

## Grant Harlow

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**From:** Christopher Fraser <Christopher.Fraser@planning.nsw.gov.au>  
**Sent:** Monday, 31 May 2021 9:54 AM  
**To:** Grant Harlow  
**Subject:** S29/3/97-Mod-1 - Eastern Creek Karts, Departments design comments  
**Attachments:** Endeavour Energy.pdf

**Categories:** key moment - scope change / variation

Hi All,

Following on from our discussions on design requirements on 26<sup>th</sup> and 28<sup>th</sup> May 2021 for the above please see the following notes for design work ;-

1. Endeavour Energy appears to have a design vehicle which should be clarified. The swept out path of this vehicle should be compatible with the final carpark design (as well as the front-in turning arrangements for car-trailer combinations).
2. The vehicle's design height should be ascertained to ensure EE is satisfied with vehicle height, fill height, and consequent clearances to aerial conduits to prevent arcing.
3. The design storm for the general performance of the system is 100 year ARI, with additional performance measures for the PMF where agreed with third parties and as design check on impacts to Prospect Reservoir land
4. The height of the approach ramp adjacent the southern boundary sag point is lower than the height of the swale(s) or retaining adjacent 10 Raceway Close to direct upstream flows to the sag. A minimum 300 mm freeboard must be added to protective swales or retaining designed for this purpose.
5. Blockages applied are per Council minimums. Subsequently, risk of blockage should be detailed per Dept. letter 13 May 2021 Section 2.2. Risk of blockage resulting from existing boundary fencing filtering effects and any ancillary GPT design should be asserted as low.
6. The culvert is generally sized for at least the 100 yr ARI after applying design blockage, and sized for the PMF after blockage would be desirable.
7. The southern boundary and eastern boundary swales should be designed for at least the 100 yr ARI. Grassed swales are an option however it depends how they perform with design flowrates. Concrete lined swales can reduce roughness. Provide a statement on impacts of this design on existing trees.
8. As example, the 100 yr ARI should be contained entirely within Karts land swales. A design check must be shown on TUFLOW output to ascertain impact on Prospect Reservoir land during the PMF, with preferably low hazard H1 results, to ensure constant and safe WaterNSW access on its perimeter road.
9. Design matters in Dept. letter 13 May Sections 3, 4 and 5 appear not contentious.
10. Landscaping is emerging as necessary to reduce visual impact on the fill work, though subsequent to final drainage and carpark design. Allowance should be made for paving, kerbing and AS 2890 -compliant safety railing.
11. The landscape professional may consider locating trees, if they assist in reducing visual impacts, away from paving, safety devices and batters. Please provide more detailed landscape plans.

For any additional subject areas please advise on this email,

Thank you,

Regards,

**Chris Fraser**

Environmental Assessments Officer  
Industry Assessments

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