

Submission No.			251	
Organisation Name or Name of Submitter			Paul and Brian Connell (105 Phibsborough Road, Dublin 7)	
Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Objection to "Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order 2022" (case ref. NA29N.314724)				
1	Letter	1	From the plans I have received, the tunnel will be just 18m below my house and I have serious concerns that structural damage will be done to my house during construction of the tunnel. The vibration and boring of the tunnel so close to my house I believe will cause damage to the foundations and the building itself and this is the reason for my objection to the project.	<p>Thank you for your submission and for sharing your concerns related to the MetroLink Project. We have reviewed the submission and provided response in detail below.</p> <p>A comprehensive Settlement Assessment has been undertaken to determine the potential impacts that construction of the proposed Project will have on sensitive receptors such as buildings and infrastructure from the advance of the TBM (Tunnel Boring Machine). The ground movement predictions and the building damage assessment methodology adopted for MetroLink is based on the approach adopted in most tunnel projects around the world, including London Crossrail and High Speed 2 in England. This is described in EIAR Section 5.4.11 (Ground Settlement Monitoring and Mitigation Works).</p> <p>EIAR Appendix A 5.17 Building Damage Report covers the assessed impacts of construction generated ground movements and settlement on property. Section 5.2 of this report sets out the rationale for the assessment of properties similar to yours. The results of the assessment provided in Table 5.2 shows that property Ref B-116, as one of the representative properties selected similar to your property, has been assessed as falling within the '<i>Negligible</i>' category. The building risk categories shown in Table 4-4 of the aforementioned report are used to define the degree of building damage related to the Risk Category. According to this Table, the <i>Negligible</i> damage category refers to hairline cracks.</p> <p>EIAR Chapter 14 (Groundborne Noise and Vibration) presents predicted vibration levels arising from mechanical excavation and blasting. In all cases vibration levels will be maintained within limits that do not cause damage to property.</p>
2	Letter	1	I also have concerns about high-speed trains running every 3mins, 24 hours a day if the project was to be approved and built. With high-speed trains running both directions just 18m under my house, I believe there will be noise, vibration and nuisance caused to the occupiers of my house.	<p>As detailed in Chapter 06 (MetroLink Operations and Maintenance), services will operate between 05:30 and 00:30 every day, and therefore will not operate 24hrs per day. At weekends, service frequency is also reduced.</p> <p>EIAR Chapter 13 (Airborne Noise and Vibration) and EIAR Chapter 14 (Groundborne Noise and Vibration) present a comprehensive and detailed assessment of operational groundborne and airborne noise and vibration. The calculated rail noise levels across the proposed Project are not significant in terms of any widespread community disturbance and results in a not significant to slight impact when added to the prevailing noise environment.</p> <p>Section 14.4.2.6, AZ4 Northwood to Charlemont (including Glasnevin Station) of EIAR Chapter 14, Groundborne Noise and Vibration, presents the results of the assessment of potential groundborne noise and vibration impacts from the operational railway sources. The threshold of a significant impact from groundborne noise for receptors in AZ4 is 40dB LAmax,s. Contours of groundborne noise are presented in Figure 14.6, the contours indicate a groundborne noise contour of 40dB LAmax,s at an approximate distance of 16m from the track centre. There are no exceedances predicted of the groundborne noise threshold for residential receptors in the geographical area of AZ4.</p> <p>The calculated vibration levels are below the threshold for structural damage for any building type, as presented in Table 14.8. Section AZ4 Northwood to Charlemont. Calculations of groundborne vibration during the Operational Phase are presented in Table 14.45. There are no predicted significant impacts for vibration from railway operation in the geographical area of AZ4.</p> <p>EIAR Chapter 13, sections 13.2.3.2 and 13.5.3.2.3 recognise that ventilation systems if not designed and mitigated effectively are potential airborne noise sources during the operational phase. Section 13.6.2.3 outlines the detailed considerations that will be included in the design to ensure that the ventilation systems do not exceed limits as per BS 4142, including:</p> <ul style="list-style-type: none">• Reduction of induct flow rates;• Reduction of elements in the airflow;• In duct attenuators;• Orientation of grilles and louvres away from sensitive receptors;• Acoustic louvres; and• Anti-vibration mountings and couplings will be incorporated into the design to control vibration. <p>Measures to mitigate noise from the use of public address systems is also detailed in Chapter 13 (sections 13.5.3.2.4 and 13.6.2.4). Best practice design principles as outlined in EIAR Appendix 5.1 will be employed to minimise noise breakout at the surface from these systems via escalators, lift shafts and stairwells.</p>

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3	Letter	1	I think the planning applicants should have designed the tunnel to be further down than just 18m under my house and they could they have designed the tunnel to be under the front garden or Phibsborough road itself rather than right under the main foundation of my house.	<p>Chapter 07 (Consideration of Alternatives) details the decision-making process that has led to the development of the proposed Project, including route alignment options and alternative station locations. Section 7.6.5 details the selection of Glasnevin Station. At this location, the railway lines are at their closest point horizontally and vertically, thereby providing an opportunity for a MetroLink station to be constructed and to capture interchange more effectively than other locations, in line with the Project's objective.</p> <p>Information about the tunneling works are provided in EIAR Chapter 05 (MetroLink Construction Phase) and Chapter 04 (Description of the MetroLink Project). The tunnel sections are designed to ensure that there is maximum operational efficiency of the proposed Project while also reducing potential impacts on the developed urban areas above the alignment.</p> <p>For the MetroLink project, the depth of tunnel will vary along the route but it is expected that the average depth will be approximately 24m from ground level to track level. In the vast majority of cases the subsoil can be acquired without affecting the above ground property. For 105 Phibsborough Road property the following data are shown on the individualised property details plan (please refer to Plan drawing no. ML1-JAI-BOR-ROUT_XX-DR-Y-03276, ML50-U20):</p> <ul style="list-style-type: none">• Ground level to crown of tunnel (m) - 18.5.• Ground level to track (m) - 25.1. <p>Please refer to response item (1) in relation to the assessment of vibration and structural damage to your property during the construction works. As detailed, in all cases vibration levels will be maintained within limits that do not cause damage to property.</p> <p>By way of support for affected properties, TII is committed to having a Property Owner Protection Scheme (POPS) in place prior to construction works commencing. The scheme allows residential property owners to register with TII if the property is within thirty metres of the edge of the MetroLink alignment or fifty metres of station structures. The POPS comprises condition surveys of private properties and other selected properties along the route of the proposed Project. The purpose of the condition surveys would be to ascertain the condition of the properties before, during (if deemed necessary), and after the completion of the proposed Project to determine whether there has been any deterioration of any of the properties surveyed and whether the same may be attributable to the proposed Project and recommend repairs as appropriate. The Property Owners’ Protection Scheme is in addition to the existing legal rights of property owners and is in place to provide a simple and prompt way of rectifying any damage caused under the project up to the ceiling of €45,000. If the sum should exceed this amount the normal claims process would be used with the insurance companies for TII and/or the contractor.The POPS would be introduced by TII through public consultation and will be formally advised to eligible property owners by the Public Relations Department.</p> <p>Useful information on POPS can also be found in the MetroLink Frequently Asked Questions document which can be found on-line at: https://www.metrolink.ie/en/your-property/property-owners-protection-scheme/</p> <p>In cases where parts of properties are occupied, access to the remaining unoccupied parts will be maintained, where it is possible and safe to do so. Protection such as hoarding will be used to ensure that the boundary of any construction site will be maintained, and damage would not occur outside of this boundary. Where damage could not be avoided, it would be repaired. Information regarding any situations requiring relocation and the process for financial compensation for property impacts directly related to the proposed Project is provided in Chapter 11 (Population & Land Use) and Chapter 21 (Land Take) of the EIAR.</p>