

Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*
Schedule 2 of the Environmental Planning and Assessment Regulation 2000

City of Ryde suggested changes are in RED text incorporated in the table below.

Application Number	SSD-15822622
Project Name	Ivanhoe Estate Redevelopment – Stage 2
Location	Former Ivanhoe Estate, Lot 100/DP 1262209 within City of Ryde Local Government Area
Applicant	NSW Land and Housing Corporation
General Requirements	<p>A development application (DA) for State significant development (SSD) must include all relevant information and documents specified in Part 1 of Schedule 1 of the Regulation, including an environmental impact statement (EIS) (section 4.12(8) of the Act and clause 2(1)(e) of Schedule 1 of the Regulation).</p> <p>The DA must be lodged on the NSW planning portal (clause 50(1)(d) of the Regulation).</p> <p>The form and content of the EIS must be prepared in accordance with clauses 6 and 7 of Schedule 2 of the Regulation. Any document adopted or referenced in the EIS will form part of the EIS (clause 9(1) of Schedule 2 of the Regulation).</p> <p>The EIS must include a report certified to be accurate at the time of publication by a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> - a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation), including details of all assumptions and components for the CIV calculation, including consultant costs - a detailed calculation and breakdown of the cost of works for all public benefits - an estimate of jobs that will be created during the construction and operational phases of the proposal - certification that the information provided is accurate at the date of preparation.



<div> <div>Key issues to be addressed</div> </div>	<div> <div>1. Statutory and strategic context</div> <div> <div>The EIS must:</div> <div> <div>- address all relevant legislation (including sections 1.3 and 4.15 of the Act and clauses 6 and 7 of Schedule 2 of the Regulation), Environmental Planning Instruments (EPIs), draft EPIs, plans, policies and guidelines</div> <div>- detail the nature and extent of any prohibitions, including partial prohibitions, that may apply to the proposal</div> <div>- demonstrate the reasons for the proposed development being SSD</div> <div>- identify compliance with applicable development standards and provide a detailed justification for any non-compliances</div> <div>- address the requirements of any approvals applying to the site, including any concept approval or recommendations from any Gateway determination</div> <div>- comply with these SEARs (cl 3(8) of Schedule 2 of the Regulation).</div> </div> </div> </div>
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2. Design excellence

The EIS must demonstrate how:

- the detailed design will exhibit design excellence in accordance with the requirements of the Design Excellence Strategy and Design Guidelines that formed part of the concept approval, and objectives for good design (of the built environment) in Better Placed
- the detailed design of Buildings C2, C3 and C4 have been reviewed by the SDRP and recommendations addressed prior to lodgement
- design excellence issues will be addressed following exhibition, including a minimum of one further meeting with the SDRP
- design integrity will be maintained in subsequent stages of the planning process (such as post approval and in any modifications).

3. Built form and urban design

The EIS must:

- explain and illustrate the proposed built form, including a detailed site, context and urban design analysis to justify the proposed site planning and design approach.
- demonstrate how the proposed building or building envelope form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality
- demonstrate how the detailed building design will deliver a high-quality development, including consideration of façade design, solar access, natural ventilation, articulation, activation, roof design, materials, finishes, colours and integration of services
- address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into the development
- assess how the proposed development complies with the relevant accessibility requirements
- include tables identifying the proposed land uses, including tables identifying gross floor area (GFA)/floor space ration (FSR) for each building, including a floor by floor breakdown, and total GFA and FSR
- identify opportunities for Aboriginal culture and heritage to be incorporated holistically in the design proposal.

4. Visual impacts

The EIS must include a Visual Impact Assessment, with photomontages, justifying potential visual impacts associated with the proposal when compared to the existing situation and a compliant development (if relevant), when viewed to and from key vantage points.

5. Public domain

The EIS must demonstrate how the proposed development:

- satisfies the approved concept plan in relation to public domain and open space outcomes
- maximises the amount, access to and quality of public spaces (including open space, public facilities and streets/plazas within and surrounding the site)
- reflects relevant design guidelines and advice from Council and the Department
- ensures the public space is welcoming, attractive and accessible for all
- maximises permeability and connectivity

- ensures public spaces have excellent amenity, suitable for their intended use, such as through adequate facilities, solar access, shade and wind protection
- maximises street activation
- minimises potential vehicle, bicycle and pedestrian conflicts.

5a. Village Green

- Prepare a masterplan for the Village Green that outlines specific design features (as applicable):
 - footpaths and pavements, roads and/or rights of carriageways
 - outdoor seating
 - materials and finishes
 - public art
 - furniture and fixtures
 - street lighting, pedestrian lighting and feature lighting
 - edges, screens and fences
 - walls, embankments and mounds
 - steps, ramps, vehicle crossings, decks and pathways
 - services where affected, utility poles, and service pits
 - civil and stormwater infrastructure
 - tree planting
 - mass planting beds, planter boxes and individual plantings
 - bicycle parking.
- Masterplan to demonstrate universal design, public art, soil depths, vegetation types, solar access, CPTED, materiality, lighting

5b. Community Centre

- Provide detailed plans for the proposed community centre. The plan should demonstrate its location, area, levels, access, GFA, capacity etc. through adequate plans, sections and service diagrams;
- Provide a draft operational management plan.

5c. Pool

- Provide detailed plans for the proposed pool including a draft operational management plan.

5d. Gym

- Provide a detailed plan for the gym and a draft operational management plan

6. Trees and landscaping

The EIS must include a Landscape Plan and Arborist Report, that:

- demonstrates how the proposal satisfies the approved concept plan in relation to **tree protection measures**, tree retention and tree planting and landscaping outcomes **with respect to trees on the site and on immediately adjoining land**.
- details the proposed landscaping and planting, including proposals for native vegetation communities and plant species
- demonstrates how the development proposes to protect and increase the urban tree canopy
- demonstrates how the proposed development maximises opportunities for green infrastructure, consistent with Greener Places.

7. Environmental amenity

The EIS must:

- demonstrate how the proposal achieves a high level of environmental amenity within the proposal and on surrounding buildings, assessing impacts

associated with view loss, ventilation, pedestrian movement, access to landscape and outdoor spaces, visual privacy, **efficient lighting and appliance use**, reflectivity and wind

- provide a solar access analysis of the overshadowing impacts of the proposed development within the site, on surrounding buildings and public spaces (during summer and winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm, when compared to the existing situation and a compliant development
- where applicable, provide an assessment of the proposed development against State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development and the associated guidelines.

8. Development contributions and public benefit

The EIS must:

- address the requirements of the concept approval, including monetary contributions and/or works-in-kind, and include details of any proposals for further material public benefit
- include a certificate from an independent quantity surveyor certifying the value of the works for each contribution item applicable to Stage 2, as referred to in Condition A30 of the concept approval.

9. Transport, traffic, parking and access (operation and construction)

The EIS must include:

- a Traffic and Transport Impact Assessment which provides:
 - o an assessment of the proposed stage within the context of the approved concept plan and cumulative impacts of prior developments
 - o the predicted transport mode share split **and daily trip numbers** for the proposal development
 - o an analysis of the existing traffic **conditions within the surrounding road network, including but not limited to a description of the surrounding road hierarchy, current daily and peak hour vehicle movements and an assessment of the** existing performance levels of nearby intersections

- a forecast of additional daily and peak hour vehicle movements as a result of the proposal and identification of potential traffic impacts on road capacity, intersection performance (e.g. level of service) and road safety (including pedestrian and cycle conflict). The future 10-year projected traffic impacts based on the future traffic growth within Macquarie Park is to also be undertaken. This analysis may need to be substantiated by a SIDRA model assessment which needs to be developed in accordance with TfNSW's *Traffic Modelling Guidelines*.
- proposals to mitigate any traffic impacts, including intersection upgrades and active/public transport infrastructure improvements to minimise private vehicle trips to ensure nearby roads and intersections operate with an acceptable level of service.
- details of car parking provision, having regard to relevant parking rates, specifications and standards so as to avoid adverse impacts to the current parking catchment in the surrounding area
- details of proposed vehicular access, parking areas loading, deliveries and servicing arrangements, and any proposed infrastructure improvements or measures to reduce potential conflicts with pedestrians and cyclists. Main Street is expected to carry higher traffic demands compared with the other neighbourhood roads forming part of the Ivanhoe Estate Concept and Stage 1 approval due to the future connection it will provide between Herring Road and Lyonpark Road. As such, vehicular access to the proposed developments should be restricted to Roads Nos. 2 and 3 to minimise conflict with the future traffic flow within Main Street.
- proposals to improve walking and cycling, such as connections into existing walking and cycling networks, high quality end-of-trip facilities and adequate bicycle parking for visitors, employees and residents (provided in accordance with the relevant rates, specifications and standards)
- measures to promote sustainable travel choices for employees and residents or visitors, such as minimising car parking provision, encouraging car share and public transport, cycling and walking, implementing a green travel plan and providing end of trip facilities and how this can be demonstrated to be implemented.
- detail of any new sustainable transport infrastructure or technology to be provided for e.g future electric charging to each parking spot (ensuring buildings have EV distribution boards sufficient to cater for and manage to allow for future connections and that an EV load management system is provided).
- a detailed Framework Green Travel Plan which shall be provided to Council for certification (with a Final Green Travel Plan subsequently provided to Council for certification prior to the issue of any occupation certificate for any stage of development).
- a Construction Pedestrian and Traffic Management Plan providing details of predicted construction traffic movements, routes and access arrangements, and outline how construction traffic impacts on existing traffic, pedestrian and cycle networks would be appropriately managed and mitigated.

10. Ecologically Sustainable Development (ESD) and climate change

The EIS must:

- identify how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated into the design, construction and ongoing operation of the proposed development how the development will achieve the

10. Ecologically Sustainable Development (ESD) and climate change

The EIS must:

- identify how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated into the design, construction and ongoing operation of the proposed development
- how the development will achieve the commitments identified in the approved concept plan (see Condition C2(q))
- demonstrate how future buildings will meet or exceed the relevant industry recognised building sustainability and environmental performance standards **including any green accreditation.**
- detail measures to be incorporated to reduce carbon emissions **both construction, waste materials and in built, embodied design,,** reflecting the Government's goal of net zero emissions by 2050, and the consumption of resources, water (including through water sensitive design principles and water re-use) **and on site water re-use) efficient and improvement devices** and energy
- estimate the likely greenhouse gas emissions from the development, including construction and operation, having regard to the [Greenhouse Gas Protocol for Project Accounting](#), and measures to be incorporated to reduce greenhouse gas emissions.

11. Contamination

The EIS must include a preliminary investigation assessing and quantifying any soil or groundwater contamination, and demonstrating that the site is suitable (or may be made suitable after remediation) for the proposed use, in accordance with the State Environmental Planning Policy No 55 - Remediation of Land and the associated guidelines.

Where recommended in the preliminary investigation, or requested by the Planning Secretary, the EIS must also include a detailed site investigation, a remediation action plan and/or a preliminary long-term environmental management plan

12. Heritage

The EIS must:

- address any archaeological potential and significance on the site and the impacts the proposed development may have on this significance
- include an Aboriginal Cultural Heritage Assessment Report in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site, including archaeology.

13. Flooding

The EIS must include a flood impact assessment, which:

- identifies and describes any on-site flood behaviour and flood risk impacts associated with the proposed development, having regard to relevant provisions of the NSW Floodplain Development Manual and other local or State studies and guidance
- identifies potential effects of climate change, sea level rise and an increase in rainfall intensity
- identifies required management measures and design solutions **including water sensitive urban design and detention**, to minimise the impacts of flooding on the proposed development **in terms of safety of occupants and property damage.**

The EIS must also address the following flood related issues:

- Finished Floor Levels (FFLs) shall be set at levels that comply with Council's freeboard requirements defined in DCP-2014-8.2 - Stormwater Management Technical Manual.
- Basement ramps shall raise up to PMF levels, at each location, before descending to the basements, to fully flood proof every basement
- No gaps/openings connected to any basement are allowed below the PMF level at each location
- Fences located in overland flow paths shall allow flows to pass through

14. Stormwater drainage and water quality

The EIS must include an Integrated Water Management Plan that:

- is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority (including Office of Water for works impacting riparian zones and required approvals for works)
- assesses any stormwater, drainage, erosion and sedimentation impacting water quality and flows associated with the proposal
- assesses the water quality impacts and any downstream impacts for both surface and groundwater on any water courses, riparian zones, estuaries and marine areas
- details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point
- caters for a failure mode in the event the system is blocked or exceeds capacity, including nominating surface levels and surcharge grates/ weirs designed to convey stormwater runoff away from habitable areas.
- demonstrates compliance against any relevant provisions of the Sydney Drinking Water Catchment SEPP with Council or other drainage authority requirements and avoids adverse impacts on any downstream properties.
- details of the existing/proposed Council drainage network shall be provided, including easements required, in favour of Council, centred on the pipes and compliant with Council's DCP-2014-8.2 - Stormwater Management Technical Manual. Please note that no wooden-roots plants can be proposed in the easement over Council's pipe due to future damage caused to the pipe by roots in the search of water.

Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards.

15. Air Quality

The EIS must include an air quality assessment of onsite and offsite air quality impacts, including odours, in accordance with the relevant EPA guidelines. The assessment must detail construction and operational air quality impacts both onsite and on nearby sensitive receivers and outline the proposed management and mitigation measures that would be implemented to reduce any air quality impacts.

16. Noise and vibration

The EIS must include a noise and vibration assessment in accordance with the relevant EPA guidelines. This assessment must detail construction and operational noise and vibration impacts on nearby sensitive receivers and outline the proposed management and mitigation measures that would be implemented.

17. Ground conditions

The EIS must demonstrate that the proposed development can be accommodated on the site, having regard to any geotechnical and acid sulphate soil impacts and sediment and erosion controls.

18. Earthworks

The EIS must include:

- a detailed survey showing existing and proposed levels, maximum depth of excavation, and proposed quantities of cut and fill necessary for the proposed works
- details of the fill, including types and materials and their source
- details of the location for the disposal of excess cut and the methodology of transportation to this location
- a geotechnical report.

19. Biodiversity

The EIS must assess any biodiversity impacts associated with the proposal in accordance with the *Biodiversity Conservation Act 2016* and the Biodiversity Assessment Method 2020, including the preparation of a Biodiversity Development Assessment Report, unless a waiver is granted **and undertake all applicable offset certifications and obligations.**

Removal of species and vegetation only as per approval and necessary tree protection measures to be applied.

20. Waste and servicing

The EIS must:

- identify, quantify and classify the likely waste to be generated during construction and operation
- describe measures to be implemented to minimise, reuse, recycle and safely dispose of this waste
- identify appropriate servicing arrangements.

21. Staging

If relevant, the EIS must provide details regarding the staging of the proposed development.

22. Social housing

The EIS must:

- detail the integration and mix of private and social housing
- outline the intended operation of the social housing by community housing provider/s.

23. Infrastructure and Utilities

The EIS must consider and address:

- the existing capacity of the site to service the proposed development
- required utility augmentation to accommodate the proposed development

- any requirements of the Infrastructure SEPP in relation to development on or adjacent to utilities and infrastructure.

24, Public Infrastructure including Roads, Road Bridge, Street lights

The EIS must consider and address the following:

- The proposed design for the new infrastructure along the main road must include a detailed engineering design. These plans shall include plan view, sections with new proposed and finished design surface levels, drainage pits configurations, kerb returns, proposed signage and line marking, and other relevant details for the new works. The drawings shall also demonstrate the smooth connection of the proposed works into the remaining street scape.
- The applicant should reconsider designing the proposed longitudinal and the cross sections of the main road in accordance with Council requirements. The maximum longitudinal crossfall must be less than 7.14% and cross section 2.5% crossfall. It is noted from the approved plans for stage 1 that road 1 longitudinal crossfall is more than 12.52% in some parts as per the approved plans number 300001(1)-DA-103.
- As per the approved SSD8707 (condition A26), stage 2 of the development cannot be occupied until the new road link is completed and operational. As such, the applicant must consider redesigning the proposed width of the proposed Main Road on the eastern side of the bridge so that it is increased to 14m instead of 10.5m. This section of the road should be widened to match with the width of the bridge. This arrangement does not comply with the City of Ryde Development Control Plan DCP 2014 Part 4.5 *Macquarie Park Corridor*, and the City of Ryde *Public Domain Technical Manual* (PDTM) Section 6 – *Macquarie Park Corridor*.
- The proposed portion of main road (eastern side of the bridge) is 10.5m will result in high-risk safety situations to the road users and public. The applicant must submit a detail safety auditing report to justify this item.
- The applicant shall provide detailed design plans with all the supporting documents for the road bridge as part of stage 2 submission. These plans must be prepared by chartered structural engineer (registered on the NER of Engineer Australia). The details plans shall include all the items from a-g under the approved condition B103 for stage 1 approved under SSD8903. As a minimum requirement, the bridge shall be designed for tT44 truck load, one truck load is applied per lane.
- The relocation/adjustment /installation of all public utility services affected by the proposed works shall be clearly indicated in the civil plans for stage 2.
- A detailed design for the Street lighting shall be provided and shown on the civil plans along the main road and pedestrian links in accordance with the City of Ryde *Public Domain Technical Manual* Section 6 – *Macquarie Park Corridor*. Reference shall also be made to Council's *Street Lighting Schema for Macquarie Park* and *Design Guide for Council-owned Street Lighting*, design template and checklist.
- A detailed design plans for all telecommunication and utility services are to be submitted as part of stage 2 documentations. These plans must include underground beneath the new road servicing the proposed bridge.

	<ul style="list-style-type: none"> - - According to Section 3.3 Access Network – <i>Cycleway Strategy</i> of the City of Ryde <i>Public Domain Technical Manual</i> - Section 6 <i>Macquarie Park Corridor</i>, the bicycle network is to be implemented as off-street shared cycleway along Regional Bicycle Route in Epping Road and Shrimpton's creek pathways. Cycleways are to be located, as per approved concept plan from Council's Traffic Transport and Development Department adjacent to the property, to minimise conflict with street trees, lighting, signage and other public domain elements. The Local Bicycle Network is to be implemented as off-street shared cycleway in accordance with the <i>Ryde Bicycle Strategy 2014</i> (refer also to Figure 4.3.1 <i>Indicative Cycleways</i> of the DCP 2014 Part 4.5 <i>Macquarie Park Corridor</i>). This requirement must be shown on the civil plans submission for stage 2. - As part of stage 2 civil design plans, the Applicant shall submit Autoturn simulation showing the ingress and egress from Herring road and Lyon park to the main road. The Autoturn shall be shown in scale 1:100 and must demonstrate that there are sufficient turning areas for 19AV and 12.5m HRV trucks to ingress and egress from the development site. The layout of the kerb and gutter alignment with all required dimensions and radius in front of proposed new main road shall be provided. - The applicant shall provide details plans of the proposed bus stops and provide illuminated bus shelters to meet <i>Disability Discrimination Act</i> and <i>Disability Standards for Accessible Public Transport 2002</i>. <p>Any proposed retaining wall must also be shown in the civil plans and must be in accordance with Council's specification and requirements of a detailed geotechnical report. The design details must be included in stage 2 civil plans</p> <p>25. Subdivision</p> <p>The EIS must:</p> <ul style="list-style-type: none"> - outline subdivision, access and driveway locations - outline consistency with the concept development application - wherever the proposed lot falls to a neighbouring lot, nominate the configuration of drainage easements aligned with the fall of the land so as to permit the natural conveyance of water by gravity to a legal discharge point. - details any covenants, easements or notations proposed to ensure appropriate access is provided to each service provider to enable the on-going maintenance of their assets - details any covenants, easements or notations proposed to enable public access to the public domain areas.
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams, lists, certificates and any other documentation required under Schedule 1 of the Regulation. In particular, the EIS must include a detailed schedule and plans showing proposed gross floor area and floor space ratio, and a report demonstrating compliance with relevant requirements of the Building Code of Australia.</p> <p>If the Department identifies any other document required to be included in the EIS before the DA is lodged, those documents must also be included in the EIS.</p>

Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, utility providers, community groups and affected landowners, as identified in any meeting with the Department before the DA is lodged.</p> <p>The EIS must describe the consultation process, the issues raised during consultation, and how the proposal addresses those issues. Where amendments have not been made to address an issue, a succinct explanation should be provided.</p>
Further consultation after 2 years	<p>If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS.</p>