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Senders ref: SSD 9249 Mod 6 and SSD 9835 Mod 7

Ferdinando Macri  
Planning Officer  
Social and Infrastructure Assessments  
Planning and Assessment Group  
Department of Planning, Industry  
and Environment  
Locked Bag 5022  
PARRAMATTA NSW 2124

Dear Mr Macri

**Subject:** Exhibition – Football Stadium Concept Proposal – Modification 6 – Inclusion of Precinct Village and Carpark Envelope (SSD 9249 Mod 6) and Sydney Football Stadium Stage 2 (design and construction) – Modification 7 – Precinct Village and Carpark (SSD 9835 Mod 7)

Thank you for your emails received 26 October 2021 requesting comments on the above proposals.

Environment, Energy and Science Group (EES) has reviewed the documents provided. Regarding biodiversity impacts, inadequate information has been provided to consider the ecological significance of the impacts of the modifications which involve removing additional native trees.

EES has reviewed the potential flooding aspects of the proposed modification and found that some of the documentation appears to be inconsistent. Additionally, consideration needs to be provided for the potential on and offsite flood impacts which may arise because of the proposed modifications.

Detailed EES comments and recommendations regarding flooding and biodiversity are at **Attachment 1**.

If you have any queries please contact David Way, Senior Project Officer Planning via [David.Way@planning.nsw.gov.au](mailto:David.Way@planning.nsw.gov.au) or 02 8275 1324.

Yours sincerely

18/11/21

Susan Harrison

**Senior Team Leader Planning**  
**Greater Sydney Branch**  
**Biodiversity and Conservation**

**Attachment 1:** Football Stadium Concept Proposal – Modification 6 – Inclusion of Precinct Village and Carpark Envelope (SSD 9249 Mod 6) and Sydney Football Stadium Stage 2 (design and construction) – Modification 7 – Precinct Village and Carpark (SSD 9835 Mod 7)

## **Biodiversity**

The section 7.17(2) of *Biodiversity Conservation Act 2016* (BC Act) requires a biodiversity development assessment report (BDAR) to be submitted with application to modify a development consent, unless the authority or person determining the application for modification is satisfied that the modification will not increase the impact on biodiversity values. Any proposed changes that would result in direct, indirect or prescribed impacts on biodiversity values not assessed in the original approval, are considered to constitute an increase in impacts

EES notes that the proposed modifications will result in the removal of 39 additional trees, which may constitute an increase in biodiversity impacts.

The applicant has provided the *Arboricultural Impact Assessment Sydney Football Stadium Village Precinct & Carpark arborist report*, dated 6 September 2021, which stated that of the 39 trees to be removed, one was identified as “Priority for Retention” with seven trees identified as “Consider for Retention”.

Importantly, the *Arboricultural Impact Assessment* stated that this assessment did not consider “[t]he ecological significance and habitat value of the trees has not been assessed and is beyond the scope of this report”.

EES recommends that a consideration of the ecological significance, including habitat value, of all the trees identified for removal be conducted to support any decision on whether an increase in biodiversity impacts, as defined by the BC Act, is likely to occur thereby requiring the preparation of a BDAR.

## **Flood Risk Management**

### *Flood Modelling*

The flood model does not appear to be consistent with the architectural drawings. The drawings show a set of stairs connecting to Moore Park Road, adjacent to the proposed north-south road. These stairs would significantly impact flood behaviour and notably, this could exacerbate some of the concerns below.

### *Flood Risk to the Development*

EES raises concerns around the introduction of highly hazardous conditions on the proposed new road. EES advises against the creation of a new road with an H5 hazard category in the 1% annual exceedance probability (AEP) flood in an area of minimal flood hazard under existing conditions. EES notes that in a probable maximum flood (PMF), the hazard would be greater, and that PMF hazard categorisation should be mapped.

It would not be unreasonable to contain hazardous flows to the proposed central flow path within the road. However, the modelling results do not demonstrate that this is achievable. In the proposed design, flows are concentrated at the northern boundary, worsening flood hazard.

Further design work is recommended to ensure the safety of future road users. Otherwise, the proposal may result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures. A similar issue is present along the Moore Park Road frontage, where very high flood depths (deeper than one metre) are predicted under proposed conditions.

A design should be developed to demonstrate this will not create a new and very dangerous hazard for pedestrians. A dedicated overland flow path could be created.

Further concern is raised regarding the flood gates. The depths of flooding in a 1% AEP event appear low at the car park entries. Justification is therefore recommended as to why the car park cannot be afforded passive protection. The entries should be designed with crests to permanently prevent the ingress of floodwater in lieu of the proposed flood gates. Temporary flood barriers introduce an addition level of risk compared with permanent protection.

### *Flood Impacts*

Clarification is requested around the flood impact maps. Figure 8 is titled 1% AEP flood depth afflux map, while in Appendix A, Figure 004 is titled *Peak Flood Level Change*. The two figures appear to show the same information, and flood level impacts are the more robust measure of change. The consultant could justify using depth impacts if necessary and assuming depth impacts have not been used to mask true impacts.

EES raises concerns around flood impacts to Driver Avenue. The *Precinct Village and Car Park (MOD 7) Stormwater and Flooding Assessment*, dated 6 September 2021, states flood levels would increase up to 50mm. However, the predicted impacts, as per Figure 8 of the Stormwater and Flooding Assessment shows up to a 0.3m increase in flood levels. This should be clarified.

Regardless, a 50mm increase is a significant adverse impact, well beyond the commonly accepted limit of 10mm. Notably, the highest increase occurs where the existing flood risk is greatest, exacerbating these conditions. EES recommends the applicant introduce mitigation measures to avoid worsening existing flooding conditions. Alternatively, the change in hazard category (H1-H6) could be mapped to assess if there is a significant change in hazard.

END OF SUBMISSION