

Y Bont Reilffordd

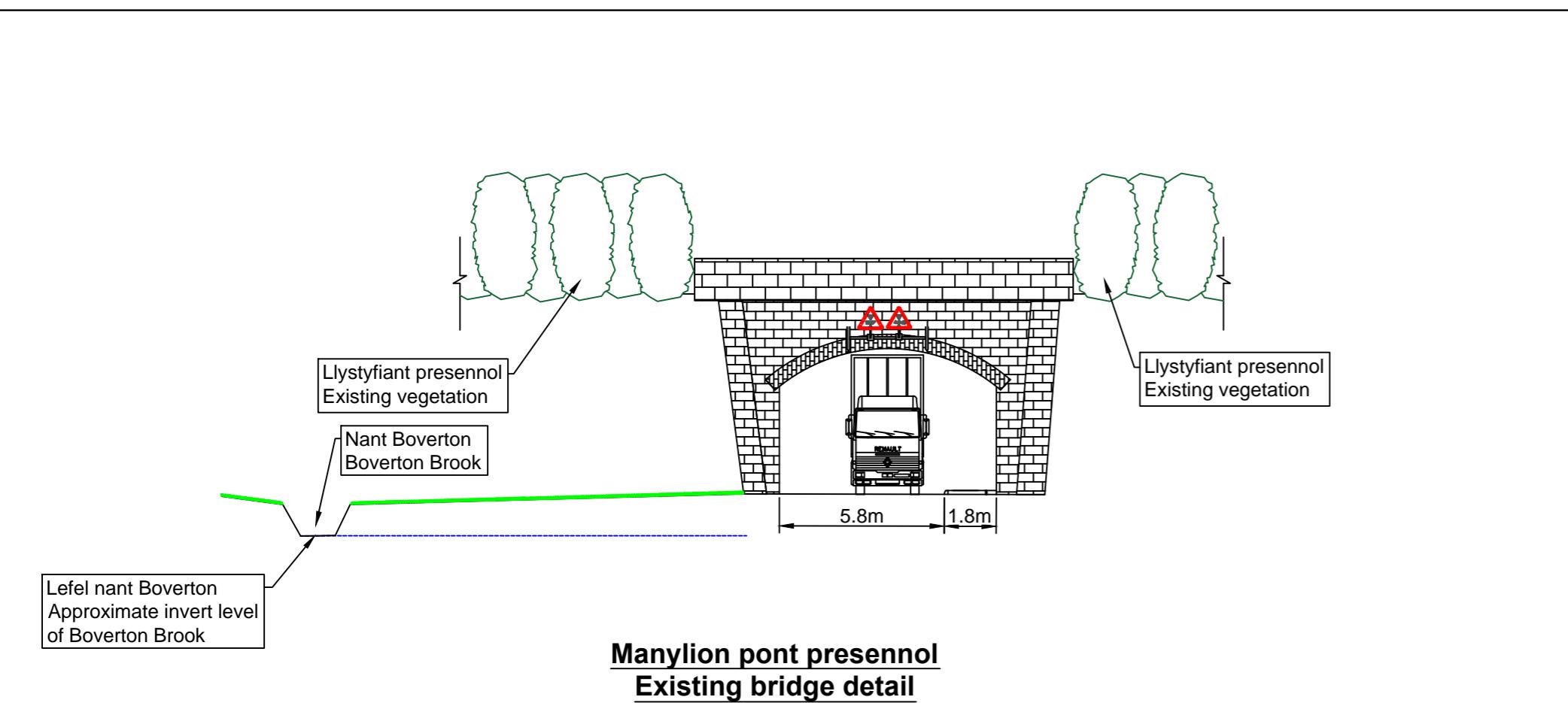
Mae'r bont reilffordd bresennol yn rhy isel i ganiatáu i gerbydau ag ochrau uchel fynd oddi tan i ochr-yn-ochr. Gallai unrhyw gyfyngiadau ar fynediad gael effaith negyddol ar fusnesau ar y Parc Busnes Awyrofod ac felly, er mwyn i Heol Eglwys Brewis gael ei hystyried yn ddewis arall dichonadwy, byddai angen amnewid neu uwchraddio'r bont.

Un opsiwn ar gyfer ymdrin â'r bont reilffordd fyddai gostwng y lôn gerbydau i ddarparu uchdwyr digonol. Byddai hyn yn mynnu'r gwaith canlynol:

- Ailadeiladu'r lôn gerbydau ar lefel is;
- Tanategu ategwaith y bont bresennol;
- Adeiladu mesurau atal llifogydd oherwydd agosrwydd Nant Trebefered a dŵr daear uchel;
- Gosod gorsaf bwmpio i sicrhau draeniad digonol;
- Adeiladu twnnel ar wahân drwy arglawdd y rheilffordd i ddarparu cyswllt i gerddwyr a beicwyr.

Mae nifer o risgau yn gysylltiedig â'r gwaith hwn, fel:

- Gallai ategwaith y bont bresennol gael ei danseilio;
- Cyflwr anhysbys y ddaear;
- Agosrwydd y dŵr daear gwaelodol;
- Y perygl o lifogydd;
- Aliniad fertigol is-safonol ar Heol Eglwys Brewis oherwydd y dyfnder y byddai angen gostwng y ffordd iddo;
- Gwrthgloeddiau sylweddol y naill ochr a'r llall i'r bont; a'r Angen i gytuno â Network Rail ar ddyluniad derbynol.



Manylion pont presennol
Existing bridge detail

Scale 1:200

The Railway Bridge

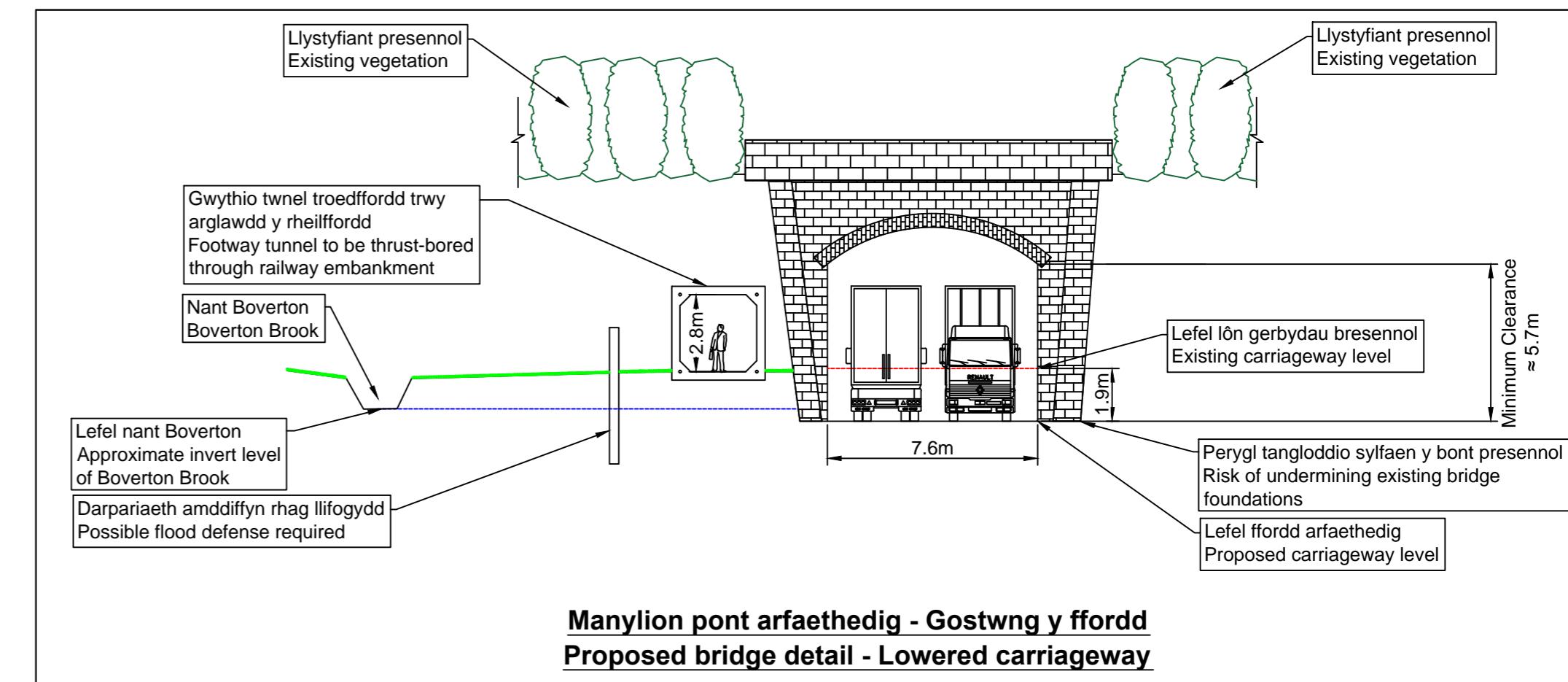
The existing railway bridge is too low to allow high-sided vehicles to pass under the bridge side-by-side. Any restrictions on access could have a negative impact on businesses at the Aerospace Business Park and therefore, in order for Eglwys Brewis Road to be considered a viable alternative, the bridge would need to be replaced or upgraded.

One option for dealing with the railway bridge would be to lower the carriageway to provide sufficient headroom. This would require the following works:

- Carriageway reconstruction at a lower level;
- Underpinning of the existing bridge abutments;
- Construction of flood prevention measures due to the proximity of Boerton Brook and high groundwater;
- Installation of a pumping station to ensure adequate drainage;
- Construction of a separate tunnel bored through the railway embankment to provide a pedestrian and cycleway link.

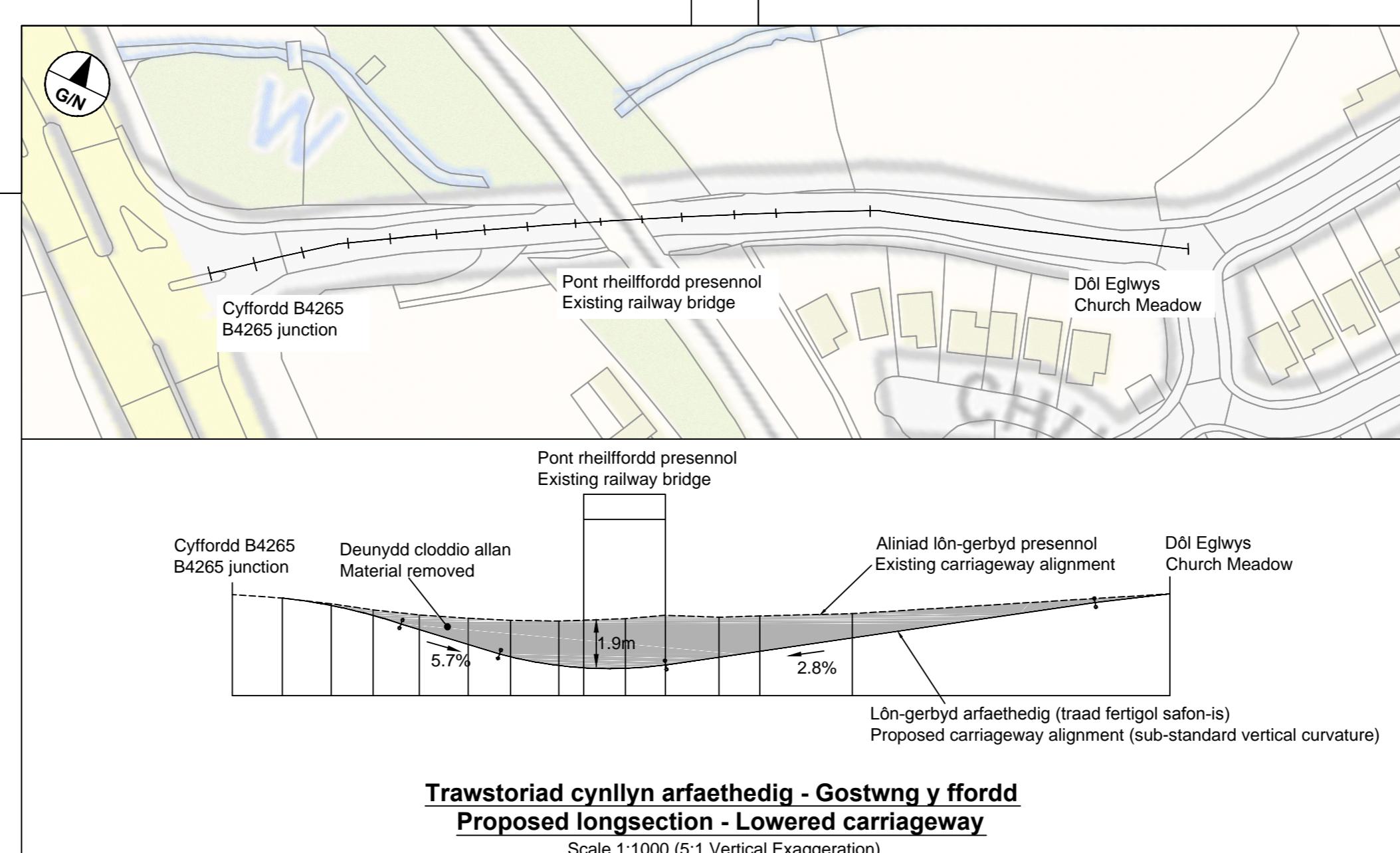
There are a number of risks associated with these works such as:

- The existing bridge abutments could be undermined;
- Unknown ground conditions;
- The proximity of the underlying groundwater;
- Flood risk;
- A sub-standard vertical alignment on Eglwys Brewis Road given the depth to which the road would need to be lowered;
- Significant earthworks on either side of the bridge; and
- The need to agree an acceptable design with Network Rail.



Manylion pont arfaethedig - Gostwng y ffordd
Proposed bridge detail - Lowered carriageway

Scale 1:200



Trawstoriad cynllyn arfaethedig - Gostwng y ffordd
Proposed longsection - Lowered carriageway

Scale 1:1000 (5:1 Vertical Exaggeration)

Arfaniad o'r Opsiynau

Ar sail rhoi'r mesurau uchod ar waith, cynhalwyd asesiad i benderfynu ar ddichonolrwydd y ddua opsiwn, sef adeiladu'r Ffordd Fynediad Ogledol neu uwchraddio ffordd bresennol Heol Eglwys Brewis. Roedd hyn yn cynnwys:

- Effaith Amgylcheddol;
- Effaith Gymdeithasol;
- Effaith Economaidd;
- Cost; a
- Chyfngiadau Amser.

Amlygodd yr asesiad hwn y pryerdon canlynol ynghylch yr opsiwn o uwchraddio ffordd bresennol Heol Eglwys Brewis:

- Yr effaith ar breswylwyr lleol yn ystod y gwaith adeiladu, o ran amhariad traffig ac amhariad oherwydd yr angen i ymgymryd â gwaith, rhywfaint ohono gyda'r nos, yn agos at anheddau preswyl;
- Yr effaith ar breswylwyr lleol ar ôl y gwaith adeiladu oherwydd y cynnydd mewn traffig ar Heol Eglwys Brewis;
- Yr effaith niweidiol, o bosibl, ar ddefnyddwyr Heol Eglwys Brewis sy'n agored i niwed, fel plant ysgol a'r henod, oherwydd y cynnydd mewn traffig;
- Gofynion tir ar gyfer lledu'r lôn gerbydau, gan gynnwys yr angen i ddymchwel dau eiddo;
- Costau'n gysylltiedig â'r bont reilffordd a chaffaeliadau tir;
- Yr effaith o ran amser oherwydd yr angen i gaffael tir a chytuno â Network Rail ar y cynigion.

Casgliadau

O ystyried natur y cyfyngiadau a amlinellir uchod a'r risgau sylweddol o ran amser a chostau, ystyri'r Ffordd Fynediad Ogledol yw'r opsiwn dewisol o hyd.

Options Appraisal

Based on the above measures being implemented an assessment was undertaken to determine the viability of the two options of constructing the Northern Access Road or upgrading the existing Eglwys Brewis Road. This examined:

- Environmental Impact;
- Social Impact;
- Economic Impact;
- Cost; and
- Time Constraints.

This assessment identified the following concerns with the option of upgrading the existing Eglwys Brewis Road:

- Impact on local residents during construction, both in terms of traffic disruption and also disturbance due to the need to undertake works, some at night, in close proximity to residential dwellings;
- Impact on local residents after construction due to the increased traffic volumes on Eglwys Brewis Road;
- Potentially adverse effect on vulnerable users of Eglwys Brewis Road such as school children and the elderly due to increased traffic volumes;
- Land requirements to accommodate the carriageway widening, including the need to demolish two properties;
- Costs associated with the railway bridge and land acquisitions;
- Time impact due to the need to acquire land and agree proposals with Network Rail.

Conclusions

Given the nature of the constraints outlined above, and the significant risks in terms of time and cost, it is considered that the Northern Access Road remains the preferred option.