

Ivanhoe Masterplan Response to Submissions No. 2

Submission	Response
Department of Planning and Environment	
Biodiversity and Trees	
The Arboricultural Impact Assessment (AIA) states all trees identified as being subject to high impact cannot be successfully retained. This includes 164 trees of high retention value and 157 trees of medium retention value. It is however unclear which of these trees form part of the current application and also, which of these trees form part of the Sydney Turpentine Ironbark Forest (STIF). Investigate further potential revisions to the proposed scheme that would allow the retention of additional trees, particularly reducing impacts to those trees forming part of the STIF.	The updated Arboricultural Impact Assessment (AIA) prepared by Ecological (Appendix I) specifies demolition and development impacts separately. Major design changes have reduced impacts on STIF to only three trees at the demolition stage. One tree is identified for removal during the development stage however detailed assessment of this tree can demonstrate retention, as the tree is protected by a retaining wall that will not be removed.
Review and provide an updated Biodiversity Assessment Report given STIF is now classified as a critically endangered ecological community under the Biodiversity Conservation Act 2016.	This Concept SSD DA is assessed under the savings and transitional provisions set out in the <i>Biodiversity Conservation (Savings and Transitional) Regulation 2017</i> . As a result, the application is assessed against the <i>Threatened Species Conservation Act 1995</i> and STIF is not classified as a critically endangered community.
The AIA identifies 25 trees of high retention value that are proposed to be retained but would be subject to medium impacts from the proposed development. Provide further information regarding the impact of the concept proposal on these trees and their ability to sustain the proximity of the future works.	The AIA (Appendix I) now only identifies 20 trees of high retention value subject to medium impacts. Detailed assessment will be provided for all trees subject to medium impacts at the time of works in future Development Applications. Mitigation measures for trees subject to medium impacts are described in Table 2 of the AIA.
Provide additional plans/tables clearly confirming which trees are proposed to be removed/retained as part of the concept plan redevelopment. This should include a revision of drawing DA01.MP.001(4) to clearly indicate trees to be removed that are of medium and high retention value and those that form part of the STIF. A plan illustrating the footprint of the proposed basements/buildings overlayed with the existing trees proposed to be removed/retained should also be provided.	Refer Figure 1 of the updated AIA (Appendix I).
Confirm all trees to be retained or removed at 2-4 Lyonpark Road and 6-8 Lyonpark Road, noting drawing DA01.MP.001(4) only partly includes these sites.	Detailed assessment will be provided for these trees in future Development Applications once the detailed design of relevant stages are confirmed. Trees in proximity to the development along the carpark boundary are located 1 – 2m above the ground level of the development and are protected by a retaining wall. Refer to Figure 4 of the updated AIA report (Appendix I).
Ensure drawing DA01.MP.001(4) is consistent with other documentation and the Stage 1 application regarding all trees to be removed/retained.	Refer to Figure 1 of the updated AIA (Appendix I).

Submission	Response
The Department notes that 547 trees across the Ivanhoe Estate are to be removed under a separate Part 5 demolition approval. Provide further information regarding the removal of these trees, in particular any that form part of the STIF and trees located close to the site boundary. Consider whether revisions to the proposed setbacks/basements would potentially enable additional trees to be retained.	Detailed assessment of both demolition and development impacts are now shown in the updated AIA (Appendix I) and BAR (Appendix J). An increased building and basement set back is provided on Epping Road to increase the amount of trees to be retained.
P12 of the Ethos Urban RTS report states that amendments to the deep soil zone along the majority of the common boundary of the site to 137-143 Herring Road would allow for the retention of existing trees. This is strongly supported. However, no other RTS documentation appears to suggest retention of these trees, which have Part 5 approval to be removed, and the limited basement setback to the boundary in this location would appear to preclude their retention. Please confirm the intent to retain these trees and review the concept plan setbacks to ensure this can be achieved.	A 6m deep soil zone is provided along the northern boundary, which allows for the retention of trees along this boundary. Refer to updated AIA (Appendix I) for tree retention capability along northern boundary.
Confirm the number and type of trees that would be retained if the new access road from Epping Road were deleted from the proposal.	The access road is now removed from the proposal and all trees in its vicinity are retained
Confirm the number and type of trees that would be required to be removed if the deceleration lane for the new access road from Epping Road were to be relocated within the site boundary in the future (see RMS response to SSD 8903).	The revised concept has removed the deceleration lane to retain significant site vegetation.
Provide further consideration of the potential impact on wildlife from the proposed fragmentation of the existing Epping Road tree corridor.	The access road is now removed from the proposal and all trees in its vicinity are retained. As a result, a wildlife corridor will be maintained along Epping Road.
Review the impact of the proposed temporary basins on trees to be retained.	The updated AIA (Appendix I) and BAR (Appendix J) confirms that the proposed temporary basins will be located within the development boundary and will not result in additional biodiversity impacts.
Provide consideration/assessment of the impact on remaining vegetation from overshadowing and limited light. This should include a calculation of the reduction in the conservation value of vegetation to be retained.	Discussion of overshadowing is provided in Section 8.2 of the updated BAR (Appendix J), confirming that there will not be such a substantial change to existing solar access and that no additional loss has been calculated for this area.
Confirm the minimum number of trees to be planted as part of the redevelopment.	A minimum of 950 trees are to be planted as part of the redevelopment.
Provide further information regarding future tree planting above basement areas, including minimum soil depth.	Planting depths have been designed to meet or exceed the minimum soil depths outlined in Planning NSW 'Apartment Design Guide: 4P Planting on Structures', which will be confirmed as part of the subsequent detailed DAs for the construction of basements and landscaping across the Estate.
Provide further information regarding the number of trees to be removed within each development stage and how these numbers relate to the staging of biodiversity offsets referred to in section 4.10.3 of the RTS.	All biodiversity offsets will be provided prior to Stage 1 of the project.
Provide a survey of tree hollows to ascertain if any contain breeding habitat for threatened species, including the Powerful Owl. If identified, measures need to be provided to avoid impacts to these habitats.	The amended development has the potential to impact on one of the seven hollow bearing trees that occur within the Study area as shown in Figure 8 of the BAR (Appendix J). Further investigation of the impact will be carried out at the relevant stage however if the hollow bearing tree requires removal, it is recommended to be replaced with an artificial nest box at a ratio of 1:4.

Submission	Response
Provide further information regarding referral of the proposal to the Commonwealth under the Environment Protection and Biodiversity Conservation Act 1999.	An application was made to the Commonwealth under the EPBC Act. Refer to updated BAR (Appendix J).
The Department requests further consideration be given to matters raised by the Office of Environment and Heritage and Council regarding biodiversity/trees.	A detailed response to the OEH submission is provided below.
<i>Future Built Form and Urban Design</i>	
<u>Concept Plan Design</u>	
Review DA01.MP.100(7) to be more reflective of the indicative plans. For example, buildings C1, C4, D1, D3 and D4 all show large building envelopes that are significantly different to the indicative roof plan (drawing DA02.MP.030(5)).	The indicative plans are provided to illustrate the potential built form that can be accommodated within the building envelopes. The building envelopes represent the maximum parameters within which future development can be designed and are intended to allow flexibility for different design options to be explored. The C1 envelope has been amended to reflect the Stage 1 DA that is being progressed concurrently.
Given the indicative height/scale of the proposed community centre, review the proposed 3 storey/12 m building height on drawing DA01.MP.100(7).	Aspire have been collaborating with City of Ryde for over 18 months on a VPA for Ivanhoe. This includes, amongst other items, a community centre and public swimming pool. Up until this submission, there has not been any brief or conclusive information of Council's requirements. The envelope was left flexible to accommodate this process.
Provide a schedule of the different types and sizes of the proposed open spaces (i.e. useable public open space, private communal open space, the Shrimptons Creek riparian zone, deep soil zones). Please also include a breakdown of the areas of the Village Green, Forest Playground, School Garden and Forest Threshold parks.	Revised open space areas shown on drawing DA02.MP.202[6B].
Respond to Council's comments regarding the proposed quantum of community space, deletion of the swimming pool and the relocation of the proposed community centre above ground level.	A detailed response to Council's submission is provided at Appendix C .
Address the SEPP 65 Design Principles.	An updated Ivanhoe Masterplan Design Report that addresses the SEPP65 design principles is provided at Appendix H .
<u>Setbacks</u>	
Provide further consideration of the proposed basements with regard to increasing levels of deep soil landscaping for each development block and potentially retain additional trees.	The basements to A2, A3, D1, D2, and D3 have been revised to retain additional trees. Refer to DA02.MPB02[6] and DA01.MP.200[6] in the Masterplan Drawings (Appendix D).
Provide a plan illustrating the indicative/proposed basement footprints with an overlay of the indicative/proposed building footprints above.	Refer to DA02.MP.050[1] in the Masterplan Drawings (Appendix D).
Provide further information and consideration of the proposed 18.9 m separation between Building A1 and Building B1.1 indicated on drawing DA01.MP.100(7), noting the minimum Apartment Design Guide (ADG) building separation recommendation of 24 m over a building height of 25 m (9 storeys).	The envelope of Building B1.1 has been revised to provide separation greater than 24m, as confirmed in the revised Masterplan Drawings (Appendix D).

Submission	Response
Clarify/illustrate where the one-storey elements of buildings A1, A2 and A3, as shown on drawing DA01.MP.100(7), are located underground, the future soil depth above these areas and the ability of these areas to sustain deep soil planting. Also provide a setback dimension on drawing DA01.MP.100(7) between these elements and the site boundary.	Envelope Plan DA01.MP.100[8] in Appendix D illustrates the location of the one-storey elements. The one storey elements on A1, A2 and A3 are to allow re-levelling of the landscape and single storey structures above the basement without breaching envelope controls. Deep soil is not proposed in these areas. Basement plan DA02.MPB02[6] in Appendix D has been revised to show a deep soil for 6m alongside boundary.
Review drawing DA01.MP.100(7) to ensure consistency with the Building A1 and Building C1 site boundaries contained in SSD 8903.	Updated subdivision plans are provided in the Stage 1 Response to Submissions, which are aligned with the detailed application for Buildings C1 and A1.
Provide further information and consideration of the proposed minimum 6 m setback between Building B1.2 and the north-eastern boundary with regard to ensuring appropriate privacy and building separation to existing and future residential apartments in Peach Tree Road.	The indicative design scheme shows the lowest 4 levels of Building B1.2 as a residential aged care facility built to 6m from the site boundary. Design Guideline 1 – North East development Lots – includes provisions to ensure appropriate privacy and building separation to existing and future residential apartments in Peach Tree Road. Specifically provision 4: “Where windows are proposed within 7m of the boundary, provide screening to mitigate overlooking of neighbouring sites” (Appendix H). These measures will adequately mitigate any potential privacy impacts.
<u>Communal Open Space</u>	
Justify why no communal open space is proposed within Building A1 or Building B3 and investigate the provision of roof top communal open space and/or other form of communal space (internal/external) within these buildings.	A1 has a childcare facility located on its ground plane, which removes the ability to provide communal open space around the ground plane. To provide communal access to level 24, the lift overrun would breach the maximum height plane. B3 contains a potential future communal rooftop area. Design Guideline 2, Provision 5 has been updated accordingly. A significant amount of publicly accessible open space is provided throughout the site, which will be accessible to all residents.
<u>Masterplan Design Excellence Strategy</u>	
Include foundational statements about the site, its unique attributes/characteristics (i.e. urban setting, natural features - bushland / topography/ riparian as described in the Landscape and Urban Design Reports) and how these inform the design principles and objectives.	The Design Excellence Strategy has been updated accordingly at Appendix G .

Submission	Response
<p>Amend the provisions for architectural design competitions (cl 3.1.4) as follows:</p> <ul style="list-style-type: none"> • more than two sites should be subject to a design competition • identify priority sites for design competitions and the criteria for selecting competition sites e.g. highest visibility, place making potential etc. • the selection panel should have a majority of independent appointees, and at least one is to be a registered Landscape Architect. 	<p>The Design Excellence Strategy at Appendix G outlines the rigorous design process that has informed the selection of the masterplan architect and subsequent design process. On this basis, a minimum of two design competition sites is considered acceptable on the basis that the selection of the masterplan architect has been subject to a design excellence process, and the subsequent development will be subject to the stringent design excellence requirements set out in the strategy. A high level of design excellence is likely to be achieved through this method, rather than running an individual competition for each building, which may delay the delivery of the social and affordable housing, as well as community facilities and other public benefits.</p> <p>The school and Building B3 (located adjacent to the Village Green) are nominated as priority sites for design competitions.</p> <p>It is noted that the design and treatment of open space areas in the Masterplan will be subject to the VPA being negotiated with Council, and as such significant design input into these landscape features will potentially form part of a separate process to the panel.</p>
<p>Strengthen the provisions for meeting with the State Design Review Panel (SDRP) (CI 3.2.2), for example:</p> <ul style="list-style-type: none"> • committing to meeting with the SDRP at key stages (minimum of 3) of the design for each building and prior to any adjustments to the Concept Plan • public domain should also be included in SDRP review. • a response to SDRP recommendations is to be provided in the EIS for all future stages. 	<ul style="list-style-type: none"> • The Design Excellence Strategy for Stage 1 and the masterplan is already complete. Aspire will follow the SDRP process from Stage 2 onward. The SDRP was not established in time for the masterplan or Stage 1. • Hassell are the nominated architect and have been through the DRP process, as documented in the separate Stage 1 SSD DA. Furthermore, the VPA negotiations will affect the outcome of the public domain. • A response to SDRP recommendations will be provided as part of the SSD DA from Stage 2 onwards.
<p>Design excellence provisions should apply equally to the public domain, e.g. include the Village Green in a design competition area.</p>	<p>Hassell are the architect for the public domain design and have been through the DRP process, as set out in the separate Stage 1 SSD DA. Furthermore, the VPA negotiations will affect the outcome of the public domain. Accordingly, the public domain design will achieve design excellence.</p>
<u>Urban Design Guidelines</u>	
<p>The RTS states the proposed Village Green would be approximately 6,000 m². However, guideline 02(2) states the useable area of the green would be 3,900 m² with the remainder forming a landscaped roof to the community centre. In addition, the Design Report states the Village Green is 3,800 m² plus 900 m² of accessible and green areas. Confirm the proposed trafficability of the community centre roof and the proposed useable area of the Village Green.</p>	<p>The updated plans by Bates Smart (Appendix E) demonstrate that the Village Green comprises 6,000m² which includes the deep soil area and the green roofs. The final area of the Village Green will be subject to the design of the future community centre, and the extent of trafficable landscape roofs, including negotiations with Ryde Council as part of the VPA.</p>

Submission	Response
Guideline 02(5) requires further justification regarding why communal open space is not required for buildings A1 and B3.	<p>A1 has a childcare facility located on its ground plane, which removes the ability to provide communal open space around the ground plane. To provide communal access to level 24, the lift overrun would breach the maximum height plane.</p> <p>B3 contains a potential future communal rooftop area. Design Guideline 2, Provision 5 has been updated accordingly.</p> <p>A significant amount of publicly accessible open space is provided throughout the site, which will be accessible to all residents.</p>
The plan in guideline 03 includes deep soil areas adjacent to buildings A2 and A3 that have a minimum dimension less than 6 m.	The deep soil zone alongside A2 and A3 has been increased to 6m width, as detailed on the updated plans prepared by Bates Smart (Appendix E).
Guideline 11(1) should be revised to prioritise the provision of communal roof top open space ahead of private roof top open space.	Whilst green roofs and limited rooftop open space has been considered as part of the future design of buildings within the Estate, it is not feasible to provide access to all building rooftops for those buildings that are mixed tenure. Approximately half of the rooftops will be comprised of photovoltaic cells and others are not suitable for access due to design limitations.
Include a design guideline stating basement car parks are not to be visible above ground level.	The updated Ivanhoe Masterplan Design Guidelines (Appendix H) includes Guideline 5, Provision 6 stating that “basement car parks are not to be visible above ground level.”
Review and respond to Council's comments regarding design issues and the proposed guidelines, including length of buildings and setbacks.	This has been detailed in the separate response to Council.
Traffic, Car Parking and Bicycle Parking	
Provide detailed traffic information that compares the operation of the proposed estate and surrounding road network, both including and excluding the proposed new access road from Epping Road.	Refer to Traffic and Transport Report prepared by Ason Group (Appendix Q).
Provide a response to comments from Roads and Maritime Services (RMS), including the proposed removal of U-turn facilities.	
The Department requests further information also be provided regarding the following matters raised by the Department's Traffic Consultant (see Attachment B):	
SIDRA analysis of the two main intersections along Main Street demonstrating the proposed layout is appropriate to accommodate future traffic flows. The Department requests the analysis also considers a scenario that excludes the proposed new access road from Epping Road.	
Aimsun modelling to summarise the overall road network performance	
Bicycle parking rate	
Clarify if pre-loaded opal cards are to be provided to all initial residents of the development or only Stage 1 residents	
Provide further details regarding operation of the proposed community bus.	

Submission	Response
As part of their submission for the Stage 1 SSD (8903), RMS have requested the dedication of land within the site boundary to allow for the potential future relocation of the Epping Road deceleration lane. Given the potential implications of this for the concept proposal, please provide a comprehensive response to this request.	
Other Matters	
Provide a response to the recommendations contained in Attachment C regarding social inclusion and social impact monitoring arrangements.	A response to the Social Impact Assessment Review is provided at Appendix T.
Respond to EPA comments regarding contamination, background noise assessment and operational noise.	Responses are detailed below.
Provide further details of the quantum of proposed cut and fill across the estate.	This is detailed in the updated Concept Engineering Plans at Appendix P .
Confirm at what stages the public open spaces will be constructed.	This is detailed in Section 3.6 of the updated Design Report at Appendix E .
Provide greater certainty regarding the timing for the provision of the proposed community facilities in relation to other stages to ensure these facilities are not provided at a late stage in the development of the estate.	The intention is to deliver these in accordance with the staging plan in Section 3.6 of the updated Design Report (Appendix E , however, the delivery of community facilities are still subject to the final VPA negotiations with Ryde City Council.
Confirm the intended timeframe for delivering stages A and B in relation to stages 1 to 8.	Stages A and B are entirely dependent on negotiations with future operators.
Confirm the revised concept plan still provides a 120-bed residential aged care facility and 275 seniors housing units (132 market and 143 social independent living).	There will be 141 social ILUs. The 120 bed aged care and 132 market ILUs are subject to negotiations with future operators.
Office of Environment and Heritage	
<i>Aboriginal cultural heritage</i>	
<p>OEH notes that a due diligence Aboriginal heritage assessment was undertaken for the proposal and that Response to Submissions report states that "An Aboriginal Cultural Heritage Assessment Report is not required". While the SEARs did not specifically require the preparation of an ACHAR, a due diligence is not a substitute for undertaking an Aboriginal cultural heritage assessment as required by the Heritage and Archaeology SEAR.</p> <p>Due diligence is a legal defence against harm under the National Parks and Wildlife Act 1974 and is inadequate to assess the impacts of the proposed development on the Aboriginal archaeological and cultural heritage values of the subject land. Due diligence is not to be used for major projects, including State significant developments. Therefore, in order to adequately address Aboriginal cultural heritage, it is recommended that an Aboriginal Cultural Heritage Assessment Report (ACHAR) be prepared prior to the determination of the application.</p>	Noted. DPIE have confirmed that an ACHAR is not required. Notwithstanding this, the applicant will obtain the relevant approvals from Stage 2 onwards, to satisfy the amended policy and as discussed in a DPIE meeting held 24th July 2019.
<i>Biodiversity</i>	

Submission	Response
<p>OEH notes that staged offsets have been proposed in accordance with Table 22 and Figure 11 of the Ivanhoe Estate Re-development SSD 17_8707 Biodiversity Assessment Report and Offset Strategy (Eco Logical Australia, September 2018) in a manner that is "commensurate to the area of impacts" (page 43 of that report). However, upon consideration of the Environmental Impact Statement (EIS) for the associated SSD 8903 'Ivanhoe Estate Redevelopment Stage 1' (Ethos Urban, 14 March 2019), a staged approach to the delivery of offsets may not be appropriate because SSD 8903 seeks approval for (page 13 of the EIS):</p> <ul style="list-style-type: none"> • "site preparation works, including tree removal, demolition of roads and services, and earthworks across the Ivanhoe Estate • the provision and augmentation of utilities and services infrastructure across the Ivanhoe Estate • the construction of all internal roads including public domain within the road reserves, and the bridge crossing and road connection to Lyonpark Road including changes to parking, site access, landscaping and ancillary works at 2-4 Lyonpark Road; ...". <p>This wording suggests most or all of the vegetation on site will be removed in relation to Stage 1. If this is the case, OEH recommends all required credits are retired upfront and that the various management plans referred to below (Biodiversity Management Plan (BMP), Construction Environment Management Plan (CEMP), Vegetation Management Plan (VMP) and weed management plan) are conditioned as part of the approval for Stage 1 (SSD 8903).</p>	<p>No staging is proposed for biodiversity offsets under the latest plan, with all offsets required to be provided prior to Stage 1 of the development. Refer to the Biodiversity Assessment Report (Appendix J) for further details.</p>
<p><i>Biodiversity assessment</i></p> <p>OEH previously noted that <i>Melaleuca deanei</i>, which is listed as vulnerable under the Biodiversity Conservation Act 2016 and Environment Protection and Biodiversity Conservation Act 1999, was listed in Appendix A (Plot and transect data) as occurring in plot 5, with Figures 4 and 5 identifying this plot as occurring within the construction footprint. OEH notes that page 63 of Appendix A to the Response to Submissions states "The inclusion of <i>Melaleuca deanei</i> in Appendix A is a typographical error. The species does not occur onsite, and the BAR has been amended to include <i>Melaleuca decora</i>." However, OEH also notes that the BAR has not been amended. The absence of <i>M. deanei</i> needs to be confirmed, as OEH notes there are recent records from nearby, one 2016 record occurring approximately 1.1 km (Hills M2 Motorway at Macquarie Park) and one 2017 record from 3.1 km away (Martins Reserve North Ryde), and so it is feasible that it is onsite.</p>	<p>The Biodiversity Assessment Report (Appendix J) has been amended to reflect this.</p>
<p><i>Impact assessment</i></p> <p>In the previous correspondence, OEH commented that the proposed access to the site off Epping Road should be removed. The Response to Submissions report states that the proposed entrance to the site must remain in order to facilitate traffic ingress/egress requirements of the future development. However, OEH still considers all attempts should be made to remove this access point, so the connectivity of the critically endangered Sydney Turpentine Ironbark Forest (along the Epping Road frontage) is retained.</p>	<p>The access road is now removed from the proposal and all trees in its vicinity are retained.</p>

Submission	Response
As previously stated, enhancement of the Shrimptons Creek riparian zone should involve minimal alterations to the landform in the forest areas and should preserve existing trees. Any regeneration or management of vegetation along Shrimptons Creek should use local provenance species that are appropriate for the plant community types present.	These measures will be incorporated into a VMP once detailed landscaping plans are available. Enhancement of Shrimptons Creek has also been included in discussions with Ryde City Council as part of ongoing VPA discussions.
As previously stated, a BMP, weed management plan, CEMP and VMP need to be conditioned on any forthcoming development approvals. The BMP needs to include pre-clearance surveys of hollows and if these surveys find breeding habitat for threatened species, such as the Powerful Owl, then measures need to be taken to avoid impacting this habitat type.	Noted.
<i>Shrimptons Creek riparian corridor</i>	
OEH notes a riparian corridor is proposed along Shrimptons Creek however, as previously stated, it is recommended that the existing E2 zone, which adjoins the northern boundary of the site, is extended into the site along the Shrimptons Creek riparian corridor. This will ensure the highest level of zoning protection is afforded in the long term for the corridor and for any rehabilitation efforts.	The masterplan does not propose any rezoning.
<i>Biodiversity Offsets strategy</i>	
While the BAR and BOS provide conflicting information on how the offset requirements for ecosystem credits will be met, OEH notes and supports the following statement made in Appendix A to the Response to Submissions "an appropriate mechanism for compensating for direct impacts under the FBA is to purchase and retire biobanking credits". OEH assumes the types of credits that are retired will be in accordance with Table 21 of the revised BAR. OEH notes that Appendix B of the BAR is missing from the revised BAR.	The required biobanking credits are set out in the revised Biodiversity Assessment Report (Appendix J).
<i>Long term management</i>	
OEH notes the "details of the VMP will be included post approval". OEH recommends the VMP addresses: the long-term management of all vegetation retained on site; the rehabilitation and management of vegetation along Shrimptons Creek; the use of local provenance species appropriate for the threatened ecological communities and plant community types present on the site; and the monitoring of vegetation to ensure its long-term viability.	Noted.
RMS	
Roads and Maritime request Department to include following requirement: "Detail design plans and hydraulic calculation of any changes to the stormwater drainage system in Epping Road are to be submitted to Roads and Maritime for approval, prior to issue Construction Certificate for the relevant stage."	Refer to the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
A suitable funding mechanism [e.g.; a Transport Infrastructure Contribution (TIC) Deed] should be entered into by Aspire Consortium and Roads and Maritime for the contribution towards the required road upgrade works to mitigate the impact of the proposed development prior to issue of any Construction Certificate for the development.	Noted.

Submission	Response
Roads and Maritime will work with proponent (where possible) regarding traffic signal works at Ivanhoe Place & Herring Road intersection with Ivanhoe Estate Road Network development. However, if the intersection is to be signalised prior to the completion of Stage 1 works, then the proponent is to provide a U-turn facility within the site.	Refer to the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
The removal of U-turn facilities will have extensive impact in the road network. The subject U-turn facilities would improve general accessibility within the precinct. The Department should note that the subject U-turn facility was one of the main key issues raised by the community during Roads and Maritime's REF exhibition for BPIP project that includes signalisation of the intersection of Ivanhoe Place and Herring Road. Roads and Maritime requests provision and retention of U-turn facility to facilitate the safe and convenient travel.	Refer to Page 6 of the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
Transport for NSW	
The Applicant has stated that an agreement has been reached with Roads and Maritime whereby a contribution will be paid for the intersection works. DP&E should implement an appropriate condition accordingly.	Noted. Condition is considered appropriate. Refer to the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
Future development approvals should include the requirement to provide Opal cards with a starting balance of \$20 for future occupants of all dwellings.	Noted. Pre-loaded Opal Cards will be provided to all initial residents. Refer to the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
DP&E should ensure (through appropriate conditions of consent) that the staged development of the Ivanhoe Estate includes provisions for a cul-de-sac for the Stage 1 development and the construction of Main Street, as part of Stage 1 & 2, includes 3.5m travel lanes for buses.	The design of Main Street has an allowance for 3.5m travel lanes for buses. Discussion on a potential U-Turn facility is provided on Page 5 of the Traffic and Transport Report (Appendix Q) prepared by Ason Group.
Environmental Protection Authority	
<i>Addressing the EPA's submission</i>	
<p>The EPA made a detailed submission on the environmental impact statement (EIS) dated 9 May 2018 which is on the Department's 'Major Projects' web site.</p> <p>The RtS includes brief generalised statements concerning some of the issues raised in the EPA's EIS submission. However, Appendix A Detailed Response to Agency Submissions to the RtS whilst addressing comments in the EPA's cover letter, does not respond to the EPA's detailed advice and recommendations set out in Attachment A of its EIS submission. Accordingly, the EPA reaffirms its advice and recommendations concerning the project concept plan.</p>	Refer to the responses below.
<i>Site contamination</i>	

Appendix A of the RtS indicates that the proponent has 'noted' the EPA's general (i.e. cover letter) comments concerning site contamination.

Table 4 to section 4.2 'Consistency with relevant EPIs ...' to the RtS does not appear to address State Environmental Planning Policy 55 despite explicit reference to that instrument in the project SEARs.

Whilst, the EPA is aware that Ivanhoe Estate Stage 1 EIS documentation includes supplementary site contamination data, analyses and a site audit report, that documentation does not appear to accompany the RtS in respect of the Re-development Concept Plan. The EPA also understands that existing roads and utilities, including substations (vis a vis potential PCB contamination), are proposed to be demolished pursuant to SSD 8903 Ivanhoe Estate (Stage 1). The EPA anticipates further site investigation of the footprint and immediate environs of those demolished roads and utilities.

The EPA notes that demolition of existing buildings is being undertaken under a separate assessment process. However, the EPA is unclear about the timing and impact of demolition works in relation to the undertaking of the above mentioned site assessments, including access to the footprint of the demolished buildings for site investigation purposes as outlined in the EPA's EIS submission. For instance, the EPA understands that (in respect of existing buildings on the development site) residual termiticides would have typically been applied to the building footprint prior to pouring of footings/slabs on ground.

The table to section 5.0 Environmental Risk Assessment to the RtS briefly refers to remediation of an area of the site affected by a petrol spill (i.e. Total Residual Hydrocarbons) but otherwise does not address the EPA's advice and recommendations concerning the investigation of site contamination and appropriate remediation. The EPA understands all contaminated soil is proposed to be removed from the development site for disposal at a facility legally able to accept that waste.

The EPA is also aware that the site auditor has reviewed the Remediation Action Plan (RAP) section 9.1.2 of which comprises an unexpected finds protocol though that plan does not explicitly address the issue of investigation of the footprint of demolished buildings, roads and utilities.

The EPA recommends that the proponent clarify –

- (a) whether demolition of existing buildings across the development site has been completed, and
- (b) whether site contamination investigations were undertaken before or after demolition across the development site.

Accordingly, the EPA reaffirms its recommendations concerning site contamination; noting that the recommendation to prepare a RAP has been addressed. The EPA further recommends that the proponent be required to undertake investigation of soil contamination within the

The proposed Masterplan represents a Concept Proposal, meaning detailed applications follow to undertake physical works on the site such as bulk earthworks and the construction of buildings. As outlined in the Stage 1 RTS Report, additional testing, investigations and the validation of the site will occur as part of the Stage 1 works as buildings are progressively demolished by LAHC and physical works commence on the site. The details provided to date confirm that the site can be made appropriate for its intended use, and as that any remediation works will occur prior to the use of that part of the site. It has been recommended as part of the Stage 1 RTS that additional testing be completed as structures are progressively demolished and prior to works commencing in that part of the site, as these demolition works will occur in stages and currently prevent full access to site soils.

Submission	Response
<p>footprint and immediate environs of demolished buildings, roads and utilities (especially defunct electricity substations) across the development site.</p>	
<i>Background Noise Assessment</i>	
<p>Appendix A of the RtS notes the EPA's advice that the proponent is a 'public authority', and the EPA has provided appropriate noise assessment guidance material to all public authorities, being the Noise Policy for Industry.</p> <p>The EPA emphasises that background noise measurement is fundamental to a consistent approach to the quantitative assessment of noise impacts of development. Those background noise levels are used to set the trigger levels for both construction and operational noise. Therefore, the EPA considers that properly establishing background noise levels is critical to the assessment and management of noise for the entire project and each stage thereof.</p> <p>The EPA's EIS submission commented that background noise monitoring was not conducted in accordance with the Noise Policy for Industry (EPA, 2017) and that the proponent is required to establish background noise levels in accordance with Fact Sheet A and B of that Policy.</p> <p>The EPA's view is that the RtS and Appendix W 'Ivanhoe Estate, Macquarie Park Revised Masterplan DA' (i.e. acoustic assessment report 20171369.3) do not adequately address the EPA's previous concerns about the background noise assessment.</p>	<p>Noise monitoring has been undertaken by Acoustic Logic at six points across the site in accordance with the Noise Policy for Industry, as detailed in the Acoustic Assessment at Appendix S. This updated assessment clarifies the methodology used for previous assessments.</p>
<i>Operational Noise Assessment</i>	
<p>The EPA's submission raised concerns that the EIS did not address impacts from all the development's proposed land uses. Appendix W does not adequately address potential noise impacts from proposed land uses across the estate, including:</p> <p>(a) the assumption that activities at the proposed school would be restricted to the day time assessment period (noting Government policy encouraging out of hours community use of school facilities);</p> <p>(b) the operation of the community centre, retail and cafes as potential noise sources; and</p> <p>(c) incorrectly proposing the maximum noise level event assessment trigger level for LAeq,15min in Table 15 instead of deriving the trigger levels in accordance with Section 2.5 of the Noise Policy for Industry.</p> <p>The EPA reaffirms its advice and recommendations concerning operational noise assessment.</p>	<p>a) As detailed layouts and operational information is not yet known, it is recommended that the applicable noise limits form a condition of consent and this is furthered assess prior to construction.</p> <p>b) As per the above.</p> <p>c) It is noted that EPA NPfI requires below:</p> <ul style="list-style-type: none"> • LAeq, 15min 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or • LAFmax 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater, <p>However, the point 1 above is also governed by intrusiveness criteria which is RBL + 5 dB(A) only. As RBL during night time is 34 dB(A) and considering the requirements of intrusiveness I adopted RBL + 5 dB(A) to provide conservative assessment which should be acceptable.</p>
Department of Primary Industries	

Submission	Response
Land on the North West side of Shrimptons Creek (Lot 9 DP 861433) is owned by NSW Housing Corporation, while land on the South East side of the creek is owned by different private land holders. Should the proponent require Shrimptons Creek (or part thereof) to develop the project, then this property will need to be compulsorily acquired under the Land Acquisition (Just Terms) Compensation Act 1991.	Noted.
Northern Sydney Local Health District	
That the school provide adequate bicycle parking to encourage active transport by staff and students to minimise traffic congestion. Development of a school travel plan and policy should be a requirement as part of the agreement.	Whilst it is recommended that the detailed design for the school provide for bicycle parking on the site, this will be confirmed as part of a separate and future SSD DA seeking consent for the design, construction operation of the school.
Provide dedicated walking routes around the site to support and encourage physical activity for all abilities including wheelchair and pram users.	The public domain design includes pedestrian pathways and active links to encourage walking and other physical activity.
Incorporate clear way-finding signage (including distance/time) into the surrounding bike network, public transport hubs and local amenities such as public toilets.	Wayfinding signage will be designed and installed at the appropriate future stage.
Install bicycle dismount signage within the town centre to facilitate shared use of the town centre by both pedestrian and cyclists.	Signage will be designed and installed at the appropriate future stage.
Establish speed limits for cars surrounding the town centre to ensure pedestrians can access the area safely.	Speed limits will be set in accordance with Council and RMS requirements.
Ensure there is connectivity across the site between buildings and amenities so residents can maintain interaction with neighbours in other buildings.	The Masterplan has been designed to ensure there is connectivity across the precinct by providing a public domain that includes through-site links and communal spaces.
Provide sheltered bike racks both at street level and within buildings.	Bike racks will be delivered as part of the public domain and future building applications.
Ensure the layout of the development allows residents to access to bus stops within 400m walk and train stations within 800m walk.	Residents are within walking distance of the existing bus stops on Herring Road and the metro station at Macquarie University.
Provide seating and furniture in common areas which are inclusive of the needs of a diverse range of users e.g. seating with arm rests, picnic tables with cantilevered ends to allow wheelchair access. Use of nature-based furniture can also improve amenity.	Furniture and seating will be delivered as part of the public domain approval.
Consider installing additional senior friendly gym equipment in the town centre village green which will be visible to more people. This can help promote use of equipment, activate the space and improve accessibility for people who are unable to mobilise long distances.	Gym equipment will delivered as part of the detailed public domain approval.
Playground equipment should prioritise nature play where possible i.e. rocks, wood and water. Also consider the needs of different age groups and opportunities for intergenerational interactions, such as co-locating playgrounds and community gardens. Equipment and flooring should be resistant to heat.	Playground equipment will be subject to a separate detailed approval.
Include lighting of open spaces during the evening to improve safety and activate public spaces for night time activity.	Lighting will be provided as part of the detailed public domain approval.

Submission	Response
Consider designs which facilitate the use of the town square as a public art space e.g. use of sculpture installations, performance space for live music or free movie screenings and community events.	The detailed design of the town square will be the subject of a separate and future detailed application, as well as ongoing negotiations with Council regarding the VPA.
Consider integration of tactical urbanism and place-making strategies such as street libraries, child-friendly public art.	This will be considered at the separate and future detailed design stage.
Provide wheelchair accessible toilets and parent room facilities near public spaces as poor access to public toilets can be a barrier for older people to use public spaces.	This will be considered at the separate and future detailed design stage.
Ensure that vegetation is evergreen, non-deciduous and does not have lifting roots which can pose a falls/trip hazard to pedestrians.	Vegetation will be provided in accordance with the species schedule submitted with the Public Domain Concept.
Consider pet friendly policies and regulations which support pet ownership and pets in public spaces. Research has shown that human-animal interactions can enhance human physical health and psychological wellbeing.	Pet ownership will be managed in accordance with the relevant strata or Building Management Committee.
City of Ryde Council introduce and enforce a Smoke-Free Policy under the Local Government Act 1993.	This is a matter for Council.
City of Ryde Council enforce Alcohol Free Zones in Ivanhoe Estate.	This is a matter for Council.
Follow Crime Prevention Through Environmental Design (CPTED) guidelines by ensuring adequate lighting, eliminating dark and secluded sections and planting either low-lying shrubs or high canopy trees that maintain sight-lines and maximise passive surveillance	CPTED principles will be implemented in accordance with the report submitted with the Concept Plan, and subsequent detailed assessments to accompany separate and future applications for the detailed design of buildings and public spaces.
Retain proposed community gardens but investigate further on exact locations to maximise solar access. Consider the addition of a community garden area near the community centre which has better solar access.	The public domain will be delivered in accordance with the site-wide master plan.
Provide roof top space designs which could accommodate rooftop community gardens and space for community interaction. This should be done in consultation with the community.	Rooftop spaces will be incorporated where identified in the master plan.
Consider incorporating edible vegetation e.g. fruit trees around the development.	Vegetation will be provided in accordance with the species in the Public Domain Concept.
Include an affordable fresh food outlet as part of the retail mix of the town centre in future detailed plans.	This will be considered at the separate and future detailed design stage.
Provide water drinking fountains in the town centre, community centre, playground and along walking tracks.	Drinking water fountains will be provided as part of the future public domain approval.
Consider town centre designs which provide for outdoor Farmers' Markets e.g. provision of power-points, loading zones etc.	The town centre has been designed to be flexible to enable a range of community uses.
Consider the placement of social housing units in lower floors and consider their access to amenities.	Social housing has been provided in accordance with the specifications of the Land and Housing Corporation.
Consider family friendly apartment configurations in lower floors e.g. three bedrooms.	The final arrangement of dwelling mix will be subject to future separate applications.

Submission	Response
Mission Australia provides more details on risk mitigation strategies to protect the rights of Social Housing tenants within the Strata Scheme, including providing advocacy services in the event of building defects, maintenance issues and disputes.	Noted.
Ensure the Social Impact Assessment details how the housing provider will support social housing residents in advocating for their tenancy rights.	Operational management policies will be implemented for social housing residents.
Ensure apartments facing Epping Rd are not unduly exposed to harmful vehicle emissions through balconies and air-conditioner draw points.	The increased set back to Epping Road will reduce impacts of vehicle emissions.
Allowing for local prevailing winds and topographic characteristics to avoid building high density housing downwind of busy roads that carry high traffic volumes.	This is a matter for consideration for the separate and future detailed design stage.
Ensure apartments have adequate noise insulation and breeze-ways that optimise ventilation.	This is a matter for consideration for the separate and future detailed design stage.