

PRE-LODGEMENT NOTES – PL-2019/182

17-Dec-2019

Property:	Thirroul Plaza, 282-298 Lawrence Hargrave Drive, THIRROUL NSW 2515 Lot 103 DP 706867	
Proposal:	Mixed Use Development	
Attendees:	<i>Council:</i>	Jessica Saunders – Development Project Officer Will Sale – Development Engineering Officer John Madry – Landscape Officer
	<i>Proponent:</i>	Mark Rigoni – Indesco Stephen Weatherby – Indesco Anthony Barthelmess – Rienco Consulting Alex Scionti – Thirroul Plaza Development Jim Apostolou – AB Works
	<i>Apologies</i>	John Wood – City Wide Planning Manager

Proposal/Project Overview:	The prelodgement meeting was requested following review of the PL-2019/86 meeting notes and further development of the design. Specifically, further advice regarding the stormwater and flooding treatment, and deep soil zone is sought.
Meeting Outcomes Summary:	<p>Council is generally supportive of the proposed redevelopment of the site.</p> <p>The below notes should be read as supplementary to those provided following PL-2019/86, relating primarily to the flood affectation of the site, stormwater treatment, and the provision of a deep soil zone area. The notes should also be read in conjunction with the Design Review Panel information provided following the DRP meeting of 30 July 2019.</p> <p>In this regard, whilst the design presented appeared feasible from a stormwater and flooding design perspective, it would not provide for any areas of deep soil zone. It is recommended that the design be further revised to include areas of deep soil and opportunities for additional landscaping.</p> <p>Given the expected cost of the development, it is likely that the proposal would require assessment by Wollongong City Council, but determination by the Southern Regional Planning Panel (SRPP).</p>

Main Issues:

- Stormwater
- Deep Soil Planting

Planning:

Relevant Environmental Planning Instruments

The provisions of all relevant Environmental Planning Instruments and Development Control Plan(s) must be addressed within the Statement of Environmental Effects (SEE).

The relevant Environmental Planning Instruments and Development Control Plans are:

- SEPP (State and Regional Development) 2011
- SEPP (Infrastructure) 2007
- SEPP No. 55 – Remediation of Land
- SEPP No. 64 – Advertising and Signage
- SEPP No. 65 – Design Quality of Residential Apartment Development
- SEPP (Coastal Management) 2018
- SEPP (Building Sustainability Index: BASIX) 2004
- Wollongong Local Environmental Plan (WLEP) 2009
- Wollongong Development Control Plan (WDCP) 2009
- Wollongong City-Wide Development Contributions Plan 2019

With regard to the proposed location of the deep soil zone, the following comments are provided:

Apartment Design Guide

The Apartment Design Guide provides a number of diagrams with regard to how deep soil zones are to be considered, notably the cross section provided at figure 3A.5 and 3E.1, extracted below. The diagrams provided indicate that deep soil zones are not to have any infrastructure beneath them.

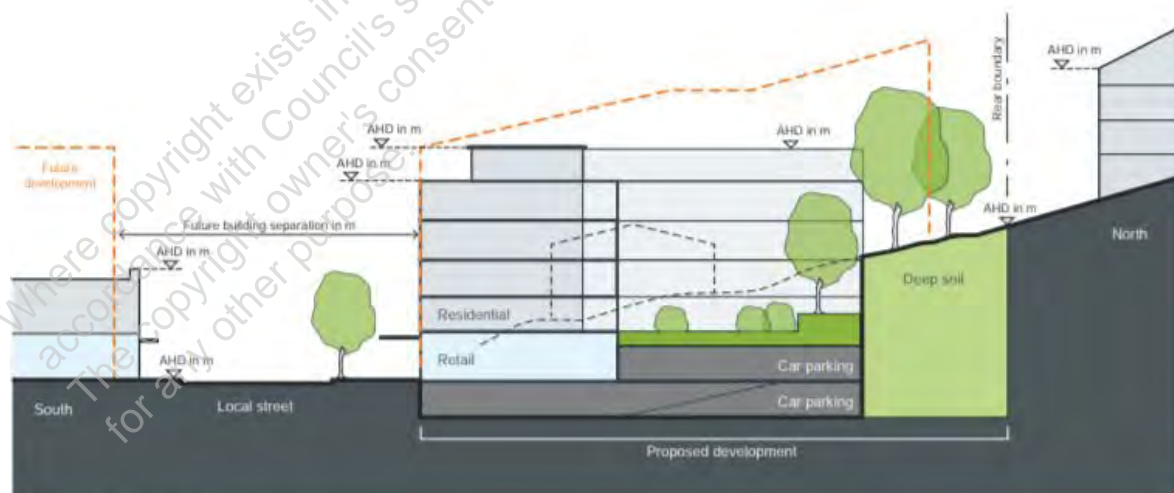


Figure 3A.5 Cross section

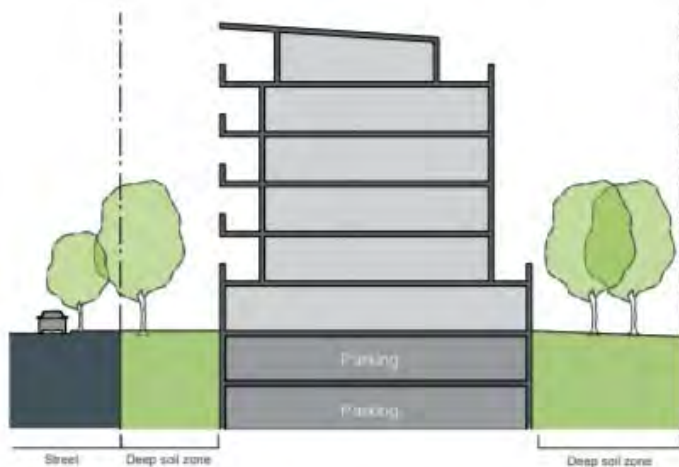


Figure 3E.1 Opportunities for deep soil zones are increased when parking levels are contained within the building footprint

Part 3E also provides objectives and design criteria for deep soil zones specifically.

For a site with an area in excess of 1500sqm, Objective 3E-1 requires deep soil zones to have a minimum dimension of 6m, and a total area of 7% of the site is to be provided as deep soil zone.

The design guidance in this regard also refer to locating the deep soil areas to retaining existing vegetation.

The submitted schematic flood storage plan provided with the PL request indicates that the deep soil zone is proposed with dimensions of 4m wide x 1.2m deep. This design would not be considered to satisfy part 3E of the ADG. This area could be considered part of the overall landscaped area for the site, but would not be considered deep soil zone.

The ADG also defines deep soil zone as per the following:

Deep soil zone area of soil within a development that are unimpeded by buildings or structures above and below ground and have a minimum dimension of 6m. Deep soil zones exclude basement car parks, services, swimming pools, tennis courts and impervious surfaces including car parks, driveways and roof areas

It is not considered that the area shown would satisfy this definition.

Design Review Panel

The comments from the DRP meeting held on the 30 July included reference to the deep soil zone, as per the below:

The DSZ (deep soil zone) at the western edge adjoining the rail corridor seems a logical location for this. The requirement for this to remain permeable and have no structures within it must be demonstrated. Initial concerns include the resolution of the courtyard walls to avoid intrusive footings, the diversion of the stormwater mains through this zone (and its negative impact on meaningful tree planting), the ability to prevent the future residents from paving over this area.

The design presented would not be considered to be consistent with the DRP comments provided.

Wollongong Development Control Plan 2009

Deep soil is defined within the WDCP 2009 as per the following:

Deep Soil Zone: Refers to an area of the site that is not to be built upon, or underneath, thereby leaving an area of deep, soft soil for substantial deep-rooted vegetation, natural vegetation and

natural drainage. This area may be included in private open space but is not included in the minimum private open space area calculations

It is not considered that the area shown would satisfy this definition.

An alternate design which provides for additional areas for deep soil planting should be explored.

Additional comments:

- The design presented would include significant excavation in close proximity to the boundary with Sydney Trains land. Ongoing discussion with Sydney Trains regarding the design is recommended.
- Works are indicated within the area of Lot 102 DP 706867. Owners consent would therefore be required from Councils property department, and that lot would be required to form part of the development application. Clarification as to the works on this lot proposed as part of the development application (i.e. whether the drainage works could occur without demolishing the existing building or whether it would be required as part of the development) should be provided.

Stormwater/Flooding:

Stormwater:

- On site detention is required where the increase in impervious area as a result of the development is greater than 100m² {it is noted the site falls within an OSD concession zone however flows are not directed to receiving waters prior to being conveyed through intervening property as per 12.1.2 (i)}. The development will need to be designed to comply Chapter E14 (Stormwater Management) of the Wollongong Development Control Plan (DCP) 2009. A Stormwater Concept Plan will need to be prepared by a suitably qualified civil engineer in accordance with Chapter E14 and submitted with the development application.
- Pump systems only to include driveways falling in, subsoil drainage and vehicle drop water as per 11.3.11 of Chapter E14
- Discharge to the street from the site must be via gravity.
- The development must be designed to accept and cater for upslope runoff as per section 11.3.17 of Chapter E14. Details of the upslope catchment must be provided.
- The landscape and stormwater plans for the development will need to be compatible. Stormwater lines must not interact with existing or proposed trees, including where proposed easements will be provided.
- Details of retaining walls must be provided including top of wall levels, bottom of wall levels and locations.
- Generally, encroachment of any of the building structure over common stormwater lines or easements is contrary to section 11.4 of Chapter E14, however given that there is an existing encroachment over the stormwater line and that it is an asset in private ownership it is considered appropriate to build over subject to the upgrade of the stormwater infrastructure, 100 year design life, appropriate maintenance access and maintaining hydraulic performance
- The DP for the site and Councils records indicate that there are multiple piped watercourses within the site. The location of the existing piped watercourse will to be impacted by the proposed basement. The design of the development must ensure the sites ability to allow flows to enter and exit the site replicating the existing distribution of flows. Hydraulic modelling and detailed stormwater design must be undertaken for the development by a suitably qualified civil engineer. The hydraulic stormwater analysis (DRAINS or similar) of the piped system will need to be undertaken for all storm events (1 through 100 year).

- Survey details (including depth, location, alignment, invert levels, surface levels, capacity/size, etc) must be provided for all stormwater infrastructure from upslope of the railway line to sufficiently downstream to allow accurate modelling of the drainage network.

Flooding

- Councils records indicated that the site is flood risk precinct under review and was previously medium flood risk.
 - Development on the site is subject to the controls in Chapters E13 (Floodplain Management) and E14 (Stormwater Management) of the Wollongong Development Control Plan (WDCP) 2009.
 - An independent detailed survey plan of the site and frontage prepared by a registered surveyor to Australian Height Datum (AHD), including lot boundaries, contours/spot levels, easements, services, roads, watercourse channel and top and bottom of bank, etc. will need to be submitted with the development application.
 - Flood information can be obtained via Council's Flood Level Information Request Form found on Council's website www.wollongong.nsw.gov.au or via Council's online services at a cost of approximately \$85.00.
 - A 2D flood study shall be provided for the subject development. The flood study shall be prepared by a suitably qualified civil engineer, strictly in accordance with Chapters E13 and E14 of the Wollongong DCP2009. The purpose of the flood study is to determine flood levels and flood risk precincts applicable to the development/site and to demonstrate that the proposal meets all of the requirements schedule 2 of Chapter E13 of the Wollongong DCP2009 for the development types. Based on the proposed encroachment within the flood extent the flood study will need to include pre and post development flood modelling to demonstrate no detrimental external impacts as a result of the development.
 - Flood modelling must be undertaken in accordance with Councils current Blockage policy
 - Flood modelling must consider surcharge flows from the stormwater system within the site in the event of blockage or overload in the existing scenario (i.e. pre development)
 - The key flooding items are floor levels, impacts, evacuation and basement entry levels
 - With respect to floor level requirements for 'Shops', where practical (i.e./ appropriate offset from the street to achieve, etc) floor levels must be in accordance with the minimum habitable floor level requirements. Where floor levels for 'shops' are below the minimum habitable floor level, more than 30% pf the floor area must be above the minimum habitable floor level or the premise is to be flood proofed below the design floor level (Part 5 of Chapter E13 - Schedule 2).
- Should flood proofing be proposed, details of the flood proofing system to ensure no ingress of flood waters must be provided.**
- **With respect to the above, all future uses for the development must be considered when proposing floor levels as floor levels below the minimum habitable floor level are only considered appropriate for 'shops'. Any other future use would require floor levels that comply with the minimum habitable floor level which may result in future works or issues with access to the development.**
 - Filling in the floodplain is to be undertaken in accordance with the requirements of note (b) of Schedule 2 as the site is East of the railway line and within the Hewitts Creek Catchment
 - Modifications to the watercourse are generally not supported as per section 10.3.17 of Chapter E14. Loss of development potential is not considered justification for modification. The application will need to demonstrate compliance with the objectives and performance criteria of Chapter E13.
 - Comments with respect to the proposed plans and flood acceptance method are as follows:

- Appears works may be required on Sydney Trains land to allow stormwater works to be undertaken, this needs to be confirmed on plans and where required owners consent provided. Notwithstanding, Sydney Trains will likely receive a referral for the development, so it is recommended that initial correspondence be undertaken with them prior to lodging a DA
- Based on the width of the proposed flood acceptance tank and arrangement of the stormwater lines entering at 90 degrees it needs to be demonstrate that there is an appropriate offset from the outlet to the wall to ensure hydraulic function, structural integrity/force is considered, etc. This must be demonstrated with any DA for the development.
- Hydraulic stormwater modelling (DRAINS or similar) must be undertaken to demonstrate existing flow distribution/flow rates are replicated in all storm events (1 through to 100 year)
- Confirmation of all existing stormwater infrastructure must be provided including Survey details (including depth, location, alignment, invert levels, surface levels, capacity/size, etc.)
- Appropriate losses need to be considered where modifications are proposed to stormwater alignment and must be included in hydraulic stormwater modelling
- Works appear to be required outside the development lot (on lot Lot 102 DP 706867) to decommission and reinstate the stormwater line. Owners consent would be required for the works.
- The development must demonstrate maintenance is able to be achieved, appropriate access is provided/achievable for maintenance, details of the proposed maintenance method and limiting access for public safety to all proposed stormwater/flooding infrastructure proposed
- Based on the proposed cross section of the upslope catchment acceptance method it must be demonstrated that the width of the grate is sufficient to allow flows to enter the grate taking into consideration (maximum velocity, drop height, width, blockage, projected dropping water profile, etc)
- The proposed grated inlet structure must consider appropriate blockage factors

Contact Details: The applicant's Consulting Engineer may contact Council's Stormwater Engineer through Council's Customer Service Centre on the telephone number (02) 4227 7111 if any issues arise through the design phase prior to the lodgement of the development application.

Landscaping:

It is Councils Landscape Officers opinion that if a flood storage area or OSD is to be sited along western boundary adjoining Illawarra Railway, this area would cease being a deep soil zone. This area would rather be a planter box on structure.

For an area to be considered as 'deep soil zone', the applicant would need to demonstrate an intent to achieve the objectives of the controls relating to deep soil zone areas.

The following matters should be considered in the development of the landscaping design:

- The 1.2m depth proposed is an absolute minimum for podium planting to be considered as landscaped area. A depth of 1800mm would be more appropriate for a deep soil area, with depths of 5-6m+ to enable larger trees to become established.
- The base of the planter box must be screeded away from building. The design should reflect this.
- All podium planting areas are to have a waterproofing membrane that can provide a minimum 10 year warranty on product. Most importantly protective boarding is to be installed to protect membrane from damage such as 7.5mm hardieplank or equivalent.

- All podium planting areas are to be provided with an adequate drainage system connected to the stormwater drainage system. The planter box is to be backfilled with free draining planter box soil mix.
- If selected mulch is decorative pebbles/gravel, the maximum gravel pebble size is 10mm diameter.
- Large and small trees, shrubs and groundcovers to be installed.
- The applicant should consider establishing "Green Walls" along the western boundary to better achieve landscaped area objectives and provide a softer treatment of the development. With limited existing open space, consideration should be given to incorporating 'green walls' with the use of trellis and climbing plants trained over to make use of bare vertical walls and fencing along western boundary;
- Suggested species could be: trachelospermum jasminoides, vinca major, chlorophytum comosum, plectanthus parviflorus and Grevillea curviloba and substituted with Cayratia clematidea slender grape vine, Eustrephus latifolius Wombat berry, Geitonoplesium cymosum Scrambling lily, Legnephora moorei Roundleaf vine, Marsdenia rostrata Common milk vine, Pandorea pandorana var. pandorana Wonga Wonga vine and Plectranthus parviflorus. There has been much development in this area over recent years.
- Consideration should also be given to the long term maintenance of this area and mechanical access.
- Grating system would need to be trafficable for expected loadings.

Ensuring equal access to the site and streetscape with complying cross falls remains the primary objectives of Councils Landscaping Officers, and should remain a high priority in the design process.

Please note: If construction cost estimate is known you may obtain a lodgement fee quote by contacting Council's Customer Service Centre on the telephone number (02) 4227 7111

WHAT INFORMATION IS NEEDED WITH A DEVELOPMENT APPLICATION?

In order for Council to conduct a proper and informed assessment of your application, the following information must be submitted.

- Owner's Consent
- Survey Plan
- Site Context Analysis Plan
- Demolition Plan and Photographs
- BASIX assessment/certificate
- Statement of Environmental Effects
- Design verification statement
- ADG assessment
- Site Plan
- Floor Plans
- GFA diagram
- Building Elevations Plans
- Building Sections Plan(s)
- Shadow Profiles and Plans
- Schedule of External Finishes
- Photo Montages/Perspectives
- Streetscape Sketch
- Visual Impact Assessment
- Geotechnical Report
- Structural Engineers advice
- Flood Impact Report/Study
- Stormwater Concept Plan

- Contamination Report
- Acid Sulfate Soils Report
- Traffic Impact Assessment (TIA)
- Plan of On-Site Traffic Movement/Parking/Loading
- Maneuvering Plans
- Plans of any offsite road upgrade requirements as recommended by TIA
- Heritage Impact Statement
- Landscape Concept Plan
- Arborist Report
- Electricity supply due diligence letter
- Acoustic Report and design provisions
- Disabled Access Design Provisions
- Site Management Plan/Staging Plan
- Construction Management Plan
- Waste Management Plan
- Economic Impact Assessment
- Water Sensitive Urban Design Report
- Integrated Development submission requirements

OUR AGREEMENT:

This pre-lodgement information does not constitute an approval.

This meeting note represents an agreement for the submission of information considered necessary for the timely determination of an application.

The notes are provided in good faith to assist applicants in the preparation of a development application. Relevant legislation and Council's requirements can vary from the time of this meeting to lodgement of the application. Public exhibition of the application can also raise unexpected relevant issues requiring lodgement of new or amended information.

Accordingly Council's final position on the proposal can only be made once a development application has been lodged and assessed.

Senior Development Project Officer: Jessica Saunders

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