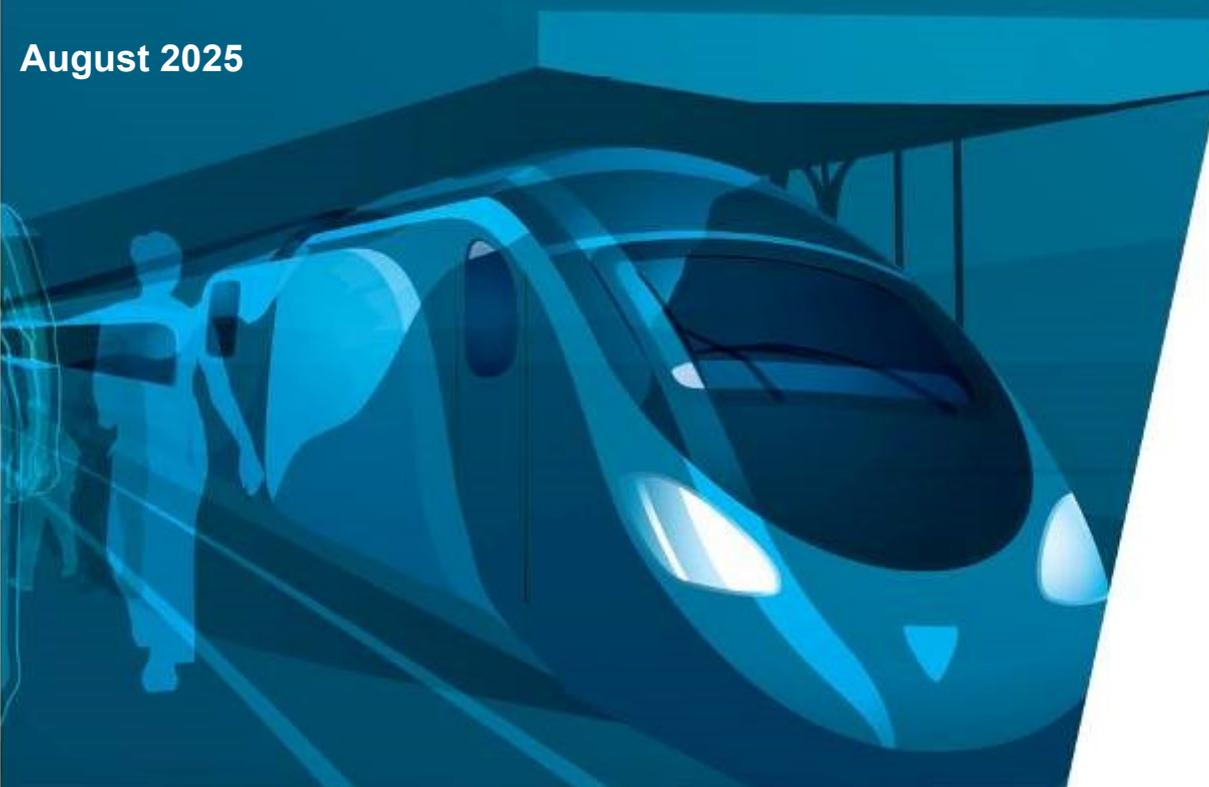


**Transpennine Route Upgrade (TRU)
Fitzwilliam Street Temporary Staff Car Park
Noise Impact Assessment
Network Rail**

Document Ref: 151667-TSA-00-TRU-REP-W-EN-001953

August 2025



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1. INTRODUCTION

1.1. Background

- 1.1.1. This Noise Assessment supports the submission of an application for planning permission (under the Town and Country Planning Act 1990, as amended by the Levelling-up and Regeneration Act 2023) for temporary staff car park facilities for TRU and Train Operating Companies (TOC) staff, to facilitate the construction works for the W3 section of the TRU between Huddersfield and Westtown (Dewsbury) ('the Scheme').
- 1.1.2. The TransPennine Route Upgrade (TRU) is a programme of works to enhance/upgrade the existing railway infrastructure between Manchester and York.
- 1.1.3. The Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order (a Transport and Works Act Order (TWAO), referred to subsequently in this planning statement as "the TWAO") was made by the Secretary of State in October 2022 and came into force on 3rd November 2022.
- 1.1.4. Network Rail is proposing to implement a temporary staff car park in Huddersfield (hereby referred to as "the Proposed Development") within the former Kirklees College site (herein referred to as "the former Kirklees College site"), which was granted planning permission for a mixed used development, in 2022 (ref 2018/92647).

1.2. Site Description

- 1.2.1. The Proposed Development comprises the temporary use of the northern plots of the former Kirklees College site as a car park to support the TRU programme. The Proposed Development site has already been cleared and surfaced. The two north eastern plots within the site are currently surfaced with tarmac and the north western section is surfaced with compacted aggregates. Electric tower lighting will be provided to the temporary car park. No significant construction activity is anticipated to be associated with The Proposed Development, with activities limited to small amounts of surface repairs and white lining – all of which would be undertaken during daytime hours.
- 1.2.2. The temporary car park is anticipated to be operational from August 2025 until the end of April 2028 (i.e. approximately 32 months). Following this period, the Proposed Development will revert to a vacant lot, and the approved planning permission for these northern plots of the mixed-use development can be implemented.
- 1.2.3. The Proposed Development will provide a total of 300 parking spaces, including three accessible bays and seven designated lorry bays. Of these, 35 spaces will be reserved for use by Train Operating Company (TOC) staff. The car park will operate a one-way traffic system, with entry via the existing access point on Fitzwilliam Street and exit via the existing egress onto the A629 New North Road. During periods of intensified activity, such as railway blockades, the car park will require 24-hour access. Parking demand will be actively monitored, and during peak operational periods, if the car park reaches capacity, staff and operatives will be redirected to alternative parking locations and transported by bus to HD1 construction compound to minimise congestion and prevent inappropriate parking in the surrounding area.
- 1.2.4. The Proposed Development site layout and location of the temporary car park are illustrated in Figure 1-1 below.

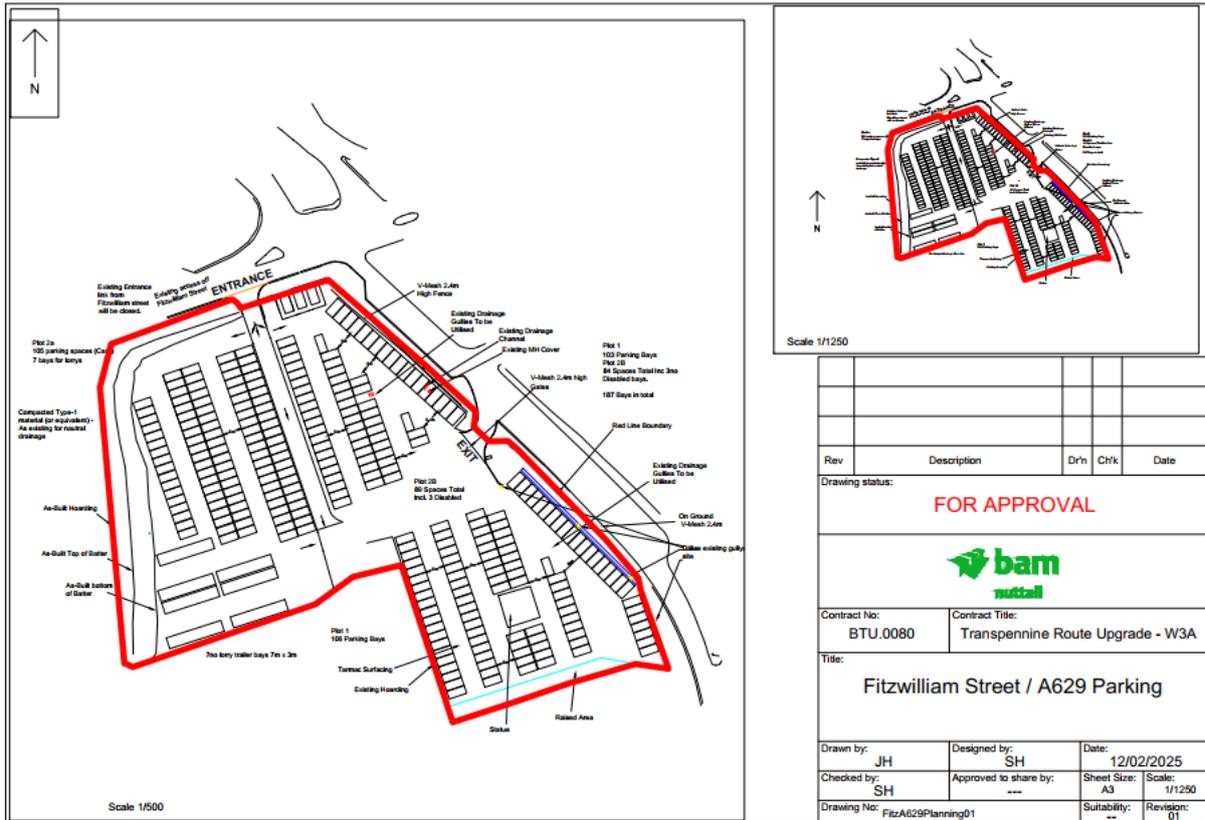


Figure 1-1 – The Proposed Development Location

1.3. Sensitive receptors and baseline conditions

1.3.1. The nearest Noise Sensitive Receptors (NSRs) to The Proposed Development have previously been identified as part of the noise impact assessment submitted in support of the approved planning application. The nearest NSRs comprise the residential properties on Portland Street, Trinity Street, Fitzwilliam Street and Saint Patrick’s Church Presbytery off New North Road. The documentation for the approved planning application included the undertaking of a noise survey as reported within the Philip Dunbavin Acoustics (PDA) Ltd - Noise Impact Assessment report (ref: J001526/3211/RDC/1), the results of which are summarised here for convenience.

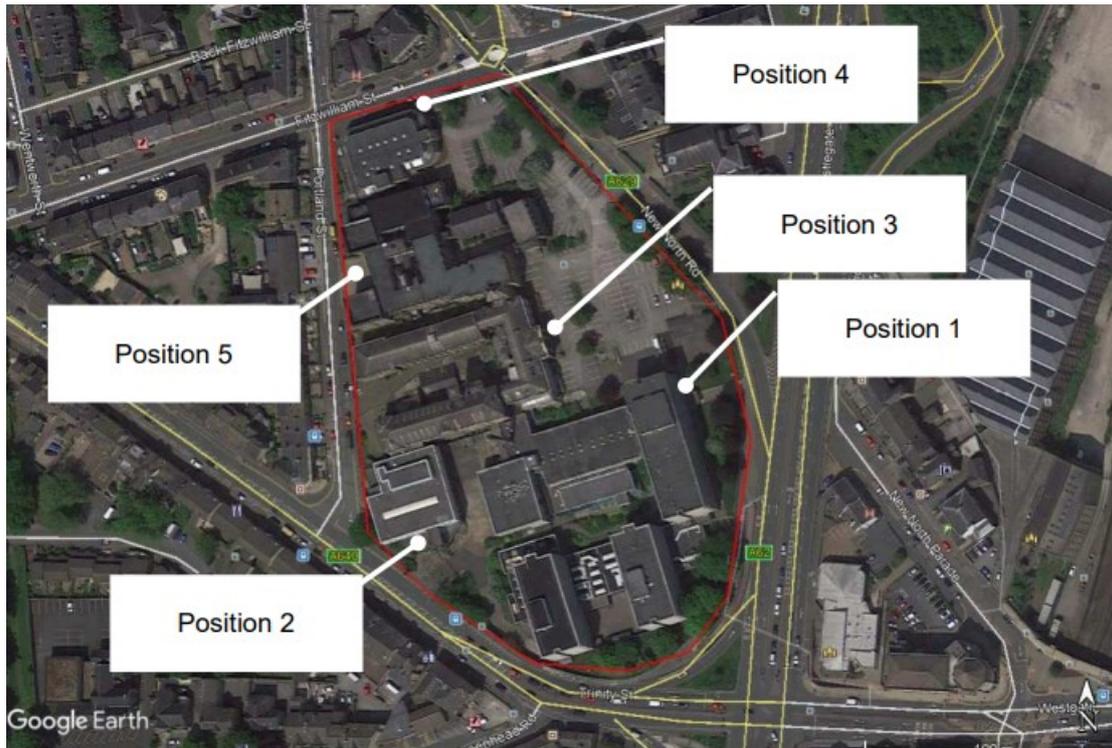


Figure 1-2 – PDA Ltd (ref: J001526/3211/RDC/1) Noise Survey Measurement Positions

1.3.2. The measured noise levels from the approved planning application noise impact assessment positions are summarised in Table 1-1 below.

Table 1-1 – PDA Ltd (ref: J001526/3211/RDC/1) Summary of Noise Survey Measurements

Position/Representative of NSRs located at	Daytime (07:00 – 23:00)		Night-time (23:00 – 07:00)		
	L _{Aeq}	Typical L _{A90}	L _{Aeq}	Typical L _{A90}	L _{Amax}
1 – New North Road	70	63	62	35	70 – 86 (Typically ~72)
2 – Trinity Street (A640)	68	61	60	42	70 – 80 (Typically ~72)
3 – Centre of Proposed Development Site	57	51	51	36	55 – 78 (Typically ~60)
4 – Fitzwilliam Street	62	55	57	35	55 – 88 (Typically ~65)
5 – Portland Street	53	44	48	28	45 – 74 (Typically ~65)

2. ASSESSMENT

2.1. Purpose of this Report

2.1.1. This Noise Assessment supports the submission of an application for planning permission (under the Town and Country Planning Act 1990, as amended by the Levelling-up and Regeneration Act 2023) for temporary staff car park facilities for TRU and Train Operating Companies (TOC) staff, to facilitate the construction works for the W3 section of the TRU between Huddersfield and Westtown (Dewsbury) ('the Scheme').

2.2. Construction phase

2.2.1. Given that The Proposed Development site has already been cleared and surfaced, no significant amount of construction activity is anticipated to be associated with The Proposed Development, and any construction activities are anticipated to be limited to small amounts of surface repairs and white lining – all of which would be undertaken during daytime hours.

2.3. Construction Noise Assessment Methodology

2.3.1. In general, a methodology for construction noise assessment is provided by BS 5228:2009 + A1:2014 Code of practice for noise and vibration control on construction and open sites, Part 1: Noise. This standard gives recommendations for basic methods of noise control relating to construction and open sites, and gives guidance concerning methods of predicting and measuring noise and assessing its impact. BS 5228:2009 + A1:2014 Annex F provides a prediction methodology to determine an 'activity noise level' for a given construction activity based on the plant or equipment involved, their sound emissions, and level of usage during the construction activity. BS 5228:2009 + A1:2014 provides empirical acoustic data for a variety of construction plant that can be used for these calculations. The activity noise levels are then used to calculate the resultant free-field noise levels at locations of interest, taking into account distance, ground propagation, and the presence of obstacles that can screen noise, such as boundary walls and intervening buildings.

2.4. Assessment Criteria

2.4.1. BS 5228 Part 1 describes several methods to assess the significance of any impact at noise sensitive receptors, including the ABC Method described in Table 2-1 of the standard, using the associated levels of significance shown in the table below.

Table 2-1 – Threshold of significant effects at dwellings

Assessment category and threshold value period	Threshold value, in decibels ($L_{Aeq,T}$ dB)		
	Category A ^{A)}	Category B ^{B)}	Category C ^{C)}
Night (23:00 – 07:00)	45	50	55
Evenings and weekends ^{D)}	55	60	65
Daytime (07:00 – 19:00) and Saturday (07:00 – 13:00)	65	70	75

NOTE 1 A potential significant effect is indicated if the $L_{Aeq,T}$ noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level.

NOTE 2 If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a potential significant effect is indicated if the total $L_{Aeq,T}$ noise level for the period increases by more than 3 dB due to site noise.

NOTE 3 Applied to residential receptors only.

A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

D) 19.00–23.00 weekdays, 13.00–23.00 Saturdays and 07.00–23.00 Sundays.

- 2.4.2. For the appropriate period (night, evening/weekends or day), the ambient noise level would be determined and rounded to the nearest 5dB. The table is then used to determine a threshold category which signifies the total site L_{Aeq} noise level which should not be exceeded for the appropriate period. If the site noise level exceeds the appropriate category, then a potential significant effect is indicated. Factors such as the duration of the construction works can influence whether a significant effect would occur. Annex E.4 of the Standard, in discussing potential eligibility for noise insulation, indicates that a significant time period can be considered “a period of 10 or more days of working in any 15 consecutive days or for a total number of days exceeding 40 in any 6 consecutive months”.
- 2.4.3. The representative baseline existing noise levels at nearby NSRs, and the corresponding BS5228 threshold criteria for potential significant impact, are shown in Table 2-2 below.

Table 2-2 – Ambient Daytime noise levels at receptors, and BS5228 potential significance criteria thresholds

NSR Location	Closest Distance to The Proposed Development Boundary (m)	Representative Ambient Daytime Noise Level at NSR (L_{Aeq} , dB) from PDA noise survey	Daytime Significance criteria threshold noise levels ($L_{Aeq,T}$, dB)
1 – New North Road	30	70	75
2 – Trinity Street (A640)	70	68	75
4 – Fitzwilliam Street	15	62	65
5 – Portland Street	20	53	65

- 2.4.4. No significant amount of contraction activity is anticipated to be associated with The Proposed Development since the site has already been cleared and surfaced, with any activity limited to small general surface repairs, and white lining.
- 2.4.5. As a general example however, typically construction activities might be anticipated to generate a noise level of around 80 dB L_{Aeq} at a distance of 10m. Assuming a general activity on time of 25%, effective removal of line-of-sight between construction activity, and general best practice, typical

construction activity noise level at a range of distances might be anticipated as shown in Table 3-3 below.

Table 2-3 – Potential construction noise level various distances

Activity	Indicative construction noise level dB $L_{Aeq,T}$ at receiver at given distance (including mitigation, screening etc)								
	15	20	30	40	50	60	70	80	90
General Indicative Construction Activity Noise Level	60	58	54	52	50	48	47	41	40

2.4.6. Comparison of indicative construction activity noise levels in Table 3-3 above, with the significance criteria threshold noise levels and separation distances established for the nearby NSRs as shown in Table 3-2, show that no exceedance of these threshold criteria is anticipated. Furthermore, any works are anticipated to be minor, and short in duration. In light of this, no significant impact is anticipated from construction activity associated with The Proposed Development.

2.5. Operational Phase

2.5.1. Noise from both the operation of the car park, and the resulting traffic movements on the local road network, have the potential to impact on nearby NSRs. The assessment regarding the potential for impact from these elements is presented below.

2.6. Temporary Car Park Operation

2.6.1. As part of the development, 300 car parking spaces would be provided for the station. Table 2-4 below presents typical noise levels associated with car park activity, using noise level measurements undertaken on similar projects.

Table 2-4 – Noise from typical car park activities/car movements

Activity	Average noise level, dB $L_{Aeq,5min}$	Maximum noise level, dB L_{Amax}
Car arriving / leaving @ 3.5m	66	71
Car manoeuvring @ 3.5m	63	66
Car door close @ 3.8m	n/a	75

2.6.2. For The Proposed Development, the proposed trips generated on a typical working day have been summarised as 75 car/van arrivals/departures within an AM or PM peak periods. During periods of increased working activity, such as railway blockades there would be three shifts over a 24-hour period (07:00-16:00, 15:00-00:00 and 23:00-08:00), with 160 car/van arrivals/departures per shift (480 arrivals/departures per day); and 10 HGV arrivals/departures over a 24-hour period. The previously approved planning application for the mixed used development would have comprised 220 arrivals/48 departures in the AM peak, and 73 arrivals / 273 departures in the PM peak.

2.6.3. For the purposes of representing a worst-case scenario discounting any potential benefits from effective acoustic screening, the noise levels arising at nearby noise sensitive receptors due to various car park activities would be expected to be as presented in Table below, with Table 2-5 below presenting both a summary of the average noise levels from the on-site car parking activity, and potential maximum noise levels at nearby NSRs.

Table 2-5 – Car park activity noise levels at nearby NSRs (No Mitigation)

Activity	Average Activity noise level, dB $L_{Aeq,1hr}$			
	NSRs at New North Rd	NSRs at Trinity/A640	NSRs at Fitzwilliam St	NSRs on Portland
	30m	70m	15m	20m
Car arriving / leaving	34	29	35	35
Car manoeuvring	44	39	46	45
Car door close	30	26	32	31
TOTAL	45	40	46	46

Table 2-6 – Summary of potential car park activity noise levels at nearby NSRs (No Mitigation)

Car Park Noise	NSRs at New North Rd	NSRs at Trinity St/A640	NSRs at Fitzwilliam St	NSRs on Portland St
Daytime NSR Baseline Ambient Noise Level (L_{Aeq} , dB)	70	68	62	53
Night-time NSR Baseline Ambient Noise Level (L_{Aeq} , dB)	62	60	57	48
Peak AM/PM Car Park Average noise level, dB $L_{Aeq,1hr}$	45	40	46	46
Typical Night-time NSR Baseline Maximum Noise Level (L_{Amax} , dB)	72	72	65	65
Car Park Maximum noise level, dB L_{Amax} (75 Events in an AM or PM Peak Period)	57	50	63	60

2.6.4. Table 2-6 above shows that at all nearby NSRs the potential noise from car parking activities would be expected to be significantly lower than the existing day-time and night-time ambient, and typical night-time maximum noise levels. Adverse impact arising from noise associated with car parking activity is therefore not anticipated at these NSRs.

2.7. Road Traffic Noise Changes On Local Roads

- 2.7.1. Indicative basic noise level calculations have been undertaken on the basis of the methodology detailed within the Calculation of Road Traffic Noise (1988).
- 2.7.2. The impact arising from changes in road traffic flows are to be considered in line with the definitions for differing magnitudes of change in the short-term, as detailed within the Design Manual for Roads and Bridges – Noise and Vibration LA111 (DMRB).

Table 2-7 – Magnitudes of change in noise, $L_{A10,18hr}$ (as defined within LA111)

Magnitude	Short-Term Noise Change
Major	Greater than, or equal to 5.0dB
Moderate	3.0 – 4.9dB
Minor	1.0 – 2.9dB
Negligible	Less than 1.0dB

2.7.3. In summary, a change in road traffic noise less than 1 dB in the short-term is considered as negligible.

2.7.4. Appendix A presents a summary of the road traffic data anticipated for various supplied scenarios in Table A-1, with Table A-2 presenting a summary of the consequential anticipated changes in road traffic noise Basic Noise Level. Inspection of Table A-2 shows all changes in road traffic noise are anticipated to be negligible.

Table 2-8 – Anticipated change in noise on local road network

Location	With Lidl	With TRU Car Park + Lidl		With TRU Car Park + Lidl + Blockades	
	BNL, dB	BNL, dB	Diff	BNL, dB	Diff
New North Street	64.2	64.3	0.1	64.6	0.4
Fitzwilliam Street	63.3	63.4	0.1	63.5	0.2
Trinity Street	70.4	70.4	0	70.4	0

2.7.5. Inspection of Table 2-8 above shows that all changes in road traffic noise on the local road network are anticipated to be negligible.

3. Mitigation

- 3.1.1. In carrying out the works, Network Rail and its Contractors will ensure all reasonable steps will be implemented in the design and construction of the scheme so that noise and vibration from the construction does not exceed noise thresholds presented in Table 2-6. Where it is not reasonably practicable to achieve this objective, noise from construction will be reduced as far as is reasonably practicable.
- 3.1.2. In developing the control measures, best practicable means (BPM), as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990, will be applied during all construction works to minimise noise and vibration at neighbouring residential properties and other sensitive receptors. In doing so, due consideration will be given to the recommendations contained within BS5228:2009+A1:2014, approved by the Secretary of State as the Code of Practice for noise and vibration control on construction and open sites.
- 3.1.3. The following control measures will therefore be implemented in carrying out the construction works:
- All plant and equipment will comply with the noise limit and noise marking requirements prescribed by the “Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001” and the “Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005” implementing the EU Directives 2000/14/EC.
 - All plant, equipment and noise control measures applied to plant and equipment shall be maintained in good and efficient working order and operated such that noise emissions are minimised as far as reasonably practicable. As far as reasonably practicable, any plant, equipment or items fitted with noise control equipment found to be defective will not be operated until repaired.
 - All generators shall be super-silenced units. Where reasonably practicable, other fixed items of construction plant should be electrically powered in preference to diesel or petrol driven.
 - Vehicles and mechanical plant employed for any activity associated with the construction works will, where reasonably practicable, be fitted with effective exhaust silencers and shall be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable.
 - Machines in intermittent use will be shut down or throttled down to a minimum during periods between works.
 - Whenever used, all percussion tools shall be fitted with appropriate mufflers or dampers of the type recommended by the manufacturers.
 - Static noise emitting equipment operating continuously (generators, compressors etc) will be screened or housed within suitable acoustic enclosure, where appropriate.
 - Where practicable, construction activities will be screened with appropriate acoustic fencing. Where feasible, high noise localised activities (such as drilling, grinding, gas cutting, and breaking) will be screened as close as possible to the activity.
 - Noisy plant or equipment shall be sited as far away as possible from noise sensitive buildings. Wherever practicable, the use of barriers in the form of acoustic enclosures or temporary noise barriers shall be employed.
 - All personnel on site will undergo site specific inductions and briefings, to include Section 61 consent requirements and noise control measures. Where relevant, specific noise control measures will be incorporated into Works Package Plans.

- A programme of community liaison will be carried out, including notification of works and details of the complaints process.
- A programme of site inspections and noise monitoring will be carried out to assess whether BPM is being employed in the control noise, to investigate any noise complaints or incidents and compare actual construction noise levels against those predicted in the Section 61 consent application.
- Noise from reversing alarms from delivery and construction vehicles will be controlled and limited as far as possible through the following means:
 - Designing the site layout to limit the need for reversing vehicles;
 - Reversing alarms incorporating directional sounders, broadband signals self-adjusting output sounders or flashing warning lights; and
 - Setting reversing alarms to the minimum output noise level required for health and safety compliance.

4. Conclusions

- 4.1.1. No significant impact is anticipated from the minor construction activities (small surface repairs, white lining) anticipated with The Proposed Development.
- 4.1.2. No significant impacts are anticipated at nearby NSRs due to noise from the use of the proposed car park.
- 4.1.3. All changes in road traffic noise on the local road network are anticipated to be negligible.
- 4.1.4. The traffic data shows that the temporary car park planned as part of the Proposed Development will not cause a noticeable increase in road traffic noise compared to what was already approved for the site or otherwise.
- 4.1.5. After the temporary car park use ends, the mixed-use development that already has planning permission is expected to go ahead. No lasting residual effects on nearby homes or businesses are expected.

APPENDICES

APPENDIX A – TRAFFIC DATA

The two-way AAWT flows for New North Road, Fitzwilliam Street and Trinity Street, provided by AtkinsRéalis Transportation, are presented in Table A-1 below. The table presents estimated AAWT values for the Proposed Development, alongside the corresponding changes compared to the approved mixed-use development, indicated in brackets.

Six traffic scenarios have been provided:

1. Existing traffic (2025)
2. Forecast traffic (2028)
3. Approved mixed-use development (2028)
4. Partial development with only Lidl in operation (2028)
5. Normal operation of the temporary car park and operation of Lidl (2028)
6. Maximum car park uses during railway blockades and operation of Lidl (2028)

Scenario 4 serves as a conservative baseline, representing the forecasted traffic levels in 2028 with only the Lidl store operational out of the approved mixed-use development. Traffic from the Proposed Development traffic is added to this baseline for scenarios 5 and 6. The resulting basic noise levels are summarised in Table A-2 for convenience.

Table A-1 – Estimated AAWT and Resulting BNL for roads adjacent to the Proposed Development

	18Hr AAWT	%HDV	Average Speed, mph	Average Speed, kph	BNL
Existing 2025					
New North Street	4874	6.0	19.3	31.0	64.1
Fitzwilliam Street	4658	2.8	25.4	40.9	63.2
Trinity Street	18464	5.5	25.8	41.5	70.2
FORECAST 2028					
New North Street	4977	6.0	19.3	31.0	64.2
Fitzwilliam Street	4757	2.8	25.4	40.9	63.3
Trinity Street	18855	5.5	25.8	41.5	70.3
Mixed Use Development (Forecast + Total Mixed Use):					
New North Street	5301	5.6	19.3	31.0	64.4
Fitzwilliam Street	4968	2.7	25.4	40.9	63.5
Trinity Street	19620	5.3	25.8	41.5	70.4
Base (Forecast + Committed Lidl)					
New North Street	4977	6.0	19.3	31.0	64.2
Fitzwilliam Street	4757	2.8	25.4	40.9	63.3
Trinity Street	19645	5.3	25.8	41.5	70.4
Development Scenario 2 (Base + Normal Operation):					
New North Street	5086	5.9	19.3	31.0	64.3

	18Hr AAWT	%HDV	Average Speed, mph	Average Speed, kph	BNL
Fitzwilliam Street	4793	2.8	25.4	40.9	63.4
Trinity Street	19645	5.3	25.8	41.5	70.4
Development Scenario 1 (Base + Blockade):					
New North Street	5673	5.4	19.3	31.0	64.6
Fitzwilliam Street	4987	2.7	25.4	40.9	63.5
Trinity Street	19645	5.3	25.8	41.5	70.4

Table A-2 – Estimated Change in BNL for roads adjacent to the Proposed Development

Scenario	Existing BNL	Forecast	Approved mixed use development	Approved Lidl	Proposed TRU use including Lidl	
		Total BNL Without any mixed-used development	Total BNL including traffic generated by the mixed-use development	Total BNL including traffic generated by the Lidl store currently in construction (change from approved development)	Total BNL including traffic generated by LIDL and the Proposed Development (change from approved development)	Total BNL including traffic generated by LIDL and the Proposed Development during railway blockades (change from approved development)
Year	2025	2028	2028	2028	2028	2028
New North Road	64.1	64.2	64.4	64.2	64.3	64.6
Fitzwilliam Street	63.2	63.3	63.5	63.3	63.4	63.5
Trinity Street	70.2	70.3	70.4	70.4	70.4	70.4

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