



FOR PUBLICATION

DERBYSHIRE COUNTY COUNCIL

REGULATORY - PLANNING COMMITTEE

Report of the Executive Director - Place

**Section 119 of the Highways Act 1980 - Proposed Diversion of Public
Footpath No 37 – Parish of Unstone**

1. Divisions Affected

1.1 Dronfield East.

2. Key Decision

2.1 This is not a Key Decision.

3. Purpose

3.1 To seek authority for the Director of Legal and Democratic Services:
a) to make a Diversion Order for the permanent diversion of part of Footpath No. 37 Unstone Parish under the provisions of Section 119 of the Highways Act 1980 in the interests of the owner and occupier of the land; and
b) should objections be received to the making of the Order that cannot be resolved then the matter be forwarded to the Secretary of State for determination.

4. Information and Analysis

4.1 The County Council has received an application for the permanent diversion of the part of Footpath No. 37 Unstone Parish, in the interests of the landowner, to enable the rearing of cows and calves in the field without compromising the safety of the public. The proposed diversion

would take the path from a diagonal route across the field to one along a fenced corridor at the field edge.

- 4.2 If the proposed diversion takes effect, it will divert approximately 100 metres of that part of the footpath shown as a bold solid line between points **A** and **B** on the attached plan. The proposed alternative would be approximately 96 metres long, shown as a bold broken line between points **C**, **D** and **B**. The alternative route would be fenced off from the field and have a surface of rolled stone and a recorded width of 2 metres.
- 4.3 Access at the roadside at Point **C** would be via a gap at least 1.1 metres wide.
- 4.4 An informal consultation was undertaken on 8 December 2021. The Local Member, Councillor Alex Dale, and North East Derbyshire District Council were consulted and offered no objections to the proposal. However, objections were received from a member of the public and Unstone Parish Council. The substance of these were as follows:

From the member of the public:

'A great many footpaths in Derbyshire pass through fields where stock are grazing. There is no greater risk here in West Handley than there is in these other locations and unless there are other specific circumstances which indicate a high degree of risk for walkers using the existing footpath, there is no justification for diverting a public right of way which has been in existence for a very long time and part of a network of paths serving the village and surrounding countryside. The owner of the land was aware of the footpath at the time of purchase, and as far as I am aware, there have been no issues of public safety or damage to the land or stock since that time'.

From the Parish Council:

'The Council would like to object against the diversion of Footpath 37 a number of Councillor and also the caretaker regularly use this footpath and they find the diversion unnecessary due to the amount of cows that could be grazed on this size of field. The Council also feel that there is a real danger of the new road access to walkers as traffic moves at a fast pace on this road and it is narrower in the proposed new location'.

- 4.5 In assessment of these objections:
- a) The stated purpose of the application is to enable the grazing of cattle and calves without endangering the public. The objectors assert that the field is not big enough to make this worthwhile, but taking the

application in good faith, this is the applicant's intention and they will be defraying all costs associated with the application and installation of the diverted route.

- b) The longstanding existence of a public footpath is not, by itself, a valid reason for it not to be diverted. There are no significant historic aspects of the existing route that would be lost to the public by diverting the footpath.
- c) Increased danger on the road is potentially a valid ground for objection, but it is not clear that the diversion would increase the danger. If travelling north up Long Lane, it would entail more road walking and therefore more potential danger, but if travelling south (such as doing a circuit from West Handley back along Main Road), it would reduce the amount of road walking, reducing potential danger. The Parish Council said the road is narrower at the proposed location, but this is not in fact the case. The Parish Council may have been referring to the width of the verge, but this is actually wider. The Council's Road Safety Team gave the following comment:

'If the new path is utilising the track then there is ample room to wait, significantly more than the other exit point. The verge is narrow and speeds will be high but volume is relatively low. Visibility is good in both directions and therefore I have no real concerns in moving the path to what is essentially 50m down the road. If walkers want to use any other path off Long Lane you have to walk on the verge and whilst I have not been to site I have travelled along the road and trust your experience. There are no reported injury collisions in the last three years (to date 31 October 2021).'

4.6 In conclusion, none of the grounds for objection appear to be valid in this case.

4.7 In investigating the application the following criteria were considered:

Whether it is in the interests of the owner of the land or of the public that the footpath should be diverted:

The owner, who is also the occupier, states that he wishes to graze cows with calves in the field. This would present a danger to the public using the footpath where it is at present, but the diversion would remove this danger.

Whether the diverted footpath will (or will not) be substantially less convenient to the public:

The existing and proposed routes are of similar lengths – 100 and 96 metres respectively. However, if travelling north after traversing the footpath it would entail an extra 47 metres of road walking, as would travelling south along the road to get to the roadside entrance. If travelling south after traversing the footpath it would entail 47 metres less road walking, as would travelling north along the road to get to the roadside entrance. The existing path has a stile at the entrance but the proposed path would have a gap, which is more convenient. There is also a stile just beyond the east end of the diversion, and the owner has agreed to replace this with a pedestrian gate, which would be more convenient.

The effect the diversion would have on the public enjoyment of the footpath as a whole:

The proposed route would be stone-surfaced, which offers drier and firmer walking than the existing pasture field. The existing entrance crosses a highway ditch by means of a narrow stone slab, but the proposed entrance is much wider and safer, using a covered pipe. Also considering the above mentioned ‘convenience’ aspects, the effect should be an increase in enjoyment.

The effect which the coming into operation of the Order would have as respects other land served by the existing public rights of way:

No issues are anticipated in this regard.

The effect which the new public right of way created by the Order would have as respects the land over which the right is so created and any land held with it:

No issues are anticipated in this regard.

Whether it is expedient to make the Order

It is considered that the proposed diversion is in the interests of the owner-occupier. It would not be substantially less convenient to the public and would not have an adverse effect on the public enjoyment of the route as a whole or adversely affect the land over which the diversion would run, or adversely affect land served by the existing right of way. It is therefore concluded that it is expedient to make the order.

5. Consultation

5.1 If an order is made, it will be subject to a statutory 28-day consultation.

6. Alternative Options Considered

- 6.1 The alternative option is to refuse the application and leave the path on its existing route. This is not recommended as the application appears to satisfy the criteria set out in the legislation and the objections do not appear to be valid (reference Section 2.1 of Appendix 1)

7. Implications

- 7.1 Appendix 1 sets out the relevant implications considered in the preparation of the report.

8. Background Papers

- 8.1 Diversion application form dated 13 September 2019.
- 8.2 Applicant's map dated 5 October 2019.
- 8.3 Correspondence with applicant about the application, dated 23 September 2019 to 9 December 2019.
- 8.3 Land Registry documents dated 23 September 2019 - 7 November 2019.
- 8.4 Assessment by Legal Services dated 21 April 2020.
- 8.5 Informal Consultation letter and map dated 8 December 2021.
- 8.6 Consultation responses and related correspondence dated 9 December 2021 – 22 February 2022.
- 8.7 Correspondence with Highways Management about roadside ditch dated 8 August 2022 – 9 August 2022.
- 8.8 Certification of posting site notices dated 2 February 2023.

9. Appendices

- 9.1 Appendix 1- Implications.
- 9.2 Appendix 2 – Plan of proposed diversion.

10. Recommendation

That:

- a) The Director of Legal and Democratic Services be authorised to make the necessary order for the permanent diversion of part of Footpath No. 37 in the Parish of Unstone under the provisions of Section 119 of the Highways Act 1980.
- b) Should objections be received to the making of the Order that cannot be resolved, then the matter be forwarded to the Secretary of State for determination.

11. Reasons for Recommendations

11.1 The proposal meets the statutory criteria.

11.2 This is a required step in the statutory process, unless the order is to be abandoned.

12. Is it necessary to waive the call in period?

12.1 No.

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Implications

Financial

- 1.1 In line with the Council's Charging Policy, the costs of this work (estimated to be £2,000) must be paid by the landowner in full before any work commences. Failure of the landowner to make payment in full will mean that the works are not carried out.
- 1.2 If once works have commenced, it becomes apparent that costs are to increase then the Council will inform the landowner and seek further payment. If at this point, the landowner no longer wishes to continue with the diversion order costs incurred to date will not be refunded.

Legal

- 2.1 Derbyshire County Council may make an order under Section 119 of the Highways Act 1980:
 - 1) Where it appears to a council as respects a footpath or bridleway in their area that, in the interests of the owner, lessee or occupier of land crossed by the path or way or of the public, it is expedient that the line of the path or way, or part of that line, should be diverted (whether on to land of the same or of another owner, lessee or occupier), the council may, subject to subsection (2) below, by order made by them and submitted to and confirmed by the Secretary of State, or confirmed as an unopposed order,—
 - (a) create, as from such date as may be specified in the order, any such new footpath or bridleway as appears to the council requisite for effecting the diversion, and
 - (b) extinguish, as from such date as may be specified in the order the public right of way over so much of the path or way as appears to the council requisite as aforesaid.
 - 2) A public path diversion order shall not alter a point of termination of the path or way—
 - (a) if that point is not on a highway, or
 - b) (where it is on a highway) otherwise than to another point which is on the same highway, or a highway connected with it, and which is substantially as convenient to the public.
 - 6) The Secretary of State shall not confirm a public path diversion order, and a council shall not confirm such an order as an unopposed order, unless he or, as the case may be, they are satisfied that the diversion

to be effected by it is expedient as mentioned in subsection (1) above, and further that the path or way will not be substantially less convenient to the public in consequence of the diversion and that it is expedient to confirm the order having regard to the effect which—

- (a) the diversion would have on public enjoyment of the path or way as a whole,
- (b) the coming into operation of the order would have as respects other land served by the existing public right of way, and
- (c) any new public right of way created by the order would have as respects the land over which the right is so created and any land held with it,

Human Resources

- 3.1 The Rights of Way section, in conjunction with Legal Services have sufficient resources to process the application.

Information Technology

- 4.1 None.

Equalities Impact

- 5.1 The existing route has a stile at the roadside whereas the new route would have a gap, improving access for those with restricted mobility.

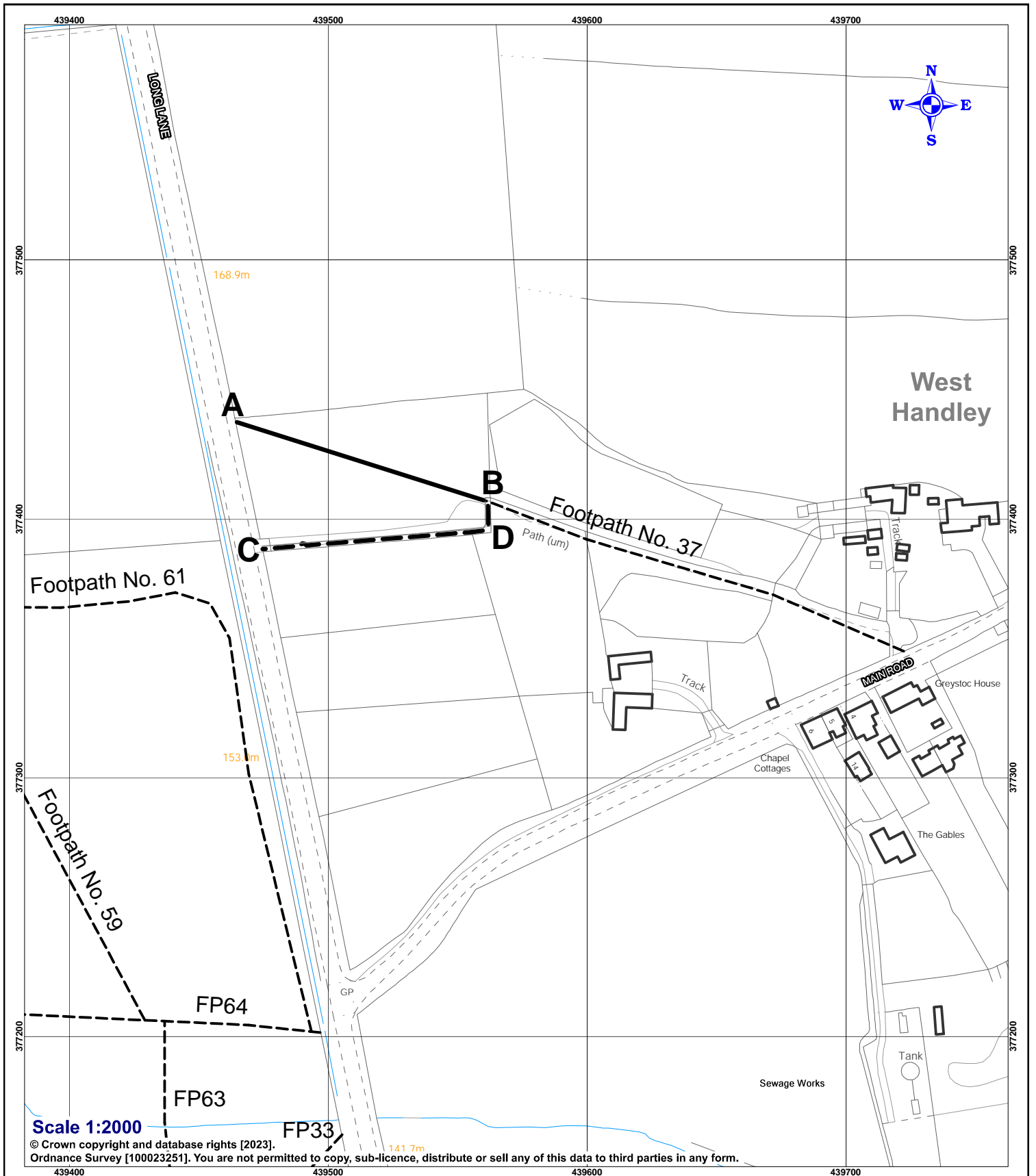
Corporate objectives and priorities for change

- 6.1 The proposal does not conflict with objectives and priorities set out in the Council's Rights of Way Improvement Plan.

Other (for example, Health and Safety, Environmental Sustainability, Property and Asset Management, Risk Management and Safeguarding)

7.1 Environmental

None.



Scale 1:2000

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Chris Henning

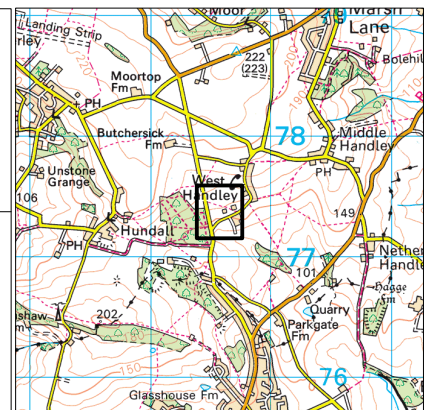
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Highways Act 1980, Section 119:

**Proposed Diversion of
 Public Footpath No. 37 (Part) -
 Parish of Unstone.**

Key:

- Footpath to be diverted
- Alternative footpath
- Other footpaths



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NOISE ASSESSMENT
Proposed Diversion of Public Footpath
No35 (Part), Parish of Hartsorne.

Client: Rory Mulroe

Report by
P M Dyson BSc Dip Acoustics MIOA

Acute Acoustics Ltd.

Report Date: 10th August 2022

Ref: 2713 Hartsorne Path NIA

Site Visited by: P M Dyson

Site Visit: 2 August 2022



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1.0 INTRODUCTION

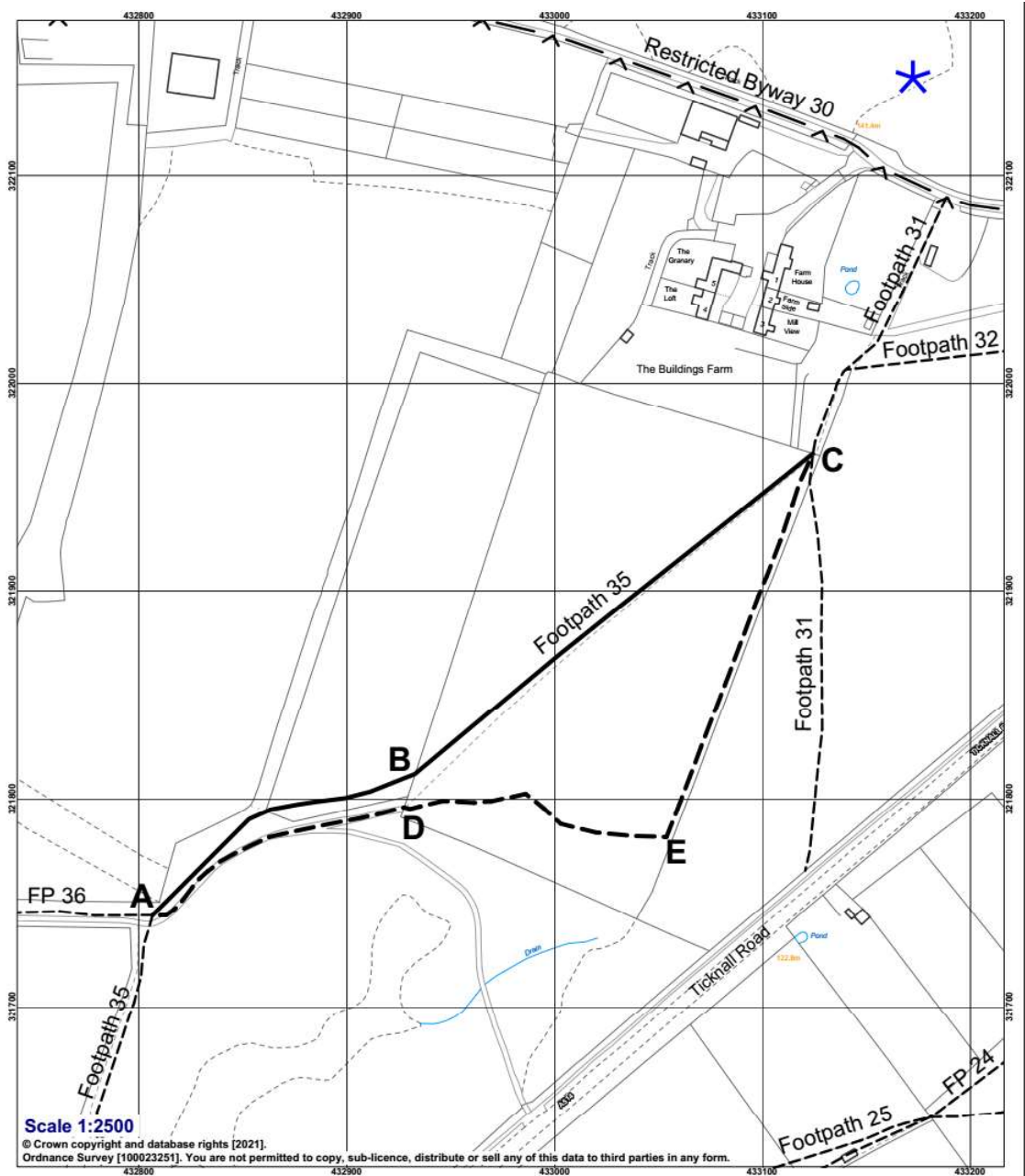
Acute Acoustics Ltd (AAL) was instructed by Rory Mulroe (RM) to carry out an assessment of environmental noise on a proposed diversion of part of a public footpath at No35, in Rowan Woods, Ticknall Road, Hartsorne, Swadlincote, DE11 7AU.

It is understood that Derbyshire County Council (DCC) have requested the noise assessment.

This report considers measurements taken onsite, the requirements of relevant legislation and makes recommendations, as necessary. Acoustic terminology is explained at Appendix 1; my qualifications at Appendix 2 and References at Appendix 3.

2.0 DESCRIPTION

The aim of the proposal is the diversion of a section of pathway as shown on the map below:



Scale 1:2500

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Date: 20 December 2021



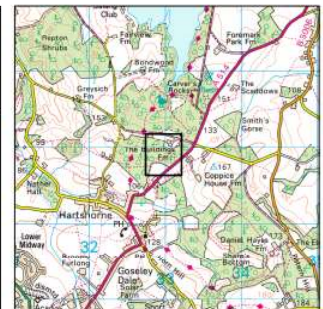
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Highways Act 1980, Section 119

Proposed Diversion of Public
Footpath No. 35 (Part) - Parish of Hartshorne

Key:

- Path to be diverted
- Alternative footpath
- Other Footpaths
- Existing Restricted Byway



The existing section of path under consideration runs from Point A to Point C. The proposed (or new) route runs from Point A to Point C via points D & E.

The existing section of path is approximately 260m long at an average distance of some 150m from the kerbside edge of Ticknall Road.

The proposed section of path is approximately 336m long at an average distance of 82m from the kerbside edge of Ticknall Road.

Both existing and proposed pathways follow routes through wooden areas and so Ticknall Road is completely hidden from view from both routes.

From the map above, it can be seen that the section of path under consideration forms part of a network of pathways, some running further away from Ticknall Road and some towards it.

It should be noted that whilst difficulties identifying the existing path have been mentioned, the small difference in distance between the 'Legal Line' and 'Walked Line' when compared to the distance from Ticknall Road would make any changes in noise level insignificant.

3.0 ASSESSMENT CRITERIA

It is not clear what criteria that DCC are particularly concerned about so the following have been included for consideration.

3.1 National Planning Policy Guidance - Noise

The National Planning Policy Guidance – Noise [Ref 1] (NPPG) is a qualitative rather than quantitative guidance on acceptable noise levels that may affect a development. The guidance refers to the ‘Noise Policy Statement for England’ 2010 (NPSE) [Ref 2], which is the policy document with regard to noise.

In paragraph 5 of the NPPG, various noise categories and thresholds are set out and Table 1 below summarises the noise exposure hierarchy, based on the likely average response.

Perception	Example of Outcomes	Increasing Effect Level	Action
Not Noticeable	No Effect	No Observed Effect	No Specific Measures required
Noticeable and not intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect (NOEL)	No Specific Measures required
		Lowest Observed Adverse Effect Level (LOAEL)	
Noticeable and Intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of	Observed Adverse Effect	Mitigate and reduce to a minimum

	television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.		
		Significant Observed Adverse Effect Level (SOAEL)	
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant,	Unacceptable Adverse Effect	Prevent

medically definable harm, e.g. auditory and non- auditory		
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Table 1: Noise Exposure Hierarchy

For noise impacts considered to be up to and including “Noticeable and Intrusive”, it seems likely that the intention is to recognise that whilst the noise levels are not desirable, planning consent should be granted provided that the noise can be mitigated, and the intrusion reduced to a minimum.

Noise which is “Noticeable and disruptive” should be avoided, which presumably means such noise levels are permissible under certain circumstances; however, it is the next level of disturbance “Noticeable and very disruptive” that should be prevented, i.e. not permissible under any circumstances.

3.2 British Standard 8233:2014

With regard to **external noise levels**, BS8233:2014 states:

“7.7.3.2 Design criteria for external noise

For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB LAeq,T, with an upper guideline value of 55 dB LAeq,T which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all

circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited.

Other locations, such as balconies, roof gardens and terraces, are also important in residential buildings where normal external amenity space might be limited or not available, i.e. in flats, apartment blocks, etc. In these locations, specification of noise limits is not necessarily appropriate. Small balconies may be included for uses such as drying washing or growing pot plants, and noise limits should not be necessary for these uses. However, the general guidance on noise in amenity space is still appropriate for larger balconies, roof gardens and terraces, which might be intended to be used for relaxation. In high-noise areas, consideration should be given to protecting these areas by screening or building design to achieve the lowest practicable levels. Achieving levels of 55 dB LAeq,T or less might not be possible at the outer edge of these areas, but should be achievable in some areas of the space.”

From the wording, it is clear that there is no intention for the guideline noise levels to be applied to the general spaces external to apartment

blocks and that the limits are only intended to apply to more private amenity spaces such as gardens and patios and larger balconies where residents would be expected to spend some time relaxing.

The wording of BS8233 also makes it clear that the guideline noise levels for gardens, patios, larger balconies etc, are not overriding planning considerations in any event.

3.3 Control of Noise at Work Regulations (2005)

The Control of Noise at Work Regulations 2005 came into force on 6th April 2006 and incorporates, among other criteria, the lower energy action level: a daily (or weekly) personal noise exposure, of 80dBA $L_{ep,d}$ ($L_{ep,w}$) which equates to a constant noise level of 80dBA for 8 hours every day (or week)

At noise levels lower than 80dBA, noise is not judged to be a cause for concern.

3.4 Coronavirus

At the time of carrying out the assessment the Coronavirus pandemic was still occurring although the economy had opened up with pubs, clubs and restaurants operating again. From DfT data [Ref 9], road traffic levels were at 94% of pre-lockdown levels during the

monitoring period (2/8/2022) therefore road traffic noise levels are considered to be representative.

A 6% drop in noise levels equates to a level difference of 0.3dB.

4.0 NOISE MEASUREMENTS

In order to ascertain the difference in noise levels between the two pathways, the site was visited during the afternoon of Tuesday 2nd August 2022 and noise monitoring equipment was installed at position 'E', the nearest position of the proposed route to Ticknall Road measure noise levels.

In addition, noise measurements were made whilst walking the two routes in both directions.

Noise measurements were carried out to capture the period from 15:00-18:00, when road traffic would be expected to be at its busiest, in accordance with the suggestion of the DCC case officer.

The weather conditions during the monitoring period were sunny with temperatures of 24-26 degrees Celsius. Wind speeds were generally low, 0-2 Beaufort Scale and were checked when onsite with a Kestrel 2000 handheld anemometer (s/n 2080552) to check that wind speed

did not exceed 5m/s.

Weather information was from observations made at the time of the site visit.

The sound level meters were both Svan type 949 (s/n 8520 & 12224); mounted on a tripod at a height of 1.2m or handheld at arm's length and fitted with a wind muff.

The meters calibrated correctly before and after the measurements using a Castle calibrator type GA607 (s/n 039893).

Both meters and calibrator had been laboratory calibrated within the preceding 2 years.

5.0 RESULTS

5.1 Position E

The detailed results are shown below in Figure 1/dB.

Description	Start Time	Duration,T	LAeq,T	LA1	LA10	LA90	LAmax[F]
Point E	14:42:06	00:15:00	53.4	62.2	56.8	43.1	73.1
Point E	14:57:06	00:15:00	53.3	59.7	57	45.8	62.5
Point E	15:12:06	00:15:00	54.4	60.6	57.6	47.5	65.3
Point E	15:27:06	00:15:00	55.6	64.3	58.1	47.1	70.3
Point E	15:42:06	00:15:00	53.9	60.4	57.6	43.9	61.9
Point E	15:57:06	00:15:00	55.1	60.9	58.2	49.1	65.3
Point E	16:12:06	00:15:00	55	61.5	58.1	46.7	64.5
Point E	16:27:06	00:15:00	54.6	60.4	57.7	46.1	64.3
Point E	16:42:06	00:15:00	54.6	60.7	58.1	45.8	63.4
Point E	16:57:06	00:15:00	54.4	61.1	58.1	44.5	65.9
Point E	17:12:06	00:15:00	54.9	61.2	58.4	45.5	63.5
Point E	17:27:06	00:15:00	55.6	62.2	58.7	47	69.1
Point E	17:42:06	00:15:00	55.4	62	58.9	46.4	67.2
Point E	17:57:06	00:10:26	53.8	60.6	57.8	42.9	62.3

Figure 1: Main Results – Point E/dB

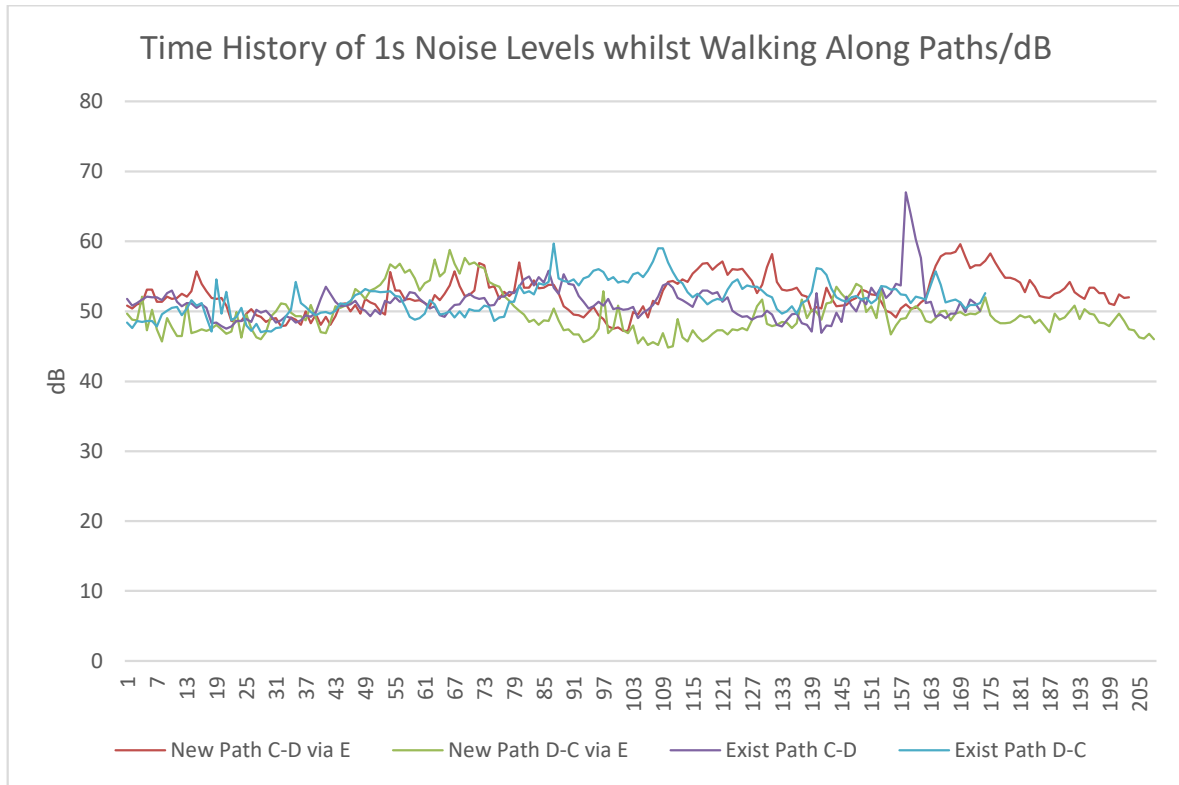
5.2 Walking Along Path Measurement Results

The detailed results are shown below in Figure 2/dB.

Description	Start Time	Duration,T	LAeq,T	LA1	LA10	LA90
Walk Along Existing Path C-D	15:38:22	00:02:53	52.6	62.5	53.7	48
Walk Along Existing Path D-C	15:41:50	00:02:54	52.6	58.8	55.1	48.1
Walk Along New Path C-D via E	15:45:14	00:03:23	53.2	59.2	56.3	48.2
Walk Along New Path D-C via E	15:49:06	00:03:28	50.8	58.4	54.4	45.4

Figure 2: Walking Along Path Noise Results/dB

Graph 1 below shows the 1s Time History of RMS noise levels for the walks along both paths in both directions.



Graph 1 – Time Histories of Noise Levels Along Paths/dB

5.3 Subjective Assessments

It was noted at the time of the site visit that road traffic was the dominant noise source. Road traffic was observed to be travelling fairly fast on this derestricted stretch of road. There were frequent gaps in traffic when noise levels were perceived to be noticeably lower.

Other sources notes included birds singing, occasional movement of foliage caused by breezes and occasional high altitude aircraft.

6.0 ASSESSMENT OF RESULTS

6.1 LAeq Levels Along Pathways

Considering the LAeq levels from Table 2 above, it can be seen that noise levels were fairly similar between the two routes but with both the highest and lowest levels monitored whilst walking the proposed route. The differences in levels was likely to have been caused by the different road traffic flows during the walks.

Considering Graph 1 above, it can be seen that transient noise levels varied by over 10dB with some of the lowest levels measured whilst walking the proposed path and some of the highest whilst walking along the existing path.

As stated above, the differences in transient levels was caused by passing traffic (or lack of it) and accounted for a difference in LAeq levels of 2.4dB, measured when walking along the proposed path immediately followed by walking back along the same path.

6.2 LAeq Levels at Point E

Considering the LAeq levels from Table 1 above, it can be seen that noise levels for each 15 minute period were fairly consistent varying between 53-56dBA. These results were for Point 'E' some 57m from Ticknall Road. The log average of these results = **54.6dBA**.

Using this baseline level together with the average distance of the existing path, the average noise level for the existing path can be calculated.

Assuming the predominant noise source was road traffic, "Calculation of Road Traffic Noise" [Ref 5] states that "The source of traffic noise (the source line) is taken to be a line 0.5m above the carriageway level and 3.5m in from the nearest carriageway edge."

$$\delta\text{SPL} = 10\text{LOG}_{10} L1/L2$$

where δSPL = change in Sound Pressure Level

L1 = Distance to Monitoring Point (60.5m)

L2 = Distance to Existing Path Receptor (153.5m)

= 4.2 dB which must be subtracted from the level at Point E

= **50dBA** (54.6-4.2 to nearest whole number)

Using the same method, the average noise level for the proposed path can be calculated.

L1 = Distance to Monitoring Point (60.5m)

L2 = Distance to Proposed Path Receptor (85.5m)

= 1.5 dB which must be subtracted from the level at Point E

= **53dBA** (54.6-1.5 to nearest whole number)

Therefore, ignoring any other factors, and assuming an absolutely constant noise source, the noise level along the proposed path is 3dB

higher than the noise level along the existing path. This is to be expected as the distance between the existing path and Ticknall Road is approximately double the distance between the proposed path and Ticknall Road and for line propagation, noise levels decrease by 3dB for a doubling of distance.

An increase in noise level of 3dB is considered to be just discernable to the human ear so the small increase would not be likely to be judged as being unbearable when compared to the noise level when walking along the existing path, especially as Graph 1 shows that transient levels varied by more than that whilst walking along the path by either route.

Furthermore, the traffic flow along Ticknall Road, whilst being fairly constant when measured over a longer time period, 15minutes, does vary significantly from second to second and minute to minute and the short duration of the section of path under consideration meant that noise levels encountered during a walk along the path can vary by virtually as significant an amount as is caused by the reduced distance between Ticknall Road and the proposed path. The existing path took 180s approx. to walk and the proposed path took 204s approx. A person walking the exact same route only minutes later could be exposed to a noise level 2-3dB higher or lower caused solely by traffic movements.

6.3 Consideration Against Noise Criteria

A noise level of 53dB LAeq meets the BS8233 criteria for outdoor amenity areas of 55dB LAeq,16hr.

When considered against the noise at work legislation, a noise level of 50dBA continuing for 8 hours would equate to an Lep,d of 50dB.

A noise level of 53dBA continuing for 8 hours would equate to an Lep,d of 53dB.

Both these noise levels are well below the lower energy exposure value of 80dB Lep,d and thus there is no measurable likelihood of noise induced damage to hearing.

Whilst it can be said that there is a small increase in noise level, it would only just be discernible to the human ear and would not constitute any measurable risk.

7.0 DISCUSSION

As stated above, the section of pathway 35 under consideration forms part of a longer path and network of paths. The noise exposure will also be affected by noise from the rest of the route with some pathways closer to, and some farther away from Ticknall Road (and

other roads). The small increase in noise exposure will be decreased even further when considered as part of a longer walk.

8.0 CONCLUSIONS

- An assessment of exposure to road traffic noise for an existing and proposed diversion to a pathway is presented above.
- Whilst there is a likely increase in noise level of 3dB when considering a constant noise source, differences in road traffic flow and hence transient noise levels can create changes in level as significant as the distance attenuation.
- Any small increase would be just perceptible to the human ear and would not be likely to be judged as unacceptable.
- The noise level for the proposed path meets the BS8233 criteria for outdoor amenity areas.
- The noise level for the proposed path, even if exposed to for 8 hours, is well below the lower energy exposure value and thus there is no measurable likelihood of noise induced damage to hearing.

APPENDIX 1

EXPLANATION OF ACOUSTIC TERMS

The dB or the decibel, is the unit of noise. The number of decibels or the level, is measured using a sound level meter. It is common for the sound level meter to filter or 'weight' the incoming sound so as to mimic the frequency response of the human ear. Such measurements are designated **dB(A)**.

A doubling of the sound is perceived, by most people, when the level has increased by 10 dB(A). The least discernible difference is 2 dB(A). Thus, most people cannot distinguish between, say 30 and 31 dB(A).

If a noise varies over time then the **equivalent continuous level, or LAeq**, is the notional constant level of noise which would contain the same amount of acoustic energy as the time varying noise.

The following table gives an indication of the comparative loudness of various noises expressed in terms of the A weighted scale:

Source of noise	dB(A)	Nature of Noise
Inside Quiet bedroom at night	30	Very Quiet
Quiet office	40	
Rural background noise	45	
Normal conversational level	60	
Busy restaurant	65	
Typewriter @ 1m	73	
Inside suburban electric train	76	
Alarm clock ringing @ .5m	80	
Hand clap @ 1m	80	
HGV accelerating @ 6m	92	Very Loud

APPENDIX 2

The measurements were carried out and the report prepared by Peter Dyson of Acute Acoustics Ltd., a consultancy company which specialises in Environmental and Workplace Noise.

He holds the Institute of Acoustics Diploma in Acoustics and Noise Control, a Bachelor's degree in Mechanical Engineering, The Institute of Acoustics Certificates of Competence in Environmental Noise Assessment and in Workplace Noise Measurement. He is a Member of the Institute of Acoustics.

He is also an ANC accredited Sound Insulation tester for Martec Environmental Consultants Ltd., a consultancy company which also specialises in Environmental and Workplace Noise.

Acute Acoustics Ltd is a member of the Association of Noise Consultants.

APPENDIX 3 REFERENCES

- 1 National Planning Policy Guidance – Noise - <https://www.gov.uk/guidance/noise--2>
- 2 Noise Policy Statement for England - 2010 (NPSE) - assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69533/pb13750-noise-policy.pdf
- 3 BS4142:2114 “Methods for Rating and Assessing Industrial and Commercial Sound”.
- 4 ProPG: Planning & Noise - www.ioa.org.uk/publications/propg
- 5 BS.8233: ‘Guidance on Sound Insulation and Noise Reduction for Buildings’
- 6 Calculation of Road Traffic Noise (CRTN) – Department of Transport and the Welsh Office, HMSO,1988, ISBN 0-11-550847-3
- 7 Method for Converting the UK Road Traffic Noise Index $L_{A10,18h}$ to the EU Noise Indices for Road Noise Mapping – TRL/Casella Stanger
<http://www.defra.gov.uk/environment/quality/noise/research/crtn/documents/noise-crtn-update2006.pdf>
- 8 BS EN 12354-3:2000 *Building Acoustics-Estimation of Acoustic Performance in buildings from the performance of elements. Part 3 Airborne sound Insulation against outdoor sound.*
- 9 Transport Use by Mode – Great Britain since March 2020 - <https://www.gov.uk/government/statistics/transport-use-duringthe-coronavirus-covid-19-pandemic>

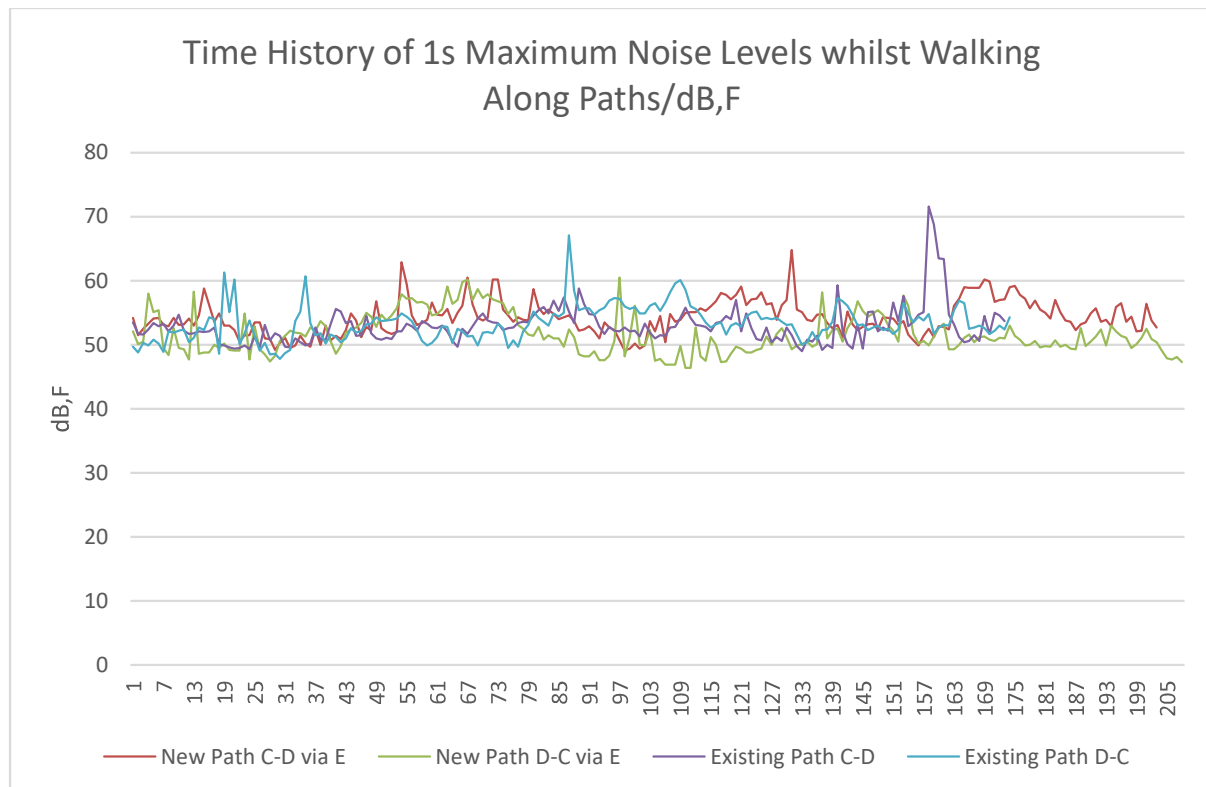
TECHNICAL NOTE

Date 21st September 2022
Site Visited 2nd August 2022
Ref. 2713

This technical note has been prepared to address questions raised by Laura Summers, Rights of Way Assistant at Derbyshire County Council. The queries and responses are shown below:

1. The measurements for the loudest noises that were recorded on the proposed route. What caused the noises and how often and for how long they persisted.
2. The measurements for the loudest noises that were recorded on the existing route. What caused the noises and how often and for how long they persisted.
3. The measurements of the lowest noises that were recorded on the proposed and existing routes.
4. Does the noise made by the intermittent traffic on the Ticknall Road fluctuate or in general does the noise remain at a constant level of sound.

Graph 1 in the original report showed a comparison of LAeq,1s noise levels whilst walking along the two paths. Graph 1A below shows the equivalent comparison of 1 second maximum noise levels (measured with Fast Time Weighting) whilst walking along both paths.



Graph 1A – Time Histories of Maximum Noise Levels Along Paths/dB,F

Comparing maximum noise levels for 1 second intervals against LAeq levels for the same 1 second interval, shows an average difference of ≈ 2 dB, i.e, the instantaneous maximum noise level was approximately 2dB higher than the LAeq level for the same 1 second period.

It can be seen that maximum noise levels were largely similar along both paths. The highest levels were actually measured whilst walking along the existing path. The loudest noises were generally caused by stepping on a twig or brushing past a branch or some other interaction with the environment.

It can also be seen that the highest levels were caused by transitory noise sources of very short duration, such as stepping on a twig or breaking a branch.

Considering the lowest noises (L_{Amin}) measured, Figure 2A below shows the L_{Amin} (together with L_{Aeq} and L_{Amax}) for the walk along the existing path and proposed path in both directions.

Description	Start Time	Duration,T	L _{Aeq,T}	L _{Amax[F]}	L _{Amin[F]}
Walk Along Existing Path C-D	15:38:22	00:02:53	52.6	71.6	45.8
Walk Along Existing Path D-C	15:41:50	00:02:54	52.6	67.1	45
Walk Along New Path C-D via E	15:45:14	00:03:23	53.2	64.8	44.9
Walk Along New Path D-C via E	15:49:06	00:03:28	50.8	60.5	42.9

Figure 2A: Walking Along Path Noise Results/dB

It can be seen that the lowest minimum noise level was measured whilst walking along the new path though it should be pointed out that the differences are very small, only 1-2dB and likely to be virtually imperceptible to the human ear.

With regard to the noise levels of the intermittent traffic, the level of constancy depended on the time interval considered. Figure 1 in the original report contains 15 minute measurements and it can be seen that levels from one 15 minute period to the next were pretty consistent; however, considering a shorter time period such as the time taken to walk along the path, about 3-3.5 minutes, there was slightly more variation caused by the traffic movements and noises caused by brushing against or walking on twigs and branches etc.

From an observer standing at the edge of the road, noise levels would vary moment to moment as traffic, mainly comprised of single or small groups of vehicles passing with gaps of varying durations between.

To put the L_{Aeq} (or average noise levels) into context, a conversation at normal level between two people at 1m apart would be around 60dB L_{Aeq}, 5-7dB louder

than noise levels measured when walking alone.

I trust that this information, in conjunction with the original report, is of assistance. Please let me know if you need anything more.

Prepared by: P M Dyson BSc Dip Acoustics MIOA

