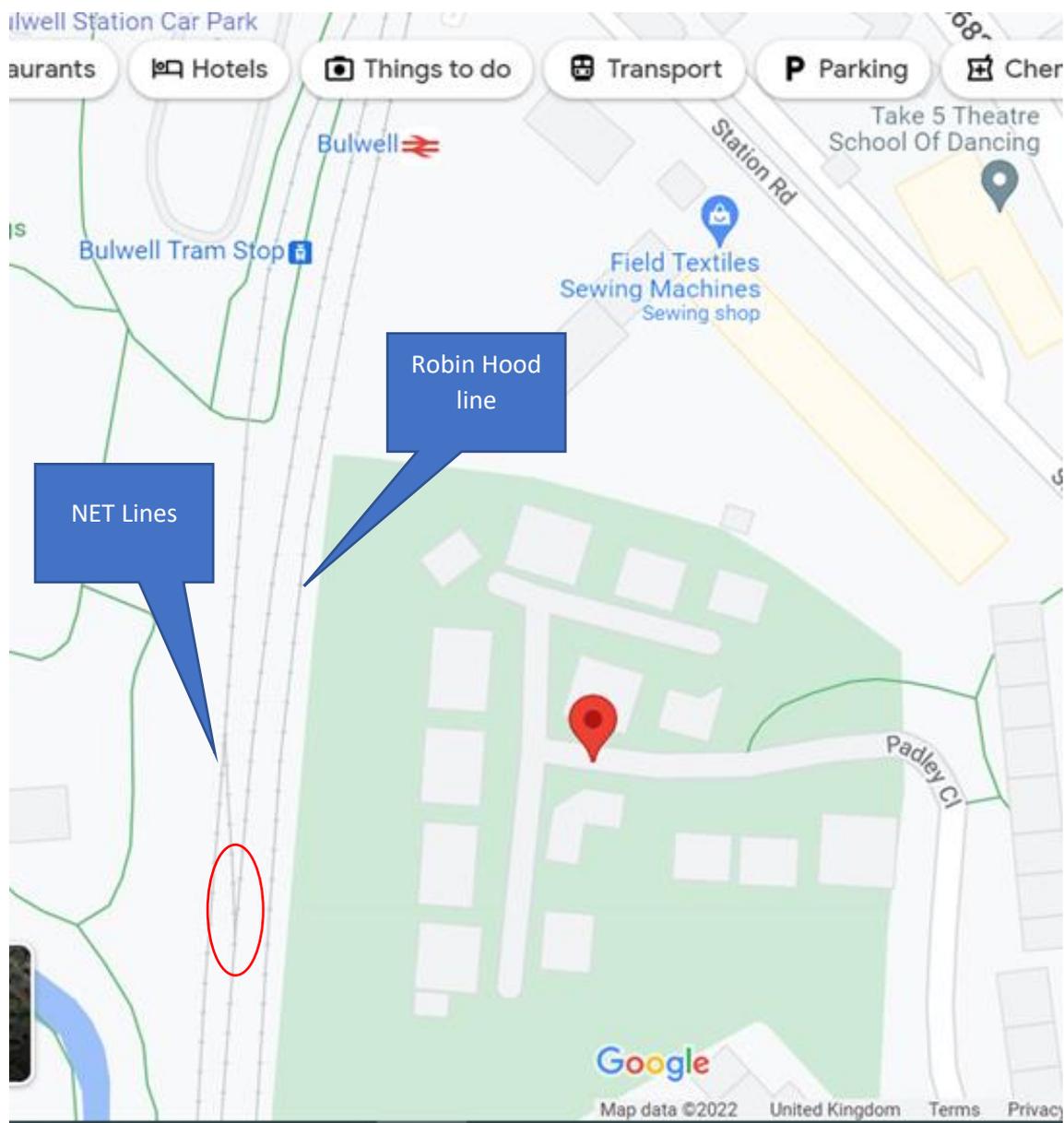


GNLRTAC Compliant Ref Noise & Vibration in Bulwell Area

Complaint summary

The Complainant highlights a noise and vibration complaint from trams driving over BUP1 causing damage to property and mental stress. Since his concerns were first reported, we have carried out a thorough investigation, as outlined below, and the complainant has been kept informed of our investigations.

For location purposes please see the map below which highlights the points in question.



For context line speed over these points in this location is 70kph (reduced from the original 80kph in 2014). Northbound trams will need to be slowing down in brake on approach to Bulwell for the pedestrian crossing and compulsory stopping. In a southbound direction, trams are accelerating out of the tram stop to reach the line speed of 70kph. Approximate speed depending on loadings etc at

this point would be around 40 to 50 kph approximately half the allowed line speed as it would not be possible for a tram to accelerate/decelerate to/from the maximum speed between the points and tram stop.

NET standards monitoring checks

NET carry out regular standards monitoring checks of drivers across the tram network not just in this location to monitor compliance of speed limits, this can include on tram data recorders and speed gun checks. As ORR modifications are completed this will also monitor any overspeed of drivers.

No infringements have been observed at any point on this location. Tram drivers are not speeding and are well under the design speeds for this location.

All track and point work across the network is subject to regular checks and servicing. No issues have been noted on inspection with these points. There is no damage to these points or the area which may cause additional noise. There is no reported impact of ground borne vibrations between the two railways.

This has previously been explained to the complainant on previous occasions.

Conclusions

Our investigations show that there is no discernable faults with this section of the line, or that drivers are crossing the points at excessive speed. Apart from this complaint there are no indications that noise levels have changed over time and there have been no reports from employees, customers or other local residents of unusual sounds or vibrations as trams traverses the section.

As this is an off-road section of the network, with track laid on ballast which is designed to absorb vibrations, and a heavy rail line (which also lies on ballast) is located between the tramway and the complainants home, it is highly unlikely that vibrations caused by a tram could cause the property damage reported.

Furthermore, this section of line has in November undergone regular maintenance and recent inspections show that it is performing well within the design specification. We will continue to monitor the situation and should there be any grounds for further investigations these will be carried out as appropriate.

March Update

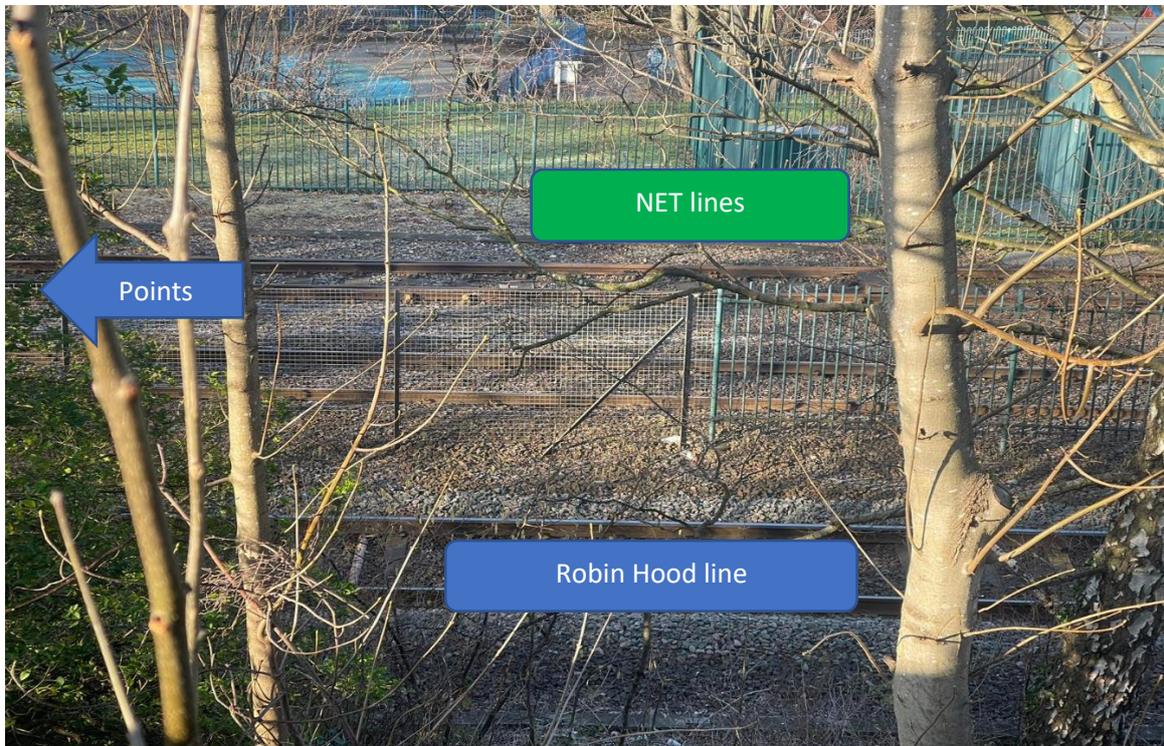
On Tuesday 7th February we attended the residents address on Padley Close. We explained the reason for our visit following the last GNLRTAC meeting when we were asked to ascertain if any damage was present at the property and the engage further to the root of the issues.

The resident described he has lived in the property for approx. 10 years and felt like he has observed an increase in tram noise and vibrations. On the rear face of the property two windows are aligned on the ground and first floor. We observed a minor crack in the plaster work internally in line with these windows. The complainant had advised that he had replastered the walls a number of times. Externally beneath the first-floor window he highlighted some repointing required to brickwork in the same area. We enquired if the resident had raised this ever with the builders of the property as it is still fairly new and the house would have some kind of building guarantee. He advised he had not.

To the rear of the property there was a patio area which has not experienced any cracking or issues.

The resident advised he had planted some new conifer trees behind his fence to help absorb the noise.

View from garden area:



As can be seen during the winter months there is limited foliage on the trees to absorb any noise so the additional trees may help. It should be noted this is not NET property until the other side of the fence.

We observed several trams drive over the points, including both tram types. The resident felt he could hear a difference in one of the trams being louder. We explained the trams were driving well under the speed limit for the area. We could not ascertain the speed of trams at the time and advised we would carry out a data download of the trams.

In discussion with the resident, he felt that a reduction in speed might help.

On return to the depot the three trams observed had their speed checked and it was confirmed all trams were doing in-between 35kmh and 45kmh over the points, well below the 70kmh limit. Trams may be able to travel over these points quicker if Bulwell tram stop is non-stopped. Therefore, we have set as a trial a 40kmh Temporary Speed Limit to ensure trams are driving at a consistent speed to see if this has any improvement.

The resident was happy with our visit, listening to his concerns and the proposal of this speed limit.

We will liaise with him again in a few weeks for an update.