

Kildare County Council  
Devoy Park,  
Naas  
Co Kildare  
W91 X77F

25-08-2022

Our Ref: D1686

**Kavanagh Burke Consulting Engineers response to Kildare County Council Opinion on Large-scale Residential Development Ref. 202201**

Open Space and Biodiversity

- a) A detailed Suds strategy incorporating an array of Suds techniques is now incorporated into drainage design and explained in detail in the submitted drainage report.

Water Services

- a) A detailed Suds strategy incorporating an array of Suds techniques is now incorporated into drainage design and explained in detail in the submitted drainage report.
- b) All flows and volumes for the storm water network design and the attenuation sizing were calculated with a 30% climate change factor applied to all rainfall intensities. We have accounted for the 10% urban creep of impermeable areas by including all patches of the landscaping areas in private front gardens in our impervious areas take-off. In addition, we have treated all permeable paving as impervious areas to account for urban creep and permeable paving loss of performance over time. A series of soakaway tests was conducted to determine soil infiltration factor. The soakaway test results report is appended to the drainage design report. Despite of sufficient permeability, a conservative approach was taken and all permeable paving areas were deemed impervious for the SW network and attenuation calculation purpose
- c) Relevant consent to connect to Hazelhatch storm water network is submitted as part of this planning application (refer to Brock McClure planning documents for details). Condition and level survey of the entire line between proposed connection and discharge location to river Liffey is included as part of this application (refer to drainage design report and J&L survey drawing for details). Capacity check of the existing network is included in the KB drainage report. No capacity constraints or flooding in existing Hazelhatch storm water network have been identified for all rainfall events up to 30 years return +20% CCF.
- d) Stage 1 SW Audit will be undertaken by an independent consulting engineer at the detail design stage.

Irish Water

- a) I) The client will provide a letter of consent from the owner of the watermain in Shinkeen road before entering into PWSA and before connecting to the subject WM.  
II) Noted. The scheduled completion of DB contract No. 0322 precedes the completion/connection of houses in this LRD scheme. The completion of first units is expected in 2024.  
III) Noted. As above the completion of first dwellings is expected in 2024.  
IV) The applicant will engage with IW and normal connection application will be made. As part of connection application process a statement of design acceptance will be sought to ensure the design is technically correct before entering into self-lay agreement and before connections will be made.
- b) Noted.
- c) See response in paragraph a)IV)

Yours sincerely,



Bartosz Kedzierski

BTech