

# Legend

Phase One SES3 and AP4 ES alignment October 2015

Green Tunnel  
Cutting  
Embankment

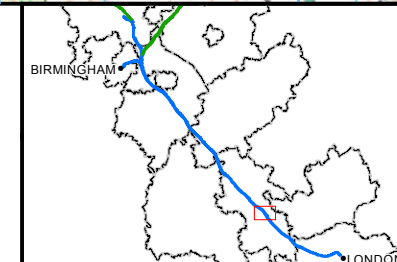
Green Tunnel  
Cutting  
Embankment

Cutting

Embankment

Parish Boundary

Amendments to Hybrid Bill Limits as a result of AP  
Hybrid Bill Limits removed as a result of AP  
Hybrid Bill Limits



High Speed Two  
Petitioner Location Plan  
Reference Drawing

SC-01-867

The Wendover Society

Petitioner

Petition number  
HS2-HS2-HY-PET-AP5-000001



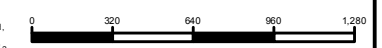
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Doc Number: PH1-HS2-HY-MAP-020-000084

Scale at A3: 1:30,000



AP5/00001/0002



# **The Wendover Society**

**Formed 1965**

**Active over 50 years**

**Some 500 individual members**

**One consistent aim – to preserve the charm and scale of Wendover**

# **Ask**

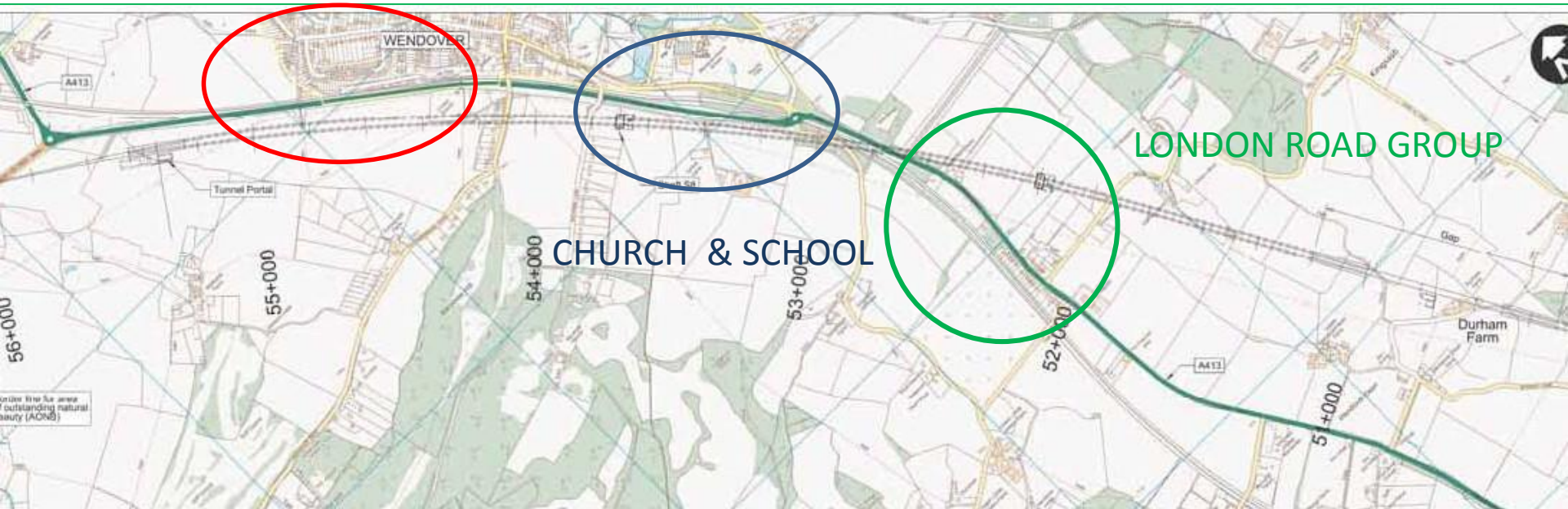
## **A Bored or Mined Tunnel at Wendover**

**Failing that;**

**The cut and cover tunnel  
extended at both ends.**

# OVERVIEW

NORTH WENDOVER



## Noise Policy Aims

Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.

Government's guiding principles of sustainable development include: ensuring a strong, healthy and just society; using sound science responsibly; living within environmental limits; achieving a sustainable economy; and promoting good governance.

**Information Paper E20** **LOAEL** – Lowest Observed Adverse Effect Level - the level **above** which **adverse** effects on health and quality of life can be detected.

## Lamax ADVERSE IMPACTS – EXTRACT SES4

ID	Area represented	Proposed Scheme only (Year 15 traffic)			Do nothing (Opening year baseline)			(Opening year baseline + Year 15 traffic) ****		Change		Type of effect	Number of impacts represented	Type of receptor	Receptor design	Existing environme	Unique feature	Combined impact	Mitigation of effect	Significant effect
		Day *	Night **	Max ***	Day *	Night **	Max ***	Day *	Night **	Day *	Night **									
312373	North Lee Lane, Terrick	51	43	59/62	49	48	51	52	49	3	1	A	1	R	T	-	-	-	-	~
312509	Nash Lee Road, Terrick	48	39	63/66	36	45	53	56	46	1	1	NA	5	R	T	-	-	-	-	
313082	North Lee Lane, Terrick	50	43	58/61	49	48	51	52	49	3	1	A	5	R	T	-	-	-	-	~
313100	North Lee Lane, Terrick	50	43	56/60	49	48	51	52	49	3	1	A	1	R	T	-	-	-	-	~
313140	North Lee Lane, Terrick	49	39	60/63	46	39	51	51	42	5	3	NA	1	R	T	-	-	-	-	#
313291	North Lee Lane, Terrick	49	40	59/62	49	48	51	52	48	3	1	A	4	R	T	-	-	-	-	#
313337	Risborough Road, Stoke Mandeville	51	42	61/64	54	45	53	55	47	2	2	A	8	R	T	-	-	-	-	
314444	Nash Lee Road, Terrick	48	39	61/64	56	45	53	56	46	1	1	NA	13	R	T	-	-	-	-	
314625	Nash Lee Farm, Nash Lee	52	43	65/68	56	45	53	57	47	2	2	A	6	R	T	-	-	-	-	
314652	Nash Lee Road, Terrick	59	50	65/70	57	46	53	61	51	4	5	A	1	R	T	-	-	-	-	OSV10-Cod
314668	Nash Lee Road, Terrick	58	50	65/68	57	46	53	58	50	1	3	A	1	R	T	-	-	-	-	OSV10-Cod
314704	Nash Lee Road, Terrick	60	51	67/70	57	46	53	61	51	4	5	A	4	R	T	-	-	-	-	OSV10-Cod
314865	Wendover Road, Stoke Mandeville	49	41	61/64	54	47	52	55	48	1	1	A	1	R	T	-	-	-	-	
350579	London Road, Wendover	45	35	62/65	57	52	90	58	52	0	0	NA	2	R	T	-	-	-	-	
350695	Cobblers Hill, Wendover	43	34	58/61	51	45	55	51	45	1	0	NA	2	R	T	-	-	-	-	
350753	London Road, Wendover	51	41	66/69	66	60	83	66	60	0	0	A	3	R	T	H	-	-	-	

‘Thirdly, on Wendover, we are minded to recommend a southward extension of the currently proposed green tunnel, unless hs2 report back with a very convincing scheme of further mitigation, on which we expect a report back in September.’

The fundamental Democratic process is being tested by an indifferent Government Department that is not complying with the SC request.

Alternatives to imposing permanent adverse effects on 9,000 Wendover people who are united in their opposition to the present scheme, do exist.

## Predicted Operational Noise Outcomes for Wendover

	Bill scheme	Draft enhanced scheme	AP5 scheme	Draft surface enclosure	Draft mined tunnel
Significant Effect at St. Mary's Church	Yes	No	No	No	No
Significant Community Effect at Bacombe Lane	Yes	No	No	No	No
Number of Dwellings at or above LAeq LOAEL	18	14	0	0	0
Number of Dwellings at or above LAMax LOAEL – HS2 train	392	103	122	112	91
Cost estimate relative to Bill scheme	0	+£2m	+£10m	+£40m	+£275m



Dear Mr Lewis,

You asked for more information relating to the schemes given in the Wendover Summary Table.  
Please see below:

Details of schemes as given on Wendover Summary Table 1		
	Cost Estimate relative to Bill Scheme	
Draft Enhanced Scheme	+£2M	This includes for: <ul style="list-style-type: none"><li>• Increased height of existing southern noise fence barrier height to 6m.</li><li>• Inclusion of noise fence barrier 6m high at north end of Green Tunnel.</li><li>• Inclusion of short length of noise fence barrier 4m high at south end of Green Tunnel on Bacombe Hill side</li></ul>
AP5 Scheme	+£10M	This includes for: <ul style="list-style-type: none"><li>• Increased height of existing southern noise fence barrier height to 6m.</li><li>• Inclusion of noise fence barrier up to 6m high at north end of Green Tunnel.</li><li>• A 100m southern extension to the Wendover Green Tunnel and associated National Grid realignment works.</li></ul>
Draft surface enclosure	+£40M	This includes for: <ul style="list-style-type: none"><li>• a 700m long surface level enclosure of the railway from the southern end of the Green Tunnel to the Small Dean Viaduct, inclusive of rail systems costs and associated National Grid realignment works.</li></ul>
Draft Mined Tunnel	+275M	This includes for: <ul style="list-style-type: none"><li>• a 4km mined tunnel, with associated portals, one vent shaft and inclusive of rail systems costs and land cost savings.</li></ul>

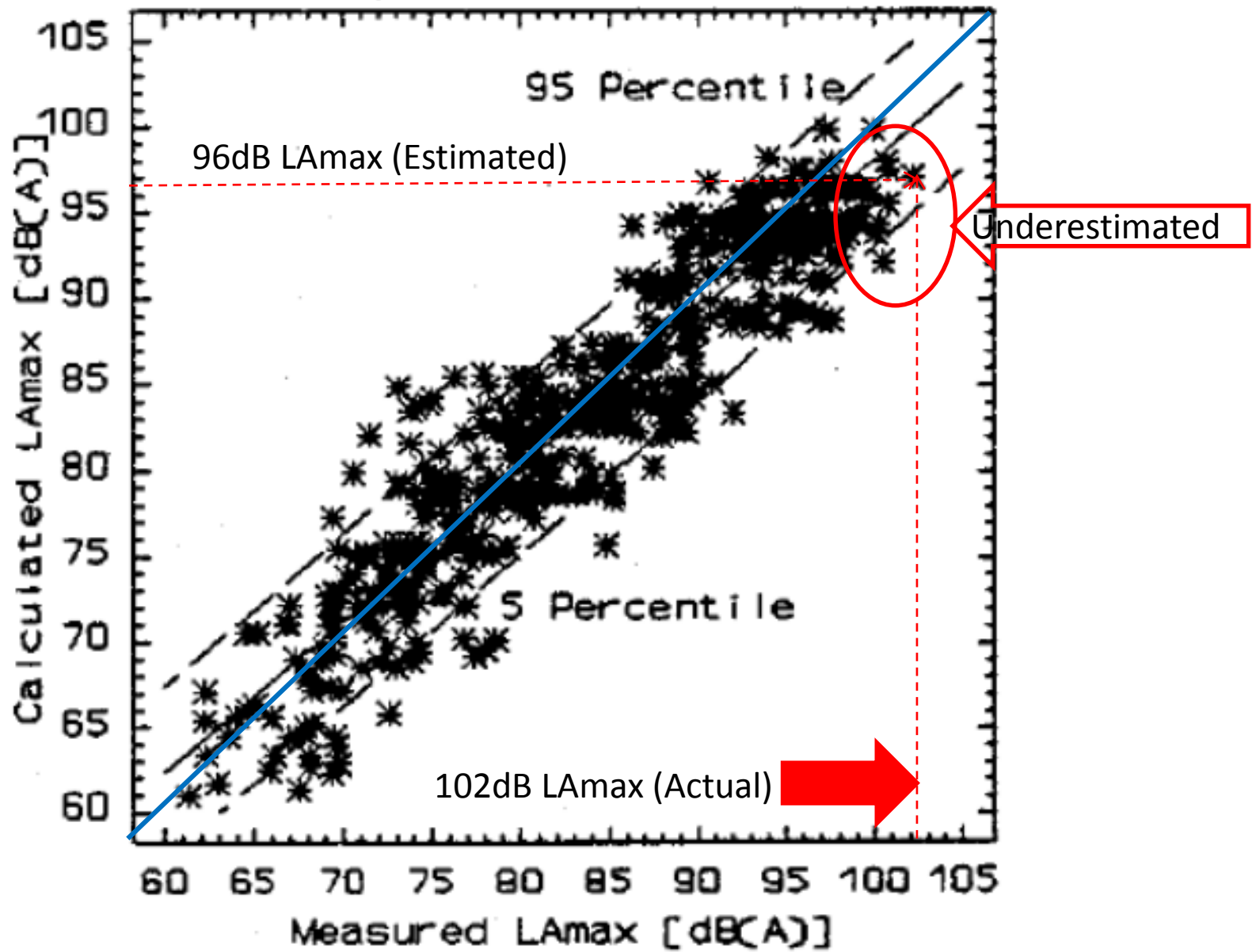
## NORTH WENDOVER ILLUSTRATION

ID	Area Represented	Bill Proposed Scheme			P8161 (31-35)			AP5 - December 2015		
		Day	Night	Max	Day	Night	Max	Day	Night	Max
360117	Thornton Crescent, Wendover	37	28	58/61	33	25	55/58	33	25	57/60
362513	Dobbins Lane, Wendover	41	32	58/61	38	29	56/58	39	30	58/61
362860	Dobbins Lane, Wendover	40	31	58/61	?	?	?	38	29	58/61
366705	Lionel Avenue, Wendover	43	34	59/62	40	31	55/59	42	33	59/62
361026	Dobbins Lane, Wendover	39	31	60/63	35	27	53/56	33	26	53/55
363661	Dobbins Lane, Wendover	43	34	60/63	40	31	56/59	42	33	60/63
362638	Thornton Crescent, Wendover	42	33	62/65	38	30	60/62	39	30	61/64
362785	Bridleways, Wendover	47	38	64/67	43	34	60/63	45	36	64/66
700327	Bridleways, Wendover	47	38	64/67	43	34	60/64	45	36	64/67



## TWS AP5-1 PRD

11. The **Lowest Observable Adverse Effects Levels (LOAELs)** set by the Promoter include 40 dB for the 2300-0700 **LpAeq** and 60 dB for the **LpAFmax (façade)** to assess the impact of airborne noise caused by the operation of the Proposed Scheme on permanent residential buildings. The second of these parameters is used to assess the impact of noise from individual train pass-bys. The use of these parameters, and the values assigned to them have been derived with consideration of the World Health Organization (WHO) guidelines for community and night noise. **As required by Government noise policy all reasonable steps will be taken to design, construct, operate and maintain the Proposed Scheme so that these levels are not exceeded.** Further details can be found in HS2 Information Paper E20, Control of Airborne Noise from Altered Roads and the Operational Railway.





“If you were talking about a tunnel of this length about a mile (1.6km) or a mile and a half (2.4km), then the cut and cover tunnel is cheaper than a bored tunnel. If you go much longer, then the relativities change.”

Professor McNaughton, Technical Director HS2 Ltd

2 July 2014, morning session, paragraph 118

# **CONCLUSION**

## **A Bored or Mined Tunnel at Wendover**

**We believe the net cost is relatively small.  
The risks of the Bill Scheme are high.  
Both the Promoter and the Committee  
acknowledge the benefits.**

**We believe our ask to protect the residents of  
Wendover is fair, and would be effective and  
proportionate.**