

15 October 2020

2200026

Nicholas Gunn
Planner
School Infrastructure Assessments
NSW Department of Planning, Industry and Environment
320 Pitt Street, Sydney NSW 2000

Dear Nicholas,

**RE: REQUEST FOR ADDITIONAL INFORMATION – 2 OCTOBER 2020
DARLINGTON PUBLIC SCHOOL REDEVELOPMENT (SSD-9914)**

1.0 Introduction

This letter has been prepared by Ethos Urban on behalf of School Infrastructure NSW (SINSW), the proponent for redevelopment of Darlington Public School under SSD-9914, in response to the request for additional information made by the NSW Department of Planning, Industry and Environment (DPIE) on 2 October 2020. The response relates to the following issues that were raised by DPIE:

1. Tree retention and removal
2. Location of proposed contamination containment cells

The proponent and design team met with DPIE on 8 October to discuss the specifics of the request. This letter considers both the letter of request and the discussions had in the meeting. The letter is accompanied by:

- Meeting Minutes prepared by Mace (**Attachment A**)
- Statement of Design Interventions to Maximise Tree Retention prepared by FJMT (**Attachment B**)
- Tree Retention Study prepared by FJMT and Moore Trees (**Attachment C**)
- Existing Tree Location Plan prepared by FJMT (**Attachment D**)
- Amended Landscape Plans prepared by FJMT (**Attachment E**)
- Amended Tree Canopy Plan prepared by FJMT (**Attachment F**)
- Section Drawings prepared by FJMT (**Attachment G**)
- Tree Remediation Contamination Statement prepared by Douglas Partners (**Attachment H**).

A response to each issue raised by DPIE is provided in the following sections of this letter. In response to the RFI, the proposed landscape design has been amended as follows:

- Tree 17 (Illawarra Flame Tree) and Tree 19 (Bangalow Palm), which were previously to be removed, are now to be retained
- Tree 10 and Tree 11 (River She-Oaks), which were previously to be removed, are now to be retained if possible, subject to further assessment
- 10 mature trees are to be planted in lieu of younger specimens as previously proposed, to increase canopy coverage upon completion of the school redevelopment.

Amended landscape plans reflected the revised design are provided at **Attachment E**.

2.0 Tree retention and removal

The proposed design of the new school has sought to balance many design considerations, including technical constraints and opportunities, good urban design principles, environmental impacts and the facilities needed to meet the practical needs of the school community. To ensure a high-quality outcome for the school redevelopment and support the large population growth in the local area, the interdisciplinary project team have considered these many considerations to ensure a balanced outcome that minimises tree removal as much as possible. The total avoidance of tree impacts is not possible, however SINSW has undertaken a detailed review of the landscape strategy and submit the following additional information to DPIE to better articulate and justify the proposed tree removal and retention (**Attachment C**). In addition, a statement of design interventions made to retain certain trees has been prepared by FJMT and is provided at **Attachment B**. A discussion of the key design considerations and how they relate to tree removal is provided in the following sections.

2.1 Building massing and location

The proposed massing and location of the new school building was developed by FJMT through consultation with the NSW Government Architect (GANSW) via the State Design Review Panel process. This process has resulted in several design iterations, each time seeking to improve the outcome for a high capacity urban school that is on a relatively constrained site.

Accordingly, the location of the building along the western edge of the site was supported by the GANSW in August 2019 as it would provide a better relationship with the public domain and surrounding community, allow for several functions to accommodate the slope along Golden Grove Street, allow staged construction which will allow the school to remain open during construction, and provide a large area within the site for open space.

Part of this strategy results in the childcare centre being located in the northern portion of the building so continuous childcare is offered at this school (and is why the temporary childcare DA has been submitted to Council). The childcare has minimum open space requirements which have been accommodated by the design but constrain the landscape strategy to an extent.

2.2 Education Facilities Standards Guidelines brief requirements

Schools in NSW are expected to adhere to the Education Facilities Standards Guidelines (EFSG), to ensure NSW schools deliver infrastructure, facilities, outdoor facilities etc, to a consistent standard across the State. The full-size multi-sports court is one of the requirements for this school to meet the EFSG. An EFSG compliant multi-sports court has been identified as a required component of the business case agreement between the NSW Department of Education and NSW Treasury for Darlington Public School.

Sports courts are an important element of the outdoor facilities and allow hard surface, active play, which aids in children's motor function skills and physical development that cannot otherwise be met in smaller softscape environments. Accordingly, the multi-sports court has been a key consideration in the landscape design. Due to the school building being located in the arrangement approved by GANSW, the multi-sports court has limited options for its location.

2.3 Stormwater and accessibility

In addition to the above, site grading considerations were taken into account during the integrated architectural and landscape design of the school, to achieve accessibility requirements and stormwater conveyance in light of the existing slope at the site.

2.4 Impacts on trees

In accommodating the above design considerations to ensure an appropriate outcome for the redevelopment, many trees have been retained across the site and some existing trees are required to be removed. Trees that are proposed to be removed have incursions into their tree protection zone/structural root zone due to the building footprint, sports court, landscape design, and/or accessibility requirements.

In order to ensure that as many trees as possible can be retained, a review of the current design has been carried out by FJMT Landscape and in consultation with the project Arborist. The review has identified that the landscape design can be amended in a way which enables an additional 2-4 trees to be retained, or has provided further detail to assist DPIE with understanding why certain trees are required to be removed. As part of the review, the following changes are proposed to the landscape design:

- Tree 17 (Illawarra Flame Tree) and Tree 19 (Bangalow Palm), which were previously to be removed, are now to be retained
- Tree 10 and Tree 11 (River She-Oaks), which were previously to be removed, are now to be retained if possible, subject to further assessment
- 10 mature trees are to be planted in lieu of younger specimens as previously proposed, to increase canopy coverage upon completion of the school redevelopment.

A full investigation and comment regarding each individual tree on site is provided at **Attachment C**. Amended Landscape Plans are also provided at **Attachment E**.

2.5 Specific tree investigations requested by DPIE

Following the meeting held on 8 October 2020, DPIE provided additional comments relating to specific trees. A response to each of these comments is provided in **Table 1** below. Also refer to **Attachment C** for detail.

Table 1 Response to additional comments provided by DPIE after 8 October 2020 meeting

DPIE Comment	Response
<i>Trees 10 & 11 (River she oaks) – whether these could be retained along with tree 12 (currently proposed for retention), given their location, significance, health etc.</i>	Tree 10 and Tree 11 are located on the edge of a brick retaining wall and pavement which are to be removed in the proposed design. The team has concern over the stability of the trees once the wall is removed. Tree 10 and Tree 11 could potentially be retained they can be accommodated in the garden. As such, these trees are proposed to be retained if possible, subject to further investigation.
<i>Boardwalk – whether non-slip materials are available which could cover it (in case leaves / needles are considered a slip hazard)</i>	The ramp has been designed to be compliant with a slip rating of R11. The primary concern is that an additional slip rating would not provide much assistance since the needles will form a layer over the ramp's surface and continue to create a slip hazard.
<i>Tree 9 (River she-oak) – whether scope exists to move the board walk very slightly to allow retention</i>	Tree 9 is located in the path of the new accessible entry pathway. The length of the path is critical as it delivers the compliant grades for wheelchair access. A number of options were tested to locate the accessible path. The current alignment represents the shortest, most direct route, with the boardwalk crossing the TPZ of trees to be retained. The project team tested moving the boardwalk but it either moved too close to the nature play area, creating a low narrow and unusable space, or created an overly circuitous connection.
<i>Tree 48 – whether the stairs could be moved to allow retention</i>	The central stair cannot be relocated to avoid this tree. The tree has a large TPZ. Moving the stair 9m-10m north to reduce impacts to the tree would result in non-compliant egress distances. The stair cannot be moved south of the library as it would impede access to the library and sight lines from the COLA, and result in non-compliant egress distances. Further, the removal of Tree 47 due to the building footprint will impact Tree 48's ongoing viability.
<i>Trees 1 & 2 – whether changes to the pedestrian entrance might allow for retention.</i>	These trees are proposed to be removed due to changes to existing levels to meet overland flow requirements due to existing flooding on site and the provision of a new accessible pedestrian entry and vehicular entry including emergency vehicle access. To retain these paperbark trees, a new raised planter would be required due to the change in level (approx. 500+mm). In accordance with the Arborist requirements, the size of the planter is to align with the tree's TPZ. The combined TPZ will protrude into the new footpath zone and is the full width of the entry way (refer diagram).

	<p>The accessible entry could not be relocated to the east of the required planter since the footpath levels become lower, resulting in a non-compliant pathway. Additionally, the accessible entry could not be relocated to the west of the required planter as the planter would block the connection to the 1:20 graded pathways.</p> <p>Therefore, it is not feasible to retain Trees 1 and 2.</p>
<p><i>Kickabout area – whether trees can exist within it. Alternatively, consideration of shape changes to the area would be supported to allow for tree 5 to be retained.</i></p>	<p>Tree 5 was recommended for removal to create an open run around area as requested by the school leadership. Due to changes to existing levels to create a level surface Astroturf kick about zone, retention would mean that a raised planter bed would be required.</p> <p>It is the proponent and design team’s preference to maintain the run around area, however if deemed necessary this tree could be retained and the play space reduced.</p> <p>It should be noted that the NSW Department of Education requires 10sqm of recreational play space per student, therefore any reduction is not preferred since the play space as proposed is currently on the cusp of 10sqm per student.</p>
<p><i>Trees 7 & 8 – we didn’t quite get to these, but I note they were marked for discussion on your presentation and they are located in a proposed informal garden area. It would be good to understand if the possibility exists to retain these also</i></p>	<p>Changes to levels to create new accessible entry path, as well as grading to deliver the overall overland flowpath, result in 2m difference in height between the adjacent COLA and the existing soil level for Tree 7 and Tree 8.</p> <p>If Trees 7 and 8 were to be retained, a retaining wall to retain 2m of soil would be required and the trees would be approximately 2m below the COLA level and 1m below the eastern foot path level.</p> <p>Retention is not recommended due to the extreme level differences.</p>

DPIE also requested that section drawings be provided to assist with understanding the impact of level changes to existing trees. These section drawings are provided at **Attachment G**.

2.6 Tree canopy

An amended tree canopy plan is provided at **Attachment F**. The plan indicates that at maturity, the canopy coverage will be 62% of the total site area, compared to the existing site condition of 60% coverage. The retention of additional trees results in a marginal improvement in tree canopy coverage compared with the previously proposal. In addition, by planting some mature specimens as part of the school redevelopment, canopy coverage will be improved at the time of completion of the works, increasing canopy coverage in the interim period when the new trees are growing to maturity.

3.0 Location of containment cells

Due to the extent and depth of contaminated fill, the proposed remediation strategy is to cap the entire site. New landscape elements will be installed over the contaminated material once it has been contained/separated. Therefore, localised containment cells are not expected to be required.

Existing mature trees that will remain on site will need to be remediated in accordance with the RAP, with either testing to confirm clean fill, or implementing physical barriers such as boardwalks or 500mm depth of mulch. Noting that the capping layer is required to be 500mm in soft landscape areas, it would be reasonable to locally deepen the cap ‘as required’ to accommodate the detailed excavation for mature trees. The excavation for trees would be created and lined with geofabric, before clean material introduced for tree planting. Refer to **Attachment H** for further detail.

4.0 Conclusion

The proponent and project team have provided a considered and detailed response to the issues raised in the request for further information and subsequent meeting. The landscape design has been amended to retain additional trees wherever possible and feasible.

We trust that this information is sufficient to enable a prompt assessment of the proposed development. Should you have any queries about this matter, please do not hesitate to contact me on 9956 6962 or jdwyer@ethosurban.com.

Yours sincerely,



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