NSW 2001, for detailed explanation.	The Modification Application was withdrawn.
	Council expects Stage 2 Consent will be appropriately conditioned to enable payment of the s7.11 contributions in accordance with Condition A30 of the SSD 8707 Ivanhoe Concept Instrument.	Noted, the condition imposed on the Stage 1 SSDA is recommended: <i>AN3. Section 7.11 contributions are to be payable consistent with the concept approval (SSD 8707).</i>
b. Open Space - Village Green – Design Issues	The current design is unsatisfactory as the location of a retaining wall limits pedestrian movement between the park and the pedestrian crossing. A retaining wall up to approximately 3m high is proposed along the northern edge of the playground. The Village Green design is to be revised to improve the integration with the Village Green and pedestrian crossing on Main Road. There should be a direct	There is 3.5m of crossfall on the adjacent road which was approved under the Stage 1 SSDA. Accordingly, with these constraints in mind, access has been maximised with four (4) key access points at each corner. The retaining wall to the north is necessary and acts as both a barrier to the play area as well as providing shade, creating a safe and amenable play environment. The fence to Main Street has been minimised so that 35m of the 70m northern frontage for the Village Green is open or accessible to street (this is 50% of the length of the lot).

Issue Raised		Applicant Response
	<p>connection between these two elements and further within the park to activation nodes.</p>	<p>While the pedestrian crossing for Main Street is not the subject of this SSDA, and forms part of the Stage 1 approval, this crossing will be adjusted to better address park connections as well as planned future connections on the opposite side of Main Street.</p> <p>Likewise, signage and line marking are not the subject of this SSDA and is required to be approved by City of Ryde Council under the consent issued for the Stage 1 SSDA. Council has been issued line marking and signage plans for all roads for approval.</p>
	<p>Maintenance vehicle access into and circulation within the park seems not have been provided. This must be provided at a minimum width of 2.5m. Materiality of surface treatments to reflect required vehicle attenuation.</p>	<p>An access path for maintenance vehicles have been provided with a minimum width of 2.5m as detailed in the Landscape Plans prepared by McGregor Coxall (see Appendix B).</p>
	<p>Toilet facilities - To provide amenity to the Village Green, the proposed subdivision plans for either C2 or C3 are to be adjusted to include publicly accessible toilets during day light hours.</p>	<p>Publicly accessible bathrooms are provided as part of the Community Centre within Building C2 and will be open to the public during operating hours. There will also be publicly accessible bathrooms servicing the retail tenancies in Building C3 which will be open during retail operating hours.</p>
	<p>Detail and specify public art within the Village Green as per SEARs requirement. Must include information demonstrating its role within the 'Ivanhoe' development and Macquarie Park. Public Art is to be fabricated to minimise ongoing maintenance requirements;</p>	<p>The Fulcrum Agency have prepared a Connecting with Country Strategy which identifies opportunities for commissioning Aboriginal artists for public art, which will be used as the strategy for the consideration of public art across the Estate. Additional information and concepts have been prepared for the public art opportunities within Blocks C4 and C2 and are provided at Appendix M.</p> <p>An additional Mitigation Measure is proposed which requires that public art opportunities are further explored with the detailed documentation of the Village Green and identified strategies are provided to Council for their review and comment. All public art associated with Block C2 will be installed prior to the final OC being issue for the Village Green.</p>
	<p>Details of car parking and bicycle parking (25) to be provided for public use associated with the Village Green.</p>	<p>McGregor Coxall has amended plans LD-SK-02 to demonstrate the 25 proposed publicly accessible bicycle parking spaces to be provided around the Village Green.</p> <p>The remaining 75 bicycle parking spaces will be provided as part of separate and future stages pursuant to Concept Masterplan Condition A23, and do not form part of this application.</p> <p>Notwithstanding this, it is likely that 15 spaces will be provided as part of the Forest Playground, 5 spaces will be provided in the Green Link between B2 and B3, 30 spaces will be provided within the Mew Streets, and 25 spaces will be provided to Shrimptons Creek.</p> <p>No carparking is to be dedicated to the use of the Village Green. Street parking is available on the surrounding approved road network, and within the basement of approved Building C1 for those attending the community centre.</p>
<p>(Bc. Additional issues – open space (village</p>	<p>The following additional issues are raised that may be dealt with appropriate conditions of consent.</p> <ul style="list-style-type: none"> Identify details of proposed materials and structures on the site. <p>Specify materials that are suitably robust for public open space</p>	<p>The materials pallet for the Village Green is detailed in the Landscape Report (EIS Appendix C).</p>

Issue Raised	Applicant Response	
green conditions of approval)	and minimise ongoing maintenance requirements. The use of timber should be minimised and only used as a decorative element with a minimum design life of >30 years;	
	<ul style="list-style-type: none"> • Include public WiFi; 	Noted, public Wi-Fi will be installed and available within the Village Green.
	<ul style="list-style-type: none"> • Provide lighting, compliant with relevant codes and standards; 	The detailed lighting design will be developed as part of the Crown Certificate stage. The installation of lighting will be compliant with the relevant codes and standards, alongside the recommendation from the CPTED Report (EIS Appendix U).
	<ul style="list-style-type: none"> • Detail and specify public art within the Village Green as per EIS requirement. Must include information demonstrating its role within the 'Ivanhoe' development and Macquarie Park. Art is to be fabricated to minimise ongoing maintenance requirements and not include dynamic elements that can fail; 	<p>The Fulcrum Agency have prepared a Connecting with Country Strategy which identifies opportunities for commissioning Aboriginal artists for public art, which will be used as the strategy for the consideration of public art across the Estate. Additional information and concepts have been prepared for the public art opportunities within Blocks C4 and C2 and are provided at Appendix M.</p> <p>An additional Mitigation Measure is proposed which requires that public art opportunities are further explored with the detailed documentation of the Village Green and identified strategies are provided to Council for their review and comment. All public art associated with Block C2 will be installed prior to the final occupation certificate being issue for the Village Green.</p>
	<ul style="list-style-type: none"> • Demonstrate universal design principles; 	Accessibility Statements were prepared by Morris Goding Access Consulting (MGAC) and provided at Appendix W of the EIS assessing each of the proposed buildings and public domain areas. The Statements recommend that further work will be undertaken between MGAC and the relevant architects at the Crown Certificates stage to ensure continued compliance.
	<ul style="list-style-type: none"> • Include Council standard urban garbage bin enclosures and access for collection; 	Bins will be provided as part of the Village Green in a consistent type as those being installed in the public domain areas approved under the Stage 1 SSDA. The location of bins are detailed in the revised Landscape Plans at Appendix B .
	<ul style="list-style-type: none"> • Include CCTV to comply with CPTED requirements; 	CCTV will be provided in accordance with the recommendations of the CPTED report, as specified in Mitigation Measures D/O-SEC1 and D/O-SEC2.
	<ul style="list-style-type: none"> • Identify existing services and the location and depth of proposed services; 	No existing services exist within the Village Green lot. The provision and augmentation of infrastructure across Ivanhoe Estate was approved as part of the Stage 1 SSDA works with the construction of the road network. Services for the operation of buildings, utilising the connections in the street network, is discussed in the Services Statement at Appendix J of the EIS.
	<ul style="list-style-type: none"> • Detail drainage, waterproofing and watering systems 	This will be developed as part of the construction documentation in accordance with the applicable standards and confirmed at the relevant Crown Certificate stage.
	<ul style="list-style-type: none"> • Detailed grading plan with existing and proposed levels, falls, and pits; 	The grading of the Village Green lot is detailed in the Landscape Plans prepared by McGregor Coxall (Appendix B), which will be further developed as part of the construction documentation at the relevant Crown Certificate stage.
	<ul style="list-style-type: none"> • Provide details of soil depths including finished levels and any mounding; 	A Deep Soil Plan has been provided within the Landscape Plans by McGregor Coxall (Appendix B).

Issue Raised	Applicant Response
<ul style="list-style-type: none"> Detail the location, species, maturity and height at maturity of proposed plants; 	<p>Details of the proposed plant types including species is provided at Page 58 of the Landscape Report prepared by McGregor Coxall and lodged as Appendix C of the EIS.</p>
<ul style="list-style-type: none"> All proposed tree planting shall be advanced tree planting stock (minimum pot container size of 100 litres or greater, compliant with AS2303); 	<p>Noted. This will be developed as part of the construction documentation in accordance with the applicable standards, and confirmed at the relevant Crown Certificate stage.</p>
<ul style="list-style-type: none"> Playground equipment to have a minimum of 50% shade at commencement of operation 	<p>Noted. This will be developed as part of the construction documentation in accordance with the applicable standards, and confirmed at the relevant Crown Certificate stage whilst also considering the connecting with country integration</p>
<ul style="list-style-type: none"> Solar access is to be maximised to the main turf area; 	<p>Solar access for the Village Green has been maximised. The open space faces north, with the height of the Community Centre limited to ensure access to sunlight throughout the year. Refer to overshadowing plans within the Architectural Plans by Chrofi (Appendix A) demonstrating winter solstice, summer solstice and equinox scenarios.</p>
<ul style="list-style-type: none"> Turf area to have sand slit drainage and irrigation from non potable sources; 	<p>Turfed area will be provided with slit drainage. A Subsoil Drainage Trench diagram has been provided within the Landscape Plans by McGregor Coxall at Appendix B. Further design development, including drainage locations will occur as part of the construction documentation at the relevant Crown Certificate stage.</p>
<ul style="list-style-type: none"> Demonstrate soil depth, volumes and irrigation to support all proposed plantings to achieve their full potential consistent with industry best practice; 	<p>This will occur as part of construction documentation at the relevant Crown Certificate stage, as consistent with industry best practice.</p>
<ul style="list-style-type: none"> All areas of the park to be within 30 metres of a hose cock; 	<p>Taps will be provided for the Village Green with locations and specifications to be confirmed at Crown Certificate stage.</p>
<ul style="list-style-type: none"> Detail adequate stormwater system for drainage 	<p>This will be developed as part of the construction documentation in accordance with the applicable standards, and confirmed at the relevant Crown Certificate stage.</p>
<ul style="list-style-type: none"> Prepare and implement a plant maintenance specification until the completion of the last stage of the overall 'Ivanhoe' development and commit to replacing vegetation with the same species and size at time of failure within 1 month of failure, should any vegetation loss occur within this maintenance period 	<p>Noted. This will be provided prior to issuance of the relevant Occupation Certificate.</p>
<ul style="list-style-type: none"> 25 bicycle parking identified in the EIS to be provided; 	<p>McGregor Coxall has amended plans LD-SK-02 to demonstrate the 25 proposed publicly accessible bicycle parking spaces to be provided around the Village Green.</p> <p>The remaining 75 bicycle parking spaces will be provided as part of separate and future stages pursuant to Concept Masterplan Condition A23, and do not form part of this application.</p> <p>Notwithstanding this, it is likely that 15 spaces will be provided as part of the Forest Playground, 5 spaces will be provided in the Green Link between B2 and B3, 30 spaces will be provided within the Mew Streets, and 25 spaces will be provided to Shrimptons Creek.</p>

Issue Raised	Applicant Response
<ul style="list-style-type: none"> All pathways within the publicly accessible open space is to be illuminated to the relevant standard with pole top lights 	Noted. This will be confirmed as part of construction documentation at the relevant Crown Certificate stage.
<ul style="list-style-type: none"> All furniture and fixing to be suitably robust for publicly accessible open space. Bollard lighting is not consider robust. 	Noted. This will be confirmed as part of construction documentation at the relevant Crown Certificate stage.
<ul style="list-style-type: none"> The 'North-south footpath from Mews to Main Street' is to be a minimum of 2m in width, with a more direct connection to the existing Shrimptons Creek shared user path. This intersection of paths is to allow for a smooth and seamless transition without the need for sharp turns as currently proposed. 	Footpath connections to Shrimptons Creek do not form part of the proposed Stage 2 SSDA scope. This item will be addressed as part of the future Stage 3 SSDA (Block B3).
<ul style="list-style-type: none"> Any works in Shrimptons Creek will require approval by City of Ryde Council. 	Works in Shrimptons Creek will form part of future Development Application(s) and lie outside the proposed SSDA scope.
<ul style="list-style-type: none"> The Landscape Drawings are to be prepared with consideration of Council's Development Control Plan, Public Domain Manual, Standard Details including requirements for footway pavement, drainage, vehicle crossovers, pedestrian ramps and other relevant elements to the approval of Council's Parks section 	<p>Landscape Drawings for the Village Green (Appendix B) have been prepared with consideration of the relevant Council documentation and the Concept masterplan documentation</p> <p>No further approval is required following determination for works within the Stage 2 SSDA scope. DPE is the consent authority for State Significant Development.</p>
2. Traffic Issues	
<p>Section 7.2 of Ason Group's Transport Assessment report (Reference: P1633r01, 5 August 2021) adopted the following weekday trip generation rates for the residential and retail components of the proposed development:</p> <p>Residential AM Peak = 0.14 trips per dwelling PM Peak = 0.12 trips per dwelling</p> <p>Retail AM/PM Peak = 1 trip per 100m²</p> <p>The abovementioned trip generation rates are well below the average rates specified within Transport for NSW's (TfNSW) Guide to Traffic Generating Developments Updated Traffic Surveys (TDT 2013/04a) and Trip Generation Surveys for Small Suburban Shopping Centres (7 November 2018) stated below:</p> <p>Residential AM Peak = 0.19 trips per dwelling PM Peak = 0.15 trips per dwelling</p> <p>Retail (GLFA less than 2000m²) AM Peak = 17.42 trip per 100m² PM Peak = 21.96 trip per 100m²</p> <p>With regards to the above, there are concerns that the peak hour traffic potentially generated by the proposed development has been underestimated in the transport</p>	<p>The trip generation rates adopted are consistent with those approved under the Ivanhoe Concept Masterplan (SSD 8707). These rates were the result of a substantive planning process including assessment by the Department of Planning, TfNSW, and City of Ryde Council and peer reviewed by Arup. Infrastructure upgrades commenced and completed as part of the relevant conditions of consent are also predicated on these rates. They are therefore the most appropriate and relevant rates for the proposal.</p> <p>Notwithstanding the above, the proposed retail space is intended to support day-to-day needs of future residents of the Ivanhoe Estate, and nearby residents, where walking and cycling will be the dominant methods of transportation.</p> <p>Furthermore:</p> <ul style="list-style-type: none"> Appendix F1 of TfNSW's Guide to Traffic Generating Developments Updated Traffic Surveys uses trip rates for shopping centres with Gross Leasable Area ranging from 22,143m² for Warriewood to 100,134m² for Penrith, with trading areas far beyond their local suburb. These rates are inappropriate for the proposed retail floor area, which is only 970m² in GFA. Trip Generation Surveys for Small Suburban Shopping Centres surveys 7 shopping centres, 5 of which are Aldi supermarkets, one of which is a Coles Supermarket, and one being an IGA Supermarket. With tenants and/or specific retail uses yet to be confirmed for the proposed retail tenancies, it is not appropriate to use trip rates for a full-size supermarket.

Issue Raised	Applicant Response
<p>study. An updated traffic modelling assessment is therefore required, which is to be based on the trip generation rates established within the abovementioned TfNSW's technical documents (i.e. Guide to Traffic Generating Developments Updated Traffic Surveys (TDT 2013/04a) and Trip Generation Surveys for Small Suburban Shopping Centres (7 November 2018)) to ensure a more accurate analysis of the traffic impacts of the proposed development.</p>	
<p>Stage 2 of TfNSW's Macquarie Park Bus Priority and Capacity Improvement Project (MPBPCIP) outlined in Section 4.2.2 of Ason Group's Transport Assessment report (Reference: P1633r01, 5 August 2021) is currently on hold. In this regard, the traffic modelling assessment in the transport study needs to be amended to only include works that form Stage 1A and 1B of the MPBPCI project (e.g. the junction of Waterloo Road and Byfield Street needs to be modelled under its current roundabout configuration rather than under traffic signal control).</p>	<p>At the time of the Ivanhoe Concept Plan (SSD 8707) approval, the modelling scope outlined by TfNSW was met, and included the specific provision of the MPBPCIP works and signalisation of Waterloo Road with Byfield Street.</p> <p>The proposed development is consistent with the Concept Masterplan, and any changes to sequencing of upgrades made by TfNSW / Council is beyond the scope of this SSDA.</p>
<p>Ason Group's Transport Assessment report (Reference: P1633r01, 5 August 2021) indicates that the future T-junction of Lyonpark Road and Ivanhoe Place is expected to operate with a good level of service (LoS) 'B' for both the weekday AM and PM peaks for the year 2031 (inclusive of development traffic).</p> <p>Considering the significant right turning traffic volumes to and from Lyonpark Road via Ivanhoe Place and the through southbound traffic volumes along Lyonpark Road, vehicles exiting Ivanhoe Place onto Lyonpark Road are expected to experience much greater delays than what is reflected in the SIDRA output on pages 114 and 115 of the transport study. This is substantiated by the SIDRA modelling undertaken by Council staff, which have incorporated the traffic volumes adopted in the Ason Group's transport report. Figure 1 overpage provides a comparison of the SIDRA outputs.</p> <p>It is evident from Figure 1 that based on the modelling undertaken by Council staff, the future T-junction of Lyonpark Road and Ivanhoe Place is projected to operate with a poor LoS 'F' under the proposed priority controlled intersection treatment. As such, an alternative intersection treatment/improvements is required to ameliorate the traffic impacts generated by the proposed development.</p>	<p>The operation of Lyon Park Road with Ivanhoe Place was specifically addressed in the Response to Submissions to SSD 8707 in Ason Groups Technical Note dated 22 August 2019 (Appendix H of RTS Report – March 2020). This included the acceptability of changes to the critical gap acceptance parameters adopted by Sidra.</p> <p>In this instance, the parameters were amended to reflect the recommended parameters under Austroads which better reflect more congested urban environments, and behaviour observed within Macquarie Park. This variation was endorsed by TfNSW and Arup.</p> <p>The modelling submitted as part of the proposed development is consistent with this previously agreed position.</p>
<p>Table 6 of Ason Group's Transport Assessment report (Reference: P1633r01, 5 August 2021) indicates no difference in the level of service (i.e. average vehicle delay) for the intersections of Herring Road/Ivanhoe Place and Waterloo Road/Herring Road between the year 2021 (middle column of Table 6) and the year 2031 (right column of Table 6) scenarios. This is not considered to be realistic, as more traffic is expected to be concentrated on these intersections in 2031 than 2021. Further, other traffic studies undertaken at these intersections for the year 2031 have shown these intersections to be operating much worse than what is reflected in Table 6 of the report. The discrepancy in the modelling outcomes needs to be justified by the applicant.</p>	<p>Ason Group and the Proponent is not able to comment on variances in modelling results completed by others without reviewing the models and relevant input assumptions.</p> <p>Notwithstanding, the referenced 2021 and 2031 SIDRA modelling results referenced are extracted from 0421r04v02 TMAP Addendum – Ivanhoe Estate, Macquarie Park, Issue II, dated 13/09/2018. The Aimsun and Sidra modelling undertaken as part of the TMAP is based on information provided by TfNSW including relevant growth rates. The modelling outputs were submitted to TfNSW for review and subsequently endorsed, and the TMAP approved by DPE as part of the SSD 8707 Concept Approval.</p>
<p>3. Inadequate waste storage area in the basements and lack of satisfactory access for collection truck</p>	

Issue Raised	Applicant Response
Building C3	<p>As outlined in Section 8.4 of Ason Group’s Transport Assessment (Appendix P of exhibited EIS), the design vehicle adopted for waste collection is a 10.8m long City of Ryde Waste Vehicle. The turntable proposed provide a 600mm clearance, in excess of the minimum 300mm clearance required by AS2890.2:2018.</p>
<p>Building C3 comprises 168 residential dwellings and seven (7) retail tenancies over 17 storeys. Access is proposed via Neighbourhood St Road 3 to a ground floor loading dock. The waste truck will utilise a turntable which accommodates a 12.5m HRV. The same driveway is used for residential vehicular access. There are concerns surrounding the visibility of cars coming up the ramp exiting the driveway while the waste truck departs from the loading dock area. This needs to be reviewed from a safety and WHS perspective.</p>	<p>The report also outlined a recommendation in Section 8.3 recommending a detailed operational traffic management plan, whereby traffic management devices such as signage in combination of warning probes activated by the loading area can be provided to mitigate safety issues raised.</p>
<p>The Waste Management Plan prepared by SLR Consulting shows that there will be only 3 x 1100L waste bins and 6 x 660L recycle bins for the 168 units. This equates to 44L per unit which is not adequate. The bin configuration should be: 7 x 1100L waste bins serviced 3 times per week, 12 x 660L recycle bins serviced two times per week. The Waste Management Plan needs to be amended accordingly.</p>	<p>Schedule 2 – Standard Waste and Recycling Bins For Residential Developments under Section 7.2 of the Ryde DCP states that for residential flat buildings of 4 or more storeys (high-rise residential): <i>Depending on the collection frequency...1 x 1100 litre skip bin for garbage per 25 units</i> is required.</p>
	<p>The DCP does not elaborate on collection frequencies and does not specify what the collection frequency is for each bin option.</p> <p>For the proposed development:</p> <ul style="list-style-type: none"> • One 1100 L bin per 25 units is 44 L per unit. • In C3A, 44 L per 104 units equals 4,576 L. If collected three times per week, this equates to 1,525.33 L per collection or 1.4 1100 L bins. This has been rounded up to two 1100 L bins. • In C3B, 44 L per 104 units equals 2,816 L. If collected three times per week, this equates to 938.66 L per collection or 0.9 1100 L bins. This has been rounded up to one 1100 L bin. <p>Furthermore, the DCP specifies that there should be 1 x 240 litre bin for recyclables per two units. This arrangement is impractical for C3 as it would result in a total of 84, 240 L bins. Instead, the same calculation has been used for recyclables with 660 L bins.</p> <ul style="list-style-type: none"> • In C3A, if collected twice per week, this would equate to 2,288 L per collection or 3.5 660 L bins. This has been rounded up to four 660 L bins. • In C3B, if collected twice per week, this would equate to 2,816 L per collection or 2.1 660 L bins. This has been rounded down to two 660 L bins. <p>Bin provision is therefore consistent with Section 7.2 of the Ryde DCP.</p> <p>Notwithstanding this, the designs have been amended to accommodate the requested bin numbers and have separately issued clarification to Council’s waste department.</p>
<p>The residential bin holding area at the rear of the Loading Dock Turntable is not large enough to house the above 19 bins – The loading dock area needs to be amended and the plans are to show the above bin configuration to ensure that they can be stored without impeding on the turntable area.</p>	<p>Further to the above, evidence has been provided of the increased bin numbers requested by Council that can be positioned around the loading dock area with ease. Refer to the Building C3 ground floor plan at Appendix C</p>
<p>There are dual chutes (one for waste and one for recycling) located on each floor of both Building A & B. The chute rooms on Basement 1</p>	<p>No compaction will take place. The waste storage room detail shows bin conveyors in each case, not bin compactors.</p>

Issue Raised	Applicant Response	
shows that waste will be compacted. Council does not allow for compactors due to breakage of the bins. The plans need to show that the above bin configuration can fit into the chute rooms.	The submitted C3 Waste Management Plan (Appendix O of EIS) states on pages 7, 8 that no compaction is to occur.	
The Bulky Waste Room is included as part of Building B waste store room. The bulky waste room needs to be a separate room so that access to the bins is not blocked and residents do not access the chute room. Plans need to be amended to provide a separate bulky waste storage room. It is suggested that the Bulky Waste Room is located on the ground floor adjacent to the loading dock to provide a more efficient service. Safe access for residents is to be considered when relocating the bulky waste storage room. This will be more efficient for the building manager in not being required to move the cleanup items from the Basement to Ground Floor.	Two (2) bulky waste rooms have now been provided. Refer to the Architectural Plans by Fox Johnston at Appendix C . These cannot be located on ground level due to the loading dock, substation, residential lobbies and retail uses that are required to activate the park and street frontages.	
The Waste Management Plan states that the bins will be taken up to the ground floor via a dedicated lift adjacent to Building A Waste Room. The path for bins to be moved from Building B Waste Room needs to be provided to ensure that safe access is provided.	The access pathway for bins from bin room to the dedicated lift that has been provided is considered more than reasonable.	
Two separate receptacles must be provided inside each dwelling to store up to two days worth of waste and recyclables awaiting transfer to the communal bin disposal areas to ensure source separation of recyclables.	This will be developed as part of the construction documentation in accordance with the applicable standards, and confirmed at the relevant Crown Certificate stage.	
Building C4	Access for the Waste Truck is proposed via a new combined ingress/egress driveway (Residential Mews) off Neighbourhood Street. The heavy vehicle driveway provides connectivity to an internal loading dock/turntable, which is intended to accommodate service vehicles up to the size of a 12.5m long Heavy Rigid Vehicle (HRV). Parking for residential units in Market will also access this driveway. Swept paths show that the residential vehicles may impede access for the waste truck. Traffic management signals will be required to be utilised while the truck is in the loading dock turntable.	As outlined in Section 8.4 of Ason Group's Transport Assessment (Appendix P of exhibited EIS), the design vehicle adopted for C4 is the 12.5m Heavy Rigid Vehicle. The turntable proposed provide a 1 metre clearance, in excess of the minimum 300mm clearance required by AS2890.2:2018. The report also outlined a recommendation in Section 8.3, recommending a detailed operational traffic management plan, whereby traffic management devices such as signage in combination of warning probes activated by the loading area can be provided to mitigate safety issues raised. The swept path assessments and associated design comments provided in Appendix E of the Transport Assessment indicate there is to be a detailed operational traffic management plan, which will need to take into consideration the access control arrangement of residential private vehicles, signal arrangement and any other traffic management items required to support the safe movement and operation of the loading bay.
	The access driveway is very tight in the horseshoe and should be revised to ensure that the waste truck can manoeuvre without issues.	As above

Issue Raised	Applicant Response
<p>The Waste Management Plan prepared by SLR Consulting shows that there will be only a total of 8 x 1100L waste bins and 17 x 660L recycle bins for the 488 units. This equates to 44L per unit which is not adequate. The bin configuration should be:</p> <ul style="list-style-type: none"> • Social North - 5 x 1100L waste bins serviced 3 times per week, 8 x 660L recycle bins serviced two times per week. • Social South – 4 x 1100L waste bins serviced 3 times per week, 7 x 660L recycle bins serviced two times per week. • Market– 11 x 1100L waste bins serviced 3 times per week, 20 x 660L recycle bins serviced two times per week. • Townhouses will have a set of bins provided to each property – 140L waste serviced weekly & 240L recycle serviced fortnightly <p>The Waste Management Plan needs to be amended accordingly.</p>	<p>Schedule 2 – Standard Waste and Recycling Bins For Residential Developments under Section 7.2 of the Ryde DCP states that for residential flat buildings of 4 or more storeys (high-rise residential): <i>Depending on the collection frequency...1 x 1100 litre skip bin for garbage per 25 units</i> is required.</p> <p>One 1100 L bin per 25 units equals 44 L per unit. The proposed 44L per unit is therefore entirely consistent with the Ryde DCP.</p> <p>Specifically, for waste:</p> <ul style="list-style-type: none"> • In C4 Social North, 44 L per 118 units equals 5192 L. If collected three times per week, this equates to 1,730.66 L per collection or 1.6 1100 L bins. This has been rounded up to two 1100 L bins. • In C4 Social South, 44 L per 98 units equals 4,312 L. If collected three times per week, this equates to 1,437.33 L per collection or 1.3 1100 L bins. This has been rounded up to two 1100 L bins. • In C4 Market, 44 L per 268 units equals 11,792 L. If collected three times per week, this equates to 3,930.66 L per collection or 3.6 1100 L bins. This has been rounded up to four 1100 L bins. <p>The DCP specifies that there should be 1 x 240 litre bin for recyclables per two units. This arrangement is impractical for C4 as it would result in a total of 242, 240 L bins over both buildings. Instead, the same calculation has been used for recyclables with 660 L bins.</p> <ul style="list-style-type: none"> • In C4 Social North, if collected twice per week, this would equate to 2,596 L per collection or 3.9 660 L bins. This has been rounded up to four 660 L bins. • In C4 Social South, if collected twice per week, this would equate to 2,156 L per collection or 3.3 660 L bins. This has been rounded up to four 660 L bins. • In C4 Market, if collected twice per week, this would equate to 5,896 L per collection or 8.9 660 L bins. This has been rounded up to nine 660 L bins. <p>Notwithstanding the above. The Plans have been revised to capture Councils recommendations.</p>
<p>The residential bin holding area at the side of the Loading Dock Turntable is not large enough to house the above 20 x 1100L waste bins and 36 x 660L recycle bins awaiting to be serviced. – The plans need to be amended to ensure the bin collection room can accommodate the above bin configuration without impeding on the turntable area.</p>	<p>The waste room is large enough to accommodate the calculated number of bins based on the DCP specification of 44 L per dwelling. Bin configuration has been demonstrated in Drawing A-DA-2052 (Basement 1 Plan) of the Architectural Plans by Cox Architecture (Appendix D).</p>
<p>There are 3 dual chutes (one for waste and one for recycling) located on each floor - 2 for social but only 1 for market which has 268 units. A second chute should be provided for Market to ensure that waste and recycling does not overflow in the bins provided at the end of the chute on Basement 2.</p>	<p>The documentation appears to have been misinterpreted. Two chutes continue to be provided for both buildings, as confirmed in the Architectural Plans (Appendix D).</p>

Issue Raised	Applicant Response
<p>Market Housing waste room is located on Basement 2 which includes a bulky waste room. The bulky waste room needs to be a separate room so that access to the bins is not blocked and residents do not access the chute room. Plans need to be amended to provide a separate bulky waste storage room for Market. The size of the bulky waste room should be a minimum of 25m².</p>	<p>A Market Bulky Waste Room has now been provided. Refer to Drawing A-DA-2051 of the Architectural Plans by COX Architecture (Appendix D). This room is to be 7m² in size which meets the Ryde DCP requirements.</p>
<p>The Bulky Waste Room for Social is located on Basement 1, with the Waste Chute for Market running through it to the basement 2.</p> <p>It is suggested that the storage room for bulky waste is located adjacent to the loading dock to provide a more efficient service thus meaning the building manager will not be required to move the cleanup items. Safe access for residents is to be considered when relocating the bulky waste storage room.</p>	<p>Significant design development has been undertaken with various engineers to achieve a viable configuration for the ramp and loading dock. As a result, there is a limited space adjacent the loading dock to locate the social bulky waste room with for example, the main switch room required to be as close as possible to the substation above. Despite the various constraints, the social bulky waste room is located relatively close to the loading dock.</p>
<p>The Waste Management Plan states that the bins will be taken to the Loading Dock via a tug. The path for moving the bins from each of the chute rooms to the loading dock needs to be provided to ensure that safe access is provided.</p>	<p>The revised Architectural Plans for Buildings C3 and C4 provide the requested details.</p>
<p>Two separate receptacles must be provided inside each dwelling to store up to two days worth of waste and recyclables awaiting transfer to the communal bin disposal areas to ensure source separation of recyclables.</p>	<p>This will be developed as part of the construction documentation in accordance with the applicable standards, and confirmed at the relevant Crown Certificate stage.</p>
<p>4. Drainage / Flood related Issues</p>	
<p>Additional details in relation to flood planning is required: Future stormwater infrastructure must be clearly detailed in the plans.</p>	<p>Not relevant to the proposed Stage 2 SSDA, which does not include any stormwater infrastructure to be in public ownership. Public stormwater infrastructure works, including to the internal road network and public domain were approved under the Stage 1 (SSD 8903) approval.</p>
<p>Stormwater infrastructure to be in public ownership after the development is complete shall comply with City of Ryde Council's Stormwater Technical Manual.</p>	<p>Not relevant to the proposed Stage 2 SSDA, which does not include any stormwater infrastructure to be in public ownership. Public stormwater infrastructure works, including to the internal road network and public domain were approved under the Stage 1 (SSD 8903) approval.</p>
<p>Discharge headwalls placed inside the creek reserved imply a series of permits are required from Council, from a legal and environmental point of view.</p>	<p>The headwall outlets from the Block C4 are generally consistent with the Concept Masterplan approval (SSD 8707). Any headwall works will be undertaken in accordance with NRAR guidelines for works on waterfront land as per the Stage 1 (SSD 8903) approval.</p> <p>All other headwalls into Shrimptons Creek were approved under the Stage 1 SSDA approval.</p>
<p>PMF levels shall be detailed in the vicinity of the buildings impacted. A detailed assessment of all openings that maybe affected by PMF floods must be undertaken to ensure all openings, ramps, etc are above the PMF at each specific point.</p>	<p>The submitted Flood Impact Assessment (Appendix H of EIS) assessed the Shrimpton's Creek mainstream PMF levels utilising a digital terrain model (DTM) of the proposed site gradings. Section "Finished Floor and Basement Entry Levels" indicates that the FFL and basement entry of building C4 are both located well above the PMF level.</p>

Issue Raised	Applicant Response
Electronic copies of the Hydraulic model (HEC-RAS/TUFLOW) shall be submitted to Council.	TUFLOW Model prepared by ADW Johnson has been submitted under separate cover to DPE and Council.
As per the City of Ryde DCP "For sites where flood level information is available, the issued flood level information should be utilised to calibrate the model." It is understood that the flood modelling has been done using Council information. However, it is required to include Flood Levels provided by Council to ensure the model is based on the current information provided by Council. Since the Flood Impact Statement does not demonstrate any records of the Calibration to Council flood certificate, it is requested that this is provided for Council's consideration.	<p>This was undertaken as part of the Concept Masterplan (SSD 8707) approval. Validation of the Ivanhoe TUFLOW flood model against Council's existing Shrimpton's Creek flood model was undertaken by BMT Group, where it was demonstrated that there is reasonable agreement between the two.</p> <p>The validated Ivanhoe TUFLOW flood model has been refined for the Stage 2 SSDA. The Stage 2 TUFLOW model has been submitted under separate cover.</p>
VD product (Velocity x depth) of overland flows to be supplied and, if increased inside the development, restricted to below 0.4 m ² /s.	A large portion of each site will be a roof catchment will be capture and convey flows through the underground system. The overland flow catchments will be minor and therefore any overland flows will be minimal. The detailed stormwater design at the relevant Crown Certificate stage will ensure VxD is less than 0.4 m ² /s in accordance with industry best practice.
VxD map to be included in the Flood Study, including neighbouring properties.	The submitted Flood Impact Assessment (Appendix H of EIS) indicates that in the 1% AEP with climate change scenario, the flood level impact within the creek is minimal and negligible on neighbouring land. It is therefore considered that the impact to the creek is negligible and the VxD product will not have changed from existing.
Details of the driveway leading to the basement carpark shall clearly demonstrate that the proposed basement ramps have crest levels up to PMF level.	The submitted Flood Impact Assessment (Appendix H of EIS) assessed the Shrimpton's Creek mainstream PMF levels utilising a digital terrain model (DTM) of the proposed site gradings. Section "Finished Floor and Basement Entry Levels" indicates that the FFL and basement entry of building C4 are both located well above the PMF level.
As this is a critical issue for this development, a clear study of all ramps/basement flood immunity shall be provided. Long sections of all basement ramps shall be provided including proposed crests AHD level, 1 in 100yr ARI AHD level and PMF AHD level. Also, an analysis of all basement openings shall be included (emergency exits, stairs, ventilation, etc...) to ensure the full flood immunity of all basements.	As above. The architectural drawings indicate the lowest louvres into the basement (C4) are also well above the PMF level (RL 48.1).
Future Council Stormwater Pipes shall have a cover as per City of Ryde DCP. Please indicate the cover of the proposed pipe within Council land on the long section.	Not relevant to the proposed Stage 2 SSDA, which does not include any stormwater infrastructure to be in public ownership. Public stormwater infrastructure works, including to the internal road network and public domain were approved under the Stage 1 (SSD 8903) approval.
Details of the connection to Council drainage system shall be included in the Stormwater Management Plan.	<p>Connection to Council's drainage system will be via the stubs left into the private property as outlined on the concept engineering drawings by ADW Johnson (Appendix Z of SSD 8707 EIS). A pit will be constructed over these stubs and internal drainage connected into the pit.</p> <p>Additional detail will be provided at the relevant Crown Certificate stage once As Built information of the stubs and Council infrastructure is available, as consistent with industry best practice,</p>
5. Public Domain	
Council requests that the issues raised in the submission be fully addressed by the applicant and changes reflected in the revised proposal. Should the consent authority be recommending approval (subject revised plans and documents to address the issues in	Addressed in this table and the appended documentation. The recommended conditions of consent are addressed below.

Issue Raised	Applicant Response
the submission, the following matters must be addressed by condition in addition to those that would typically be applied to consent approvals:	For consistency across all stages of the project, the proponent requests that all construction conditions be consistent to Stage 1 (SSD 8903).
<u>General</u> 1. Design and Construction Standards – All engineering works shall be carried out in accordance with the requirements as outlined within Council’s DCP 2014 Part 8.5 Public Civil Works and relevant Development Control Plans except as amended by the conditions herein.	This condition is not relevant to the Stage 2 SSDA. All public domain infrastructure works were approved under Stage 1 (SSD 8903).
2. Public Utilities and Service Alterations – All mains, services, poles, etc., which require alteration due to works associated with the development, shall be altered at the Applicant’s expense. The Applicant shall comply with the requirements (including financial costs) of the relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RMS, Council, etc) in relation to any connections, works, repairs, relocation, replacement and/or adjustments to public infrastructure or services affected by the development.	Noted.
3. Works on Public Roads – Any works performed in, on or over a public road reserve 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 Sections 138 and 139 of the Roads Act 1993.	Noted.
4. Construction Staging – For any staging of the public domain works, the applicant shall provide a detailed construction management and staging plan.	This can be provided at the relevant Crown Certificate stage.
5. Public areas and restoration works - 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, including repairs of damaged infrastructure as a result of the construction works associated with this development site, shall be undertaken by the Applicant in accordance with Council’s standards and specifications, and DCP 2014 Part 8.5 Public Civil Works, to the satisfaction of Council. Council’s standards and specifications are available on the Council website.	Restoration works will be undertaken in accordance with the approved Concept Masterplan (SSD 8707) design specifications.
6. Land Boundary / Cadastral Survey – If any design work relies on critical setbacks from land boundaries or subdivision of the land is proposed, it is a requirement that a land boundary / cadastral survey be undertaken to define the land. The land boundaries should be marked or surveyed offset marks placed prior to the commencement of any work on site.	Noted.
<u>Open space</u> 7. (Refer to Part 1(C) of ATTACHMENT 1)	Refer to response to Open Space items provided above.
<u>Prior to Construction Works Certificate</u> 8. Public Domain Construction Staging. The Applicant shall be responsible for the design and construction of all public domain improvement and infrastructure works for each stage. All engineering civil works shall be carried out in accordance with the requirements as outlined in the Ryde DCP 2014 Part 8.5 Public Civil Works, and the City of Ryde Public Domain Technical Manual Section 6 – Macquarie Park Corridor.	This will be addressed through a PDCSP at the relevant Crown Certificate stage. Works will be undertaken in accordance with the approved Concept Masterplan (SSD 8707) design specifications.

Issue Raised	Applicant Response
<p>The staging of the development works and associated Public Domain will require the preparation and implementation of a Public Domain Construction Staging Plan (PDCSP) and be submitted to Council prior to issue of any Construction Certificate for Stage 2.</p> <p>The PDCSP must address the following matters:</p> <ul style="list-style-type: none"> • (a) Which existing and new buildings will be occupied and operational during each stage of the development. • (b) How vehicular and pedestrian access will be maintained to each operational stage, throughout each stage of the development works. • (c) How uninterrupted pedestrian access will be maintained along the full frontage of the development site throughout the stage of the development. • (d) Provide details of any staging of the street lighting works and how any interim arrangement will meet the required street lighting standards. 	
<p>9. Public domain improvements - Public domain plans detailing upgrades along Epping Road frontages of the development site in accordance with the City of Ryde Public Domain Technical Manual Section 6 – Macquarie Park are to be prepared and submitted to Council. The plans shall detail works including paving, multifunction light poles, street furniture and plantings, and must be completed to Council's satisfaction at no cost to Council. Public domain works plans associated with all three stages shall be submitted to Council and approved prior to issue of any Construction Certificate for Stage 2, for the following works:</p> <ul style="list-style-type: none"> • (a) Footpath paving as specified in the condition of consent for public infrastructure works. Plans must demonstrate smooth transition to existing adjacent footway at the completion of each phase of the public domain works. • (b) Street trees to be provided along the Epping Road frontage in accordance with the Macquarie Public Domain Technical Manual. In the case that there is insufficient space to plant the required trees, Council's Landscape Architect to specify an alternate species or landscape treatment where possible. • (c) All telecommunication and utility services are to be placed underground along the Epping Road frontages. The extent of works required in order to achieve this outcome may involve works beyond the frontage of the development site. Plans are to be prepared and certified by a suitably qualified Electrical Design Consultant for decommissioning the existing network and constructing the new network; and are to be submitted to, and approved by Council and relevant utility authorities, prior to commencement of work. The public utility cover requirements shall be based on the approved Finished Surface Levels for the footpath, driveways and kerb ramps. For the undergrounding of existing overhead electricity network, the requirements specified in the Ausgrid Network Standards NS130 and NS156 are to be met. • (d) New street lighting serviced by metered underground power and on multifunction poles (MFPs) shall be designed and installed to Australian Standard AS1158:2020 	<p>Public domain upgrades along Epping Road do not form part of the Stage 2 SSDA scope.</p> <p>Refer to Concept Masterplan (SSD 8707) staging plan.</p>

Issue Raised	Applicant Response
<p>Lighting for Roads and Public Spaces. Lighting upgrade shall be in accordance with the City of Ryde Public Domain Technical Manual Chapter 6 – Macquarie Park. The consultant shall liaise with Council's City Works Directorate in obtaining Council's requirements and specifications for the MFP and components, including the appropriate LED luminaire and location of the meter boxes. Plans are to be prepared and certified by a suitably qualified Electrical Design Consultant and submitted to, and approved by Council's City Works Directorate prior to lodgement of the scheme with Ausgrid for their approval.</p>	
<p>10. Public Infrastructure Works – Public infrastructure works shall be designed and constructed as outlined in this condition of consent. The approved works must be completed to Council's satisfaction at no cost to Council. Engineering drawings prepared by a Chartered Civil Engineer (registered on the NER of Engineers Australia) are to be submitted to, and approved by Council's City Works Directorate prior to the issue of the Construction Certificate for Stage 2. The drawings must cover public domain works associated with all three stages of the development works. The works shall be in accordance with City of Ryde DCP 2014 Part 8.5 - Public Civil Works, and DCP 2014 Part 8.2 - Stormwater Management, where applicable.</p> <p>The drawings shall include plans, sections, existing and finished surface levels, drainage pit configurations, kerb returns, existing and proposed signage and line marking, and other relevant details for the new works.</p> <p>The Applicant must submit, for approval by Council as the Road Authority, full design engineering plans and specifications for the following infrastructure works:</p> <ul style="list-style-type: none"> • (a) Reconstruction of any damaged kerb and gutter on the Epping Road frontage and any associated road restoration works in accordance with TfNSW requirements. These works will be subject to TfNSW specification, approval and inspection. • (b) Construction of granite a new 2.40m granite footway along the Epping Road frontage of the development site in accordance with the City of Ryde Public Domain Technical Manual Section 6 – Macquarie Park. • (c) Street trees to be provided along the Epping Road frontage in accordance with the Macquarie Public Domain Technical Manual. In the case that there is insufficient space to plant the required trees, Council's Landscape Architect to specify an alternate species or landscape treatment where possible. • (d) Upgrade of any bus stop located on the Epping Road frontage in accordance with Council's requirements. • (e) Stormwater drainage installations in the public domain in accordance with the consent approved plans. • (f) Signage and line marking details. • (g) The relocation/adjustment of all public utility services affected by the proposed works. Written approval from the applicable Public Authority shall be submitted to 	<p>Not relevant to the Stage 2 SSDA. All public domain infrastructure works were approved under Stage 1 (SSD 8903).</p>

Issue Raised	Applicant Response
Council along with the public domain plans submission. All the requirements of the Public Authority shall be complied with.	
11. Reinstatement of any Bus Stop – Access to any existing bus stop along the Epping Road frontage of the development shall be maintained throughout the public domain improvement works. The bus stop shall be reinstated and upgraded in accordance with the Council requirements and the Disability Standards for Accessible Public Transport 2002. Plan must be provided to Council detailing this work prior to issue of construction certificate for stage 1.	No works are proposed to Epping Road. This is not relevant to the Stage 2 SSDA.
<p>12. Vehicle Footpath Crossing and Gutter Crossover – Any new vehicle footpath crossings and associated gutter crossover shall be designed for the approved vehicular access location/s. The reconstruction of this infrastructure may be required in order that it has a service life that is consistent with that of the development, and that it is also compliant with current Council’s standards and specifications. The location, design and construction shall be in accordance with City of Ryde Development Control Plan 2014 Part 8.3 Driveways and Part 8.5 - Public Civil Works and Australian Standard AS2890.1 – 2004 Offstreet Parking.</p> <p>The drawings shall be prepared by a suitably qualified Civil Engineer using the standard B99 vehicle profile. The drawings shall show the proposed vehicle footpath crossing width, alignment, and any elements impacting design such as service pits, underground utilities, power poles, signage and/or trees. In addition, a benchmark (to Australian Height Datum) that will not be impacted by the development works shall be included.</p> <p>All grades and transitions shall comply with Australian Standard AS 2890.1-2004 Offstreet Parking and Council’s specifications. The width of the new crossing shall be sufficient to accommodate turning manoeuvres of the largest vehicle requiring access to the site as demonstrated by swept paths submitted to and reviewed by Council. The driveway must be designed without splays, and shall be constructed at right angle to the alignment of the kerb and gutter, and located no closer than 1m from any power pole and 3m from any street tree unless otherwise approved by Council.</p>	Not relevant to the Stage 2 SSDA. All public domain infrastructure works were approved under Stage 1 (SSD 8903).
13. Engineering plans assessment and works inspection fees – The applicant is to pay to Council fees for assessment of all engineering and public domain plans and inspection of the completed works in the public domain, in accordance with Council’s Schedule of Fees & Charges at the time of the issue of the plan approval, prior to issue of any Construction Certificate for Stage 2.	A private certifier will be engaged to undertake these works, as consistent with industry best practice.
14. Anticipated Assets Register - Changes to Council Assets - In the case that public infrastructure improvements are required, the developer is to submit a listing of anticipated infrastructure assets to be constructed on Council land as part of the development works. The new elements may include but are not limited to new road pavements, new Multi-Function Poles (MFPs), new concrete or granite footways, new street trees and tree pits, street furniture, bus shelters, kerb and gutter and driveways. This information should be presented via the Anticipated Asset Register file available	Not relevant to the Stage 2 SSDA. All public domain infrastructure works were approved under Stage 1 (SSD 8903).

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<p>from Council's Assets Assets and Infrastructure Department. The listings should also include any assets removed as part of the works.</p> <p>The Anticipated Asset Register is to assist with council's future resourcing to maintain new assets. There is potential for the as-built assets to deviate from the anticipated asset listing, as issues are resolved throughout the public domain assessment and Roads Act Approval process. Following completion of the public infrastructure works associated with the development, a Final Asset Register is to be submitted to Council, based upon the Public Domain Works-As-Executed plans.</p>	
<p><u>Prior to Commencement of Construction</u></p> <p>15. Notice of Intention to Commence Public Domain Works – Prior to commencement of the public domain works, a Notice of Intention to Commence Public Domain Works shall be submitted to Council's City Works Directorate. This Notice shall include the name of the Contractor who will be responsible for the construction works, and the name of the Supervising Engineer who will be responsible for providing the certifications required at the hold points during construction, and also obtain all Road Activity Permits required for the works. Separate applications must be made prior to commencement of public domain works for both Stages 2 and 3.</p>	<p>For consistency across all stages of the project, the proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>16. Notification of adjoining owners & occupiers – public domain works - The Applicant shall provide the adjoining owners and occupiers written notice of the proposed public domain works a minimum two weeks prior to commencement of construction. The notice is to include a contact name and number should they have any enquiries in relation to the construction works. The duration of any interference to neighbouring driveways shall be minimised; and driveways shall be returned to the operational condition as they were prior to the commencement of works, at no cost to the owners. Separate notifications must be provided prior to commencement of public domain works for stage 2.</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>17. Pre-construction inspection - A joint inspection shall be undertaken with Council's Engineer from City Works Directorate prior to commencement of any public domain works. A minimum 48 hours' notice will be required when booking for the joint inspection. Separate inspections are to be carried out prior to commencement of public domain works associated with for stage2.</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>18. Pre-Construction Dilapidation Report - To ensure Council's infrastructures are adequately protected a pre-construction dilapidation report on the existing public infrastructure in the vicinity of the proposed development and along the travel routes of all construction vehicles, up to 100m either side of the development site, is to be submitted to Council. The report shall detail, but not be limited to, the location, description and photographic record (in colour) of any observable defects to the following infrastructure where applicable.</p> <p>(a) Road pavement, (b) Kerb and gutter, (c) Footpath, (d) Drainage pits, (e) Traffic signs, and (f) Any other relevant infrastructure.</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>

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<p>The report is to be dated and submitted to, and accepted by Council's City Works Directorate, prior to any work for any stage commencing. All fees and charges associated with the review of this report shall be in accordance with Council's Schedule of Fees and Charges and shall be paid at the time that the Dilapidation Report is submitted</p>	
<p>19. Road Activity Permits - To carry out work in, on or over a public road, the Consent of Council is required as per the Roads Act 1993. Prior to the commencement of the relevant works and considering the lead times required for each application, permits for the following activities, as required and as specified in the form "Road Activity Permits Checklist" (available from Council's website) are to be obtained and copies submitted to Council with the Notice of Intention to Commence Public Domain Works.</p> <ul style="list-style-type: none"> • a) Road Use Permit - The applicant shall obtain a Road Use Permit where any area of the public road or footpath is to be occupied as construction workspace, other than activities covered by a Road Opening Permit or if a Work Zone Permit is not obtained. The permit does not grant exemption from parking regulations. • b) Work Zone Permit - The applicant shall obtain a Work Zone Permit where it is proposed to reserve an area of road pavement for the parking of vehicles associated with a construction site. Separate application is required with a Traffic Management Plan for standing of construction vehicles in a trafficable lane. A Roads and Maritime Services Road Occupancy Licence shall be obtained for State Roads. • c) Road Opening Permit - The applicant shall apply for a road-opening permit and pay the required fee where a new pipeline is to be constructed within or across the road pavement or footpath. Additional road opening permits and fees are required where there are connections to public utility services (e.g. telephone, telecommunications, electricity, sewer, water or gas) within the road reserve. No opening of the road or footpath surface shall be carried out without this permit being obtained and a copy kept on the site. • d) Elevated Tower, Crane or Concrete Pump Permit - The applicant shall obtain an Elevated Tower, Crane or Concrete Pump Permit where any of these items of plant are placed on Council's roads or footpaths. This permit is in addition to either a Road Use Permit or a Work Zone Permit. • e) Crane Airspace Permit - The applicant shall obtain a Crane Over Airspace Permit where a crane on private land is operating in the air space of a Council road or footpath. Approval from the Roads and Maritime Services for works on or near State Roads is required prior to lodgement of an application with Council. A separate application for a Work Zone Permit is required for any construction vehicles or plant on the adjoining road or footpath associated with use of the crane. • f) Hoarding Permit - The applicant shall obtain a Hoarding Permit and pay the required fee where erection of protective hoarding along the street frontage of the property is required. The fee payable is for a minimum period of 6 months and should the period is extended an adjustment of the fee will be made on completion of the works. The site must be fenced to a minimum height of 1.8 metres prior to the 	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>

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<p>commencement of construction and throughout demolition and/or excavation and must comply with WorkCover (New South Wales) requirements.</p> <ul style="list-style-type: none"> g) Skip Bin on Nature Strip - The applicant shall obtain approval and pay the required fee to place a Skip Bin on the nature strip where it is not practical to locate the bin on private property. No permit will be issued to place skips. 	
<p>20. Ryde Traffic Committee Approval - A plan showing details of the proposed signage, line marking, and/or traffic devices including pedestrian refuge, pedestrian crossing or LATM measures on the proposed civil works on Epping Road and shall be submitted to the Council and approved by the Ryde Traffic Committee prior to the installation of any traffic devices, signage and linemarking. The plans must clearly show signage line marking works associated with each stage of the public domain works. Any temporary, interim arrangements necessary between completion of public domain works associated with Stages 2, must be shown on the plans for RTC approval.</p>	<p>Not relevant to the Stage 2 SSDA scope. The construction of all roads formed part of the approved Stage 1 SSDA (SSD 8903).</p>
<p><u>During Construction</u></p> <p>21. Hold Points during construction - Public Domain – Council requires inspections to be undertaken by a Chartered Civil Engineer (registered on the NER of Engineers Australia), for the public domain on Epping Road, at the hold points shown below. The Applicant shall submit to Council's City Works Directorate, certification from the Engineer, at each stage of the inspection listed below, within 24 hours following completion of the relevant stage/s. The certificates shall contain photographs of the works in progress and a commentary of the inspected works, including any deficiencies and rectifications that were undertaken. A separate set of inspections are to be carried out and certificates to be submitted for public domain works associated with both Stages 2 and 3 of the development.</p> <ul style="list-style-type: none"> a) Prior to the commencement of construction and following the set-out on site of the position of the civil works to the levels shown on the approved civil drawings. b) Upon excavation, trimming and compaction to the subgrade level - to the line, grade, widths and depths, shown on the approved civil engineering drawings. c) Upon compaction of the applicable sub-base course. d) Upon compaction or construction of any base layers of pavement, prior to the construction of the final pavement surface (e.g. prior to laying any pavers or asphalt wearing course). e) Upon installation of any formwork and reinforcement for footpath concrete works. f) Final inspection - upon the practical completion of all civil works with all disturbed areas satisfactorily restored. 	<p>Not relevant to the Stage 2 SSDA. All public domain works to Epping Road were approved under Stage 1 (SSD 8903).</p>
<p><u>Prior to Occupation Certificate</u></p> <p>22. Public Domain Works Staging Bond – Prior to issue of any Occupation Certificate for Stage 2 of the development, a Public Domain Works Bond, equal to the value of the public domain civil works for stage 1 approved under SSD8903 and SSD8707 must be lodged with Council. The applicant must submit an estimate for the full scope public</p>	<p>Not relevant to the proposed SSDA. Payment of a bond is not considered necessary as Ryde Council is not the consent authority for the proposed development under the EP&A Act.</p>

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<p>domain works prepared by a suitably qualified and experienced Quantity Surveyor and the value of this bond must be reviewed and approved by Council. The bond must be provided to Council in the form of a bank cheque or unconditional bank guarantee with no expiry date, in favour of City of Ryde. In the case that the public domain works are delayed beyond the timeframes, Council may undertake the completion of any unsafe or outstanding public domain works and recoup the full costs of the works including project management fees, from the bond without any further notice to the applicant. The bond will only be released following the issue of the final compliance certificate for public domain works associated with the final stage of the development.</p>	
<p>23. Public Domain Improvements and Infrastructure Works – Completion – Public domain improvements and infrastructure works associated with stages 2 of the development shall be completed to Council’s satisfaction, in accordance with the approved public domain plans and at no cost to the Council, prior to the issue of the relevant Occupation Certificate for stages 2.</p>	<p>Not relevant to the proposed SSDA scope. Furthermore, the carrying out of public domain works is enforced through condition A30 of the Concept Masterplan (SSD 8707) consent.</p>
<p>24. Restoration – Supervising Engineer’s Certificate - Prior to the issue of any Occupation Certificate for the relevant stage, the Applicant shall submit to Council a certificate from the Supervising Engineer confirming that the final restoration of disturbed road and footway areas for the purpose of connection to public utilities, including repairs of damaged infrastructure and replacement of any redundant vehicular crossings as a result of the construction works associated with this development site, have been completed in accordance with the Council’s standards and specifications, and DCP2014 Part 8.5 Public Civil Works, or the Roads and Maritime Services’ standards and specifications, where applicable.</p> <p>Separate certification must be submitted for public domain works associated with both stages 2.</p>	<p>Restoration works to any Council owned roads will be undertaken as required in accordance with Concept Masterplan and Stage 1 design requirements.</p>
<p>25. Electricity accounts for new street lighting - Prior to the issue of any Occupation Certificate for the relevant stage, the Applicant shall liaise with Council’s Public Domain Development Section regarding the setting up of the electricity account/s in order to energise the newly installed street lighting. Separate account set ups must be submitted for connection of new MFPs associated with both stages 2.</p>	<p>Not relevant to the proposed SSDA scope. The detailed design and delivery of roads was approved as part of the Stage 1 SSDA.</p>
<p>26. Compliance Certificates – Street Lighting – Prior to the issue of any Occupation Certificate for the relevant stage, the Applicant shall submit to Council, a Certificate of Compliance - Electrical Work (CCEW) from the Electrical Contractor, and certification from a qualified Electrical Engineering consultant confirming that the street lighting in the public domain has been constructed in accordance with the Council approved drawings and City of Ryde standards and specifications. Separate certification must be submitted for street lighting works associated with both stages 2.</p>	<p>Not relevant to the proposed SSDA scope. The detailed design and delivery of roads was approved as part of the Stage 1 SSDA.</p>
<p>27. Compliance Certificate – External Landscaping Works – Prior to the issue of any Occupation Certificate for the relevant stage, the Applicant shall submit to Council, certification from a qualified Landscape Architect confirming that the public domain</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>

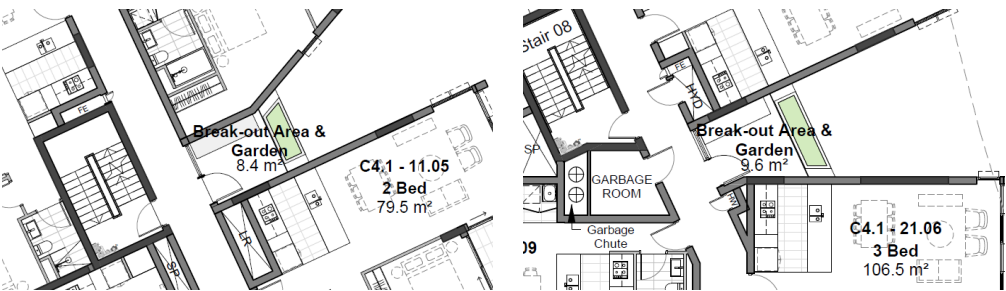
Issue Raised	Applicant Response
<p>landscaping works have been constructed in accordance with the Council approved drawings and City of Ryde standards and specifications. Separate certification must be submitted for external landscaping works associated with both stages 2.</p>	
<p>28. Public Domain Works-as-Executed Plans – To ensure the public infrastructure works are completed in accordance with the approved plans and specifications, Works-as-Executed (WAE) Plans shall be submitted to Council for review and approval. The WAE Plans shall be prepared on a copy of the approved plans and shall be certified by a Registered Surveyor. All departures from the Council approved details shall be marked in red with proper notations. Any rectifications required by Council shall be completed by the Developer prior to the issue of any Occupation Certificate. Separate public domain works-as-executed plans must be submitted for public domain works associated with both stages 2. In addition to the WAE Plans, a list of all infrastructure assets (new and improved) that are to be handed over to Council shall be submitted in a form advised by Council. The list shall include all the relevant quantities in order to facilitate the registration of the assets in Council’s Asset Registers</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>29. Registered Surveyor Final Certificate – Upon completion of all construction works for stages 1 and 2, and before the issue of the relevant Occupation Certificate, a Certification from a Registered Surveyor must be submitted to Council, stating that all works (above and below ground) are contained within the site’s land boundary. Separate certification must be submitted for public domain works associated with both stages 1 & 2.</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>30. Supervising Engineer Final Certificate – Prior to the issue of the relevant Occupation Certificate for stages 2 , the Applicant shall submit to Council, a Final Certificate from the Supervising Engineer confirming that the public domain works have been constructed in accordance with the Council approved drawings and City of Ryde standards and specifications. The certificate shall include commentary to support any variations from the approved drawings. Separate certification must be submitted for public domain works associated with stage2.</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>31. Post-Construction Dilapidation Report – To ensure Council’s infrastructures are adequately protected a post-construction dilapidation report on the existing public infrastructure in the vicinity of the completed development and along the travel routes of all construction vehicles, up to 100m either side of the development site, is to be submitted to Council. The report shall detail, but not be limited to, the location, description and photographic record of any observable defects to the following infrastructure where applicable. (</p> <p>a) Road pavement, (b) Kerb and gutter, (c) Footpath, (d) Drainage pits, (e) Traffic signs, and (f) Any other relevant infrastructure.</p> <p>The report shall include summary statement/s comparing the pre and post construction conditions of the public infrastructure. The report is to be dated and submitted to, and accepted by Council’s City Works Directorate, prior to issue of the Occupation Certificate</p>	<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>

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<p>for the relevant stage. The report shall be used by Council to compare with the preconstruction dilapidation report, and to assess whether restoration works will be required prior to the issue of the Compliance Certificate for External Works and Public Infrastructure Restoration. Separate post-construction dilapidation reports must be submitted for public domain works associated with stage 2.</p> <p>All fees and charges associated with the review of the report shall be in accordance with Council's Schedule of Fees and Charges, and shall be paid at the time that the Dilapidation Report is submitted.</p>		
<p>32. Final Inspection – Assets Handover - For the purpose of the handover of the public infrastructure assets to Council, final inspections shall be conducted in conjunction with Council's Engineer from City Works Directorate following the completion of the external works for stages 2 Defects found at such inspections shall be rectified by the Applicant prior to Council issuing the Compliance Certificate for the External Works for public domain works associated with stages 2. Additional inspections, if required, shall be subject to fees payable in accordance with Council's Schedule of Fees & Charges at the time. A minimum 48 hours' notice will be required when booking for the final inspection</p>		<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>33. Compliance Certification – External Works and Public Infrastructure Restoration – Prior to the issue of any Occupation Certificate for stage 2, a compliance certificate shall be obtained from Council's City Works Directorate confirming that all works in the road reserve associated with the relevant stage, including all public domain improvement works and restoration of infrastructure assets that have dilapidated as a result of the development works, have been completed to Council's satisfaction and in accordance with the Council approved drawings. The applicant shall be liable for the payment of the fee associated with the issuing of each Certificate in accordance with Council's Schedule of Fees and Charges at the time of issue of the Certificate.</p>		<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>34. Public Domain Design and Construction Staging – The Applicant shall be responsible for the design and construction of all public domain improvement and infrastructure works for each stage. All engineering civil works shall be carried out in accordance with the requirements as outlined within Council's DCP 2014 Part 8.5 Public Civil Works, relevant Development Control Plans and in accordance with Council's specifications and to the satisfaction of Council. Council has full control to implement and impose any necessary condition to coordinate staging of the public domain work thought out the assessment phase of the development applications. All design and construction to public domain and utilities services as a consequence of the development and associated construction works shall be at the full cost to the applicant.</p>		<p>Noted. For consistency across all stages of the project, the Proponent requests that all construction conditions be consistent with Stage 1 (SSD 8903).</p>
<p>35. Additional Conditions would be provided upon review of revised details as sought under Attachment 1.</p>		<p>Noted.</p>
<p>6. Sustainability – Water, Energy and Environment</p>		
Block C3	<p>i. The Sustainability Report indicates that 8.7 NatHERS compliance levels for thermal comfort scoring is:</p>	<p>The proposal achieves an average 6 star NatHERS target.</p>

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<ul style="list-style-type: none"> • Heating = <53% below allowable BASIX target • Cooling = 41% below allowable BASIX target <p>If C3 is to house social/ affordable housing then this is insufficient as occupants within social/ affordable housing are provided fans (not air conditioning but will be 'air conditioning ready'). Thermal comfort through achieving BASIX targets is imperative for these dwellings/ occupants as they will be detrimentally impacted during extended hot weather periods and in winter with limited affordability to cool. This should be improved as a non-negotiable as will render the occupants vulnerable to these impacts which could be modified through improved passive design and comfort.</p>	<p>The % below allowable BASIX numbers quoted equate to the building performing 53-41% better than BASIX (requiring 53-41% less heating or cooling).</p> <p>No social housing is proposed to be located in Block C3. Air conditioning will be provided for the apartments within Building C3. Air conditioning will also be provided for residents in the social component of Block C4.</p>	
<p>Block C4</p>	<p>Planting palette provided in the C4 landscape plan is not supported at all. It conflicts the key strategies identified by Frasers own architects which is the support the adjoining vegetation communities and has identified problematic invasive and weed species. Species will have ability to negatively impact surrounding natives in the corridor.</p> <p>Open space pathways connecting to Council land are conflicting in designs. Hassell landscape plan provides 6 connections (all abilities and general pathways) this is too many and should be reduced.</p> <p>Bins should be provided within the property boundary closest to the buildings (not near bushland) to cater for users. This is not nominated.</p> <p>Ethos Urban (EIS) nominates a raingarden next to Shrimpton's Creek but it is not nominated in the Hassell landscape plan for C4. Details of this required for size, placement and suitability for council to review. This is not to be placed within Lot 29.</p>	<p>The planting schedule for Block B4 has been revised in response to Council and EES Group's submission as discussed further below. All planting within the 5m setback zone to the riparian edge will be native species with reference to the 'Shrimptons Creek small bird habitat progress report, Bev Debrincal, International Environmental Weed Foundation trading as Habitat Network'.</p> <p>While a combination of exotic and native species are proposed in zones where solar access is limited and planting is on slab, this microclimate is unsuitable for many native and/or endemic species requiring a more deliberate selection of plants in these internal locations. These species mixes are limited to the building footprint only and will be maintained by building maintenance.</p> <p>Pathways are indicated in the landscape plans as potential connections to Shrimptons Creek. However, it is emphasised that all works within the Shrimptons Creek corridor will be pursued as part of the forthcoming Stage 3 SSDA in accordance with the commitments made under Condition A30 of the Concept Masterplan.</p> <p>Bin locations are now indicated on the Landscape Plans prepared by Hassell (Appendix E) – shown as code 'F2' in cross sections and schedule of exterior finishes.</p> <p>Further analysis of the provision of a raingarden has been undertaken and given the connecting level of the street drainage and the Shrimptons Creek 1% AEP flood level, it has been determined that it is not feasible to provide a raingarden within the Shrimptons Creek lot that is adequately above the flood level, further noting that Lot 29 is owned by LAHC, not Council. For the same reasons, it is not feasible to provide a raingarden within Lot C4.</p> <p>To ensure that the intent of condition A30 of the Ivanhoe Concept Plan is met (i.e. the provision of a "wetland to collect site water and clean it before discharge into Shrimptons Creek"), the provision of a proprietary water device known as a "Jellyfish" has been investigated and found to be the best solution.</p> <p>The device would be located within the C4 lot close to Main Street to allow for easy maintenance access and will be sized to ensure the relevant water quality targets are met. It is therefore proposed</p>

Issue Raised	Applicant Response
(EIS) nominates raingardens but no details provided.	to provide a Jellyfish system in lieu of the raingarden. This is addressed in the revised assessment by ADW Johnson at Appendix F .
<p>Lighting – application does not include riparian lighting and guidance for providing dimmable, fauna friendly lighting that minimises spill and complies with</p> <ul style="list-style-type: none"> National Light Pollution Guidelines for Wildlife (DEE 2020). Australian Standard AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting provides information about the impact of artificial light on biota (DEE 2020). <p>This will be consistent with the rest of the Shrimptons Creek pathway lighting and council can provide specifications for delivery.</p>	Not relevant to the proposed SSDA scope. Lighting to the riparian corridor will form part of the forthcoming Stage 3 SSDA.
Transport/ parking	<p>There is no obligation or commitment for electrical vehicle (EV) charging at this time. However, the proponent is designing the building to be 'EV ready' with sufficient provisions in place and the option for EV charging to customers at point of sale.</p>
No EV charging stations have been provided on the site at all despite State Design & Place SEPP movement towards getting all new developments to ensure this is provided. Council has also previously requested this as residents will require access and is easily and affordably provided during the planning and construction stage. Retrospective installation would be problematic given the layout and scale of the development. Given the numbers of residents which will reside and visit the site, this should be included.	As detailed in the Sustainability Assessments at Appendix N of the EIS, the proposed development will be consistent with sustainability outcomes adopted by the Ivanhoe Concept Masterplan including 5-star Green Star Design and As-Built v.1.3, 6-star Green Star Communities v1.1, and Carbon neutral in operations.
No Climate adaptation plan (nominated in the Greenstar requirements) was found which should be included at initial design stages to ensure it will provide adequate climate resilience for residents and surrounds and not post occupation as requirements will consider design.	This requirement is not relevant to the DA approvals process, and can be considered at the Crown Certificate stage as required. It has been demonstrated that the project is capable of achieving the relevant sustainability targets set under the Masterplan, and further required under Mitigation Measure D/O-ESD1.
The passive open space between C2 and C3 should prioritise water storage and capture from the adjoining buildings to support long term maintenance of the green space to reduce long term potable water supply needs to maintain for the several thousand people who will use the space. This will be a high cost for maintenance with tanks readily able to be placed within the design phase to accommodate under a harvesting program.	Detailed investigations of this issue have been undertaken. Although buildings adjacent to the park will be provided with water harvesting facilities, the catchment size is not sufficient to irrigate the park. Further the park is to be dedicated to Council and for simplicity should not be serviced from private strata/stratum lots.
7. ADG Design Issues	
Village green	<p>There is a retaining wall up to approximately 3m high along the northern edge of the playground. Whilst terracing seating is supported, to deal with the level change in this location, it should also take the advantage of play opportunities such as sliding and climbing to create a better transition from the public domain. It can potentially become a playful entry point to the playground directly from the pedestrian crossing on the main street to the north.</p> <p>The design of the Village Green has been the result of a comprehensive and robust planning process, including review from the NSW Government Architect's State Design Review Panel (SDRP). A slide or climb at this point is undesirable because of its proximity to the internal road network and to ensure a degree of enclosure for security and safety at the play area.</p>

Issue Raised	Applicant Response		
<p>The playground should be provided with permanent shade structures or large mature canopy trees to provide shade over the play area during summer months.</p>	<p>Large mature trees are to be installed to the adjacent verge which is 3m above the playground providing a greater level of shade to the playground area. The retaining wall in itself also provides a level of shade with mature trees also to be installed in an around the playground areas. Refer to Landscape Report prepared by McGregor Coxall at Appendix B.</p>		
<p>It is recommended that the substation (item No.7 on page 46 of the landscape report) to be relocated away from the entry point on Neighbourhood Street 2 to improve the visibility of the open space and the arrival experience. If relocation is not possible, reorientate the substation to be perpendicular to the street frontage.</p>	<p>This substation has been removed. Refer to updated Architectural Plans prepared by Chrofi (Appendix A).</p>		
Visual privacy	<p>A 3m setback has been provided from the public footpath to the habitable rooms of Unit C4.2-GF.01. The separation is not sufficient to protect the privacy of the unit. It is recommended that the distance between the public footpath to the habitable rooms of the unit increases to a minimum of 6m.</p>	<p>The proposed 2m setback is consistent with the approved Ivanhoe Masterplan Development Design Guidelines (pp. 108, 126).</p> <p>Notwithstanding the above, a planter has been amended to wrap around the building corner to Unit C4.2 – GF.01 that will provide additional visual privacy to its habitable rooms.</p>	
<p>The privacy of the terrace of Unit C4.2-LG.01 will be impacted due to its proximity to the pathway to the building entry. Units C4.1-GF.11, C4.2-LG.03 and C4.2-LG.06 also have the similar issue due to their proximity to a building entry pathway or communal open space</p>	<p>Visual screening from these public or communal spaces to private open spaces are provided through landscape buffering with small trees, shrubs and grasses. Raised garden beds go further to limiting views between spaces while seated. Refer to Landscape Plans prepared by Hassell at Appendix E.</p> <p>With regards to Unit C4.1 – GF.11, a solid masonry wall extends past the terrace to provide additional privacy.</p>		
<p>The separation distances between the social and market housing buildings are less than 24m towards the norther end. It does not comply with the ADG's separation requirements for habitable rooms/balconies. There are habitable rooms and balconies that directly face each other with less than 24m building separation. Examples include Units C4.1-8.02 and C4.2-8.01 as well as units in this location on upper levels.</p>	<p>Unit C4.1 - 8.02 as well as units in this location on upper levels (i.e Level 8 to Level 16) have been revised from a 1 bedroom unit to a studio with additional privacy measures in accordance with the ADGs. Privacy screens have been added to Unit C4.1 - 8.01 as well as units in this location on upper levels (i.e Level 8 to Level 16) to mitigate privacy concerns. Refer to updated Architectural Plans prepared by COX Architecture (Appendix D).</p>		
Deep soil	<p>The basement car park in lot C4 is built to the boundary to the northeast, northwest and southwest. The design does not provide adequate depth of soil to support the landscape planting intended on the landscape plans to protect the privacy of the ground floor units. The design guidance under Section 3E-1 of the ADG recommends to provide 15% of the site as deep soil on sites greater than 1,500sqm. The proposal provides 1,041m² of deep soil which is 14% of the site area. The Applicant should seek further opportunities to increase deep soil provision in lot C4, especially in the street setback zone.</p>	<p>The approved Concept Masterplan (SSD 8707) nominates that Block C4 provide 993m² of deep soil for Block C4 (Drawing DA01.MP.2006 – Deep Soil Areas Plan). The proposal provides 1,041m² of deep soil on Block C4 which exceeds this requirement.</p> <p>It is also noted that Objective 3E-1 of the ADG requires that 7% of a site be provided as deep soil for sites >1,500m². Block C4 complies with Objective 3E-1.</p> <p>The redevelopment of Ivanhoe Estate under the Concept Masterplan will achieve precinct-wide compliance of 15% of the site being for deep soil.</p>	
Common circulation and spaces	<p>Section 4F-1 of the ADG requires that for buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40. Lot C4 fails to comply with the ADG in the following areas:</p> <ul style="list-style-type: none"> The social housing building, on average, has 56 units serviced by a single lift in the northern core and 47.5 units serviced by a single 	<p>The submission included advice from Donnelley Simpson Cleary Consulting Engineers (Appendix GG of exhibited EIS), an established vertical transportation engineer that the proposed lift arrangement for Lot C4 is acceptable.</p>	

Issue Raised	Applicant Response
<p>lifts in the southern core. The market housing building provides 3 lift to service 256 units, i.e. 85 units serviced by a single lift.</p>	<p>The advice letter confirmed that <i>although the lift design does not strictly comply with ADG 4F-1 clause 2, it does meet international design criteria outlined by Chartered Institute of Building Services Engineers (CIBSE) and the design of similar residential buildings</i>, and therefore is acceptable in the circumstances of the case.</p> <p>The advice letter confirms that average waiting intervals of <45 seconds will be achieved for the market housing building, and <60 seconds for the social building, in line with the Chartered Institute of Building Services Engineer’s – (CIBSE) Guide D – “<i>Transportation in Buildings</i>” 2019 edition guidelines.</p>
<ul style="list-style-type: none"> On some levels, the proposed buildings provide up to 12 apartments per circulation core, whereas the ADG’s design criterion specifies that the maximum number of apartments off a circulation core on a single level is 8. 	<p>Design guidance for Objective 4F-1 of the ADG states that <i>Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level.</i></p> <p>Up to 12 apartments per circulation core is considered to be acceptable practice where a high degree of amenity is provided to the circulation corridors. The proposal has been revised so that landscaped break-out spaces with seating are provided at intermittent levels along the corridor throughout the tower, therefore achieving a high degree of articulation. Therefore, the proposed arrangement is considered to be acceptable.</p> <p>Refer to Architectural Plans prepared by COX Architecture at Appendix D. Excerpts showing these breakout spaces are provided below.</p>  <p>Figure 6 Examples of new landscaped break-out areas – e.g. on levels 11 (left) and 21 (right)</p> <p>Source: Cox Architecture</p>
<ul style="list-style-type: none"> The market housing building has an unusually long common corridor (approximately 57m along and 1.6m wide) on the first 18 floor levels. The common corridor is excessively long and has an uncomfortable length to width ratio. No articulation elements such as series of foyer areas or seating spaces are provided to the common corridor from Levels 3 to 17 other than three windows. 	<p>As above, articulation elements have now been integrated into the design of the proposal including landscaped break-out spaces with seating at intermittent levels.</p>

Issue Raised	Applicant Response
<p>The combination of the above issues indicate that the proposal has not provided a satisfactory level of amenity to the future residents and properly service the number of apartments. For such a long building, a more appropriate approach is to provide two independent circulation cores, each has two lifts opening to a shorter and wider common corridor and servicing no more than 6 apartments on a single floor level and that will enable the provision of cross-through apartments in the middle of the floor plate, provides greater privacy and security to the future residents.</p> <p>Windows are better to be provided at the end of the corridor so that they are easily visible from the lift lobby. A dual-core internally layout will not preclude the creation of deep slots to the eastern elevation and the façade articulation that are currently proposed.</p>	<p>As above.</p>

5.1.3 DPIE-Water

Table 5 below provides a response to the Energy, Environment and Science Group’s submission for SSD-15822622.

Table 4 Response to DPIE-Water

Issue Raised	Applicant Response
<p>NRAR expects that the combined take of the three Groundwater Interference sites, C2, C3 and C4 will be greater than 3 ML/year. This is because:</p> <ul style="list-style-type: none"> • Groundwater Interference C2 Site basement is above the measured groundwater level but some inflow is expected. • Groundwater inflows to the Groundwater Interference C3 site will occur medium to long term. An estimate of 2ML a year is provided but higher inflows would be expected during initial excavation. • It is estimated that medium to long term groundwater inflows between 3 to 4 ML a year with higher flows during excavation will occur for the Groundwater Interference C4 site. The proponent acknowledges a water access licence is likely to be required as there is more than 3ML a year take. <p>The water source is the Greater Metropolitan Region Groundwater Sources 2011 Sydney Basin Central Groundwater Source. This water source is over allocated so the proponent will need to obtain water on the market. This may be a risk to the project.</p> <p><u>Recommendation prior to determination</u></p> <p>That the proponent:</p> <ul style="list-style-type: none"> • Provide a consolidated site water balance including estimated take during construction and operational phases including groundwater inflows and discharge. 	<p>A separate response to the matters raised by DPIE-Water/NRAR will be provided in a subsequent response to submissions package. This response will address the items raised in DPIE-Water/NRAR’s submission and align with the approach confirmed through further consultation undertaken with these agencies.</p>

Issue Raised	Applicant Response
<ul style="list-style-type: none"> Demonstrate adequate groundwater entitlements can be obtained for the projects expected water take during construction and for all ongoing operational take unless an exemption under the Water Management (General) Regulation 2018 applies. <p><u>Recommendation post approval</u></p> <p>The proponent must ensure sufficient water entitlement is held in a Water Access Licence (WAL) to account for the maximum predicted water take for each water source prior to take occurring unless an exemption under the Water Management (General) Regulation 2018 applies.</p> <hr/> <p>The proposed development is unlikely to pose a high risk to groundwater, however the EIS hasn't included sufficient information to demonstrate this is the case. Additional information should be provided by the proponent to give the Department confidence that the risk to groundwater is negligible. Proposed excavation and construction activities have the potential to intercept groundwater and constitute aquifer interference activities under the Water Management Act 2000. No assessment of impacts to groundwater was provided.</p> <p>Multiple SEARs relating to potential groundwater impacts were not addressed with sufficient detail to give DPIE-Water confidence that the project will have no more than minimal harm to groundwater sources.</p> <p><u>Recommendation prior to determination</u></p> <p>That the proponent:</p> <ul style="list-style-type: none"> As required by Condition 17 of the SEARs: a. Undertake an assessment of potential impacts to the relevant groundwater source(s), groundwater dependent ecosystems, other water users, and basic landrights holder bores, b. Provide maps of the listed relevant features, and c. Provide additional data related to baseline groundwater conditions <p><u>Recommendation post approval</u></p> <p>That the proponent:</p> <ul style="list-style-type: none"> incorporate tanked-basement designs where basement inverts are below the high-water table. prepare a Dewatering Management Plan consistent with the requirements set out in the NSW Government guideline 'Minimum requirements for building site groundwater investigations and reporting' (DPIE 2021), in consultation with DPIE Water. prepare and implement a groundwater management and monitoring plan. 	

5.1.4 Energy, Environment and Science Group

Table 5 below provides a response to the Energy, Environment and Science Group’s submission for SSD-15822622.

Table 5 Response to EES Group

Issue Raised	Applicant Response
<p>EES recommends the site landscaping/planting associated with Block C2, Block C3 and Block C4 and street planting uses local native provenance species from the relevant native vegetation communities that occur or once occurred on the site (rather than use non-local native Australian or exotic species) and a condition of consent is included to this effect particularly as CEEC STIF occurs on the Ivanhoe Estate site and Block C4 adjoins Shrimptons Creek riparian corridor. It is recommended a bush regenerator reviews the proposed planting palettes/schedules for this SSD.</p>	<p>Shrimptons Creek planting mix adjacent the riparian corridor now comprises of species from the ‘Shrimptons Creek small bird habitat progress report, Bev Debrincal, International Environmental Weed Foundation trading as Habitat Network. The Shrimptons Creek small bird habitat project was conceived in November 2011 along with the plan to establish The Habitat community native plant nursery and community food garden at Santa Rosa Park at the head of Shrimptons Creek.</p> <p>Forest planting mixes are inspired by the Sydney Turpentine Ironbark Forest and pollinator attracting species. Neighbourhood planting mixes bring the suitable ornamental species in a garden character.</p> <p>Notwithstanding this, the detailed planting plans will developed further at the relevant Crown Certificate stage.</p>
<p>EES notes Lemon-scented Gum (<i>Corymbia citriodora</i>) is proposed to be used in the Planting Schedules for Block C4 including along Shrimptons Creek (see page 34, Appendix C-C4). Lemonscented Gum is not native to the native vegetation communities which occur on the site including the CEEC STIF. Lemon-scented Gum naturally occurs in the far north coast of NSW and south east Queensland. EES recommends Lemon-scented Gum is not used on the Ivanhoe Estate site.</p>	<p>The Lemon-Scented Gum has been replaced with an alternate species in the revised planting schedule for Block C4. Refer to Appendix E.</p>
<p>Appendix C - C4 also notes ‘suitable ornamental species’ are proposed to be used in the neighbourhood planting and that Red Hot Poker (<i>Kniphofia ‘Little Maid’</i>) is to be planted in the Neighbourhood Gardens and the Shrimptons Creek Private Open Space. The proponent needs to clarify if Red Hot Poker (<i>Kniphofia ‘Little Maid’</i>) behaves like <i>Kniphofia uvaria</i>. The seed of <i>Kniphofia uvaria</i> disperse by wind; it clumps vigorously and spreads rapidly and regrows from its rhizomes. Its dense clumping roots exclude the roots of other plants and prevents the germination of their seeds. It also seeks out sensitive and fragile bushland such as swamps, moist forest and creek lines (www.weedsbluemountains.org.au). If <i>Kniphofia ‘Little Maid’</i> behaves like <i>Kniphofia uvaria</i>, EES recommends it is not used in the Ivanhoe Estate site landscaping.</p>	<p>The Red Hot Poker has been removed in the revised planting schedule for Block C4. Refer to Appendix E.</p>
<p>The Landscape Framework in Appendix C - C4 indicates the plant palettes varies across the C4 site - changing from forest to neighbourhood character moving away from Shrimptons Creek into Midtown and that the forest planting mixes are inspired by STIF and pollinator attracting species. It notes Neighbourhood planting mixes bring in suitable ornamental species in a garden character, and that where solar access is limited, deciduous trees are nominated to maximise winter sun (page 13). It is unclear where the deciduous tree planting is proposed. The RtS should provide details on this and also clarify why local native plants cannot be used elsewhere on the C4 Block instead of exotic species and non-local natives. As the C4 Block adjoins Shrimptons Creek riparian corridor, it is recommended the planting schedule for C4 Block, especially the</p>	<p>Shrimptons Creek planting mix adjacent the riparian corridor now comprises of species from the ‘Shrimptons Creek small bird habitat progress report, Bev Debrincal, International Environmental Weed Foundation trading as Habitat Network’. The Shrimptons Creek small bird habitat project was conceived in November 2011 along with the plan to establish The Habitat community native plant nursery and community food garden at Santa Rosa Park at the head of Shrimptons Creek.</p> <p>All planting mixes within publicly accessible open spaces have been adjusted to respond to the comments received and a key has been added to the planting mixes to indicate where the deciduous trees are to be planted within Block C4 and to demonstrate that the plant species consist of local native species.</p>

Issue Raised	Applicant Response
<p>Shrimptons Creek interface area (the open space between the C4 and the Shrimptons Creek Parkland), the 'Shrimptons Creek Private Open Space' and the 'Neighbourhood Gardens' which adjoin the Shrimptons Creek interface area (see pages 13 and 15), consist of local native provenance species. The Planting Schedules should demonstrate that the plant species consist of local native species.</p>	
<p>The EIS notes no tree removal works are proposed under this current SSD and that all tree removal and retention required to facilitate the redevelopment of the Ivanhoe Estate was assessed and approved as part of the Stage 1 SSD. It indicates the proposed Stage 2 SSD remains consistent with this approval and will not seek to remove or impact any additional trees (section 3.1, page 27). Condition A17 of the Development Consent for the Ivanhoe Estate Concept Masterplan (SSD-8707) states "a minimum of 950 trees must be planted throughout the estate". Section 7 of the EIS indicates there is no proposed change to the approved tree removal, tree retention and tree replacement program. It is unclear how many of the 950 trees are to be planted as part of this SSD, it is requested the RtS provides details on this. The SEARs for this SSD requires the EIS to include specific design features such as tree planting (page 18-19 of EIS).</p>	<p>In accordance with Condition B1 of the Concept Masterplan consent, a schedule confirming the timing and delivery of 950 replacement trees was submitted and approved by the Planning Secretary. A letter acknowledging that this condition has been satisfied was issued by DPE on 6 March 2021.</p> <p>Notwithstanding this, the response to DPE's Key Issues Letter identifies the number of trees that are expected to be planted within the proposed Blocks C2, C3 and C4 (which does not include adjoining public domain areas that were approved as part of the Stage 1 SSDA).</p>
<p>Condition B3 of the Development Consent for the Ivanhoe Estate Concept Masterplan states prior to the lodgment of any future application for Buildings B3, C4 or D4 and/or embellishment of Shrimptons Creek (whichever occurs first) further details and plans of the rehabilitation and enhancement of the Shrimptons Creek riparian corridor must be prepared in consultation with Council, DPIE Water, the Natural Resources Access Regulator and the EES and submitted to and approved by the Planning Secretary. The RtS should clarify when further details on the rehabilitation and enhancement of Shrimptons Creek riparian corridor are to be submitted.</p>	<p>The requirements of Condition B3 of the Concept Masterplan were resolved prior to the lodgement of the Stage 2 SSDA. A letter acknowledging that this condition had been satisfied was issued by DPE on 9 September 2021.</p>
<p>The VMP for the Ivanhoe Estate (V2 final - 7 May 2021) indicated no revegetation is currently planned for Zone 5 (Regeneration of Shrimptons Creek) "as landscape works are expected to occur at a later date" but it is unclear when this is proposed and this should be clarified. It is unclear if the riparian corridor width is meant to be a minimum 20m wide (measured from the top of bank). The RtS needs to clarify this. The Public Interface (cross section G) next to Shrimptons Creek in Appendix B – Design Statement Site C4 (page 29) does not appear to show a 20m wide riparian corridor, nor does it indicate that the riparian corridor is to be fully vegetated. Instead the Public Interface (cross section G) shows a deck is proposed in the riparian corridor near the creek with some vegetation beyond this. It shows an open space area is then located within the adjoining C4 Block (see figure below).</p> <p>The riparian corridor is meant to be fully vegetated, and pathways/ decks etc are meant to be located outside the riparian corridor. Section 1.4 of the VMP for the Ivanhoe Estate states that the "Development footprint: the area of the site to be developed, specifically the construction of new roads, residential apartment buildings, landscaping and public domain work. This area is outside the scope of the VMP area".</p>	<p>All works within the riparian corridor in accordance with the requirements of Condition A30 of the Concept Masterplan will be the subject of the forthcoming Stage 3 SSDA, and do not form part of this Stage 2 SSDA.</p> <p>The proposed Block C4 buildings are contained within the approved building envelopes and comply with the approved setbacks to the Shrimptons Creek corridor.</p>

Issue Raised	Applicant Response
<p>The Landscape Architecture Development Application Design Report for the Block C4 (Appendix C - C4) includes Key Strategies under the section titled Shrimptons Creel Parklands and these include: 1. Protect and conserve ecological values - The landscape proposal for Lot C4 builds upon the existing bushland character of the Turpentine-Ironbark Forest. The bushland character is brought into the design of all the public open spaces 2. Restore disturbed ecosystems to enhance ecological value and function – this strategy states “Open space within the C4 Lot adjoining Shrimpton's Creek will be restored to support habitat structure and support biodiversity” (page 8). The section titled Shrimptons Creek Public Open Space in Appendix C - C4 does not appear to be consistent with the above key strategies as it indicates “there are multiple opportunities for gathering in the public open space area that adjoins the riparian corridor including amphitheatre steps and lawns The section only indicates that between the gathering spaces, native planting will be restored to support local biodiversity (page 23) whereas Key Strategy (2) states “open space within the C4 Lot adjoining Shrimpton's Creek will be restored to support habitat structure and support biodiversity”.</p>	<p>All works within the riparian corridor in accordance with the requirements of Condition A30 of the Concept Masterplan will be the subject of the forthcoming Stage 3 SSDA, and do not form part of this Stage 2 SSDA.</p> <p>All landscaping works proposed under this Stage 2 SSDA will be within the lot boundaries, and not within the 20m riparian corridor.</p>
<p>The Landscape Concept Plan in Appendix C - C4 shows at W that “new tree, shrub and groundcover planting is proposed as “habitat havens for small birds” in the south eastern corner of the C4 Block (page 15). EES suggests such plantings could be extended along much of the length of the Shrimptons Creek interface where C4 Block adjoins the riparian corridor, to maximise the benefits for small birds. Appendix C - C4 indicates “there are multiple opportunities for gathering in the public open space area that adjoins the riparian corridor including amphitheatre steps and lawns and that between the gathering spaces, native planting is restored to support local biodiversity (page 23). EES recommends the proposed public gathering spaces such as area T which is shown on page 15 are located so they adjoin the development rather than the riparian corridor to mitigate impacts on biodiversity.</p>	

5.2 Response to Public Submissions

Table 4 provides a response to submissions from members of the public for SSD-15822622.

Table 6 Public submission – Steven Roussos

Issue Raised	Applicant Response
<p>Please ensure that there is both parking AND access to public transport/train stations. Please keep all schools away from major roads to prevent school zones interfering with traffic</p>	<p>Noted. This is not applicable to this SSDA.</p>

5.3 Response to State Design Review Panel

Following lodgement, the Proponent has continued to consult with the NSW Government Architect through the State Design Review Panel (SDRP) process. The third meeting in relation to SSD-15822622 was held with the SDRP on 23 September 2021. Comments raised by the SDRP in this meeting and the applicant's response are provided in **Table 5**.

Table 7 Response to State Design Review Panel

Issue Raised	Applicant Response
<p>The following elements of the design are supported:</p> <ul style="list-style-type: none"> • connecting with Country and community: <ul style="list-style-type: none"> – connecting with Country development, including consultation with Traditional Custodians and identifying future opportunities – social and community sustainability program led by the proponent • increased tree canopy cover over the masterplan site area (36.5%+) • overall sustainability ambitions of the project, including: <ul style="list-style-type: none"> – 100% electric energy – provision of PV cells – green roofs – provision of car share bays • updated interface between the village green and Main street, including the generous stair, sandstone tiered seating and reduction of the balustrade • integrated OSD and landscape design in the landscape wetland, also acting as a buffer between the community pool and village green • community indoor pool: <ul style="list-style-type: none"> – mixed-mode ventilation – improved interface with the street to the south, including sightlines through the skylight to the pool • C3 mixed-use and market housing visual connection through the glazed corner retail spaces (subject to the further commentary below) • C4.2 social housing northern brick wall element, with integrated Aboriginal artwork • direct street access to the C4.2 social housing and C4.1 market housing ground floor units. 	<p>Noted and agreed.</p>
Connecting with Country	
<p>The project is progressing in a positive direction. The following is recommended:</p>	
<p>1. Consider connecting with Country, sustainability and landscape design together. Sustainability design can be developed beyond standard accreditations alongside connecting with Country principles.</p>	<p>The amended architectural plans and landscape plans have been developed holistically with consideration of sustainability targets and the Connecting with Country strategy developed for Midtown.</p>

Issue Raised	Applicant Response
2. Integrate connecting with Country into design development and conceptual thinking holistically and demonstrate this in future presentations.	<p>The Midtown Connecting with Country Strategy will be addressed further in the detailed design phase of the project including with the respect to the initiatives identified in this Strategy including interpretative materials and bush tucker gardens. As identified, the provision of public art in the precinct has also been identified as an opportunity to integrate Connecting with Country into the design of the buildings and public spaces.</p> <p>The proponent has progressed concepts for the community garden, playground, and social building façade art in conjunction with indigenous design practices using both qualified artists and our existing design team to ensure a considered outcome. Please refer to the concepts at Appendix M and additional information at Appendix N.</p>
3. Further the development of the art wall proposal to building C4.2.	Additional information has been prepared by COX Architecture with the Fulcrum Agency, who have prepared the Connecting with Country Strategy for the Concept Masterplan site, and provided at Appendix M with respect to the design of the art wall for Building C4.2. An additional Mitigation Measure is proposed which requires that public art opportunities are further explored with the detailed documentation of the Village Green and identified strategies are provided to Council for their review and comment. All public art associated with Block C2 will be installed prior to the final OC being issue for the Village Green.
Site planning and public domain	
No major changes were proposed from the previous SDRP session presentation. The following is recommended:	Noted.
4. Provision of habitable rooftop areas to apartment buildings with shade structures/pergolas, BBQs and WCs, to complement site wide communal facilities.	A green roof is provided for the Block C4 social building. For the other buildings, architecturally engaging forest rooms and a communal open space on level 15 has been provided on Block C3, and a sky garden has been provided on level 18 of the Block C4 market building. These offer superior outcomes compared to conventional rooftop terraces by offering additional shelter and shade, resulting in a less exposed environment that minimises adverse wind impacts on user comfort.
5. Dedication of through site links to Council is the best way to protect; however, the provision of easements for public walkways as an alternative is supportable, provided that any such arrangement secures future public access in perpetuity. E.g. Council must approve any change.	Land dedication to Council is occurring in accordance with Condition A30, which includes the Village Green. Through-site links outside of this park will be secured through a public access easement as detailed in the draft Subdivision Plans at Appendix K .
6. Realign the road crossing on Main Street with the community facilities walkway to create a clear and continuous north/south link.	While the pedestrian cross for Main Street is not the subject of this SSDA, and forms part of the Stage 1 approval, this crossing can be adjusted to better address park connections as well as planned future connections on the opposite side of Main Street. This will be addressed as part of this separate approval with review of the local traffic committee.
7. Further increases to tree canopy cover wherever possible, including over basement slabs, as the design develops.	Tree planting has been maximised in all areas and in accordance with the commitments made under the Concept Masterplan.
8. Provide information on tree canopy coverage on public land versus private land and within deep soil versus above slab.	A diagram has been prepared by Hassell detailing the different canopy cover and planting types on Block C4 (see Section 3 at Appendix E). A further 90 trees will be planted within Block C2 on public land.

Issue Raised	Applicant Response
9. Include BBQs/shade, seating etc., in public and community spaces.	Seating and shade structures have been incorporated into the design of the Village Green and public domain spaces surrounding the Community Centre noting that Council has expressed that they do not want BBQs in this space.
Sustainable and resilient outcomes	
Through design development, create project-specific opportunities to aim higher in terms of sustainability and climate change resilience. The following is recommended:	Frasers are a leading developer when it comes to sustainability and are implementing green star compliance targets over and above any local authority requirements and sustainability is at the forefront our of decision making and designs
10. Lead rather than respond to the market in balancing the desire for views with the provision of solar shading, particularly for western windows.	Sunshades have been added to the western facing facades on Buildings C3 and C4. As noted, the proposed development will achieve the sustainability targets set under the Concept Masterplan.
11. Consider a whole of site water harvesting and management system for the upkeep of landscaped areas which will require significant water to thrive.	All buildings have site water harvesting tanks included for the upkeep of landscaping.
12. Review the ADG cross-ventilation definition and its application, noting that best practice cross-ventilation should be across the full apartment. This is of particular importance for social housing.	The apartments have been designed with respect to the current applicable ADG measurements for cross ventilation, and achieve the relevant targets nominated in the ADG.
13. Develop a plan of the number of PV cells across roof areas to ensure they are achievable. Note the area of PV and green roof.	The architectural roof plans have been reviewed by a PV supplier to confirm and maximise the quantity of cells and the total KW output.
14. Provide detail on waste, organic, and hard waste rubbish systems.	The revised architectural plans detail the proposed facilities for waste storage and management, including hard waste within the bulky waste rooms. Organic waste may be managed by City of Ryde Council.
15. Provide information on water ecology, WSUD and green infrastructure.	Under the Green Star communities pathway, the development is targeting the points under 24.A1 and have submitted our initial design submission to the Green Building Council of Australia. Further as above, although no points are available for the stormwater harvesting, we are continuing to provide the stormwater reuse tanks in all buildings. Further details on the sustainability strategies, WSUD and green infrastructure can be found in the Stormwater and Drainage Assessment (Appendix DD of the EIS) and Sustainability Assessments (Appendix N of the EIS). Mitigation Measure D/O-ESD1 ensures that the detailed design of the buildings and public domain arras will incorporate ecologically sustainable strategies and development principles.
16. Aiming for net-zero buildings is highly encouraged to reach NSW's Net Zero emissions goal by 2050.	The proposed buildings have been designed to achieve the relevant sustainability targets set under the Concept Masterplan approval, these targets are a stepping stone on working towards net zero.

Issue Raised	Applicant Response
C2 Village Green, pool and community facilities	
<p>The following is recommended:</p> <p>17. Concerns remain with regards to sunlight access to the pool, particularly in winter. Seek to increase sunlight during the winter months, for example, through the following approaches:</p> <ul style="list-style-type: none"> • adjustments to the skylight, allowing the southern sandstone wall to receive sunlight during winter • introduce light chutes from the garden above • consider decking or steel mesh to areas of the roof above to allow additional filtered light. 	<p>The revised plans for Building C2 include skylights introduced to the roof of the pool, providing light chutes from the garden above as suggested.</p>
<p>18. Consider pool acoustics as a positive potential opportunity, along with the visual connection to the south.</p>	<p>The operable windows of the indoor pool will allow for this opportunity, contributing to a sense of activity and arrival at the Village Green and community centre.</p>
<p>19. Resolve the operable windows to the indoor pool and the structural beam design to avoid conflict.</p>	<p>This has been resolved where possible in the plans accompanying this report, and will be further documented in the detailed construction plans to be developed post-approval.</p>
<p>20. Refine the semi-circular nook balustrade and seating height to provide views across the village green for adults and children.</p>	<p>The paving has been raised to be level with the adjacent areas, and the balustrade height adjusted accordingly.</p>
<p>21. Involving Mission Australia in the running of the community facilities is commended; however, management and dedication structures must ensure these spaces do not shift away from communal use to become retail or other privatised uses in the future.</p>	<p>The community centre will be subject to the Plan of Management to be developed by Mission Australia in accordance with Mitigation Measure D/O-BF4. This Plan of Management details the operational model for the community centre including the role and aspirations of its intended operator (Mission Australia) and the types of programs that will be offered as part of the community centre.</p>
C3 Mixed-use and market housing building	
<p>The following is recommended:</p> <p>22. The rationale for removing the through-site link is supported on balance, noting potential poor outcomes (in width and activation) if retained. To ensure visual connection at the corners as proposed, maximise transparency through the use of clear glazing (no tint) and minimise other obstructions.</p>	<p>The retail facades will be treated with clear glazing including curved corners, to ensure visual privacy transparent and connections are retained between the streets and internal spaces.</p>
<p>23. Offsetting the 'forest gardens' brings back some of the vitality of the earlier façade versions and is supported; however, whilst rationalisation is understood and supported in general, the façade requires further development to bring back the vitality, variation and depth indicated in the SDRP 01 (competition) drawings.</p>	<p>Further development of the façade has been undertaken to include more planter boxes on the tower, bush-like landscape treatment to the external edge of the forest rooms, and with playful colours to create variations and vitality to the overall facade. Refer to the revised renders at Appendix C.</p>
<p>24. The proposed use of panelised cladding (copper Equitone) for the 'forest garden' frames is of concern. These elements should read as monolithic, not panelised, and the current material could result in detailing which appears flimsy. This cladding is more successful on the eastern façade, where it creates a dialogue with the neighbouring social housing building.</p>	<p>Forest Room frames have been replaced with pre-cast concrete painted to suit each colour scheme. The rooms have been treated with strong landscape, lighting and finishes qualities.</p>

Issue Raised	Applicant Response
25. Consider the long term maintenance and soil replacement strategy for the 'forest gardens' and façade planters.	All common landscape areas have been designed with consideration of maintenance access and future replacement strategies.
26. Provide louvred ventilation to the apartment corridors to enable single-sided apartments to receive cross-ventilation via high-level louvres or windows.	All apartment corridors have access to operable louvres for cross-ventilation. However, due to fire mitigation, privacy, security, and apartment layouts, high level windows from the apartments to the corridor have not been included.
C4.2 Social housing building	
Concerns remain with the lobby spaces of this building and approach to communal space provision generally. The following is recommended:	The ground floor lobby spaces and the location of the entries for the social housing building have been revised to provide a clear and generous physical and visual link between the central courtyard ('The Grove') and the street as shown in Figure 3 above. While there is a structural column in the northern lobby space that cannot be removed, this lobby is adequately sized to accommodate through-movements or gathering. It is noted that Mission Australia have an on-site office and will be directly involved in the management of this building without the need for a presence within this specific building via a concierge desk.
27. The current arrangement of the lobbies is not supported. Improve the ground floor lobby spaces by increasing the size and providing clear and generous physical and visual links to the courtyard and street. The ground floor lobbies are critical as they are the only communal spaces within this building.	
28. Continue to discuss with Mission Australia the possibility of trialling a gathering area suitable for wet weather days. For example, provide a communal indoor rooftop area with a pergola, BBQ and WC.	Gathering spaces are provided within the communal open space areas of Block C4, noting that the design of the social housing block is driven by the specific requirements of Mission Australia. No indoor gathering spaces are able to be provided in this instance, however, design amendments have significantly increased the lobby sizes to facilitate a more generous common amenity area with sight-lines to communal spaces. Further, by placing the amenity in common areas or public spaces, the project minimises additional building maintenance costs to the social housing buildings.
29. Revisit the apartment layout (particularly the south block) to remove the dog-leg corridor arrangement, so the corridor receives increased natural light and views.	This option was not pursued to ensure the maximum number of bedrooms and, therefore, accommodation to be provided as social housing as part of the Communities Plus program. The corridors have been designed to achieve sufficient amenity with respect to natural light and views.
30. Consider providing bedroom slot windows within the northern brick blade element to animate it and provide cross-ventilation (provided this can be successfully integrated with the artwork).	The northern wall has been selected to provide a public art piece, to contribute to the architectural interest and connecting with country response for this building. As detailed in the additional information provided at Appendix M , the proponent is in discussion with a number of Dharug artists and organisations to not only develop the artwork itself but also the appropriate procurement process to achieve the best outcome. This process is ongoing and will be further developed following appropriate input. Mitigation Measure D/O-BF7 is proposed to this effect.
31. Review the small unit layouts to ensure enough circulation around furniture. Additionally, review kitchen layouts for sufficient bench space for preparation.	Further design development has occurred with respect to the internal layouts of the apartments, which have been adjusted to ensure enough circulation.
32. Rationalise the number of façade elements. Consider removing the metal blade elements as they are not in keeping with the general language of brick and concrete façade elements.	In response, the metal blade elements on the building façade for the social housing building have been removed.

Issue Raised	Applicant Response
C4.1 Market housing building and townhouses	
<p>Concerns remain with the single-core solution proposed for this building. The following is recommended:</p> <p>33. A dual-core arrangement is strongly recommended. If a dual-core cannot be achieved, the corridors require notable improvement, for example:</p> <ul style="list-style-type: none"> • a. provide places to sit along the length and at lifts • b. increase and vary corridor width • c. provide views out at all corridor ends (no dead ends) • d. locate communal spaces leading off the corridor with planting • e. avoid layouts that require residents to walk past ground floor apartments to arrive at the lift core 	<p>Block C4 has been designed so that the social housing building has no more than 7 apartments accessed from a circulation core on a single level, and the market housing building has no more than 12 accessed from a circulation core on a single level. However, both towers will seek to service more than 40 apartments with a single lift.</p> <p>In view of this, the building corridors have been designed to be naturally ventilated and with windows provided in the notches of the building to ensure these corridors have access to views and daylight. This achieves the design guidance principles in the ADG and includes landscaped break-out spaces with seating have been provided along the corridor length at intermittent levels. Landscaped break-out zones provide views to Shrimptons Creek.</p> <p>As detailed in the response to DPE at Section 5.1.1, the proposed arrangement is commensurate with the approved Building A1 in the Ivanhoe Estate and other buildings that have been delivered by Frasers Property Australia.</p>
<p>34. In addition to the above, explore relocating the large window slots to provide cross-ventilation to apartments with none. The current slot locations benefit corner units that already have cross-ventilation.</p>	<p>The window slots used in the design of the tower provide building articulation, to reduce the bulk and scale of the tower. These slots contribute to a thoughtful façade response, and the same outcome could not be achieved if they were relocated. Block C4 achieves the ADG requirements for cross ventilation.</p>
<p>35. Introduce greater depth and an ‘intermediate scale’ to the façades, consider increased variation, and colour (particularly to the western façade).</p>	<p>As detailed in the updated Architectural Plans, metal fins have been added to sunlit apartments, providing greater depth, intermediate scale, variation and colour to the western façade of the market housing building.</p>
<p>36. Explore how to shade exposed glazing (primarily to the east) with textured screening or deeper reveals.</p>	<p>Textured screening or deeper reveals are not feasible due to the following reasons:</p> <ul style="list-style-type: none"> • Introducing screening or deeper reveals would reduce solar access to the windows on the eastern façade, resulting in lesser amenity to residents with respect to ADG compliance. • COX Architecture contends that the proposed tower façade design has been crafted with a suitable amount of articulation as currently designed. Any further articulation will feel cluttered and make the large mass look too busy when observed from the public domain.

6.0 Further Environmental Assessment

This section identifies further environment assessment that has been undertaken post-lodgement which is not addressed in the response to submissions in **Section 5.0** above.

Wind assessment

A Wind Impact Assessment (WIA) was prepared by SLR and provided at Appendix T of the EIS which provided a qualitative assessment of the proposed development including communal and public open spaces, building entry points, and balconies. Following the exhibition of the SSDA, further wind tunnel testing was completed for the Stage 2 SSDA and a quantitative Environmental Wind Tunnel Study was prepared by SLR (see **Appendix I** of this report).

This additional assessment confirms that proposed development will satisfy the wind criteria for this project, including the relevant safety criteria, and that the overall effects of the proposed development on the surrounding wind environment is considered to be insignificant. For those areas that have been found to potentially exceed the desired comfort criteria, these areas can be successfully addressed through a combination of vertical screening (physical screens or landscaping) or horizontal windbreaks (awnings). These measures will be further considered by the project team at the Crown Certificate stage in accordance with the updated Mitigation Measures in **Section 8.0** of this report.

Water quality and quantity

A Stormwater Management Plan was prepared by ADW Johnson and included at Appendix E of the EIS. In response to design development and the submissions received during the exhibition of the EIS, an updated Stormwater and Drainage Assessment was prepared by ADW Johnson (refer to **Appendix F**). This revised assessment is supported by updated Civil Plans.

The assessment confirms that the provision of an end of line raingarden is no longer feasible as part of the identified water quality devices as maintenance will be difficult, the raingarden would require removing trees, and the flood level within Shrimpton's Creek makes it impossible to locate the raingarden at a suitable level about the 1% AEP flood level and still have the ability to drain water from the road network. The raingarden is replaced by a jellyfish cartridge system located within the C4 lot directly adjacent to Main Street to enable easy maintenance access from the road and allowing the system to be located above the 1% AEP flood level. The revised MUSIC modelling confirms that the project will continue to exceed Council's targets.

All remaining measures with respect to rainwater tanks, OSD tanks, and the outcomes of the water balance model remain the same as exhibited. Accordingly, the proposed drainage design including OSD and rainwater tanks are appropriately sized to attenuate runoff and will capture water for reuse in irrigation and car washing to reduce potable water demand. An indicative erosion and sedimentation control plan has been prepared to support the future construction works associated with the project.

No change to the Mitigation Measures is proposed.

Noise assessment

As discussed in **Section 4.2**, consent is sought as part of this DA for the operating hours for the retail tenancies on the ground floor of Building C3, while the detailed fit-out works will still be pursued via a further application or other planning pathway as applicable. These retail tenancies will operate between 6am and 10pm daily.

Under Clause 2.46C of SEPP Exempt and Complying Codes, retail tenancies are able to operate in the B4 Mixed Use zone between 6am and 7pm daily irrespective of any condition of consent. Accordingly, this DA is seeking consent to operate the proposed retail tenancies for a further three (3) hours beyond the baseline hours to support potential food and beverage tenancies, shops, or a supermarket for example.

An assessment of these extended trading hours has been prepared by Acoustic Logic (see **Appendix L**). This assessment confirms:

- The main potential noise sources are from patron noise and background music noise.

- The nearest affected noise receiver is the future residential apartments within Building C3, directly above the retail ground floor. Therefore, provided that compliance is met in these locations, all other receivers will inherently comply due to increased screening or distance from the noise source.
- The modelling by Acoustic Logic confirms that the nearest sensitive receivers will comply with the noise criteria, including the sleep disturbance criteria, when implementing the recommendations contained in this statement including with respect to patron capacity and operational controls.

Additional Mitigation Measures are included in **Section 8.0** of this report to reflect this assessment and recommendations.

7.0 Updated Project Justification

A State Significant Development Application (SSDA-15822622) and accompanying EIS was lodged with the Department of Planning and Environment on 26 August 2021. The SSDA seeks consent for the detailed design and construction of Stage 2 of the Ivanhoe Estate redevelopment comprising the construction of Block C2 (community centre, pool, gym and open space), Block C3 (mixed use residential and retail), and Block C4 (market and social housing apartments).

The EIS was publicly exhibited between Tuesday 19 October 2021 and Monday 15 November 2021. A total of seven (7) submissions were received during this time, including only one (1) public submission. In response to and addressing the range of matters raised, as well as through further design progression, the proposal has undergone some minor design refinements pursuant to Clause 37 of the EP&A Regulation. This Submissions and Amendment Report has described and assessed the changes.

Accordingly, in line with the original EIS, no adverse or residual environmental, social or economic impacts have been identified as a result of the proposed development. Residual environmental impacts identified will be mitigated through the implementation of management measures for the construction and operational phases of the proposal. As such, the development is considered to remain justified for the following reasons:

- the proposal is permissible with consent and meets or has justified any non-compliances with the statutory requirements of the relevant environmental planning instruments;
- the proposal is consistent with the site-specific planning framework established under the Ivanhoe Concept Masterplan (SSD 8707), including the approved Ivanhoe Estate Design Guidelines and Design Excellence Strategy;
- the proposal continues the delivery of a high quality, truly mixed use community with strong transport connections within the Macquarie University Station (Herring Road) Priority Precinct;
- the proposal delivers 216 social housing apartments on a key LAHC site, providing significant public benefits by housing people who are unable to access accommodation on the private market;
- the proposal forms a critical component of the Ivanhoe Concept Masterplan that enhances the amenity and vibrancy of the precinct with the delivery of a new community centre and significant multipurpose public open space offering (Village Green);
- the proposal includes a full description of adequate and appropriate measures proposed, developed based on detailed technical assessment carried out in accordance with the Secretary's Environmental Assessment Requirements, in order to mitigate any adverse impacts of the development on the environment;
- the project has been informed by pre-lodgement community consultation and establishes a framework for ongoing consultation and engagement with the community through the detailed design, construction and operational phases of the development;
- the proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the *Environmental Planning and Assessment Regulation 2000*, and will support the delivery of an ecologically sustainable development; and
- the proposal is in the public interest and does not result in any adverse environmental impacts.

Overall, the proposal forms the stage of the redevelopment of Ivanhoe Estate under LAHC's 'Communities Plus' programme, pursuant to the approved Ivanhoe Estate Concept Masterplan and Stage 1 detailed design works. It makes a vital contribution to the ongoing renewal and delivery of social housing across the state in a 'tenure-blind' model. It is consistent with the substantive planning work undertaken to date and will not give rise to any unreasonable or unmitigated environmental impacts.

8.0 Amended Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 8** below. These mitigation measures are based upon those previously identified in the Section 8 of the exhibited EIS, with revisions included in response to amendments, clarifications and additional information provided in the RTS above. Words proposed to be deleted are shown in ~~bold strike through~~ and words to be inserted are shown in **bold italics**.

Table 8 Mitigation Measures

Ref No.	Mitigation Measure
Design and Operation	
D/O-BF	Built form
D/O-BF1	Any design development should occur in accordance with the design integrity process outlined in the Ivanhoe Estate Design Excellence Strategy.
D/O-BF2	The detailed fit-out, operation, and signage for retail tenancies should be the subject of separate and future approval. <i>Retail tenancies will operate between 6am and 10pm daily and with regard to the recommendations in the Acoustic Logic assessment titled 'Building C, Ivanhoe Stage 2, Macquarie Park – Extended Trading Hour Assessment', dated 17 March 2022. The fit-out of these tenancies will form part of a further application or planning process as relevant.</i>
D/O-BF3	The indoor pool and gym also within Building C2 will be subject to a further detailed application for their fit-out and use operation, including intended operational details . Best endeavours will be sought through the operator for these spaces to be accessible to social and affordable housing occupants.
D/O-BF4	A detailed Operational Management Plan should be prepared for the community spaces and social enterprise café by Mission Australia prior to the occupation of the building. This Plan should be subject to Aboriginal participation with reference to the Connecting with Country Strategy dated June 2021.
D/O-BF5	All tree removal and retention is to occur in accordance with the Stage 1 SSDA. No additional trees are to be removed under this SSDA.
D/O-BF6	Detailed construction phase drawings should have consideration of the recommendations outlined within: <ul style="list-style-type: none"> Environmental Wind Impact Assessment prepared by SLR (July 2021 <i>December 2021</i>) CPTED Report prepared by Ethos Urban (July 2021) Section 8.2 of the Noise and Vibration Assessment prepared by Acoustic Logic (July 2021), <i>unless modified by the Acoustic Logic assessment titled 'Building C, Ivanhoe Stage 2, Macquarie Park – Extended Trading Hour Assessment', dated 17 March 2022</i> Section 7.6 of the Geotechnical Report prepared by Douglas Partners (May 2021) Waste Management Plans prepared by Elephants Foot and SLR (June 2021), <i>as modified by this Submissions and Amendment Report</i>
D/O-BF7	<i>Public art opportunities are further explored for the Village Green, Building C2, Building C3, and Building C4 with reference to the Connecting with Country Strategy. Identified strategies are to be documented in the relevant construction drawings. Public art for the Village Green will be provided to Council for their review and comment. All public art will be installed prior to the issue of the relevant final OC.</i>
D/O-TA	Transport and accessibility
D/O-TA1	The operation of future buildings should where possible implement the recommendations of the Green Travel Plan prepared by Ason Group (July 2021) and encourage the preparation of workplace travel plans for new businesses.
D/O-FL	Flooding
D/O-FL1	A detailed Flood Emergency Response Plan should be prepared prior to the occupation of Block C4 identifying the flood evacuation procedure, including the installation of any physical, visual and/or audible warning mechanisms.
D/O-NV	Noise and vibration
D/O-NV1	The selection and attenuation of external mechanical plant and equipment should have consideration of the noise criteria and recommendations in the Noise and Vibration Assessment prepared by Acoustic Logic (July 2021).
D/O-ESD	Sustainability
D/O-ESD1	The development will incorporate ecological sustainable development principles and will be designed generally in accordance with the objectives, targets and strategies of the Ivanhoe Sustainability Report prepared by Frasers Property Australia (July 2021) and Integral Group (July 2021).

Ref No.	Mitigation Measure
D/O-SEC	Safety and security
D/O-SEC1	A CCTV network for the site should be designed in consultation with a suitably qualified security consultant. Signage is to be installed at site entries advising visitors that CCTV is in operation throughout the precinct.
D/O-SEC2	A lighting strategy should be designed and implemented in consultation with a suitably qualified lighting expert to ensure that the CCTV network is effective, and the building will be lit during the night.
D/O-HER	Heritage
D/O-HER1	Ongoing consultation with RAPs should occur as the project progresses, to ensure ongoing communication about the project and key milestones, and to ensure the consultation process does not lapse, particularly with regard to consultation should the CFP be enacted.
Construction Management	
CM-1	Prepare a detailed Construction Environmental Management Plan prior to the commencement of works on the site including all required technical management plans and with consideration of other nominated mitigation measures.
CM-2	The CEMP is to be supported by a Construction Waste Management Sub-Plan detailing the waste expected to be generated during the demolition and construction phases of the project development, and the associated processes for sorting, storing and processing waste, including monitoring and reporting programs.
CM-3	Works should take into consideration the recommendations and strategies identified in the Geotechnical Assessment prepared by Douglas Partners (July 2021), including when preparing construction drawings.
CM-4	An Erosion and Sedimentation Control Plan should be prepared and implemented on site prior to the commencement of works in order to support the future construction works associated with the project.
CM-TA	Transport and Accessibility
CM-TA1	A detailed Construction Pedestrian and Traffic Management Plan will be developed with the appointed contractor, confirming the detailed construction methodology and specific measures for safely managing construction traffic in the surrounding area.
CM-HER	Heritage
CM-HER1	Prepare and educate all on site contractors on a policy of should any archaeological deposits be uncovered. Should any suspected archaeological resource/relic be encountered, a stop work order would be required in the area of the find, and the project archaeologist contacted.
CM-NV	Noise and vibration
CM-NV1	A Construction Noise and Vibration Management Plan shall be prepared, including the final details of the types of plant to be used and updated estimates of the likely levels of noise and the scheduling of activities. The Plan will have references to the recommendations in Table 24 of the Noise and Vibration Impact Assessment prepared by Arup (April 2020).

ATTACHMENT 1 Summary of comment and resultant design change

The following table provides a summary of comments made in relation to the detailed design of the proposed development, and a summary of the change made to the proposal and/or the response provided. This table does not capture simple clarifications, modelling, future operations, construction processes, or other post-approval matters and seeks to summarise design development only. Please refer to **Section 5.0** for the detailed response to all matters raised.

Summary of comment	From	Summary of design resolution or response
Separation distance between the eastern terrace dwelling and Building C4	DPE, Council	<ul style="list-style-type: none"> No change to the plans. The setback is as a result of design development of the driveway and does not compromise the privacy or amenity of the terraces or market housing building. The proposed terraces contribute to creating a consistent streetscape and human scale.
Privacy measures between dwellings located in the social and market elements of Building C4 above level 8	DPE, Council	<ul style="list-style-type: none"> Privacy screens have been added to Unit C4.1 - 8.01 as well as units in this location on upper levels (i.e. Level 8 to Level 16) to mitigate privacy concerns in accordance with the ADG design guidance for visual privacy. Apartments have been designed with view directors to ensure there is no overlooking between apartments. Unit C4.1 - 8.02 as well as units in this location on upper levels (i.e Level 8 to Level 16) have been revised from a 1 bedroom unit to studios.
Single core arrangement for the market portion of Building C4	DPE, Council, SDRP	<ul style="list-style-type: none"> Further design development has enabled the inclusion of landscaped break-out spaces with seating at intermittent levels along communal corridors throughout Building C4.2. The proposed development achieves the design guidance principles in the ADG; is confirmed by DSC Engineers to provide a good level of service in accordance with international benchmarks; and is commensurate with the approved Building A1 in Midtown and others of similar arrangement and scale that have been delivered successfully by Frasers Property Australia.
Provide further justification/information for solar access and cross ventilation	DPE, Council, SDRP	<ul style="list-style-type: none"> This Stage 2 SSDA remains consistent with the Concept Masterplan approval for sitewide compliance, rather than individual building compliance. The assessment of the Masterplan determined that while the Block C4 buildings would not achieve the numeric control for solar access, Building C3 would exceed this criterion. This detailed design phase of the project remains consistent with the Concept Masterplan that recognised some individual buildings within the Masterplan will not achieve 70% solar access but that Midtown will provide an appropriate degree of solar access and amenity at a precinct scale. Blocks C3 and C4 will both achieve over 60% of apartments within the first 9 storeys as cross ventilated. In this respect, the apartments have been designed to address to the current applicable ADG measurements for cross ventilation, and achieve the relevant targets nominated in the ADG.
Sufficient acoustic privacy and amenity for ground floor market dwellings	DPE, Council	<ul style="list-style-type: none"> The communal open space paths and recreation spaces have been amended to ensure screening from private open spaces through small trees, shrubs, and grasses in addition to fencing. This includes amending a planter to wrap around the building corner to Unit C4.2 – GF.01 and inclusion of a solid masonry wall extending past Unit C4.1 – GF.11 to provide additional privacy. Building setbacks have been designed to be consistent with the approved Ivanhoe Masterplan Development Design Guidelines. Raised garden beds further limit views between spaces while seated, ensuring that sufficient privacy and amenity is afforded to the ground floor market dwellings.

Summary of comment	From	Summary of design resolution or response
		<ul style="list-style-type: none"> Glazing and windows will be installed to the recommendations of the Noise Impact Assessment, to exclude the noise intrusions from neighbourhood activities including people using the entry from Main Street. Wardrobes are provided at the interface of the bedrooms with the lift core, providing an acoustic buffer, and the delivery of these apartments will comprise discontinuous construction between C4.1 - GF.01 and C4.1 - GF.12. The lift core will be designed to satisfy the requirements of the Part F5 of the BCA and the NCC.
Proposed communal open space for Block C3	DPE	<ul style="list-style-type: none"> Block C3 complies with the Ivanhoe Estate Design Guidelines, which specifies that 25% will be provided as a mix of communal or public space. Further numerical compliance with the ADG could be achieved if the three storey forest rooms were reduced to one storey each, however, this would represent an inferior outcome and would reduce amenity, opportunity for significant vegetation, and articulation of the building façade. The ground plane of Building B3 is activated by retail tenancies in accordance with the Concept Masterplan and cannot be restricted as residential communal space. Building C3 apartments are provided with balconies that achieve or exceed the area requirements in the ADGs and residents will also have direct access to the Village Green opposite. Non-trafficable landscaped gardens are also provided on all levels, most prominently levels 1-3 (the podium residential levels), level 15, and the building roof, ensuring that a green outlook is achieved.
Size of the terrace for dwelling C4.2-LG.01 smaller than the ADG recommendation	DPE	<ul style="list-style-type: none"> The terrace has been extended to comply with the ADG recommendation for ground floor dwelling, achieving a min depth of 3m and 15m²
External access to dwelling C4.1-GF.07 which connects to a terrace serving only bedrooms	DPE	<ul style="list-style-type: none"> The terrace access stair has been relocated to the living area of unit C4.1 - GF.07.
Proposed landscaping within the riparian corridor and ensure no structures/ pathways are located within the riparian corridor	DPE, Council	<ul style="list-style-type: none"> Minor pathways and planting have been provided in the interface area between Block C4 and the riparian corridor, however, the plans have been amended so that no structures will be provided within the 20m riparian corridor zone as part of this application. Shrimptons Creek will be addressed as part of the separate and future Stage 3 application in accordance with the requirements of Condition A30 of the Concept Masterplan.
Provision of visitor parking for social housing dwellings in Building C4	DPE	<ul style="list-style-type: none"> No reduction in parking. Condition A18 does not define a visitor parking rate specifically for social housing vs market housing, rather part (d) of Condition A18 nominates that parking for 'residential visitors' may be provided at a rate of 1 space per 20 apartments. Providing visitor parking for social housing units is not inconsistent with Condition A18 of the Concept Masterplan consent. Visitor parking is provided to adhere to the objectives of Midtown and the Communities Plus program in achieving tenure-blindness and equitable amenity and in-line with demand. Ason Group confirm that the level of visitor demand does not vary between social housing and market housing and the proposed visitor parking was captured in traffic modelling which demonstrates that the traffic generated by the development aligns with the approved allowances under the Concept Masterplan.

Summary of comment	From	Summary of design resolution or response
		<ul style="list-style-type: none"> The proposed Block C4 basement can accommodate the proposed visitor parking spaces while still achieving (and exceeding) the deep soil area requirements of the Concept Masterplan.
Number of car share parking spaces proposed within Stage 2	DPE	<ul style="list-style-type: none"> No change – car share spaces are not proposed as part of Stage 2, noting that the Concept Masterplan nominates a rate to be provided across the Masterplan. Thirty (30) car share spaces are approved to be provided in the adjacent C1 building, with access provided to these spaces via the public lift within C2 which connects to basement level 3 of the C1 Building.
Provision of electric vehicle charging	DPE, Council, SDRP	<ul style="list-style-type: none"> The proponent is designing the building to be 'EV ready' with sufficient provisions in place for the option for EV charging to customers at point of sale. The proposed development will be consistent with sustainability outcomes adopted by the Ivanhoe Concept Masterplan.
The proposed 25 visitor bicycle parking spaces within the public domain	DPE, Council	<ul style="list-style-type: none"> McGregor Coxall has amended plans LD-SK-02 to demonstrate the 25 proposed publicly accessible bicycle parking spaces to be provided around the Village Green. No car parking is dedicated for use of the Village Green.
Location of visitor bicycle parking spaces within Buildings C3 and C4	DPE	<ul style="list-style-type: none"> Retail staff and visitor bicycle spaces are located on Level B1 adjacent to End of Trip facilities with access via the carparking ramp. Further 10 visitor spaces for public use are provided in the public domain as part of the Masterplan commitments which may also be used by visitors to Building C3. Building C4, visitor bicycle parking spaces are provided in sheltered locations within the public domain and residential parking is provided within the residential storage cages in the basement.
Terrace of dwelling C4.1-GF.07 to comply with the 5 m setback control	DPE	<ul style="list-style-type: none"> Terrace of C4.1 - GF.07 has been revised to comply with the 5m setback to the riparian corridor
Retaining wall up to approximately 3m high is proposed along the northern edge of the playground	Council	<ul style="list-style-type: none"> Fence to Main Street has been minimised so that 35m of the 70m northern frontage for the Village Green is open or accessible to street (50% of the length of the lot). Retaining wall to the north is necessary and acts as both a barrier to the play area as well as providing shade, creating a safe and amenable play environment, and addressing the 3.5m crossfall of the adjacent road.
Realign the road crossing on Main Street with the community facilities walkway	SDRP	<ul style="list-style-type: none"> Crossing, line marking and signage for Main Street will be adjusted to better address park connections, however, this is subject to the Stage 1 approval and approved by City of Ryde Council under that consent.
Maintenance vehicle access into and circulation within the park	Council	<ul style="list-style-type: none"> An access path for maintenance vehicles have been provided as detailed in the Landscape Plans
Subdivision plans for either C2 or C3 are to be adjusted to include publicly accessible toilets during day light hours	Council	<ul style="list-style-type: none"> Publicly accessible bathrooms are provided as part of the Community Centre within Building C2, which includes easements for public access. Publicly accessible bathrooms servicing the retail tenancies in Building C3 which will be open during retail operating hours.
Various detailed design matters for the Village Green	Council	<ul style="list-style-type: none"> Detailed design of the Village Green will be further developed in the construction documentation as part of the Crown Certificate phase of the project. DA stage details concerning the materials, planting, soil depths, and levels are provided in the landscape plans.

Summary of comment	From	Summary of design resolution or response
		<ul style="list-style-type: none"> Lighting, CCTV, furniture and the like will be developed with reference to the recommendations of the CPTED assessment. Public wifi will be installed and available within the Village Green.
Bin configurations and locations for Building C3 and C4	Council	<ul style="list-style-type: none"> The designs have been amended to accommodate the requested bin numbers and have separately issued clarification to Council's waste department. This includes two bulky waste rooms for Building C3 and a bulky waste room for Building C4. No compaction will take place.
Discharge headwalls placed inside the creek reserve	Council	<ul style="list-style-type: none"> The headwall outlets from the Block C4 are generally consistent with the Concept Masterplan approval (SSD 8707). Any headwall works will be undertaken in accordance with NRAR guidelines for works on waterfront land as per the Stage 1 (SSD 8903) approval. All other headwalls into Shrimptons Creek were approved under the Stage 1 SSDA approval.
Driveway leading to the basement carpark shall clearly demonstrate that the proposed basement ramps have crest levels up to PMF level	Council	<ul style="list-style-type: none"> Section "Finished Floor and Basement Entry Levels" of the submitted Flood Impact Assessment confirms that the FFL and basement entry of building C4 are both located well above the PMF level.
Analysis of all basement openings shall be included (emergency exits, stairs, ventilation, etc...)	Council	<ul style="list-style-type: none"> The architectural drawings indicate the lowest louvres into the basement (C4) are also well above the PMF level (RL 48.1)
Planting palette provided in the C4 landscape plan is not supported	Council, EES Group	<ul style="list-style-type: none"> The Shrimptons Creek planting mix adjacent the riparian corridor has been amended and now comprises of species from the 'Shrimptons Creek small bird habitat progress report, Bev Debrincal, International Environmental Weed Foundation trading as Habitat Network'. Forest planting mixes are inspired by the Sydney Turpentine Ironbark Forest and pollinator attracting species. The specified species by EES Group have been replaced in the landscape plans.
Bins should be provided within the property boundary closest to the buildings	Council	<ul style="list-style-type: none"> Bin locations are now indicated on the Landscape Plans prepared by Hassell
Details of this required for size, placement and suitability of the raingarden next to Shrimptons Creek	Council	<ul style="list-style-type: none"> It has been determined that it is not feasible to provide a raingarden within the Shrimptons Creek lot that is adequately above the flood level, further noting that Lot 29 is owned by LAHC, not Council. "), The provision of a proprietary water device known as a "Jellyfish" has been investigated and found to be the best solution.
Playground should be provided with permanent shade structures or large mature canopy trees	Council	<ul style="list-style-type: none"> Large mature trees are to be installed to the adjacent verge which is 3m above the playground providing a greater level of shade to the playground area The retaining wall in itself also provides a level of shade with mature trees.
Recommended that the substation for Building C3 be relocated away from the entry point on Neighbourhood Street 2	Council	<ul style="list-style-type: none"> This substation has been removed as a result of detailed capacity study. This has enabled providing greater usable space around the community centre, including provision of bicycle parking in this location.
Seek further opportunities to increase deep soil provision in lot C4, especially in the street setback zone	Council	<ul style="list-style-type: none"> The approved Concept Masterplan (SSD 8707) nominates that Block C4 is to provide 993m² of deep soil (Drawing DA01.MP.2006 – Deep Soil Areas Plan). The proposal provides 1,041m² of deep soil on Block C4 which exceeds this requirement.

Summary of comment	From	Summary of design resolution or response
Further development of public art	SDRP	<ul style="list-style-type: none"> Additional information and concepts have been prepared for the public art opportunities within Blocks C4 and C2, including opportunities for commissioning Aboriginal artists for public art.
Habitable rooftop areas to apartment buildings with shade structures/pergolas, BBQs and WCs	SDRP	<ul style="list-style-type: none"> A green roof is provided for the Block C4 social building. For the other buildings, architecturally engaging forest rooms and a communal open space on level 15 has been provided on Block C3, and a sky garden has been provided on level 18 of the Block C4 market building. Noting that the design of the social housing block is driven by the specific requirements of Mission Australia, no indoor gathering spaces are able to be provided in this instance. Design amendments have significantly increased the lobby sizes and gathering spaces are provided within the communal open space areas of Block C4.
Include BBQs/shade, seating etc., in public and community spaces	SDRP	<ul style="list-style-type: none"> Seating and shade structures have been incorporated into the design of the Village Green and public domain spaces surrounding the Community Centre noting that Council has expressed that they do not want BBQs in this space.
Further increases to tree canopy cover wherever possible, including over basement slabs, as the design develops	SDRP	<ul style="list-style-type: none"> A diagram has been prepared by Hassell detailing the different canopy cover and planting types on Block C4. A further 90 trees will be planted within Block C2 on public land. Tree planting has been maximised in all areas and in accordance with the commitments made under the Concept Masterplan.
Seek to increase sunlight during the winter months for the pool	SDRP	<ul style="list-style-type: none"> The revised plans for Building C2 include skylights introduced to the roof of the pool.
Resolve the operable windows to the indoor pool and the structural beam design	SDRP	<ul style="list-style-type: none"> This has been resolved where possible in the plans accompanying this report, and will be further documented in the detailed construction plans to be developed post-approval with the structural engineers
Refine the semi-circular nook balustrade and seating height to provide views across the village green for adults and children	SDRP	<ul style="list-style-type: none"> The paving has been raised to be level with the adjacent areas, and the balustrade height adjusted accordingly
To ensure visual connection at the corners as proposed, maximise transparency through the use of clear glazing for C3	SDRP	<ul style="list-style-type: none"> The retail facades will be treated with clear glazing including curved corners, to ensure visual privacy transparent and connections.
The façade requires further development to bring back the vitality, variation and depth indicated in the SDRP 01	SDRP	<ul style="list-style-type: none"> Further development of the façade has been undertaken to include more planter boxes on the tower, bush-like landscape treatment to the external edge of the forest rooms, and with playful colours to create variations and vitality
The proposed use of panelised cladding (copper Equitone) for the 'forest garden' frames is of concern	SDRP	<ul style="list-style-type: none"> Forest Room frames have been replaced with pre-cast concrete painted, and the rooms have been treated with strong landscape, lighting and finishes qualities.
Provide louvred ventilation to the apartment corridors for C3	SDRP	<ul style="list-style-type: none"> All apartment corridors have access to operable louvres for cross-ventilation. Due to fire mitigation, privacy, security, and apartment layouts, high level windows from the apartments to the corridor have not been included.
Improve the ground floor lobby spaces by increasing the size and providing clear and generous physical and visual links to the courtyard and street for the social housing building	SDRP	<ul style="list-style-type: none"> Ground floor lobby spaces and the location of the entries for the social housing building have been revised to provide a clear and generous physical and visual link between the central courtyard ('The Grove') and the street. There is a structural column in the northern lobby space that cannot be removed, this lobby is adequately sized to accommodate through-movements or gathering

Summary of comment	From	Summary of design resolution or response
Revisit the apartment layout (particularly the south block) to remove the dog-leg corridor arrangement	SDRP	<ul style="list-style-type: none"> This option was not pursued to ensure the maximum number of bedrooms and, therefore, accommodation to be provided as social housing as part of the Communities Plus program. The corridors have been designed to achieve sufficient amenity with respect to natural light and views in accordance with the ADG
Provide bedroom slot windows within the northern brick blade element to animate it and provide cross-ventilation for the social housing building	SDRP	<ul style="list-style-type: none"> The northern wall has been selected to provide a public art piece, to contribute to the architectural interest and connecting with country response for this building The proponent is in discussion with a number of Dharug artists and organisations to not only develop the artwork
Review the unit layouts to ensure enough circulation around furniture and bench space	SDRP	<ul style="list-style-type: none"> Further design development has occurred with respect to the internal layouts of the apartments, which have been adjusted to ensure enough circulation
Consider removing the metal blade elements for the social housing building	SDRP	<ul style="list-style-type: none"> The metal blade elements on the building façade for the social housing building have been removed.
Relocate the large window slots to provide cross-ventilation to apartments with none	SDRP	<ul style="list-style-type: none"> The window slots used in the design of the tower provide building articulation, to reduce the bulk and scale of the tower. Block C4 achieves and exceeds the ADG requirements for cross ventilation.
Introduce greater depth and an 'intermediate scale' to the façades	SDRP	<ul style="list-style-type: none"> Metal fins have been added to sunlit apartments, providing greater depth, intermediate scale, variation and colour to the western façade of the market housing building
Explore how to shade exposed glazing (primarily to the east) with textured screening or deeper reveals	SDRP	<ul style="list-style-type: none"> Textured screening or deeper reveals are not feasible as these would reduce solar access to the windows on the eastern façade, and further articulation will feel cluttered and make the large mass look too busy when observed from the public domain.

ATTACHMENT 2 Submissions Register

Group	Name	Section where issue addressed
Agencies	<ul style="list-style-type: none"> DPE EES Group DPIE-Water Heritage Council TfNSW NSW EPA 	Sections 2.2 and 5.1
Councils	City of Ryde Council	Section 5.1
Organisations	N/A	N/A
Individuals	Steven Roussos	Section 5.2
Other	SDRP	Section 5.3