



File Note

Project: 20_147A : Echelon Dub 40 Access Road & Services
File No: 20_147AMEMO-20_147A-002
Subject: Section 146b Design Amendments Summary
Date: 03/06/2026

1. Proposed Alterations

The proposed alterations primarily comprise modifications to the permitted alignment of two 110 kV underground transmission lines, Circuit 01 Left and Circuit 02 Right, between the permitted GIS Substation, located centrally within the Dub40 site (permitted under SD20A/0058) and the proposed connection to the existing 110 kV circuits within the open field northeast of the Baldonnel Road / Old Nangor Road intersection. The proposed alterations also included amendments to the permitted GIS Substation.

The proposed Circuit 01 Left largely follows the permitted alignment from the permitted GIS Substation (CH L 00) traversing southeast through the Dub40 site access road, continuing northeast along the R120 (Peamount Road) and continuing southeast along Old Nangor Road (CH L 670), with minor amendments to the alignment to avoid existing and proposed services within the Dub40 access road and R120 (Peamount Road). The proposed alignment then veers north of the permitted alignment and crosses under the Griffeen River and Baldonnel Road via HDD (CH L 775 to CH L 920) before performing a 180° 'U-bend' and rejoining the permitted alignment at CH L 975.

The proposed Circuit 02 Right alterations largely mirror the proposed changes to Circuit 01 Left, with minor amendments to the alignment along the Dub40 site access road and the R120 (Peamount Road) before veering north of the permitted alignment at CH R 675 and crossing under the Griffeen River and Baldonnel Road via HDD before performing a 180° 'U-bend' and rejoining the permitted alignment at CH R 965.

The proposed amendments to the underground circuits are largely due to existing and proposed services co-ordination within the Dub40 access road and the R120, with the realignment of the HDD crossing under the Griffeen River and Baldonnel Road due to the presence of deep services within Baldonnel Road that need to be avoided. While these changes result in a slight increase in the overall length of the proposed circuits, the length of HDD has decreased.

Table 1 below summarises the proposed alterations to the underground circuits, referencing both the permitted and proposed layouts.

Table 1: Permitted Vs. Proposed Circuit Lengths

Description	Permitted	Proposed
Circuit 01 Left length	946m	991m
Circuit 02 Right length	938m	977m
HDD Circuit 01 Left Crossing length	168m	143m
HDD Circuit 02 Right Crossing length	168m	143m
Joint Bays Circuit 01 Left	3 No.	3 No.
Joint Bays Circuit 02 Right	3 No.	3 No.



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The proposed amendments to the permitted GIS Substation comprise of the following:

- An overall footprint change from 48.1m x 14.88m to 43m x 15.88m
- Building height increase from 14.942m to 16.7m to match current Eirgrid requirements
- A change to the building façade to have a monotone colour for the building
- Addition of external stairs from the first floor for fire escape and Part B compliance
- Minor adjustments to doors, vents and general finish
- Updates to the general substation internal layout and details to match current Eirgrid requirements
- Adjustment of the palisade fence and footprint to match current Eirgrid requirements and inclusion of a perimeter concrete post and rail fence on 4 sides
- General updates to ducting
- Inclusion of lighting poles, interface kiosks and rural supply indicated on layouts