

**THE CHESTER TO BANGOR TRUNK ROAD (A55) (JUNCTIONS 14 & 15 AND
JUNCTIONS 16 & 16A IMPROVEMENT REALIGNMENT AND SLIP ROADS)
SCHEMES & ASSOCIATED SIDE ROADS & COMPULSORY PURCHASE ORDERS –
PUBLIC LOCAL INQUIRY**

PROOF of EVIDENCE

Respondent ID: J15 – R037

INTRODUCTION

I have lived in Llanfairfechan since 2015 and have recently set up a zero-waste shop in the village as of December 2020. My proof of evidence reflects both my position as a small business owner and an environmentally conscious resident of the village. I have a PhD in Earth Sciences and believe I have a good grasp of the implications of this scheme with regards to climate change and the associated documentation and appendices supplied by Ramboll.

I have many concerns regarding the scheme, not just environmental, but to avoid repetition I will focus on the implications of the scheme for:

- 1) Small Businesses
- 2) Climate Change
- 3) Ysgol Pant Y Rhedyn

1. Small Businesses

As a new small business owner, I am concerned as to the effect of the 2 years of road works and construction that will have on my shop in the village. The majority of my customers come from Bangor, Bethesda, Llanfairfechan, Conwy, and Llandudno. During the construction of the slip roads, it is highly likely that I will lose my Llandudno and Conwy customer base to competing shops further east (eg. Twenty Fifty in Old Colwyn), so that they do not have to contend with the road works in the Penmaenmawr and Llanfairfechan area. After 2 years, it is unlikely that they would return to my shop as their shopping habits will have changed. I am aware that a hair salon in the village had a similar problem when unavoidable maintenance work was being carried out on the tunnels.

2. Climate Change

I strongly object to the scheme based on the fact that it is in direct contradiction to the following 5 Welsh Government Policies which take into consideration Climate Change:

- a. Climate Change Act 2008

- b. Environment (Wales) Act 2016
- c. Well-being of Future Generations (Wales) Act 2015
- d. Climate Change Strategy for Wales (October 2010)
- e. Prosperity for all: A low carbon Wales (2016/2020)

As the project is for all practical purposes, net CO2-positive it would violate the Well-being of Future Generations (Wales) Act 2015. I find it odd that there is not a member of the Welsh Government at the enquiry to object to the scheme as it contradicts so many of its own policies. This job has been left to the general public.

In response to the recent Summary Proof of Evidence supplied by Simon Price:

The original documentation claimed on two separate occasions that the carbon emissions for the scheme were ‘significant’, standing at 20,600 tonnes CO2 equivalent (see Appendices 16.11.3 and 16.13.1). The new Proof of Evidence that we received recently has changed and no longer considers it to be significant as it represents 0.06% of the Welsh Carbon Budget. Why has this now changed? It may only account for 0.06% of the Welsh Carbon Budget but it is the equivalent of flying a Boeing - 747-400 continuously for 25.6 years (see Table 1 for calculations). Every reduction in CO2 counts towards a reduction in the effects of Climate Change and the minimising global temperature rises.

Table 1: Emissions calculated to show the equivalent carbon generated during the flight of a Boeing 747-400 as per the construction of the A55 scheme.

Total tonnes CO2e generated by scheme	Emissions generated by 1 flight from Manchester to Sydney*	Number of long haul flights equivalent to 20,600 tCO2e	Duration of Boeing 737-400 flight to generate 20,600 tCO2e
20,600 (figure taken from Summary Proof of Evidence by Simon Price)	2.72 tonnes CO2 (Over 17,026 km at 92 kg CO2 per hour)	$20,600 / 2.72 =$ 7,573 Flights	$20,600 \times 1000 =$ 20,600,000 kg $20,600,000 \text{ kg} / 92 \text{ kg}$ = 223,913 hours $223,913 / 24 =$ 9,329 days $9,329 / 365 =$ 25.6 years

*<https://www.clevel.co.uk/flight-carbon-calculator/>

“This type of aircraft uses about 3.61 tonnes of fuel for a flight of 926 km. If we calculate based on CO2 emissions from aviation fuel of 3.15 grams per 1 gram of fuel, this means we arrive at a figure of 115 gm per passenger km. Since these planes cruise at approximately 780 km per hour, we can conclude a figure of 90 kg CO2 per hour. To assess the data from a slightly larger aircraft, the Boeing 747-400 which is used for long-haul flights, we calculate CO2 emissions of 92 kg per hour.”

Furthermore, the reduction in greenhouse gas emissions (GHGs) as a result of the scheme are insignificant as it will still take the scheme 189 years to become carbon neutral (see Table 2 for calculations). In the context of a climate emergency, we don't have that kind of time to play with. In addition, over such long timeframes the future emission profile and usage patterns of road vehicles are likely to be considerably different.

Table 2: Figures used to calculate how long it will take the scheme to become carbon neutral. All figures apart from years to become carbon neutral taken from Summary Proof of Evidence by Simon Price.

Total tonnes CO2e generated by scheme	Divided by the reduction in GHGs per year	Number of years for scheme to become Carbon Neutral
20,600	109 tonnes CO2e/yr	189 years

To conclude, I refer to the Carbon Reduction hierarchy mentioned in 16.12.4 of the Environmental Statement Appendices:

Build Nothing, Build Less, Build Clever.

In this instance with the amount of evidence that you will hear over the course of the enquiry, data, and government policies that deem the scheme unnecessary, I believe that 'Build Nothing' would be the most appropriate action to take.

Ysgol Pant Y Rhedyn

It is my understanding that the two fields below the school will be used as a site for flood abatement and also to park machinery and vehicles during the duration of the project. The school garden has been in place for over 12 years and over the past 6 or so years has been steadily developed by volunteers, led by Cathy Heavers, and used by school as an outdoor space and learning environment. Until Covid, a gardening club which children could join in with has been popular with all years within the school. All the work there is done on a voluntary basis and equipment is donated or salvaged; their footprint is light. They have 6 raised beds in which they grow a variety of fruit, vegetables, and flowers. Planting is insect friendly and uses no chemicals. They have planted a small orchard and also wildlife friendly trees (cherry, rowan) which were donated by the Woodland Trust. There are also three memorial trees in the garden - two in memory of a member of staff and one for a student who had battled cancer for years. Newts have been found in the garden three or four years ago and the wildlife there is diverse.

Feedback from staff is that those who struggle academically often thrive here. They enjoy having jobs and responsibility for parts of the space and spending time on these kinds of tasks is widely known to benefit mental health.

Children use the space for outdoor play in the summer. School also use it for cross country running where the children use this school garden field and the neighbouring school sports field as their running track.

Taking away the school fields would leave the children with no space for outside PE barring the tarmac yard. This all goes against the advice we see for wellbeing within schools, the need to counter obesity, and to keep children moving and fit. The project has offered no alternative to school to compensate for this loss.

In summary, if the space is taken away:

- school will have no green space
- the only area for children to exercise on will be the tarmac yard behind school
- all the trees and planting would be lost and would take years to replace, including the commemorative trees
- the opportunity for children to learn about nature, plants and experience the outdoors will be lost
- there is no guarantee as to what standard it would be restored
- the school experience for the students attending will be poorer
- increase in background noise during the school day. According to the United Kingdom Noise Association (UKNA) report in 2009 (see attached document), children suffer some of the most adverse effects of noise: *“Traffic noise disrupts hearing, learning and understanding, impacts which are particularly significant for child development.”* Increasing the speed at which cars travel along the A55 behind the school could lead to a 50% increase in noise (e.g. Reducing 70 mph and 60 mph speeds on urban motorways would cut noise by up to 50% - UKNA Report, Mitchell, 2009).

The plan to remove the school garden and space has been very poorly communicated by the planners and they have offered no interim solution to bridge the loss of the space and the activities that take place there.