

MetroLink Dublin
Swords to City Centre
Module 1 Presentation

20.02.2024

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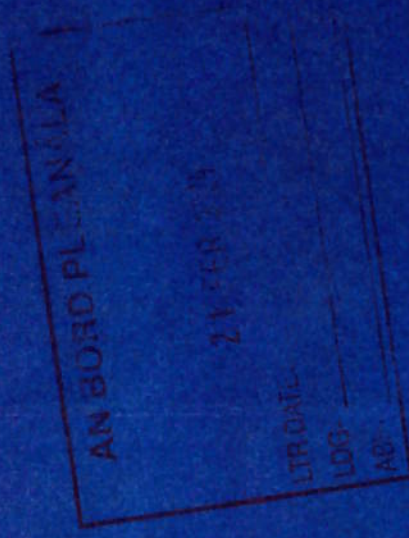


TENT ENGINEERING

Site Address:
O' Scanall Veterinary Surgeons,
Miltown Fields,
Swords, Co Dublin

Client:
O' Scanall Veterinary Surgeons,
Miltown Fields,
Swords, Co Dublin

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Contents

Revision and Review

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REVISION(S)

Rev.	Description	Date
P01	1st issue	20.02.2024

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1 Executive Summary

2 Description of the O'Scanail Veterinary Surgeon Lands

3 Impacts from Noise and Vibrations

1 Executive Summary

We, Tent Engineering, have been appointed by O'Scanail Veterinary Surgeons, a well-established and highly successful business located adjacent to the Pinnock Hill Roundabout, which is undergoing significant upgrade works as part of the proposed MetroLink - Swords to City Centre project.

Given the highly sensitive nature of the veterinary activities conducted at this facility, we present evidence in this submission indicating a high probability of a sudden decrease in customer numbers during the construction phase. This decline is expected due to the potential disturbances caused by the upgrade works. This submission focuses solely on the items covered in module 1 of the oral hearing.

1. Tunnelling and Excavation Related Issues (Groundborne Noise and Vibration, Hydrogeological and soils impacts, settlement, property damage etc.) & 2. Airborne Noise and Vibration

Fig 1.0 - Site location in relation with the existing road network



AN BORD PLEANÁLA

⑨ 21 FEB 2024

FROM: J. SCANAILL

DATE: VETERINARY

TO: HOSPITAL

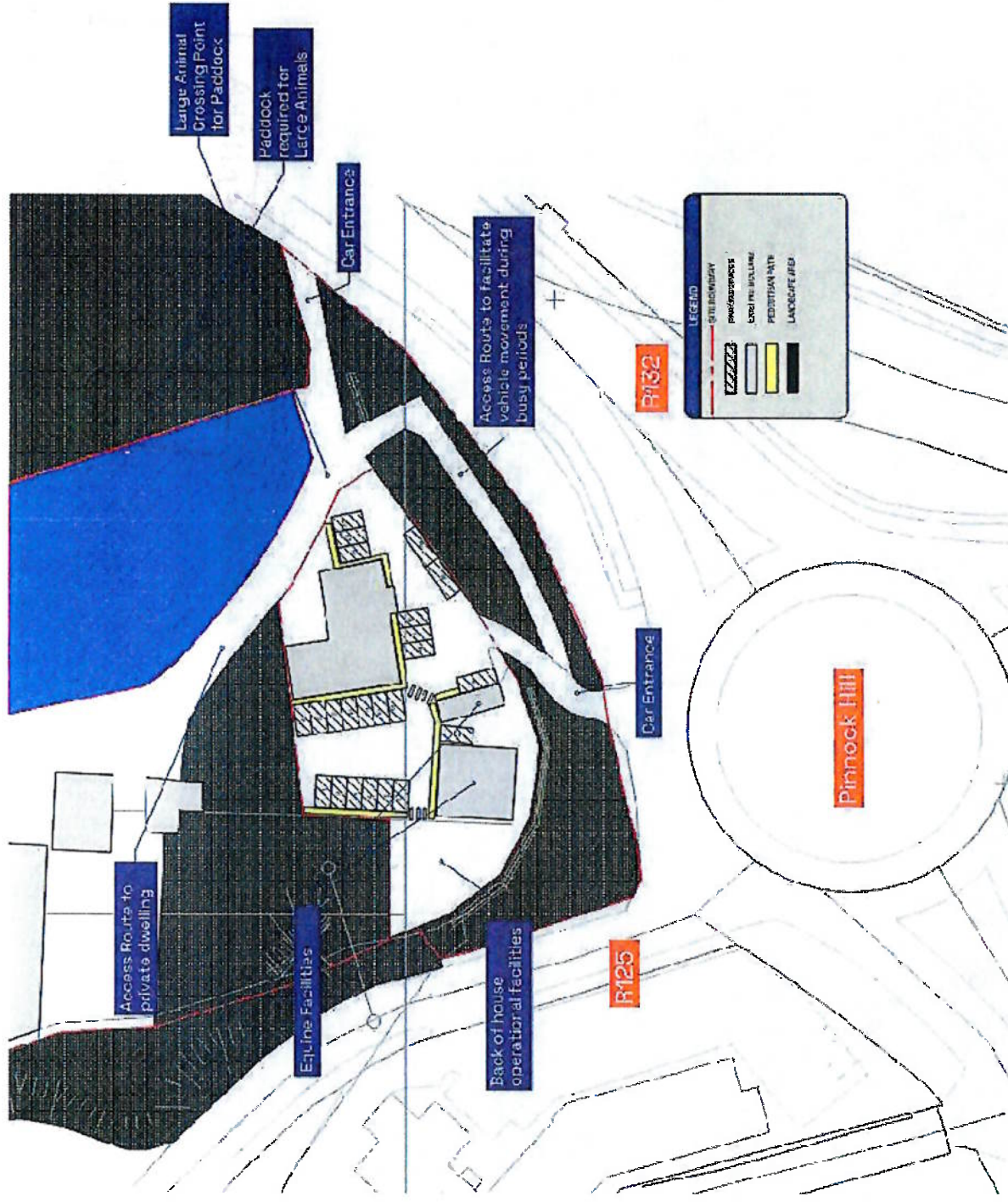
2 Description of the O'Scanail Veterinary Surgeon Lands

The veterinary services offered from this location have been continuously provided for over seventy years since the establishment of the practice in 1949. Presently, the hospital employs over 20 staff members, including 8 veterinarians. The number of registered clients from 2022 to 2023 amounts to 7,213. It is important to note that the primary mode of transportation for all clients is by car, SUV, or LGV.

Furthermore, it's essential to highlight that the lands immediately adjacent to the practice are owned by the immediate family of O'Scanail Veterinary Surgeons. Since the inception of the practice, the veterinary surgeon has enjoyed access through these lands, and all investment and spatial planning of their facility have relied on this access. Thus, any works on these adjacent lands should carefully consider the impacts on the Veterinary Hospital.

Additionally, the paddock, highlighted in Figure 2.0 with blue hatching, is an integral and necessary part of the veterinary hospital. It serves as a recuperation facility for sick and recovering large animals such as horses, cattle, goats, and sheep. The paddock is utilized on a daily basis and is accessed through the internal roadway that connects it to the veterinary hospital premises

Fig 2.0 - Existing Facility



3 Impacts from Noise and Vibrations

Figures 3.0 and 3.1 depict the relationship between the veterinary facility and the permanent and temporary land take. It is proposed to temporarily take plans within millimeters/ in contact with our client's building.

Fig 3.0 - Proximity of land take adjacent to hospital

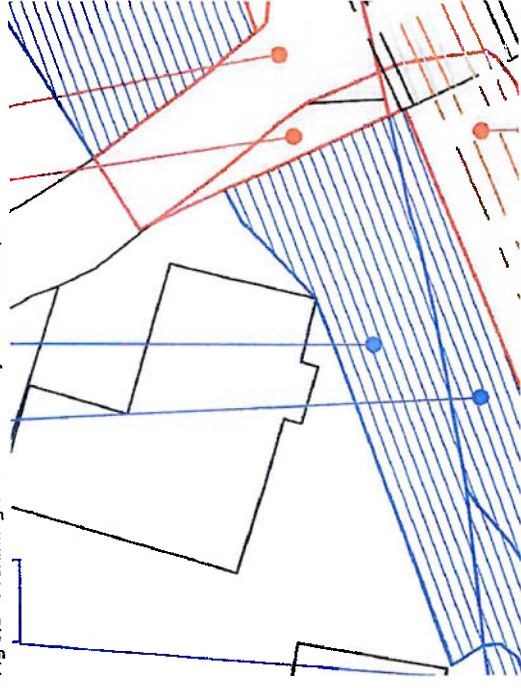


Fig 3.1 - Proximity of land take adjacent to hospital

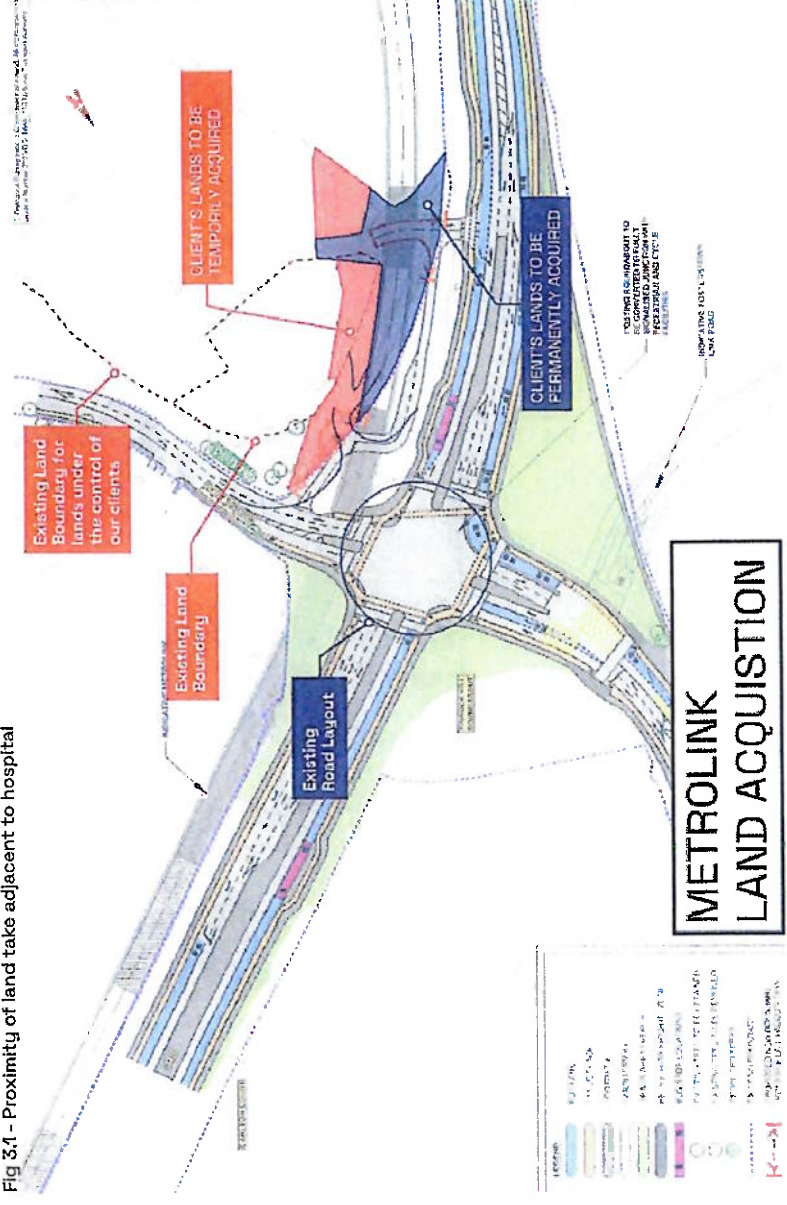


Figure 3.3 provides a visual representation of the proposed metro link scheme relative to our client's property. This drawing is extracted from the alignment drawings linked to the railway order. It can give a sense of the proximity on which significant earthworks will take place in relation to our client's property. The tracks would be within 41m of our property. This layout does not show the bus connects upgrade works.

Fig 3.3 - MetroLink Scheme - Pinnock Hill Roundabout without bus connects

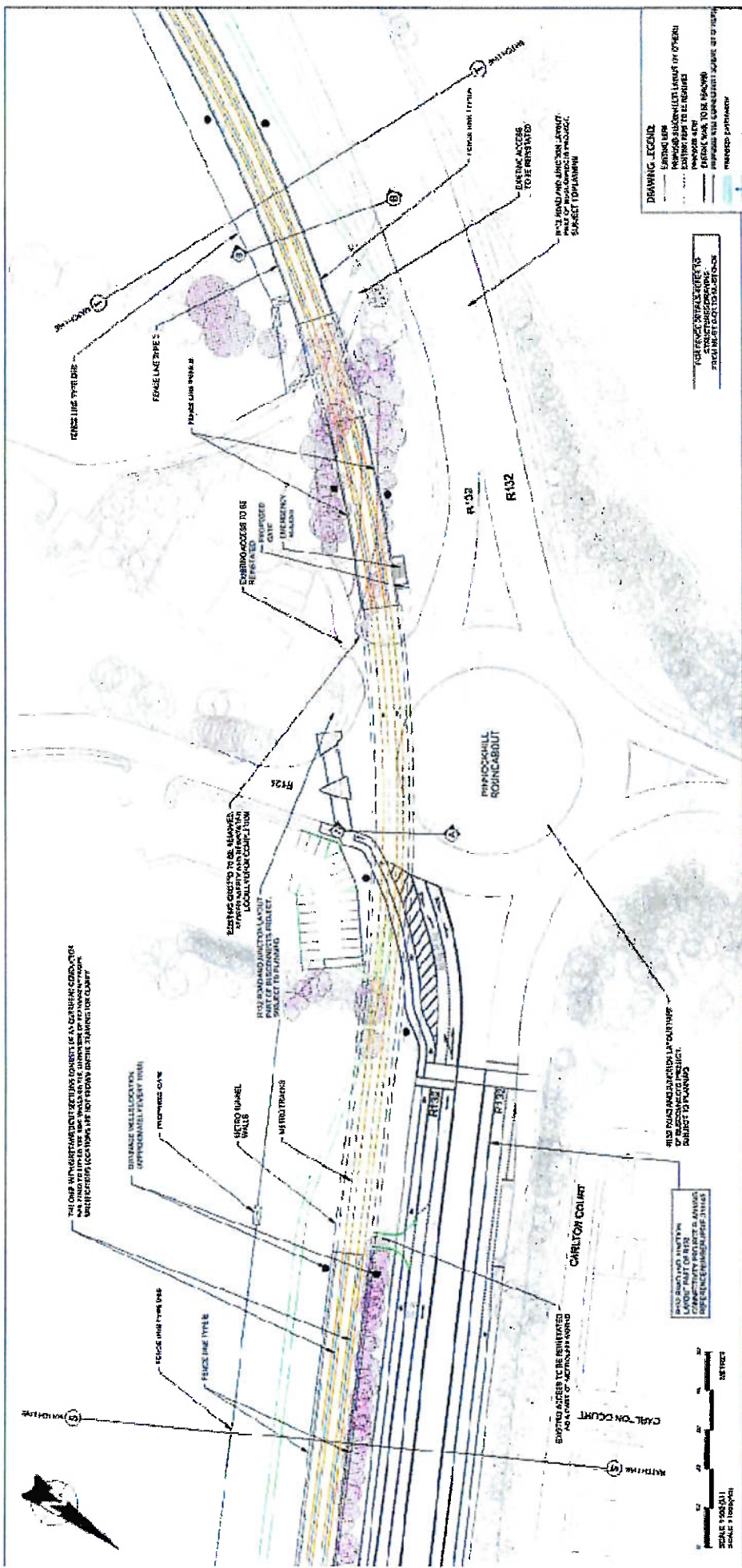


Fig 3.4 is extracted from the railway order plans/ drawings - Landscape drawings. It provides a guide on how the metro link will be coordinated with Bus Connects. The extracts to the right illustrate this more clearly. Fig 3.5 shows the metro-link interpretation of the Bus Connects junction, while Fig 3.6 shows the Bus Connects railway order drawings. We note significant discrepancies in these and seek clarity as to the extent to which these are coordinated, with particular focus on dust, noise, and vibration.

Can the applicant advise if the proposal has been coordinated with Bus Connects, with particular emphasis on impacts from dust, noise, and vibration, and provide evidence of this coordination?

Fig 3.4 - MetroLink Scheme - Pinnock Hill Roundabout with bus connects



Fig 3.5 - MetroLink Scheme - Pinnock Hill Roundabout with bus connects

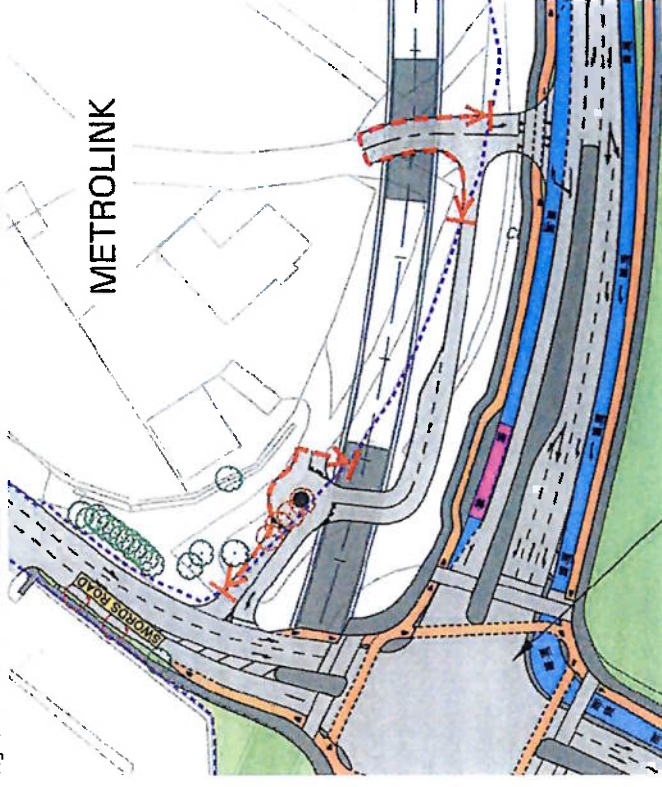


Fig 3.6 - MetroLink Scheme - Pinnock Hill Roundabout with bus connects



With reference to MetroLink Railway Order Statutory Consultation Section 5.2, Part 2 of 2 - TII response to Submission No. 242, Item 14.

Observation Statement:

"Our clients are also concerned with the extent of works located along their boundary, including any required excavations, tunnelling and rail laying that will occur. Such works will have significant disturbances on our clients' property including by way of, for example, noise, vibration and dust generation"

We note the TII response in *italics* with our further observation in **bold**.

Chapter 13 Airborne Noise and Vibration includes an assessment of airborne noise and vibration from the construction of the project.

Chapter 13 presents the potential significant airborne noise impacts, with Table 13.44 summarising potential significant noise impacts during construction of the cut and cover and retained cut sections of the route. The predicted magnitude of impact at this location is Significant to Very Significant, prior to the consideration of any noise mitigation.

Can the applicant confirm if they have assessed the impact in relation to the sensitive nature of the building? Treating sensitive animals of all sizes and managing the expectations of their equally sensitive owners.

Table 13.44 appears to group our client who runs a very sensitive business where core working hours will align with standard construction times along with "Travel Lodge" - a business where customers will tend to arrive late and leave early, thus missing the brunt of the noise and vibrations.

Chapter 14 Groundborne Noise and Vibration considers the assessment of groundborne noise and vibration from the construction and operation of the project. Groundborne vibration from piling along this section of the route is discussed in Section 14.4.1.1 which concludes that there will be no significant vibration from works at any buildings, including at this location (see details below).

Section 14.4.1.1 states

"The tunnel boring machine will not be utilised in the construction of this section of the alignment and blasting is not proposed for any excavation along this alignment. The construction of this element of the proposed Project will be by way of mechanical excavation, that includes secant piling, where one of the closest buildings to this activity would be the Woodies hardware store just north of Seatown roundabout on the R152.

Calculations of vibration from secant piling at a distance of 2.7m from Woodies indicate that the highest level of vibrations during construction would be approximately 1.2mm/s, reducing by about half into the building. A vibration level of 0.8mm/s entering the building would, even if continuous through the VDVday 16-hour period (which is not likely), be equivalent to a VDV well below the threshold level for significant effects on "occupants of residential buildings" of 0.8ms⁻¹.75 (Table 14.17). This is not a residential building, with residential buildings at greater distances and therefore below the threshold level for significant impact for all such receptors in AZ1. The calculated level of vibration is well below the threshold level for building damage (Table 14.8).

As no significant impacts are predicted for the Woodies building to this activity within the geographical area of AZ1, there are not predicted to be any significant impacts for any other buildings within AZ1".

It is difficult to understand why Woodies gains a special mention in this section; however, our client's lands, which are, in relative terms, a far more sensitive receptor and in far closer proximity to noise and vibration, are not referenced. We seek clarity on how Section 14.4.1.1 should provide our client with any comfort.

Please clarify why Woodies is assessed in Section 14.4.1.1 and our client's business is not assessed.

In order to mitigate airborne noise an outline Construction Environmental Management Plan (CEMP) has been prepared and is included as Appendix A5.1. This is a working document that will be updated by the contractor prior to commencement of construction and regularly as the project progresses.

The key principals for mitigation measures for airborne noise & vibration impacts are as follows:

- Noise control at Source: Selection of quiet plant, site layout, attenuation at source, operational control (hours and periods);
- Noise Control along Pathway: Localised screening to plant items on site, enclosures, site buildings, site hoarding and noise barriers; and
- Noise Control at Receiver: Noise Insulation (NI)
- Hoarding is proposed at this location with a height of 4m.

- Prior to the commencement of the construction works at each compound, the Contractor will conduct an individual site assessment to verify the height and position of screening to control noise impacts based on the most up to date construction methodologies and input data.

- An outline CEMP was prepared as part of the EIAR and it will continue as a live document for the appointed contractor to use throughout the construction of the project.

Table 6.2 Noise and Vibration Measure of Appendix A5.1 has been examined. It appears to be generic and offers no comfort to our client who operates a facility where sensitive animals of all sizes are treated on a daily basis. While we understand the practicality of this document being a working document and it will be updated by the contractor prior to construction and commencement of construction and regularly as the project progresses. We are concerned that at such time it will be too late to mitigate against highly predictable negative impacts that cannot be mitigated against due to the proximity and the nature of works which must take place.

Chapter 14 Groundborne Noise and Vibration considers the assessment of groundborne noise and vibration from the construction and operation of the project. Groundborne vibration from piling along this section of the route is discussed in Section 14.4.1.1 which concludes that there will be no significant vibration from works at any buildings, including at this location.

As provided in the Outline Construction Environmental Management Plan (CEMP) within Volume 5 Appendix 5.1, standard working hours will apply at this location.

In preparation for the construction phase the appointed contractor will prepare their Construction Environmental Management Plan (CEMP) in accordance with the requirements set out in the outline CEMP in EIAR Appendix A5.1.

The contractors CEMP will include a Construction Noise & Vibration Management Plan (CNVMP).

The contractor will consult with and obtain the approval of the CEMP from Fingal County Council prior to commencing the works.

The applicant has simply repeated the earlier point which offers no further comfort to our client.

TII will utilise best practice techniques to curtail dust generation including: hoarded compounds, wheel wash facilities and dust suppression for all areas prone to dust (damping down, water misters / sprays, local extraction and filtering). Public health impacts are not anticipated as the dust levels on site will be controlled to strict levels for protection of the workforce in accordance with statutory health and safety legislation.

This appears to take no account for the highly sensitive nature of our client's business. Our client seeks confirmation and evidence that mitigation measures can protect the highly sensitive nature of their business from noise and vibration.

With reference to the MetroLink Railway Order Statutory Consultation Section 5.2, Part 2 of 2 - TII response to Submission No. 242, Item 10.

Observation Statement:

Construction of the MetroLink is anticipated to commence in 2025 based on the outcome of the planning and procurement processes. Plans are underway to make the project operational in the early 2030s. More specifically, construction works along our client's northern boundary will be ongoing for at least five years with potential to be increased due to unforeseen delays resulting in longer construction times.

We note the TII response in *Italics* with our further observation in **bold**.

The timescales are outlined within the EIAR and RO application and as noted are estimated at approximately 5 years in this location.

The EIAR considers the reasonable worst case scenario in relation to these timelines. To minimise impact on this business, it is the intention of TII to complete the construction and reinstatement works for MetroLink around this business in the shortest possible time. The time needed to undertake the works are influenced by the need to maintain access to this business as well as considering other external matters, such as local traffic management and utility diversions.

The only commitment our client has is for 5 years. This does not include impacts from Bus Connects. The applicant is raising important matters in this response in relation to access, which we will address in module 2. This is an excessive period for our client, who runs a highly sensitive business. Please provide an accurate timeframe for construction so our client can make informed decisions regarding their business

Additional Queries for the Applicant

Section 23.4.2.2.6 of Volume 3 – Book 3: Material Assets, Waste and Materials Management, Cultural Heritage, Landscape, and Risk, Chapter 23: Agronom states the following:

"LO7 PR1 is a Veterinary Hospital; the facilities are close to the proposed project, and animals hosted here are recovering from illness or surgery. They may be impacted by dust arising from construction."

Does the applicant appreciate that this is not a suitable environment for animals recovering from illness or surgery, and this will result in the loss of customers regardless of the mitigation measures proposed?

Table 14.36 of Volume 3 – Book 1: Population and Human Health, Traffic, Noise and Vibration, and EMI/EMC, Chapter 14:

"Ground-borne Noise and Vibration states the impact from predicted ground-borne noise during railway operation is "Noticeable to all and disturbing to some."

Does the applicant understand our client is concerned with the impact on cats, dogs, and other animals with sensitive hearing? Can the applicant confirm if these are considered?

Table 14.37 of the same document identifies the Predicted Groundborne Noise during Railway Operation at Non-Residential Receptors in AZ1 for our client to have "No significant impact".

However, Woodies DIY is classified as "Noticeable to all and disturbing to some."

Can the applicant provide a detailed explanation of how Woodies is more severely impacted than our client, considering the fact that our client has a highly sensitive use class as opposed to a DIY store where it is commonplace for occupants to expect noise and vibration through testing and operation of equipment?

