Agenda

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OXFORD CITY COUNCIL

Planning Review Committee

Date: **Wednesday 15 March 2017**

Time: **6.00 pm**

Place: **The Old Library, Town Hall**

For any further information please contact the Committee Services Officer:

Catherine Phythian, Committee and Member Services Officer

Telephone: 01865 252402

Email: cphythian@oxford.gov.uk

If you intend to record the meeting, it would be helpful if you speak to the Committee Services Officer before the start of the meeting.

Planning Review Committee

Membership

Chair	Councillor James Fry	North;
Vice-Chair	Councillor Chewe Munkonge	Quarry and Risinghurst;
	Councillor Farida Anwar	Headington Hill and Northway;
	Councillor Ruthi Brandt	Carfax;
	Councillor Stephen Goddard	Wolvercote;
	Councillor Pat Kennedy	Lye Valley;
	Councillor Sajjad Malik	Cowley Marsh;
	Councillor Dee Sinclair	Quarry and Risinghurst;
	Councillor Ed Turner	Rose Hill and Iffley;

The quorum for this meeting is five members. Substitutes are permitted.

Copies of this agenda

Reference copies are available to consult in the Town Hall Reception. Agendas are published 6 working days before the meeting and the draft minutes a few days after.

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- subscribed to electronically by registering online at mycouncil.oxford.gov.uk

AGENDA

Pages

1 Apologies for Absence

2 Declarations of Interest

3 East West Rail Phase 1 - 2 applications 11 - 98

The applications below have been called into Planning Review committee by 12 councillors: Councillors Hollingsworth, Upton, Kennedy, Fooks, Simm, Taylor, Clarkson, Sinclair, Henwood, Tanner, Lygo and Turner.

The reason for the call in was given as:

"…….. the *(West Area Planning)* Committee decided to go against officer advice, which argued that a refusal of the application was not defensible at appeal. The minutes record that: *"The Head of Planning & Regulatory Services reminded the Committee that a vote against the officer recommendation was likely to prompt NR to launch an appeal and that there were potential risks of an adverse award of costs against the Council from the decision. If that was the case then the officers involved in the NR applications would not be able to support those decisions at appeal as the position of the Council at appeal would be irreconcilable with the professional advice provided by those officers. The Council would need to appoint a new team of advisers to support those members of the Committee presenting the Council's case at appeal."*

The advice from officers is that an appeal against the Council is very likely to be upheld, and as the minutes above make clear, the potential costs of such an appeal may be very substantial indeed, especially if the Council is made to pay the costs of Network Rail into the bargain. When the professional judgement of officers is that they cannot support a decision made by members, I think it is incumbent on members to take every opportunity to review that decision to be sure that it is the right one."

The attached report and appendices covers both of the East West Rail Phase 1 applications included on this agenda.

A covering report and a legal advice note will be published in a supplement to these papers.

4 East West Rail Phase 1 - 16/02507/CND for route section H

Site address: 16/02507/CND for route section H

Proposal: Details submitted in compliance with condition 19 item 2 (operational noise and vibration) of TWA ref: TWA/10/APP/01 (The Chiltern Railways (Bicester to Oxford Improvements) Order - deemed planning permission granted under section 90(2A) of the Town and Country Planning Act 1990).

Officer recommendation:

to **approve** this application and condition 19 be partially approved in relation to the Noise Scheme of Assessment for route section H for the following reasons:

1. The submitted Noise Scheme of Assessment is considered to be robust and has demonstrated that the required standards of noise mitigation set out in the Noise and Vibration Mitigation Policy (January 2011) will be achieved subject to the installation of the specified mitigation measures.

2. The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity and advice from Queens Counsel and external technical advisors. Any harm that the development would otherwise give rise to can be offset by the conditions imposed.

Subject to the following condition, which has been imposed for the reason stated:

1. Development in accordance with submitted details

5 East West Rail Phase 1 - 16/02509/CND for route section I-1

Site address: 16/02509/CND for route section I-1

Proposal: Details submitted in compliance with condition 19 item 2 (operational noise and vibration) of TWA ref: TWA/10/APP/01 (The Chiltern Railways (Bicester to Oxford Improvements) Order - deemed planning permission granted under section 90(2A) of the Town and Country Planning Act 1990).

Officer recommendation:

to **approve** this application and condition 19 be partially approved in relation to the Noise Scheme of Assessment for route section I-1 for the following reasons:

1. The submitted Noise Scheme of Assessment is considered to be robust and has demonstrated that the required standards of noise mitigation set out in the Noise and Vibration Mitigation Policy (January 2011) will be achieved subject to the installation of the specified mitigation measures.

2. The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity and advice from Queens Counsel and external technical advisors. Any harm that the development would otherwise give rise to can be offset by the conditions imposed.

Subject to the following condition, which has been imposed for the reason stated:

1. Development in accordance with submitted details

6 Minutes

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To approve as a true and accurate record the minutes of the meeting held on 15 February 2017.

7 Date of Future Meetings

The following dates are scheduled for meetings of this Committee (if required):

2017
12 April 2017
24 May 2017
14 June 2017
12 July 2017
3 August 2017
13 September 2017
11 October 2017
15 November 2017
13 December 2017

2018
18 January 2018
28 February 2018
14 March 2018
11 April 2018

Councillors declaring interests

General duty

You must declare any disclosable pecuniary interests when the meeting reaches the item on the agenda headed “Declarations of Interest” or as soon as it becomes apparent to you.

What is a disclosable pecuniary interest?

Disclosable pecuniary interests relate to your* employment; sponsorship (ie payment for expenses incurred by you in carrying out your duties as a councillor or towards your election expenses); contracts; land in the Council’s area; licenses for land in the Council’s area; corporate tenancies; and securities. These declarations must be recorded in each councillor’s Register of Interests which is publicly available on the Council’s website.

Declaring an interest

Where any matter disclosed in your Register of Interests is being considered at a meeting, you must declare that you have an interest. You should also disclose the nature as well as the existence of the interest.

If you have a disclosable pecuniary interest, after having declared it at the meeting you must not participate in discussion or voting on the item and must withdraw from the meeting whilst the matter is discussed.

Members’ Code of Conduct and public perception

Even if you do not have a disclosable pecuniary interest in a matter, the Members’ Code of Conduct says that a member “must serve only the public interest and must never improperly confer an advantage or disadvantage on any person including yourself” and that “you must not place yourself in situations where your honesty and integrity may be questioned”. What this means is that the matter of interests must be viewed within the context of the Code as a whole and regard should continue to be paid to the perception of the public.

*Disclosable pecuniary interests that must be declared are not only those of the member her or himself but also those member’s spouse, civil partner or person they are living with as husband or wife or as if they were civil partners.

Code of practice for dealing with planning applications at area planning committees and planning review committee

Planning controls the development and use of land in the public interest. Applications must be determined in accordance with the Council's adopted policies, unless material planning considerations indicate otherwise. The Committee must be conducted in an orderly, fair and impartial manner. Advice on bias, predetermination and declarations of interest is available from the Monitoring Officer.

The following minimum standards of practice will be followed.

At the meeting

1. All Members will have pre-read the officers' report. Members are also encouraged to view any supporting material and to visit the site if they feel that would be helpful (in accordance with the rules contained in the Planning Code of Practice contained in the Council's Constitution).
2. At the meeting the Chair may draw attention to this code of practice. The Chair will also explain who is entitled to vote.
3. The sequence for each application discussed at Committee shall be as follows:-
   (a) the Planning Officer will introduce it with a short presentation;
   (b) any objectors may speak for up to 5 minutes in total;
   (c) any supporters may speak for up to 5 minutes in total;
   (d) speaking times may be extended by the Chair, provided that equal time is given to both sides. Any non-voting City Councillors and/or Parish and County Councillors who may wish to speak for or against the application will have to do so as part of the two 5-minute slots mentioned above;
   (e) voting members of the Committee may raise questions (which shall be directed via the Chair to the lead officer presenting the application, who may pass them to other relevant Officers and/or other speakers); and
   (f) voting members will debate and determine the application.

Preparation of Planning Policy documents – Public Meetings

4. At public meetings Councillors should be careful to be neutral and to listen to all points of view. They should take care to express themselves with respect to all present including officers. They should never say anything that could be taken to mean they have already made up their mind before an application is determined.

Public requests to speak

5. Members of the public wishing to speak must notify the Democratic Services Officer before the meeting starts giving their name, the application/agenda item they wish to speak on and whether they are objecting to or supporting the application. Notifications can be made via e-mail or telephone, to the Democratic Services Officer (whose details are on the front of the Committee agenda) or given in person before the meeting starts.

Written statements from the public

6. Members of the public and councillors can send the Democratic Services Officer written statements and other material to circulate to committee members, and the

planning officer prior to the meeting. Statements and other material are accepted and circulated by noon, two working days before the start of the meeting.

7. Material received from the public at the meeting will not be accepted or circulated, as Councillors are unable to view give proper consideration to the new information and officers may not be able to check for accuracy or provide considered advice on any material consideration arising. Any such material will not be displayed or shown at the meeting.

Exhibiting model and displays at the meeting

8. Applicants or members of the public can exhibit models or displays at the meeting as long as they notify the Democratic Services Officer of their intention by noon, two working days before the start of the meeting so that members can be notified.

Recording meetings

9. Members of the public and press can record the proceedings of any public meeting of the Council. If you do wish to record the meeting, please notify the Committee clerk prior to the meeting so that they can inform the Chair and direct you to the best place to record. You are not allowed to disturb the meeting and the chair will stop the meeting if they feel a recording is disruptive.

10. The Council asks those recording the meeting:

- Not to edit the recording in a way that could lead to misinterpretation of the proceedings. This includes not editing an image or views expressed in a way that may ridicule, or show a lack of respect towards those being recorded.
- To avoid recording members of the public present unless they are addressing the meeting.

Meeting Etiquette

11. All representations should be heard in silence and without interruption. The Chair will not permit disruptive behaviour. Members of the public are reminded that if the meeting is not allowed to proceed in an orderly manner then the Chair will withdraw the opportunity to address the Committee. The Committee is a meeting held in public, not a public meeting.

12. Members should not:

    (a) rely on considerations which are not material planning considerations in law;

    (b) question the personal integrity or professionalism of officers in public;

    (c) proceed to a vote if minded to determine an application against officer's recommendation until the reasons for that decision have been formulated; or

    (d) seek to re-design, or negotiate amendments to, an application. The Committee must determine applications as they stand and may impose appropriate conditions.

Code updated to reflect changes in the Constitution agreed at Council on 25 July 2016.

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WEST AREA PLANNING COMMITTEE 21 February 2017

Application Number: 16/02507/CND for route section H

16/02509/CND for route section I-1

Decision Due by: 21 November 2016

Proposal: Details submitted in compliance with condition 19 item 2 (operational noise and vibration) of TWA ref: TWA/10/APP/01 (The Chiltern Railways (Bicester to Oxford Improvements) Order - deemed planning permission granted under section 90(2A) of the Town and Country Planning Act 1990).

Site Address: Chiltern Railway From Oxford To Bicester **Appendix 1**

Wards: Wolvercote, Summertown, and St Margaret's

Agent: ERM **Applicant:** Network Rail

Recommendation:

West Area Planning Committee is recommended to **approve** these applications and condition 19 be partially approved in relation to the respective Noise Schemes of Assessment for route sections H and I-1 for the following reasons:

1 The submitted Noise Scheme of Assessment is considered to be robust and has demonstrated that the required standards of noise mitigation set out in the Noise and Vibration Mitigation Policy (January 2011) will be achieved subject to the installation of the specified mitigation measures.

2 The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity and advice from Queens Counsel and external technical advisors. Any harm that the development would otherwise give rise to can be offset by the conditions imposed.

Subject, respectively, to the following condition, which has been imposed for the reason stated:-

1. Development in accordance with submitted details

Main Local Plan Policies:

Oxford Local Plan 2001-2016

CP6 - Efficient Use of Land & Density
CP10 - Siting Development to Meet Functional Needs
CP19 - Nuisance
CP21 - Noise

Core Strategy

CS13 - Supporting access to new development
CS27 - Sustainable economy

Other Material Considerations:

- National Planning Policy Framework (NPPF)
- Planning Practice Guidance (PPG)
- Environmental Information
- The deemed planning permission of 23 October 2012 and documents related to it including the Noise and Vibration Mitigation Policy (January 2011)

Relevant Site History:

Over the last 4 years, the Council has dealt with 40 applications relating to East West Rail Phase 1 (EWRP1). The applications specifically relating to condition 19 are listed below.

Planning reference	TWAO/OCC Condition	Subject	Date of decision (approved unless stated)
13/00907/CND	19(2)	Appointment of Independent Experts (IEs)	02.05.13
13/03202/CND	19(2)	Operational vibration - plain line, section H	30.06.15
14/00232/CND	19(2)	Operational vibration - switches + crossings, route section H	30.06.15
14/02962/CND	19(2)	Appointment of replacement IE for Noise	06.11.14
15/00956/CND	19(2)	Operational noise – route section H	30.06.15
15/03110/CND	19(13)	Noise barrier details - route section H	24.12.15
15/03503/CND	19(2)	Operational noise route section I1	18.02.16
15/03587/CND	19(2)	Operational vibration route section I1	16.02.16
16/00456/CND	19(13)	Noise barrier details – Quadrangle House and Bladon Close	14.03.16

16/00818/CND	19(13)	Noise barrier details- route section I/1	09.05.16
16/01406/VAR	15/00956/CND Condition 4	Noise monitoring route section H	10.10.2016
16/01409/VAR	15/03503/CND Condition 4	Noise monitoring route section I1	10.10.2016
16/01410/VAR	13/03202/CND Condition 3	Vibration monitoring on plain line, route section H	Awaiting execution and delivery of Unilateral Undertaking
16/01411/VAR	14/00232/CND Condition 3	Vibration monitoring at switches and crossings, route section H	10.10.2016
16/01412/VAR	15/03587/CND Condition 3	Vibration monitoring on plain line, route section I1	10.10.2016
16/01634/CND	15/01978/CND Condition 1	NSoA route section I2	18.10.2016
16/01635/CND	15/01978/CND Condition 1	VSoA route section I2	18.10.2016
16/01858/VAR	15/00956/CND Condition 2	Remove requirement for implementation of Tata SilentTrack in route section H	Refused 23.09.2016
16/01861/VAR	15/03503/CND Condition 2	Remove requirement for implementation of Tata SilentTrack in route section I-1	Refused 23.09.2016
16/02710/CND	19(11)	List of properties with mitigation route section H	05.12.2016
16/02732/CND	19(11)	List of properties with mitigation route section I1	05.12.2016

Representations Received:

In respect of **route section H** (16/02507/CND), in excess of 100 comments have been received, all of which are available on the website, from addresses in Aldrich Road, Bainton Road, Banbury Road, Bladen Close, Blandford Avenue, Blenheim Drive, Burgess Mead, Canterbury Road, Carey Close, Cox's Ground, Fairlawn Flats, First Turn, Five Mile Drive, Foundry House, Frenchay Road, Furnace House, Godstow Road, Hayfield Road, Home Close, Kingston Road, Kirk Close, Lakeside, Merrivale Square, Navigation Way, Pixey Place, Plater Drive, Polstead Road, Quadrangle House, Stone Meadow, Summerhill Road, Upper Close, Wolvercote Green, Woodstock Road.

These are reported in **Appendix 2**. Network Rail's (NR) responses to these comments are in **Appendix 3**.

In respect of **route section I-1** (16/02509/CND), in excess of 160 comments have been received, all of which are available on the website, from addresses in Carey Close, Bainton Road, Banbury Road, Blenheim Drive, Bowood Court, Brindley Close, Burgess Mead, Butler Close, Canterbury Road, Chalfont Road, Complins Close, Cox's Ground, Ferry Pool Road, Fairlawn Flats, Frenchay Road, Hamilton Road, Hayfield Road, The Hayfield Residents Association, King's Cross Road, Kingston Road, Lakeside, Lark Hill, Leckford Road, Lonsdale Road, Mayfield Road, Merrivale

Square, Merton Court, Navigation Way, Oxford Road, Plater Drive, Polstead Road, Quadrangle House, St Margaret's Road, Southmoor Road, Stone Meadow, The Crescent, The Paddox, The Villas, Wolsey Road, Wolvercote Green, Woodstock Road.

These are reported in **Appendix 4**, NR's responses in **Appendix 5**.

In December 2016 a local resident (Professor Buckley) submitted a paper detailing what he regarded as serious errors and flaws in NR's application in respect of (i) the performance of rail dampers; and, (ii) the uncertainty surrounding the prediction of railway noise associated with: (a) the type of rail pad that will be installed as part of the EWR scheme; and (b) the version of noise modelling software used. These matters are covered in the report.

Background

1. The Transport and Works Act Order (TWAO) and deemed planning permission for East West Rail Phase 1 (EWRP1) ("the scheme") was granted, subject to conditions, on 17th October 2012. Construction of the scheme is nearing completion and passenger services commenced on 12th December 2016.

2. **Condition 19** of the deemed planning permission (**Appendix 6**) focusses on operational noise and vibration and was imposed in order to:

   "*ensure that operational noise and vibration are adequately mitigated at residential and other noise sensitive premises*".

3. **Condition 19(1)** states that the monitoring and mitigation of operational noise and vibration associated with the scheme, shall be undertaken in accordance with condition 19 and the Noise and Vibration Mitigation Policy (NVMP, dated January 2011, **Appendix 7**) which was approved by the Secretary of State as part of the deemed planning permission.

4. **Condition 19(2)** requires that development shall not commence within each route section until detailed schemes of assessment of predicted operational noise and vibration, and details of proposed monitoring and mitigation measures have been approved by the local planning authority.

5. *Sustainability*: in granting deemed planning permission for the scheme, the Secretary of State concluded that there is a compelling case to increase rail capacity between Oxford and London, and that the scheme would bring substantial transport benefits in terms of reduced travel times, better public transport connectivity, and better rail network capability. In the decision, the Secretary of State weighed these sustainability benefits against the potential adverse impacts that the scheme might cause. Those considerations gave rise to several of the planning conditions dealing with the natural environment and residential amenity.

The approved Noise and Vibration Schemes of Assessment (route sections H and I-1)

6. The West Area Planning Committee (WAPC) approved the Noise and Vibration Schemes of Assessment for route sections H and I-1 under references 15/00956/CND (route section H, approved 30th June 2015) and 15/03503/CND (route section I-1, approved 18th February 2016). The approvals were the subject of several planning conditions.

7. Condition 2 to both of those approvals was recommended by officers and concerned the installation of rail damping:

> *2 Within three months of this partial approval under condition 19 of the deemed planning permission, proposals shall be submitted for the written approval of the local planning authority showing how at-source noise attenuation by rail damping to at least the standard achievable by the use of Tata Silentrail can be incorporated into the scheme. The development to which this approval relates shall not be brought into operation EITHER without that written approval having been obtained and other than in accordance with such approved details OR without the Council having given written confirmation that it is satisfied that the provision of such rail dampening is not reasonably practicable.*
>
> *Reason: The local planning authority is not satisfied that rail damping as an at source mitigation measure has been shown to not be reasonably practicable in the absence of any attempt on the part of the applicant to secure approval for the use of such a measure.*

8. Condition 3 to both approvals applies restrictions to the patterns of train services. It was imposed by the WAPC contrary to officer advice that there was no legal basis for the condition:

> *3 Passenger train movements on Section H between 0700 hours and 2300 hours shall not be in excess of 8 movements per hour. Freight train movements between 2300 hours 0700 hours on the following day shall not exceed 8.*
>
> *Reason - to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)*

9. Condition 4 to both approvals requires more extensive noise and vibration monitoring than is required by the NVMP. It was imposed by the WAPC contrary to officer advice and:

> *4 Section H/I1 shall not be made available for use by trains until provision for continuous monitoring of noise has been effected for noise sensitive properties throughout section I1 in accordance with a scheme previously approved in writing by the Council. The results of such monitoring shall be provided to the Council on each of six months, eighteen months, thirty months, forty-two months, fifty-four months, sixty-six months and seventy-eight months from the date on which Section I1 is first made available for use for trains. In the event that the monitoring results provided to the Council*

exceed the noise thresholds in the Noise and Vibration Mitigation Policy then additional mitigation measures shall be effected within six months in order to ensure that those levels are not again exceeded.

Reason: to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)

10. In summer 2016 NR made multiple applications for changes to the conditions imposed on the approvals of the Noise and Vibration Schemes of Assessment (NVSoA).

11. Two applications sought to remove the requirement for implementation of rail damping (condition 2). These were refused by WAPC at its meeting on 13th September 2016 on the grounds that it had not been demonstrated that rail damping is not reasonably practicable to install:

Planning ref	Subject	Date of decision notice
16/01858/VAR	Remove requirement for implementation of Tata SilentTrack in route section H	Refused 23.09.2016
16/01861/VAR	Remove requirement for implementation of Tata SilentTrack in route section I-1	Refused 23.09.2016

12. Five applications requested the removal of the monitoring condition (condition 3). These were approved by the Planning Review Committee (PRC) on 5th October 2016:

Planning ref	Subject	Date of decision notice
16/01406/VAR	Noise monitoring route section H	10.10.2016
16/01409/VAR	Noise monitoring route section I-1	10.10.2016
16/01410/VAR	Vibration monitoring on plain line, route section H	Awaiting execution and delivery of Unilateral Undertaking
16/01411/VAR	Vibration monitoring at switches and crossings, route section H	10.10.2016
16/01412/VAR	Vibration monitoring on plain line, route section I-1	10.10.2016

Format of the current applications

13. The two current applications re-submit the approved NSoAs for route sections H and I-1 (approved under 15/00956/CND for route section H; and 15/03503/CND for route section I-1). All the previously approved documents for the NSoAs are re-submitted together with a Supplementary Statement setting

out additional information and analysis.

14. Through these applications, NR asks that the NSoAs be approved without the imposition of conditions applied when the NSoAs were previously approved (under 15/00956/CND and 15/03503/CND) namely: the rail damping condition, the condition setting out limitations on the pattern of rail services, and the monitoring condition. As noted in paragraph 12 above, the monitoring condition was removed from 15/00956/CND and 15/03503/CND by the PRC in October.

Purpose of the Current Applications

15. NR has not yet lodged appeals against the Council's refusals in respect of rail damping (165/01858/VAR and 16/01861/VAR) but has stated that if the current applications are not approved it intends to appeal on the grounds that the rail damping condition (condition 2) was neither necessary nor reasonable so that its imposition did not meet the NPPF tests for conditions.

16. Similarly NR has stated that if these applications are not approved it will appeal against condition 3 relating to the pattern of train services on the grounds that condition 3 was neither necessary nor reasonable: its imposition did not meet the NPPF tests for conditions.

17. In respect of appeals the Government's Planning Practice Guidance (PPG) states that:

> *"before making an appeal the party seeking permission should first consider re-engaging with the local planning authority to discuss whether any changes to the proposal would make it more acceptable and likely to gain planning permission. A revised application could then be submitted."*

18. The purpose of these applications (relating to route section H and route section I-1 respectively) is therefore, prior to the lodging of appeals:

- to enable NR to re-engage with the Council on the issue of rail damping in route sections H and I-1: the applications contain additional information and analysis to that presented in summer 2016; and,

- to request that the Council reconsiders the imposition of condition 3 regarding limitations on the patterns of train services.

Purpose of this Report

19. The purpose of this report is:

i. to consider the rail damping issue again in the light of the further information submitted including: whether the imposition of the rail damping condition (condition 2) on the current applications is necessary and reasonable; and, whether the provision of rail damping is reasonably practicable; and,

ii. to reconsider whether the imposition of the condition restricting the patterns of rail services (condition 3) is necessary and reasonable.

20. To assist with the determination of these applications external advice has been sought: technical advice from Arup on rail damping (**Appendix 8**); and advice from Queen's Counsel on rail damping and the patterns of rail services (**Appendix 9**). Queen's Counsel's Advice was formulated in the light of Arup's technical advice. 'members

Rail damping

21. Rail damping is a form of rail noise mitigation which involves the installation of steel sections embedded in an elastomer coating which are clipped at intervals along each side of each rail. Rail damping can help to reduce noise that is radiated from the rails themselves, but it does not mitigate any of the engine, traction, wheel or other noise from locomotives and rolling stock. SilentTrack is the trade mark of a rail damping product made by TATA Steel.

NR submission

22. As noted, these applications consist of all the previously approved documents together with additional information in the form of a Supplementary Statement on rail damping (2nd November 2016). The Supplementary Statement responds to the points raised in the refusal of the condition discharge by this Committee in September 2016. It notes that NR has invested £3.5 million in environmental mitigation associated with East West Rail Phase 1 in Oxford.

23. In summary the key points in NR's Supplementary Statement are:

    a. it is fundamentally inappropriate to assert that removal of the need for property insulation is a benefit since insulation reduces noise within properties by substantially more than can be achieved by rail damping (10dB and 2.5dB to 3dB respectively);

    b. there is no evidence in the UK or other countries, of the reduction of maximum noise levels (i.e. the pass-by noise from individual trains) achievable from rail damping;

    c. rail damping alone cannot achieve the noise standards of the NVMP without being installed in combination with extensive noise barriers and property insulation. NR asserts that the provision of mitigation should be viewed holistically;

    d. where properties would benefit from an improvement as a result of rail damping this is only marginal (up to 2.5dB to 3dB), is not likely to be noticeable, and would involve significant cost;

    e. on financial considerations the test is not whether NR can afford rail damping but whether, as a publicly funded body, the costs are disproportionately large relative to the benefits;

f. WebTAG is the only way of comparing directly the costs and benefits of rail damping. The assumptions used in NR's analysis properly reflect local conditions. The Council has not suggested other analytical tools for this benefit/cost exercise;

g. None of the scenarios for installing rail damping presents value for money because the benefit to cost ratios are too low:
   - on the whole of section H = 0.20
   - on parts of section H where there is a residual impact after the installation of barriers = 0.24
   - where the trigger levels for statutory noise insulation are exceeded in section H = 0.28
   - on parts of section I-1 where there is a residual impact after the installation of barriers = 0.57. The submission notes that the WebTAG assessment showed that 110 properties in this section could marginally benefit but that this does not provide adequate value for money based on Department for Transport criteria.

24. NR concludes that on the evidence submitted rail damping does not represent value for money given that the costs are grossly disproportionate to the benefits. The test of reasonable practicality is not met and the NSoAs should be approved without the rail damping condition that was imposed on the previous consents.

Arup advice

25. Arup was asked to comment on particular aspects of NR's Supplementary Statement, some of which referred to previous advice from them used in the officer report to the WAPC meeting on 13th September 2016. Arup has reasserted why 'at source' mitigation is preferred to sound insulation:
    - the benefits of 'at source' mitigation are universal;
    - noise insulation is intrusive and take-up cannot be relied upon (typically 50%); and,
    - noise insulation benefits diminish over time and are not permanent.

26. Arup agrees that rail dampers would provide reduced benefit if maximum noise levels are being generated by sources other than wheel/rail rolling noise and suggests that greater certainty on this point could be established by clarification of exactly what is contributing to maximum noise levels at given locations on this route. However, they point out that an underlying assumption in the NSoA is that maximum noise levels from freight off-power are a result of rolling noise not traction (engine) noise.

27. Arup agrees that the lengths of rail damper installation proposed by NR in their Supplementary Statement are reasonable for use in the analysis of benefit/cost ratio.

28. Arup agrees that in general the use of WebTAG to inform mitigation decisions is appropriate, though they do not agree with the way that it has been used in

the NR submission. They say that if the benefit/cost ratio of noise barriers together with rail damping were to be carried out (rather than rail damping in isolation) it would be likely to produce a ratio nearer to 1. Arup suggests that it is for all parties to consider and agree what mitigation is reasonable and sustainable within the context of the NVMP.

29. Arup has also advised on both Professor Buckley's paper of December 2016 and ERM's response to it. Arup has concluded that:

> (i) 2.5dB is a reasonable estimate of the noise reduction that rail dampers would achieve on EWR - the additional studies cited by Professor Buckley do not alter that conclusion;
>
> (ii) there is evidence to support the noise predictions used by NR with the type of rail pads implemented; and,
>
> (iii) there is no uncertainty in the noise modelling.

Queen's Counsel's advice

30. Queen's Counsel advises that NR's approach is permissible (paragraphs 77 to 79 of the Advice):

> *"77. C19 and the NVMP has to be applied with judgment and in a commonsense way. I cannot read the NVMP as always requiring At Source first irrespective as to the facts, the context and the efficacy of the various options. Where At Source will not be sufficient to avoid significant impacts or where other measures are already being provided, then the NVMP does not require At Source if other measures will achieve the objectives.*
>
> *78. On that approach, and given the current circumstances, NR's approach to the application of the NVMP is permissible (and I think correct). On that approach, the potential role of RD for section H is very limited. This is before one gets to the RP/BCR question.*
>
> *79. At the BCR stage, the issue is one for the judgment of OCC informed by, but not dictated to, by Webtag. The context, the severity of the impacts and the scale of the benefits and to how many people are the crucial elements. If, as I think is the correct approach, the BCR of RD is to be assessed from the starting point of the implemented Partial Approval, the RD serves to mitigate open window noise from those who have noise insulation and reduces one house from 5db to less than 3db; whilst removing entitlement to noise insulation from any who have not yet had it installed."*

Officer assessment

31. In coming to their conclusions on these applications, officers have taken into account all representations and advice received.

32. Following Queen's Counsel's Advice as stated above, the officers' assessment is summarised in the table below:

Queen's Counsel's Advice	Officer assessment
The context • The NVMP does not require 'at source' if the other measures already provided will achieve the objectives (para 77)	The potential role for rail damping is in relation to residual noise after barriers and noise insulation have been installed.
The severity of the impacts • Significant residual noise impacts are 5dB or above (para 73)	The barriers and insulation together meet the requirements of the NVMP (in both route sections H and I-1) apart from in relation to one Noise Sensitive Receptor (NSR) where the residual noise impact is 5dB.
The scale of benefits • Rail damping may mitigate noise impacts by 2.5dB (para 4) • 3dB difference is at the margin of perceptibility (para 73) • The NVMP standards concern internal, not external noise levels (para 14c)	A 2.5dB difference is less than the level considered to be "significant" for residual noise impact purposes by the approved NVMP. Rail damping could only be relevant at the one NSR referred to above where the residual noise impact is 5dB. The approved NVMP does not require mitigation of noise to open areas or gardens.
How many people will benefit • For those who already have noise insulation, open window noise will be reduced • At one house there will be noise reduction from 5db to less than 3db	Not relevant to this decision - the approved NVMP does not require mitigation of noise where windows are opened. The one NSR benefit will involve mitigation of a noise impact which is of itself at the limits of perceptibility.

33. Local residents are of the view that there is an inescapable obligation on NR to provide rail damping. This arises from their interpretation of public inquiry documents, the NVMP and condition 19. It is a view underscored by verbal and written commitments about rail damping made by NR in the run-up to determination of the NSoAs in 2015 and 2016. Local people do not believe that the noise impacts of EWRP1 on their lives will have been adequately mitigated without the installation of rail damping. They believe that NR are reneging on their responsibilities to mitigate; and are putting profit before the lives of local people. Detailed technical arguments about the methodologies and assumptions used in the assessment of reasonable practicability and benefits to costs have also been advanced by some. Overall, local residents are calling for the Council to take a strong stance against these applications, and for enforcement action to be taken against NR in view of the commencement of rail services prior to full discharge of the relevant planning conditions.

34. There can be no doubting residents' concerns about the adverse impacts of

operational noise and vibration; or their interpretation of condition 19 and the NVMP. The Council's approach to this has been to seek compliance with condition 2 – specifically for NR to demonstrate whether the provision of rail damping is reasonably practicable. The data and methodologies employed by NR in the NSoAs have been assessed by the original Independent Expert and by Arup; and Queen's Counsel's Advice has been received in respect of interpretation. Queen's Counsel has advised on the factors that the decision maker should take into account.

Officer conclusion on rail damping

35. Since summer 2015 when the NSoA for route section H was first approved, Councillors have pushed for exhaustive investigations on the reasonably practicable provision of rail damping. The position reached is that with the review of all the submitted material by external legal and technical experts, officers are able to accept, and to recommend, that the reasonably practicable test set by Councillors has now been met – that NR have demonstrated that it is not reasonably practicable to require rail damping.

36. Officers conclude that a reduction in residual noise which is of itself at the margins of perceptibility, occurring at one NSR, is of such limited benefit that, given the costs involved, it is not reasonably practicable to install rail damping in route sections H and I-1.

37. The recommendation is therefore that the NSoAs relating respectively to route sections H and I-1 be approved subject only to a condition specifying the documents that form part of the permission, excluding the previously imposed condition regarding rail damping.

Restrictions on the patterns of train services

38. Condition 3 (reproduced in paragraph 8 above) limits train movements to the number and pattern of movements used to predict operational noise and vibration as set out in the NVMP (paragraphs 1.8 to 1.10). This is known as the reasonable planning scenario. The reason for this condition was to limit the actual operation of services on the line to the pattern used in the prediction of operational noise and vibration and the design of any associated mitigation given that any changes could have different and possibly unacceptable operational outcomes which might require further mitigation.

39. At the time the condition was imposed by WAPC, officers advised that there was no legal basis for this condition because the deemed permission did not include any control over the number and pattern of services. This situation was unaffected by representations that the modelled pattern of services was unlikely to be adhered to.

40. Queen's Counsel has also advised that the NVMP does not require any assessments to address any future increases in service and that these potential changes do not need to be modelled (paragraph 84 of his Advice). Through the granting of the original permission, NR was given the right to increase services

without being in breach of condition 19 of the deemed planning permission, and NR does not need to seek further consent (paragraph 85).

41. In the view of officers therefore, since there is no legal basis for the imposition of this condition, it is not recommended.

Conclusion: the respective Noise Schemes of Assessment are considered to be robust and to have demonstrated that the required standards of noise mitigation set out in the Noise and Vibration Mitigation Policy will be achieved subject to the installation of the specified mitigation measures. The applications are recommended for approval subject to a condition that the development shall take place in accordance with the submitted details. The previous conditions relating to rail damping and limitations on the patterns of train services are not recommended.

Human Rights Act 1998

Officers have considered the Human Rights Act 1998 in reaching a recommendation to grant planning permission, subject to conditions. Officers have considered the potential interference with the rights of the owners/occupiers of surrounding properties under Article 8 and/or Article 1 of the First Protocol of the Act and consider that it is proportionate.

Officers have also considered the interference with the human rights of the applicant under Article 8 and/or Article 1 of the First Protocol caused by imposing conditions. Officers consider that the conditions are necessary to protect the rights and freedoms of others and to control the use of property in accordance with the general interest. The interference is therefore justifiable and proportionate.

Section 17 of the Crime and Disorder Act 1998

Officers have considered, with due regard, the likely effect of the proposal on the need to reduce crime and disorder as part of the determination of this application, in accordance with section 17 of the Crime and Disorder Act 1998. In reaching a recommendation to grant planning permission, officers consider that the proposal will not undermine crime prevention or the promotion of community safety.

Background Papers: 15/00956/CND; 15/03503/CND; 16/01858/CND; 16/01861/CND; 16/02507/CND; 16/02509/CND.

Agenda for Planning Review Committee on Wednesday 5 October 2016, 6.00 pm | Oxford City Council

Agenda for West Area Planning Committee on Tuesday 13 September 2016, 6.00 pm | Oxford City Council

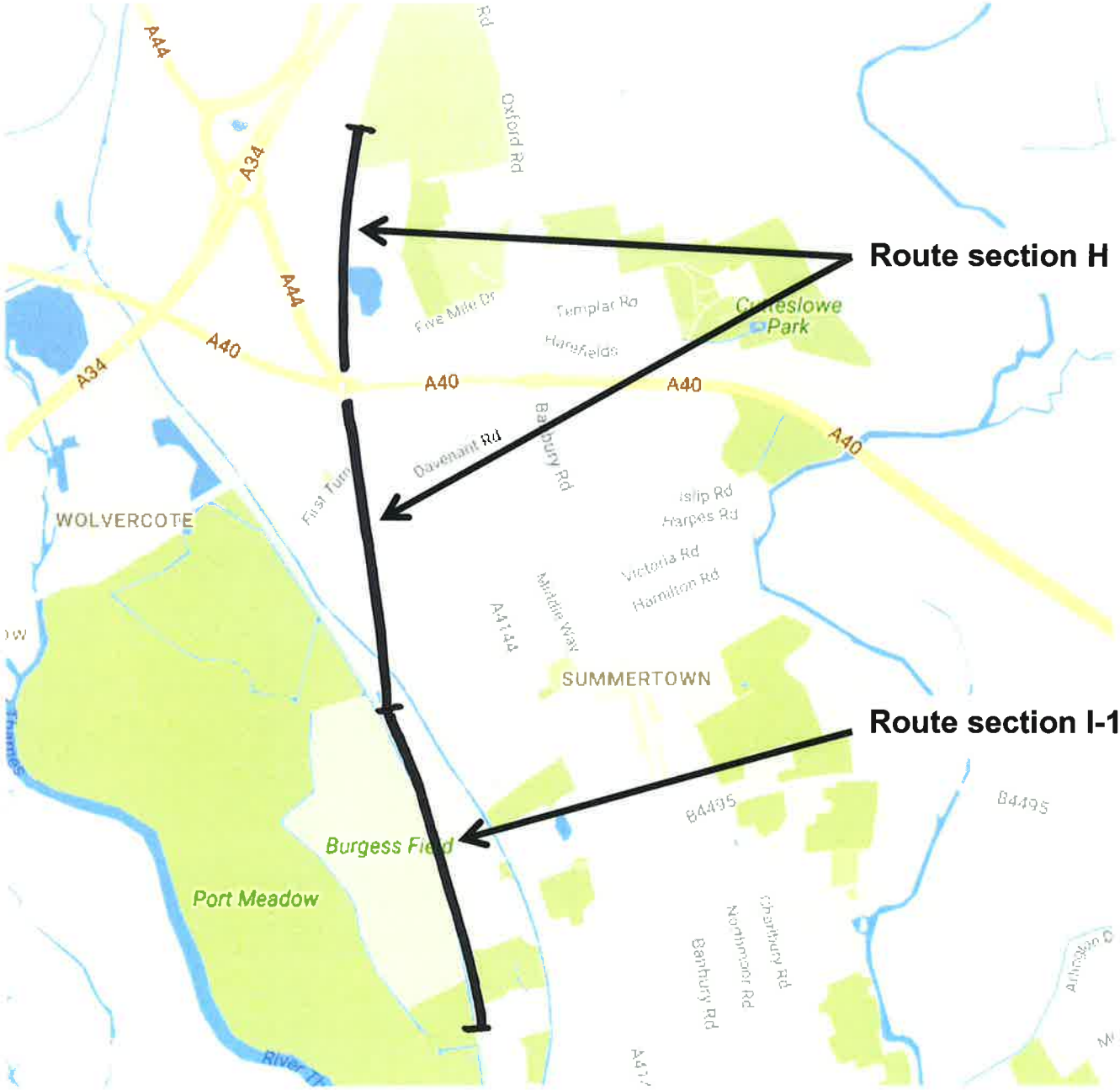
Agenda for West Area Planning Committee on Tuesday 15 December 2015, 4.00 pm | Oxford City Council

Agenda for West Area Planning Committee on Tuesday 16 June 2015, 6.30 pm | Oxford City Council

Contact Officer: Fiona Bartholomew
Extension: 2774
Date: 13th February 2016

APPENDIX 1

ROUTE SECTIONS H AND I-1



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APPENDIX 2

ROUTE SECTION H

REPRESENTATIONS IN REPONSE TO PUBLIC CONSULTATION

- We were given firm assurances that the impact of this development on our quality of life would be lessened by a number of mitigation measures including at source noise mitigation, restrictions on the number and speed of trains that would use the line, and monitoring of noise and vibration.

- In March 2015 at a meeting Network Rail made a clear commitment to use rail damping and assured everyone present that they had the funds available - they are now claiming that these funds are no longer in place.

- Network Rail now claims that the funds for these measures no longer exist. This is a case of putting profit before people. Network rail and its managers and other associated people stand to gain hugely both corporately and personally by saving money on the well-being health and quality of life of residents only to enhance contents of their wallets.

- We understand the need for new infrastructure but we believe that Network Rail has a moral responsibility and should be made to hold to those previous commitments.

- We implore the City Council to reinstate the noise and vibration monitoring and to insist on the best possible rail damping measures and enforce the restriction on the number and speed of train using the line especially at night as agreed in June 2015 at the West Area Planning Committee.

- At source mitigation of noise and vibration, monitoring, and restricting the numbers of trains are essential safeguards to the amenity of local residents.

- Network Rail should not be permitted to renege on previously agreed conditions, which led to the original application being granted.

- If the application is approved it sends a strong signal that the Council is not prepared to stand up for the interests and rights of their citizens against the overbearing and essentially devious tactics of large organisations trying to evade their public responsibilities.

- Promises about vegetation have been broken: reinstating trees and bushes would have been a good screen for those affected and would have helped with diesel pollution.

- This whole process is very upsetting: the rail companies are relying on people giving up. It has made me believe that I am not living in a truly democratic country where the views and rights of individuals and communities are important. Corporate voices hold sway. Nobody seems to have listened. The companies involved have done as they pleased.

- Children attending St Phillips and St James School will be at affected if these mitigation measures are not installed. The learning environment will be badly affected. There are concerns for the well-being is of pupils at the Wolvercote Primary School and for the physical structure of the school itself.

- There has been an increase in noise during the recent testing of trains. If the additional ground borne noise is due to an increase in vibration this is contrary to the assurances given throughout the planning process that vibration would be at worst the same as experienced with the older track. This brings into question the reliability of any of the modelling that was submitted.

- Mitigation should be based on the numbers of trains now forecast to be using this track and take account of future increases: the current mitigation is based on outdated train numbers and types. The City Council needs to enforce the CRN Statutory Instrument.

- Alternatively network rail should be applying for a variation to the TWA Order now that the capacity of the line has materially increased with enhanced outputs and mitigation that is woefully inadequate

- The trickle vent provided as part of the installation package is inadequate to provide ventilation to bedrooms effectively - this means that we have no noise mitigation unless rail dampers are provided

- Through the East West Rail Consortium the City Council would have known that the Environmental Statement and the predicted number of trains is out of date and materially different and that the effects of this could have significant environmental impact.

- Under the Habitats Regulations an Appropriate Assessment may need to be undertaken.

- It is important that as there has been a change from the core East-West rail project to an enhanced one, the additional effects are assessed.

- Building Castle Mill has already increased noise for residents with the reflection of sound from that building.

- If rail damping has to be retrofitted the cost will be much higher, it is a false economy to choose not to install rail damping at this stage.

- The long-term cost to hundreds of residence due to rail noise and locomotive noise from very large volumes of passenger and freight traffic running day and night is the potential loss of the enjoyment of their properties including loss of sleep at night plus interruption of daytime use of gardens and damage due to vibration.

- If Network Rail increases the number of predicted trains it will increase noise and vibration - the matter should be referred to the Secretary of State: it is not

for Network Rail or the City Council to allow any erosion of the protection for Oxford residents - if necessary the matter should go back to public inquiry.

- The Council should call a halt to all works on the project until Network Rail accepts the conditions already imposed upon them. It is incumbent on the Secretary of State and Oxford City Council to stand by the decisions they have already made and for Network Rail to accept them.

- Trap Ground allotment holders have also noticed the negative effects of the current works on biodiversity.

- What is the point of consultation and agreements with the Council if afterwards it is possible to ignore the whole process. This is yet another example of a large company trying to renege on agreements made in order to reduce cost at the expense of the welfare of local residents.

- Why should there be opposition to an objective method of recording the impact of the new resumed rail traffic? Scientific monitoring will provide good answers to subsequent questions

- There is reason to believe that the costs have been exaggerated by Network Rail and must be set up alongside the entire cost of this entire exercise to arrive at a balanced view

- Noise and vibration have a great impact upon emotional and physical health and therefore all available steps should be considered when assessing this application

- Network Rail should expect no special treatment should they ignore conditions attached to the grant of planning permission. A variety of sanctions are available and the local authority is able for example to seek an injunction to promote and protect the interests of inhabitants of the city

- This gives the appearance of extreme cynicism on part of Network Rail. Promise whatever you like in the initial stages and then when the public opposition has died down and all have become exhausted, change the rules of the game by claiming that what was agreed to initially is now unreasonable

- It is paramount that a high quality modern quiet railway is built and not something unfitting for the 21st century

- All residents support in principle the enhancement of transport services in this country but it would be an absolute travesty of fairness to allow for this to happen at the expense of the unfortunate few who lived by the track side and for the benefit of those few who happened to put themselves in position of responsibility and advantage in respect of this project. The company as a whole and the individuals involved in improving the decision ought to be prepared for their actions and choices to be subjected to detailed critical examination in the media

- If Network Rail is successful then the whole planning process has been a huge waste of taxpayers time and money

- An additional condition is required stating that the thresholds for noise and vibration which must not be exceeded should remain in force in perpetuity

- Whatever the Council's noise monitoring equipment shows, that it is likely that day and all night time noise threshold is exceeded at one or more locations.

- An additional condition is required stating that NR will, within three months, conduct noise monitoring of operating trains and if the threshold has been exceeded NR will discuss with the Council what further mitigation will be provided and NR will immediately impose a speed restriction on the line until such time as an effective solution is implemented

- Assumptions have been made about the speeds and times of trains with the sole purpose of bringing vibration predictions to just within the threshold which residents know to be false from previous experience of trains using the line

- There is evidence that the predictions underestimate future train services:
    - Oxford Parkway opened more Chiltern Railways passenger trains operated then used that was used in the predictions
    - more Chiltern Railways passenger trains will operate when the line becomes operational than provided for in the predictions;
    - Network Rail enhancements delivery plan dated September 2016 still predicts that much higher numbers of trains will use East West Rail than the mitigation is based on

- The train numbers in Transport and Works Act application should be binding on the applicant otherwise Network Rail might be tempted to under estimate future services to gain planning approval and then rely on its permitted development rights to increase capacity

- Only by monitoring noise levels experienced at residential and noise sensitive locations at height of 5 m above ground from operating trains will Network Rail predictions and the effectiveness of mitigation be verified. However at present only the effectiveness of the noise barriers themselves will be measured by comparing the noise from above the top of the barrier with the noise lower down. There are plenty of places along the line with no noise barrier where Network Rail could place noise monitoring equipment to measure the unmitigated noise and compare these with the noise levels at the same height where there are barriers.

- The actual noise experienced by residents will never be measured and the predictions in noise scheme of assessment and the environmental statement will not be verified

- Internationally recent events have shown an upsurge in popular discontent with large powerful organisations riding roughshod over small people who

want to be heard and understood rather than have their views and interests trampled. The Council must be tough with Network Rail and see that it delivers on the conditions placed upon it anything less this is unacceptable and leads to a justified lack of trust in the systems are set up to protect the public

- The government has confirmed that local planning authorities have broad powers to impose conditions and enforce where they consider that conditions have been breached. Oxford City Council should use its powers and uphold the rule of law by rejecting network rails applications.

- The benefit cost ratio for the entire project was considered at the public inquiry and included the cost of installation of the various mitigations offered. Network Rail is using a method where the benefit cost ratio is estimated for silent track only when it is applied as the last of the mitigations instead of sticking to the method laid down in the Transport and Works Act Order where it should have been applied as the first of the mitigation. In a project of this size the cost of SilentTrack is trivial.

- Network Rail's benefit cost ratio figures lack a clear methodology and appear to have been hastily compiled. They reveal a number of significant contradictions. There is no explanation for discrepancies: the change from 0.36 to 0.24 in route section H; and the figure of 0.57 in route section I/1 which is 2.4 times the value for section H. Network Rail is clearly trying to inflate the costs and under understate the effectiveness of silence track. Its calculations are wholly unreliable.

- It is absolutely imperative that the future train numbers supplied by NR in the Noise and Vibration Schemes of Assessment are adhered to. The calculations of vibration in particular are critically dependent upon the speed, number and types of train (because the DVD is cumulative and therefore increases with the total number of trains) By seeking to increase the number of trains while not also considering its effects on the vibration and noise schemes of assessment is clear abuse of process

- Concerns that if Network Rail were to win an appeal it might impose costs on the Council is not a good reason to cave in to the bullying and devious behaviour of Network Rail. The Council should stand up for residents interests

- It is important that the impacts to which residents homes will be subjected in future is monitored. At the moment the noise impacts at residents homes are hypothetical yet it is on those figures alone that the required mitigation has been decided

- None of this would have been necessary if Network Rail had agreed to have trains going slowly through Oxford.

- It is not reasonable to bombard a local government office with more appeals, submissions and requests than can easily be managed with available resources. This is a recognised tactic among lawyers and should not be allowed to overturn the rulings of local government.

- Network Rail should not be allowed to use the railway while blatantly ignoring condition 19.

- The conditions that the Council would like to impose do not appear to meet the legal standards required of planning conditions. The Secretary of State has dealt us a very bad deal in saying we could determine the planning permission without adequate powers to insist on anything that does not meet the basic condition of just mitigating the noise by a certain amount.

- It is the councils legal obligation to take enforcement action where any developer including companies like Network Rail, has not complied with any condition attached to planning permission: And that failure to do so leaves the council opened complaint to the local government ombudsman

- Removing these conditions is a total disregard for democracy and we might as well not have planning process

NR16

Network Rail response to objections/representations made in respect of application 16/02507/CND

Submitted to Oxford City Council 9 January 2017

A1 CONSULTATION RESPONSES TO 16/02507/CND

A1.1 INTRODUCTION

As at 3 January 2017, approximately 112 consultation responses have been received through the Oxford City Council (OCC) online portal and these cover a range of concerns and comments. Section A1.2 provides a detailed response from Network Rail to a selection of the key issues raised. This is not intended to be a comprehensive response by Network Rail, since many of the other issues raised have already been addressed in the application or in other correspondence with OCC.

A1.2 SELECTED KEY ISSUE RESPONSES

Reversal of the SilentTrack 'commitment' of the TWAO and concerns over the resulting noise that could be experienced without the implementation of SilentTrack

SilentTrack installation was not a condition of the Transport and Works Act Order (TWAO) but was a condition imposed by Oxford City Council (OCC) should the technology be deemed 'reasonably practicable' within Section H. SilentTrack (whether or not in combination with barriers) is unlikely to deliver more than a 3dbA Leq reduction in day or night time noise levels (and the reduction could be substantially less). This reduction needs to be considered in the light of the TWA Inspector's view (shared by noise experts) that 'changes in environmental noise levels of less than 2 to 3dB are not noticeable to most people'. Noise barriers and insulation are already being installed in Sections H and I/1 at a cost of around £3.5 million. These are the only methods that can deliver the substantial noise mitigation required by the Noise and Vibration Mitigation Policy (NVMP) where there is housing close to the track.

Interpretation of the noise mitigation hierarchy and the prioritisation of 'at source' mitigation, such as 'SilentTrack'

Paragraph 2.2 of the NVMP notes that the 'first preference will be to apply necessary noise control measures at source where this is reasonably practicable'. The NVMP does not require the installation of track based measures, even though these are 'first preference', if these would not be sufficient to mitigate significant noise impacts, which is the case in most of Sections H and I/1.

In Sections H and I/1, neither SilentTrack (nor any other rail dampers) alone can achieve the noise mitigation standards set out in the NVMP, without being installed in combination with extensive noise barriers and some noise insulation in the form of secondary or double glazing. The 'noise mitigation hierarchy' should be interpreted in a common sense and practical way and, in considering whether the installation of SilentTrack would be 'reasonably practicable', it is proper to consider the marginal additional costs and benefits (or 'value for money') of SilentTrack assuming that those other measures will need to be installed in any event.

NR believes that it is appropriate to apply the reasonably practicable test to all of the measures provided in combination, in order to properly confirm that mitigation is correctly focussed on the most cost effective mitigation package.

Concerns over Benefit Cost Ratio changes in Section H

The Appellant has submitted two statements to OCC containing evidence that the provision of rail dampeners in Section H is not 'reasonably practicable'. NR's originally published analysis, in the statement in support of the s73 applications to remove condition 2 of 15/03503/CND and 15/00956/CND, showed a Benefit Cost Ratio (BCR) of 0.35 in Section H, ie. a return of £3 for every £10 invested. In reviewing the BCR in light of the Arup Technical Note, NR found that the published numbers actually over-estimated the original assessment of the benefits of SilentTrack as a result of the refined Net Present Values (NPV). The BCR was therefore adjusted to take this into account to 0.2 within the Not Reasonably Practicable (NRP) supporting statement for application 16/02507/CND.

Concerns over the cost calculations used and the monetary value attached to the long term benefits to health and well-being experienced by local residents

The method used to assess the monetary valuation of noise impacts employed has been undertaken using the Department of Transport (DfT) standard economic appraisal method, in particular TAG Unit A3, December 2015, and the accompanying TAG Data Book Table A3.1 and the TAG Noise Workbook.

WebTAG is an accepted economic appraisal tool for placing a monetary value on the environmental effects, in this case, of reducing noise and the consequent effects on eg. disturbed sleep. It is the only way of comparing directly the financial costs and the economic benefits of a mitigation measure that only provides an environmental rather than financial return.

The WebTAG methodology allows for the consideration of local conditions in Oxford, through the use of the specific noise model outputs for Section H and I/1 to derive monetarised benefits and bespoke costing of the installation of SilentTrack in Sections H and I/1. These are the main determining components in deriving the costs and benefits of the installation of SilentTrack in Sections H and I/1.

The method used to assess the cost/benefit of SilentTrack utilises the standard economic appraisal tool available for this type of calculation and NR is not aware of any other reliable tools which are in common use for noise impact economic appraisals.

Concerns regarding the removal of a restriction on train movements and impacts upon Noise SoA modelling

The number of train movements specified by OCC as a limit has been derived from the reasonable planning scenario for East West Rail after Phase 2 as contained in the NVMP, imposed by the Secretary of State under Condition 19. This planning assumption was used in the noise and vibration SoA and formed the basis for determining mitigation in both the noise and vibration SoAs in line with the Secretary of State's decision.

The reasoning behind the imposition of the train movements condition was directly linked to the incorrect assumption that the purpose of the noise monitoring was to enable a comparison of actual residual noise levels in comparison with those predicted in the Environmental Statement (ES), which rely on the 'reasonable planning scenario.'

The intended purpose of the noise monitoring is to check the effectiveness of the noise mitigation installed in pursuance of the approved noise SoAs, so that any defects in construction or performance can be identified and rectified in a timely manner.

Neither the TWA Order nor the deemed planning permission granted by the Secretary of State contains any restriction on the total number of train movements.

Concerns over the current EWR Phase 1 Timetable and NSoA

The 'reasonable planning scenario' used for the NSoA for the period between 23.00 and 07.00 includes EWR Phase 2 and freight services. The timetable that will be in operation from 11 December 2016 between Oxford and Oxford Parkway allows for 10 passenger services each day during the 23.00 to 07.00 period, which is only one third of the 29 passenger and freight services assumed in the 'reasonable planning scenario'.

Noise and Health

The TWAO planning conditions do not require a specific Health Impact Assessment to be undertaken. However, the stringent standards which have been applied in the Noise and Vibration Mitigation Policy (NVMP) provide adequate protection against noise and take account of its potential effects on health. This approach was endorsed by the Secretary of State when the TWA Order was approved, in requiring the NVMP to be applied to the design and implementation of noise mitigation.

HS2

HS2 is not yet an approved scheme and no assessment has been undertaken of the likely train operations that may take place on any part of EWR (Oxford to Bletchley or Princes Risborough to Milton Keynes) to serve HS2 construction or operations. The future service levels accepted by the Inspector at the TWA Inquiry (and confirmed by the Secretary of State's decision to grant the Order) are seen as 'reasonable assumptions of likely future service frequencies' and therefore correctly form the basis for the consideration of the

NSoA by the Council. This does not include any potential train movements related to HS2 construction or operation.

Devegetation

Vegetation clearance was required in advance of the approved Scheme's main construction work to remove existing areas of trees and scrub, where these would impede construction. There are no specific requirements for landscaping or for replanting on this section of the Scheme. In addition, Network Rail guidance covering new construction states that no tree planting should be within 5m of the outside rail. Where feasible, some replacement trees are being planted, at the conclusion of construction.

Speed Restrictions

Objections have suggested that a speed limit for trains be implemented to reduce noise and vibration at properties along the route. This was a matter discussed at length at the TWA Inquiry and rejected by the Inspector and the Secretary of State as neither appropriate nor necessary.

If Network Rail were to restrict train speeds to well below the safe line speeds through Section H, this would result in passenger train operations along the route becoming unviable.

Frequency of Trains

The service levels used in the NSoA were discussed and agreed by the Inspector at the TWA Inquiry (and confirmed by the Secretary of State's decision to grant the Order). They continue to represent a 'reasonable assessment of likely future service frequencies' following the opening of East West Rail Phase 2 between Bicester and Bletchley etc, which was the basis on which the Noise and Vibration Mitigation Policy was devised. Unfortunately, if Network Rail were to restrict the frequency through Section H, this would result in train operations along the route becoming unviable.

Adequacy of Noise Baseline Surveys

The noise baseline survey has been designed carefully to provide sufficient noise data for the Noise Scheme of Assessment. Noise levels have been measured at selected locations that are representative of the noise environment in that area. So that noise levels at other locations can be established where necessary, the measured noise levels have been adjusted by taking into account the distance to the track and measured differences in noise environment between locations. This method provides a robust approach to establishing noise mitigation requirements, without the need to measure noise at each individual property in the area.

Noise and learning at Phillip and James School

Noise modelling has been carried out at all noise sensitive locations including the school to determine the optimal length and height of the noise barriers in, as part of the assessment of the mitigation required under the Noise and Vibration Mitigation Policy. In the case of the School, a noise impact of 2 dB was modelled without any mitigation. Following the procedure set out in the Policy noise barriers are provided when noise impacts of greater than 5 dB are predicted, so that the modelled noise at the school is not sufficiently high to justify noise mitigation.

It is noted that there is a barrier between part of the school and the railway that is installed to provide noise mitigation for the residential properties on Navigation Way. This will, because of its close proximity, attenuate noise both from the existing railway and from EWR trains to parts of the school building and playground with predicted reductions in train noise of 7 dB at the building based on a receptor height of 6 m. To put this reduction into context, a change of 3 dB is considered to be the smallest change in noise levels which is generally noticeable with changes of 5 dB being clearly noticeable and changes of 10 dB representing a halving of sound. Therefore, this barrier will provide a noticeable reduction in noise levels for parts of the school, and higher reductions would be predicted to occur at lower receptor heights.

Noise Monitoring

The Noise and Vibration Mitigation Policy defines the times at which measurements will be undertaken (6 months and 18 months after opening). By that time, sufficient passenger and freight trains of the right types will be running to enable accurate measurements to be made. Potential future increases in passenger and freight service frequencies (and train lengths) will be taken into account. These calculations will be based on the future service levels which are set out in the Noise and Vibration Mitigation Policy. These future service levels were discussed and agreed by the Inspector at the TWA Inquiry. They continue to represent a 'reasonable assessment of likely future service frequencies' following the opening of East West Rail Phase 2 between Bicester and Bletchley etc., which was the basis on which the Noise Policy was devised.

Vibration Levels and Property Damage

Some residents maintain that they experience vibration levels which they believe to be unusually high as a result of their particular building type or location. The vibration prediction methodology that was used is based on measurements of trains under appropriate geological conditions at an agreed local site, and this methodology has been reviewed extensively and accepted by Oxford City Council in relation to Section H. Even after applying the "reasonable worst case" assumption, there are no dwellings where vibration will exceed the thresholds which are specified in the planning condition, which are designed to ensure a good standard of protection against disturbance as a result of vibration. By taking this precautionary approach it has not been necessary to carry out measurements in individual properties. It should be noted that the vibration magnitudes are sufficiently low that there is no probability of vibration damage as a result of the railway operations.

Vibration Monitoring

The s73 application for Section H Plain Line (16/01410/VAR) included the basis of an undertaking by Network Rail to undertake one round of vibration monitoring at three residential properties of different structural types, close to the railway. The detail of this undertaking is currently being agreed with OCC.

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APPENDIX 4

ROUTE SECTION I-1

REPRESENTATIONS IN REPONSE TO PUBLIC CONSULTATION

- These planning conditions were put in place in order to protect the rights of local residents and they must not be changed without proper scrutiny.

- Noise from railway operations is considerable and indoor vibrations associated with freight trains are extreme. In the current assessment no such data or calculations had been provided - it is simply stated without justification that levels of vibration will not cause structural damage to buildings

- Residents experiences of extreme vibration do not concur with the desk based assessments made by consulting engineers

- On silent track the methods by which the benefits of being calculated are not given. Without those calculations it is impossible to judge whether the calculations are credible; indeed without proper measurements of the levels of noise and vibration it is difficult to see that any cost benefit ratio could be calculated with confidence

- Even if SilentTrack is found to be not reasonably practical on grounds of cost the Secretary of State makes it clear that an equally effective substitute must be offered in mitigation while many noise reduction measures have been suggested, so far no alternative measures to mitigate vibration been proposed

- There should be a proper program of monitoring of noise and vibration including monitoring inside at all floor levels within a sample of affected houses

- The benefit to cost ratios must be presented for the purpose scrutiny

- Alternative vibration mitigation measures must be proposed if available. If no alternative vibration mitigation measures are available freight train speeds should be restricted

- The school as well as many properties on Waterside are very close to the railway. Noise and vibration are already a serious issue and, unless the Council is firm with Network Rail, the situation will become intolerable for hundreds of children and thousands of local residents.

- The noise and vibration from the trains especially freight trains at night have been very disturbing and the fact that the frequency is going to be increased and silent track is now going to be reneged on is a really alarming development

- The effect on children who attend St Philip in St James School, the majority of whom live near the railway track, and will be affected during school hours and at home is a real concern

- The noise and vibration monitoring systems should be installed before any new trains run on the new track. The track is very close to many home and community facilities including schools and play areas. The original conditions should be adhered to.

- The original application was supported only on the basis of the conditions being fulfilled. Mitigation measures are small but essential to maintaining normal family life in close proximity to the dramatically increased use of the line forecast over the next 10 years

- The diesel food fume pollution if the number of trains is allowed to rise is also of huge concern both for the residents and because this track runs alongside an area of natural beauty

- Monitoring of noise and vibration levels should start now so that we have a clear benchmark to work from. The effects of increased well traffic on lines running through such a heavily populated area needs to be studied properly and mitigated.

- Seeking to make variations to the original planning consents will have a negative impact on Waterside and adjoining neighbourhoods. Seeking such variations at this late stage is underhanded and contemptuous of Network Rail's much-publicised concern for public opinion

- The well-being of children should be a much greater priority for our Council rather than facilitating Network Rail to cut corners.

- This planning application is all about maximizing profit with no consideration to the significant impact on local residents and the school.

- The quality of life and for the local community will be severely impacted on if this application continues

- Is there any risk of train collision near the school where the two railways become only one?

- What will be the noise and vibration impact on birds, protected wildlife, and birds migration Port Meadow?

- The real impact study is necessary and action has to be taken before any increase of circulation on the railway.

- To allow this application would set an appalling precedent

- It makes a total nonsense of the planning application procedure if the builder, developer or in this case a company decide to renege on former agreements in order to further their own interests. Stand up and be counted. Don't be rolled over. There are thousands of residents who will be affected if the original planning conditions are not met.

- The noise of trains reflects off the houses on the opposite side of the canal and bounces back loudly on houses on the railway side of the estate. Network Rail has also cut down all the trees along the railway next to the estate which would have partially screened noise, and have not built the earlier proposed sound barrier. Loss of these trees is visually unpleasant for those living next to the embankment and indeed to all on the estate.

- Based on their past behaviour I have no confidence that Network Rail will honour their word whatever they might have initially agreed to. It is simply not acceptable for Network Rail to secure approval on one basis and then to propose to wind back all the undertakings given on the grounds that this now all looks just too expensive. It would be unconscionable for the public authorities to acquiesce to collapse in planning standards in this way.

- We hear the trains from my house on Burgess Mead and I am often woken by them in the early hours. The prospect of more trains regularly travelling this week has been daunting but we were comforted by the understanding that they would be on silent track and that there would be vibration buffers and ongoing noise monitoring. I object to this application and demand that these conditions be fulfilled.

- The proposal is completely wrong democratically. There is so much for you to be spending your time on it should not be allowed to apply to change a decision already made please have the strength to ensure you are not now pressured into changing the decision

- It will not be possible to take a peaceful walk in Port Meadow or Aristotle playground because people will end up hearing now freight trains every minute

- The best mitigation would be achieved by limiting the speed in the area controlled by the planning application to a maximum of 50 mi./h this is within Network Rail control and would cost them nothing

- There is a great risk of subsidence of our properties close to the line

- We object to Network Rail efforts to compromise the planning process in which many local residents participated and accepted in good faith the mitigation measures that resulted. If accepted, this application by Network Rail will damage any faith we have in planning processes

- With HS2 on the horizon and further strengthening of the rail system being planned, it is important from both local and national perspective that Network Rail current bullying tactics are not allowed to succeed

- I was given an assurance that the impact of this development on our quality-of-life would be lessened by a number of measures including noise mitigation, Restrictions on the number and speed of train that would use the line, and monitoring vibration.

- In March 2015 at a meeting organized by city councillors Network Rail made a clear commit commitment to use SilentTrack for this line. They reassured local people present that they had the funds available

- While accepting that the infrastructure of the country needs to evolve in this case profit is being put before people.

- If the removal of restrictions on the number of trains running occurs this could result in excessive use of the line both during the day and throughout the night and this will affect the modelling of the projected impact of noise and vibration.

- With respect to silence track Network Rail benefit to cost ratio figures lack a clear methodology and appear to have been hastily compiled revealing number of significant contradictions. Route section H has changed from 0.36 to 0.24 without explanation and there are more glaring discrepancies in section I/1.

- Predictive train numbers set out in the noise and vibration mitigation policy were under representing the situation. Network Rail now plans to run more freight and passenger services on this line.

- There is evidence that it will be highly likely that the thresholds for noise and vibration will be exceeded. The modelling of future operational noise and vibration relied heavily on assumptions - these need to be checked by monitoring.

- This application should be rejected as it is clear abuse of process and a waste of taxpayers' money.

- The Secretary of State insisted on the installation of SilentTrack.

- On the number of trains and the noise level were previously set and agreed by Network Rail to limit the impact on the local environment in densely populated urban area.

- The time to propose that the noise reduction and vibration damping measures were unreasonable and unnecessary would have been at the time of the original application. What is unreasonable and unnecessary is for a project of this size and importance to have been started when there were such fundamental issues about its viability.

- We live on Waterside and our house already shakes when freight trains pass and the trains are already very loud. We do not have our windows open at the front of our home because the noise from the trains wakes up our children. It

is very disappointing to see that Network Rail having gained permission to make changes to the rail system with the important restriction on the number of trains and the requirement to use silent track are now trying to get out of their responsibilities.

- I live on Plater Drive that backs onto the train line. It is very noisy during the night and my house shakes horribly as the heavy freight trains go through both of which disturb my sleep terribly. The issue is becoming worse and worse.

- The levels of noise and diesel pollution under the proposed amendments are likely to cause great harm to the primary school children at St Philip and St James school. In addition the increased noise and pollution levels are likely to adversely affect the local ecology of the area - this is is a vital resource in terms of the local area and the local community. The likely adverse effect of the likely pollution cannot be overstated particularly in the light of the increased traffic levels on the A34

- Please do not allow previously informed decision-making protecting the public to be overtaken by the commercial interests of Network Rail.

- If Network Rail is successful then the whole planning process has been a huge waste of taxpayers time and money

- An additional condition is required stating that the thresholds for noise and vibration which must not be exceeded should remain in force in perpetuity.

- An additional condition is required stating that NR will, within three months, conduct noise monitoring of operating trains and if the threshold has been exceeded NR will discuss with the Council what further mitigation will be provided and NR will immediately impose a speed restriction on the line until such time as an effective solution is implemented

- Assumptions have been made about the speeds and times of trains with the sole purpose of bringing vibration predictions to just within the threshold which residents know to be false from previous experience of trains using the line

- There is evidence that the predictions underestimate future train services:
    - Oxford Parkway opened more Chiltern Railways passenger trains operated then used that was used in the predictions
    - more Chiltern Railways passenger trains will operate when the line becomes operational than provided for in the predictions;
    - Network Rail enhancements delivery plan dated September 2016 still predicts that much higher numbers of trains will use East West Rail than the mitigation is based on

- The train numbers in Transport and Works Act application should be binding on the applicant otherwise Network Rail might be tempted to under estimate future services to gain planning approval and then rely on its permitted development rights to increase capacity

- It is essential for the well-being of waterside residents and pollution levels affecting the school that sensible measures are implemented to restrict the number and speed of passenger and freight movements particularly at night. The speed of freight traffic overnight already causes extreme vibrations in the top floor of our property. I see no legitimate reason why freight traffic should not be restricted to a sensible, less destructive and disturbing speed particularly at night.

- Network Rail obtained planning permission based on constraints relating to the use of silent track and also on traffic following volumes. Allowing them to renege on this is a precedent that should not be allowed. The council needs to insist that vibration and noise monitoring is installed before any new trains run, and to adhere to the requirements silent track, and to restrict the number of passenger and freight train movements.

- If the Council backs down then where does this leave planning processes? Can we all just ignore any constraints the Council places on development plans we might submit once we have obtained approval?

- It is vital for both fairness and to maintain the credibility of planning in Oxford that the original conditions are held to

- This isn't only about the health and well being of Oxford residents present and future but also about the impact on Port Meadow its tranquility and it's wildlife. And about whether planning conditions mean what they say or can simply be ignored by determined developers.

- The benefit cost ratio for the entire project was considered at the public inquiry and included the cost of installation of the various mitigations offered. Network Rail is using a method where the benefit cost ratio is estimated for silent track only when it is applied as the last of the mitigations instead of sticking to the method laid down in the Transport and Works Act Order where it should have been applied as the first of the mitigation. In a project of this size the cost of SilentTrack is trivial.

- It is absolutely imperative that the future train numbers supplied by NR in the Noise and Vibration Schemes of Assessment are adhered to. The calculations of vibration in particular are critically dependent upon the speed, number and types of train (because the DVD is cumulative and therefore increases with the total number of trains) By seeking to increase the number of trains while not also considering its effects on the vibration and noise schemes of assessment is clear abuse of process

- It is important that the impacts to which residents homes will be subjected in future is monitored. At the moment the noise impacts at residents homes are hypothetical yet it is on those figures alone that the required mitigation has been decided.

- The City Council seems unwilling to support residents in holding Network Rail to account for their commitments and to uphold the interests of hundreds of residents.

- Concerns that if Network Rail were to win an appeal it might impose costs on the Council is not a good reason to cave in to the bullying and devious behaviour of Network Rail. The Council should stand up for residents interests

- Hundreds of residents live within a few dozen metres of the track and increasing train numbers to some unspecified but clearly high level will have a stronger adverse effect on both noise and air pollution in the immediate area. This is particularly concerning at night as even the low number of trains currently running is sufficient to cause substantial vibration and noise.

- This proposal would, in essence, allow motorway levels of traffic immediately beside dozens of houses.

- Given that Network Rail have presumably known projected traffic volumes since before the inception of these works I find it highly dishonest that they are attempting to back out of their commitments at this late stage.

- Councillors must clearly understand that this is a pre-planned ploy by Network Rail and a corrupt and cynical attempt to deceive them the planning authorities and the local residents.

- Network Rail has been obstructive and obfuscating me in the process wasting considerable time and money. There are no good reasons for the request to lift these very reasonable conditions which were put in place after long process of very thorough consultation. The justifications provided by Network Rail are entirely insufficient. Its new benefit cost ratio is entirely unexplained.

- Network Rail has consistently underestimated traffic levels in order to avoid residents objections

- Again NR is trying to avoid the use of silent track as it is desperate to prevent setting a precedent for the rest of the country despite its own preference to mitigation at source and the Secretary of State's insistence on its use

- Without traffic caps an unlimited number of freight trains can run through Oxford regardless of their age condition size pollution emissions maintenance weight or nuisance. The traffic caps should be maintained.

- The conditions that the Council would like to impose do not appear to meet the legal standards required of planning conditions. The Secretary of State has dealt us a very bad deal in saying we could determine the planning permission without adequate powers to insist on anything that does not meet the basic condition of just mitigating the noise by a certain amount.

- Many residents were not convinced by Network Rail's modelling efforts. The models were theoretical, not reflecting the reality. The models should be

tested against reality. Disposing of this absolute maximum annihilates the crucial modelling assumption and again renders the whole exercise void.

- Instead of being a responsible custodian of the railway Network Rail has focused most energy and resources on battling local residents in endless attempts to trim costs.

- Oxford City Council must show the courage to resist this latest attempt to override the planning system and stand up for the interests of Oxford residents.

- There has been huge residential development alongside the railway in the last 20 years. Silent track is approved an inexpensive way of reducing noise at source and therefore much more effective than localized reductions by way of double glazing

- We are not next to the track but in the second floor apartment 50m away where no sound insulation has been offered. The sound from the trains travels through the air and affects our second-floor bedrooms. The importance of the reduction of noise at source is therefore important.

- Please stand firm on our behalf. We appreciate the benefits and improved infrastructure could bring to Oxford. All we ask is that Network Rail adheres to the original commitments to those of us profoundly affected by this development.

- It is nonsensical for Network Rail to refuse to measure actual noise and vibration particularly since the theoretical modelling has proved to be so inconsistent.

- It is incumbent on the Secretary of State and Oxford City Council to stand by the decisions they have already made and for Network Rail to accept them.

- The large increase in the number of train movements (passenger and freight) day and night that will come with East West Rail Phase 2 and HS2 construction are certain to be far more than Network Rail is currently predicting. It is imperative that further noise monitoring is carried out

NR17

Network Rail response to objections/representations made in respect of application 16/02509/CND

Submitted to Oxford City Council 9 January 2017

A1 CONSULTATION RESPONSES TO 16/02509/CND

A1.1 INTRODUCTION

As at 3 January 2017, approximately 164 consultation responses have been received through the Oxford City Council (OCC) online portal and these cover a range of concerns and comments. Section A1.2 provides a detailed response from Network Rail to a selection of the key issues raised. This is not intended to be a comprehensive response by Network Rail, since many of the other issues raised have already been addressed in the application or in other correspondence with OCC.

A1.2 SELECTED KEY ISSUE RESPONSES

Reversal of the SilentTrack 'commitment' of the TWAO and concerns over the resulting noise that could be experienced without the implementation of SilentTrack

SilentTrack installation was not a condition of the Transport and Works Act Order (TWAO) but was a condition imposed by Oxford City Council (OCC) should the technology be deemed 'reasonably practicable' within Section I/1. SilentTrack (whether or not in combination with barriers) is unlikely to deliver more than a 3dbA Leq reduction in day or night time noise levels (and the reduction could be substantially less). This reduction needs to be considered in the light of the TWA Inspector's view (shared by noise experts) that 'changes in environmental noise levels of less than 2 to 3dB are not noticeable to most people'. Noise barriers and insulation are already being installed in Sections H and I/1 at a cost of around £3.5 million. These are the only methods that can deliver the substantial noise mitigation required by the Noise and Vibration Mitigation Policy (NVMP) where there is housing close to the track.

Interpretation of the noise mitigation hierarchy and the prioritisation of 'at source' mitigation, such as 'SilentTrack'

Paragraph 2.2 of the NVMP notes that the 'first preference will be to apply necessary noise control measures at source where this is reasonably practicable'. The NVMP does not require the installation of track based measures, even though these are 'first preference', if these would not be sufficient to mitigate significant noise impacts, which is the case in most of Sections H and I/1.

In Sections H and I/1, neither SilentTrack (nor any other rail dampers) alone can achieve the noise mitigation standards set out in the NVMP, without being installed in combination with extensive noise barriers and some noise insulation in the form of secondary or double glazing. The 'noise mitigation hierarchy' should be interpreted in a common sense and practical way and, in considering whether the installation of SilentTrack would be 'reasonably practicable', it is proper to consider the marginal additional costs and benefits

(or ‘value for money’) of SilentTrack assuming that those other measures will need to be installed in any event.

NR believes that it is appropriate to apply the reasonably practicable test to all of the measures provided in combination, in order to properly confirm that mitigation is correctly focussed on the most cost effective mitigation package.

Concerns over the cost calculations used and the monetary value attached to the long term benefits to health and well-being experienced by local residents

The method used to assess the monetary valuation of noise impacts employed has been undertaken using the Department of Transport (DfT) standard economic appraisal method, in particular TAG Unit A3, December 2015, and the accompanying TAG Data Book Table A3.1 and the TAG Noise Workbook.

WebTAG is an accepted economic appraisal tool for placing a monetary value on the environmental effects, in this case, of reducing noise and the consequent effects on eg. disturbed sleep. It is the only way of comparing directly the financial costs and the economic benefits of a mitigation measure that only provides an environmental rather than financial return.

The WebTAG methodology allows for the consideration of local conditions in Oxford, through the use of the specific noise model outputs for Section H and I/1 to derive monetarised benefits and bespoke costing of the installation of SilentTrack in Sections H and I/1. These are the main determining components in deriving the costs and benefits of the installation of SilentTrack in Sections H and I/1.

The method used to assess the cost/benefit of SilentTrack utilises the standard economic appraisal tool available for this type of calculation and NR is not aware of any other reliable tools which are in common use for noise impact economic appraisals.

Concerns regarding the removal of a restriction on train movements and impacts upon Noise SoA modelling

The number of train movements specified by OCC as a limit has been derived from the reasonable planning scenario for East West Rail after Phase 2 as contained in the NVMP, imposed by the Secretary of State under Condition 19. This planning assumption was used in the noise and vibration SoA and formed the basis for determining mitigation in both the noise and vibration SoAs in line with the Secretary of State’s decision.

The reasoning behind the imposition of the train movements condition was directly linked to the incorrect assumption that the purpose of the noise monitoring was to enable a comparison of actual residual noise levels in comparison with those predicted in the Environmental Statement (ES), which rely on the ‘reasonable planning scenario.’

The intended purpose of the noise monitoring is to check the effectiveness of the noise mitigation installed in pursuance of the approved noise SoAs, so that any defects in construction or performance can be identified and rectified in a timely manner.

Neither the TWA Order nor the deemed planning permission granted by the Secretary of State contains any restriction on the total number of train movements.

Concerns over the current EWR Phase 1 Timetable and NSoA

The 'reasonable planning scenario' used for the NSoA for the period between 23.00 and 07.00 includes EWR Phase 2 and freight services. The timetable that will be in operation from 11 December 2016 between Oxford and Oxford Parkway allows for 10 passenger services each day during the 23.00 to 07.00 period, which is only one third of the 29 passenger and freight services assumed in the 'reasonable planning scenario'.

Noise and Health

The TWAO planning conditions do not require a specific Health Impact Assessment to be undertaken. However, the stringent standards which have been applied in the Noise and Vibration Mitigation Policy (NVMP) provide adequate protection against noise and take account of its potential effects on health. This approach was endorsed by the Secretary of State when the TWA Order was approved, in requiring the NVMP to be applied to the design and implementation of noise mitigation.

HS2

HS2 is not yet an approved scheme and no assessment has been undertaken of the likely train operations that may take place on any part of EWR (Oxford to Bletchley or Princes Risborough to Milton Keynes) to serve HS2 construction or operations. The future service levels accepted by the Inspector at the TWA Inquiry (and confirmed by the Secretary of State's decision to grant the Order) are seen as 'reasonable assumptions of likely future service frequencies' and therefore correctly form the basis for the consideration of the NSoA by the Council. This does not include any potential train movements related to HS2 construction or operation.

Devegetation

Vegetation clearance was required in advance of the approved Scheme's main construction work to remove existing areas of trees and scrub, where these would impede construction. There are no specific requirements for landscaping or for replanting on this section of the Scheme. In addition, Network Rail guidance covering new construction states that no tree planting should be within 5m of the outside rail. Where feasible, some replacement trees are being planted, at the conclusion of construction.

Speed Restrictions

Objections have suggested that a speed limit for trains be implemented to reduce noise and vibration at properties along the route. This was a matter discussed at length at the TWA Inquiry and rejected by the Inspector and the Secretary of State as neither appropriate nor necessary.

If Network Rail were to restrict train speeds to well below the safe line speeds through Section I/1, this would result in passenger train operations along the route becoming unviable.

Frequency of Trains

The service levels used in the NSoA were discussed and agreed by the Inspector at the TWA Inquiry (and confirmed by the Secretary of State's decision to grant the Order). They continue to represent a 'reasonable assessment of likely future service frequencies' following the opening of East West Rail Phase 2 between Bicester and Bletchley etc, which was the basis on which the Noise and Vibration Mitigation Policy was devised. Unfortunately, if Network Rail were to restrict the frequency through Section I/1, this would result in train operations along the route becoming unviable.

Adequacy of Noise Baseline Surveys

The noise baseline survey has been designed carefully to provide sufficient noise data for the Noise Scheme of Assessment. Noise levels have been measured at selected locations that are representative of the noise environment in that area. So that noise levels at other locations can be established where necessary, the measured noise levels have been adjusted by taking into account the distance to the track and measured differences in noise environment between locations. This method provides a robust approach to establishing noise mitigation requirements, without the need to measure noise at each individual property in the area.

Noise and learning at SS Phillip and James' Primary School

Noise modelling has been carried out at all noise sensitive locations including the school to determine the optimal length and height of the noise barriers in, as part of the assessment of the mitigation required under the Noise and Vibration Mitigation Policy. In the case of the School, a noise impact of 2 dB was modelled without any mitigation. Following the procedure set out in the Policy noise barriers are provided when noise impacts of greater than 5 dB are predicted, so that the modelled noise at the school is not sufficiently high to justify noise mitigation.

It is noted that there is a barrier between part of the school and the railway that is installed to provide noise mitigation for the residential properties on Navigation Way. This will, because of its close proximity, attenuate noise both

from the existing railway and from EWR trains to parts of the school building and playground with predicted reductions in train noise of 7 dB at the building based on a receptor height of 6 m. To put this reduction into context, a change of 3 dB is considered to be the smallest change in noise levels which is generally noticeable with changes of 5 dB being clearly noticeable and changes of 10 dB representing a halving of sound. Therefore, this barrier will provide a noticeable reduction in noise levels for parts of the school, and higher reductions would be predicted to occur at lower receptor heights.

Noise Monitoring

The Noise and Vibration Mitigation Policy defines the times at which measurements will be undertaken (6 months and 18 months after opening). By that time, sufficient passenger and freight trains of the right types will be running to enable accurate measurements to be made. Potential future increases in passenger and freight service frequencies (and train lengths) will be taken into account. These calculations will be based on the future service levels which are set out in the Noise and Vibration Mitigation Policy. These future service levels were discussed and agreed by the Inspector at the TWA Inquiry. They continue to represent a 'reasonable assessment of likely future service frequencies' following the opening of East West Rail Phase 2 between Bicester and Bletchley etc., which was the basis on which the Noise Policy was devised.

Vibration Levels and Property Damage

Some residents maintain that they experience vibration levels which they believe to be unusually high as a result of their particular building type or location. The vibration prediction methodology that was used is based on measurements of trains under appropriate geological conditions at an agreed local site, and this methodology has been reviewed extensively and accepted by Oxford City Council in relation to Section I/1. Even after applying the "reasonable worst case" assumption, there are no dwellings where vibration will exceed the thresholds which are specified in the planning condition, which are designed to ensure a good standard of protection against disturbance as a result of vibration. By taking this precautionary approach it has not been necessary to carry out measurements in individual properties. It should be noted that the vibration magnitudes are sufficiently low that there is no probability of vibration damage as a result of the railway operations.

Vibration Monitoring

The s73 application for Section I/1 Vibration Monitoring (16/01412/VAR) was approved by OCC at Planning Review Committee on 5 October 2016 and it was agreed that no vibration monitoring is required to be undertaken within Section I/1. It should be noted that within Section H one round of vibration monitoring at three residential properties of different structural types, close to the railway will be undertaken. The monitoring will identify the vibration arising from EWR trains at the 'worst case' locations, which are all in Section H. The detail of this undertaking is currently being agreed with OCC.

19. **Operational noise and vibration monitoring and mitigation**

1. Operational noise and vibration monitoring and mitigation shall be carried out in accordance with the Noise and Vibration Mitigation Policy, January 2011 (Inquiry document CD/1.29/2.1, referred to in this condition as "the Policy") and this condition. In the event of any conflict between the two, this condition shall prevail.

2. Development shall not commence within each Individual Section, until a detailed scheme of assessment of predicted noise impacts during operation of Phase 1 and 2A of the railway works, predicted vibration effects of the railway with Phases 1, 2A and 2B and details of proposed monitoring and mitigation measures, has been submitted to and approved in writing by the local planning authority.

3. The schemes of assessment of the predicted noise impacts of Phase 1 and 2A and of Phase 2B on the Individual Section or Sections that abut Wendlebury Gate Stables shall also identify measures that should be taken to ensure, insofar as reasonably practicable, that the noise caused by individual passing trains, using the railway, does not significantly impede voice communication over a distance of 30 metres within either the "large riding school" or the "small riding school" at those Stables, or within the paddock opposite Bramlow. For direct voice communications (i.e. without electro- acoustic assistance), the term "not significantly impede" shall be taken to mean that the speech intelligibility shall be at least "fair" at an increased (i.e. "loud") vocal effort as defined in BS EN ISO 9921:2003 Ergonomics Assessment of Speech Communications. The assessment method used shall be the Speech Interference Level as described in Annex E to that Standard. The assessment shall be based on a native female speaker facing the rider under instruction and the standard to be achieved will be for alert situations where short known words are used and the wind speed is less than 5 metres per second. A correction factor of -5dB shall be used to convert the standard for male voices to female voices. If personal communications or sound reinforcement systems are proposed, the assessment methodology shall be subject to the approval of the independent expert appointed in accordance with Condition 19.9. This part of the condition shall not apply if, at the time of assessment, the Stables are no longer a licensed riding establishment under the Riding Establishments Act 1964.

4. The schemes of assessment of the predicted noise impacts of Phase 1 and 2A and of Phase 2B on the Individual Section or Sections that abut 45 Lakeside shall also identify measures that shall be taken to ensure that the noise caused by passing trains in the Studio at 45, Lakeside does not exceed 35dB $L_{Aeq,\ 30\ min}$ and 55dB $L_{A1,\ 30\ min}$, the standards to be met by music teaching rooms as defined in Building Bulletin 93, Acoustic Design of Schools (Table 1.1).

5. Where vibration mitigation measures required for Phase 2B can be installed cost-effectively during the Phase 1 and 2A works, this shall be done. All mitigation measures, including those prescribed in the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996, required for Phase 1 and 2A shall be installed as soon as possible after commencement of the works and no later than the date on which a passenger rail service is resumed on that section of railway.

6. Any monitoring of noise and vibration shall be undertaken in accordance with the approved scheme of assessment and the Policy.

7. Before the commencement of the laying of the second track between the MoD Depot at Bicester and Islip, a detailed scheme of assessment of the predicted noise impacts arising from the works and from the additional services assessed as likely to operate under Phase 2B in the Environmental Statement and details of proposed mitigation measures, which achieve the standards for noise and vibration attenuation set out in the Policy, shall be submitted to and approved in writing by the local planning authority.

8. Any vibration mitigation measures not already installed during the Phase 1 and 2A works necessary for Phase 2B shall be installed during the Phase 2B works. All mitigation measures, including those prescribed in the Noise Insulation Regulations (Railways and Other Guided Transport Systems) 1996, required for Phase 2B shall be undertaken as soon as possible after commencement of the works and completed no later than the date on which the second track is brought into use.

9. The submitted schemes of assessment shall show how the standards of noise mitigation set out in the Policy will be achieved. Supporting calculations, or printouts of inputs and outputs from recognised computer software, shall be provided. Each scheme shall be accompanied by a report, prepared by an independent expert previously approved in writing by the local planning authority, on the robustness of the noise-related elements of the scheme of assessment. Noise mitigation measures shall be permanently installed as approved.

10. The submitted schemes of assessment shall show how the standards of vibration mitigation set out in the Policy will be achieved. Supporting calculations or empirical data, or a combination of the two, shall be provided. Each scheme shall be accompanied by a report, prepared by an independent expert previously approved in writing by the local planning authority, on the robustness of the vibration-related elements of the scheme of assessment. Vibration mitigation measures shall be permanently installed as approved.

11. The submitted schemes of assessment shall include a list of properties assessed and the results of the assessment at each. By the times that the mitigation measures are due to be brought into use, notice shall be served on the local planning authority of the mitigation measures that have been installed for each property assessed.

12. The situation may arise in which Chiltern finds “not reasonably practicable” the provision of mitigation measures that otherwise would be required by the Policy. In such circumstances, the mitigation measure or an equally effective substitute previously approved in writing by the local planning authority shall be installed in the timescale set out in item 1.10 of the Policy, unless the local planning authority has confirmed, in writing, its agreement that the mitigation in question is not reasonably practicable and that there is no suitable substitute.

13. Where noise barriers are promoted in an approved scheme of assessment, they shall be installed only once the local planning authority has given written approval of their size, appearance and location. Noise barriers shall be maintained in their approved form and may be removed only with the written approval of the local planning authority.
14. Development shall be in accordance with the approved schemes and this condition.

***Reason**: To ensure that operational noise and vibration are adequately mitigated at residential and other noise sensitive premises.*

NOISE AND VIBRATION MITIGATION POLICY

THE CHILTERN RAILWAYS (BICESTER TO OXFORD IMPROVEMENTS) ORDER

TRANSPORT AND WORKS ACT 1992

ERM

Chiltern Railways

JANUARY 2011

The Noise and Vibration Policy has been adopted by Chiltern Railways to ensure that mitigation of noise and vibration from trains using the railway authorised by the Chiltern Railways (Bicester to Oxford Improvements) Order is provided on a fair basis for all occupiers and landowners along the route between Bicester and Oxford.

The Policy has been based on extensive research and modelling and offers a high standard of mitigation, comparable with other similar railway schemes in Britain.

The Policy will ensure that the following are achieved:

(i) Noise will be reduced at source where it is reasonably practicable to do so.

(ii) Where this is not reasonably practicable, noise barriers or noise insulation to properties will be provided, where necessary, in accordance with relevant standards.

(iii) Where predicted noise levels exceed relevant levels set out in the Noise Insulation (Railways and Other Guided Systems) Regulations, noise insulation will be offered to the occupiers of eligible buildings to the standards required by those Regulations and provided at their request.

(iv) At other locations, where statutory noise levels are not exceeded but where significant noise impacts are predicted, noise will be mitigated wherever reasonably practicable. Significant noise impacts include a significant increase in noise in an already noisy area, or the significant exceedance of stringent thresholds in an area where the ambient noise is currently low. Chiltern Railways has chosen to offer this high standard of mitigation. It is not a statutory requirement.

(v) Vibration from trains will not cause damage to structures, and even without mitigation, will be likely only to give rise to 'adverse comments from occupiers being possible' at a few properties that are located very close to the railway. At these locations, appropriate mitigation measures will be provided.

These commitments and the ways in which the Policy will be implemented are set out in the remainder of this Policy.

The Policy, which has been agreed with Network Rail, applies to any works authorised by the Transport and Works Act Order.

1. HOW WILL THE POLICY BE APPLIED?

INTRODUCTION

1.1. Chiltern Railway has applied for the Chiltern Railways (Bicester to Oxford Improvements) Order. The Order, if made, would allow for the railway works to be carried out in phases. Phase 1 consists of those works required to allow the operation of Chiltern Railways' proposed London Marylebone to Oxford passenger services together with the freight services that currently operate on the Bletchley to Oxford line between Bicester and Oxford. Phase 2A, which is the lowering of the trackbed of the Wolvercot Tunnel , will be undertaken at the same time as the Phase 1 works.

1.2. The Phase 1 and 2A works will be carried out as soon as the Order is approved, so that their passenger services can start no later than May 2013. Further works, in Phase 2B, will take place at a later date and be undertaken either by the East West Rail (EWR) consortium or others on behalf of Network Rail (NR). The Phase 2B works are mainly those to provide double track between the MoD depot at Bicester and Islip and through the Wolvercot Tunnel.

1.3. The Noise and Vibration Mitigation Policy has been prepared by Chiltern Railways and agreed by Network Rail. It will be applied, in the first instance, by Chiltern Railways when designing in detail, building and operating the works in Phase 1 and 2A. EWR, or others on behalf of NR, when they undertake the Phase 2B works, will also apply this policy. Hereafter, in this policy, the organisation which builds the relevant works is called the 'Promoter'.

1.4. The purpose of this policy is to set out the Promoter's commitments to mitigating noise and vibration effects arising from operation of the railway. These are based on the commitments made in the Environmental Statement [(1)].

1.5. The mitigation of noise and vibration effects during construction will be the responsibility of the Contractor, who will have to work within and abide by an approved Code of Construction Practice.

1.6. Chiltern Railways' consultants, Environmental Resources Management, have carried out an assessment of the likely effects of noise and vibration which is reported in the Environmental Statement [(2)] . This has been undertaken by:

- identifying representative noise sensitive receptors (primarily residential properties) along the entire railway route;
- measuring current actual noise levels at these locations;

(1) Chiltern Railways (Bicester to Oxford Improvements) Order, Environmental Statement, ERM, 2009
(2) See chapter six (of volume 2) of the Environmental Statement which accompanies the Transport and Works Act Order Application.

- predicting likely future noise levels, based on noise measurements relating to the actual types of passenger and freight trains that will be used on the railway;
- comparing these predicted levels against noise impact assessment criteria and outlining, where necessary, appropriate mitigation measures.

1.7. The detailed design of the Phase 1 and 2A works will be developed by Chiltern Railways' appointed contractor. This will involve refinement of the mitigation following the principles set out in this policy. This will ensure that the residual noise effects at any location are no worse than those reported in the Environmental Statement.

1.8. The assessment of noise and vibration has been based on two operational patterns of new train services:

- After the implementation of the works in Phases 1 and 2A, operational services will consist of up to two Chiltern Railways passenger trains per hour each way. The passenger trains will replace the existing passenger service operated by First Great Western between Bicester Town and Oxford stations.
- After the implementation of the East West Rail (EWR) link including works in Phase 2B, there are likely to be an additional two passenger trains per hour each way.

Neither Chiltern Railways or EWR will be running passenger trains throughout the night, and services in late evening and early morning will be at a reduced frequency. A small number of passenger trains may arrive in Oxford after midnight or depart from Oxford before 0600.

1.9. In the operation of Phase 1 and 2A, there are likely to be no more freight trains than operate at present, as there will be no new freight destinations that can be served. When the East-West Rail (EWR) link is in operation, there may be more freight trains. For this reason, additional freight services were included in the noise assessment in the Environmental Statement, so that this reflects a reasonable planning scenario. The actual number of freight services will reflect national freight demand, but will be limited to the maximum number of available freight 'paths' (1 per hour in each direction). Experience shows that about half of the available freight train paths are likely to be used on a given day, which would suggest a reasonable planning scenario of 8 freight train movements between 11pm and 7am. Freight trains will not use the 'new' railway line between Oxford North Junction (where the Bicester to Oxford Line meets the Oxford-Banbury main line) and Oxford, but instead will use the existing main line, as at present.

1.10. The noise and vibration mitigation will be designed based on the assumptions in paragraph 1.8 and 1.9 regarding the numbers and timing of train movements.

INSTALLATION OF NOISE MITIGATION MEASURES

1.11. Noise mitigation measures in accordance with this policy will be installed during the Phase 1 and 2A works, to be completed before the commencement of Chiltern Railways passenger services. Before the Phase 2B works take place, any additional noise mitigation measures made necessary by those works and the services in the reasonable planning scenario for Phase 2B will be designed. The assessment of noise and vibration for Phase 2B will cover all parts of the route, where service frequencies are expected to increase in Phase 2B. The mitigation measures will be installed before the Phase 2B works are brought into use. After each Phase of works, the effectiveness of the noise insulation measures installed will be monitored, as detailed in para 2.11.

2. *HOW IS NOISE ASSESSED TO DETERMINE APPROPRIATE MITIGATION?*

PRINCIPLES

2.1. The Noise and Vibration Policy is intended to ensure that noise and vibration mitigation is provided on a fair basis for all landowners and occupiers affected by the Order Scheme.

2.2. The Promoter is committed to using the Best Practicable Means [(1)] to design the railway so as to avoid significant noise and vibration impacts at existing sensitive receptors (e.g. residential properties, educational buildings and places of worship). The first preference will be to apply necessary noise control measures at source where this is reasonably practicable. These may include rail damping or other infrastructure measures to reduce noise at source. Where this is not reasonably practicable or sufficient to mitigate significant noise impacts, the Promoter will:

- where they are effective and reasonably practicable to install, provide noise barriers to mitigate noise between the track and sensitive receptors; and

- after considering all practicable mitigation measures that can be taken at source (i.e. within the railway corridor), including noise barriers, offer noise insulation to properties where residual noise impacts on sensitive receptors remain high.

(1) Best Practicable Means are defined in Section 72 of the Control of Pollution Act 1974 as those measures which are "reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge, financial considerations and compatibility with safety and safe working conditions"

2.3. The Promoter will consult with landowners and occupiers who may be affected by noise and vibration to explain the mitigation measures that are proposed.

The assessment of noise uses technical terms, which are described in Annex A. The provision for noise mitigation will be based on two sets of absolute noise levels (1). The first are 'Noise Impact Threshold' levels, below which noise impacts are never significant. The second set of levels are the 'Noise Insulation Trigger' levels. These are the noise levels predicted at the most exposed windows to noise sensitive rooms in noise sensitive buildings, and are free-field (2) noise levels.

Noise Impact Threshold levels: *Day - $L_{Aeq,\ (0700\text{-}2300\ hours)}$ 55 dB* (3)
Night – $L_{Aeq,\ (2300\text{-}0700\ hours)}$ 45 dB

2.4. Where train noise is predicted to be above either of these threshold levels, but where the level is still less than that set out in the Noise Insulation Regulations requiring noise insulation to be provided, the Promoter will provide mitigation measures to reduce the adverse impact of noise. These will vary according to the extent to which the train noise level exceeds the threshold levels and the extent to which overall noise is increased above the existing or ambient noise level, as follows:

- exceedances of 3 dB or greater and increases of 3 dB or greater – mitigation at source through rail infrastructure solutions will be implemented where reasonably practicable;

- exceedances of greater than 5 and up to 7 dB and increases of greater than 5 dB and up to 7 dB -- at source and/or in the form of noise barriers if reasonably practicable and have no other negative effects;

- exceedances of greater than 7dB and increases of greater than 7dB – at source through rail infrastructure solutions and where these cannot be reasonably practicably achieved, noise barriers will be provided, where reasonably practicable.

These standards are consistent with those applied in the Environmental Statement, where noise mitigation is considered at source for impacts that are greater than 3 dB and in the form of noise barriers for impacts above a minimum of 5 dB. (Noise impacts in the ES are calculated by considering both the exceedance of the threshold criteria and the increase in overall noise, and taking the lower of the two.) The noise benefits of noise barriers are more likely to outweigh any dis-benefits, where the noise increase is above 7 dB. There are certain locations where because of the topography of the railway

(1) The standards relate to disturbance of building occupants, and do not relate to specific effects such as speech interference.
(2) Free-field means away from reflective surfaces, except the ground.
(3) $L_{Aeq,T}$ is the A-weighted equivalent sound level over the period T. A-weighting is a frequency weighting that replicates the frequency response of the ear. $L_{Aeq,T}$ is a widely used noise parameter that represents a varying noise level by calculating the constant noise level that would have the same energy content over the measurement time period. It is recommended parameter for train noise.

and adjacent properties, safety or visual impact, barriers cannot be installed or will not be effective.

2.5. Noise barriers or other noise attenuating infrastructure solutions will achieve noise reductions in most areas, to near to the existing noise levels. However residual noise impacts may still occur at particular locations. If, after consideration of the effects of noise mitigation measures at source, any of the Noise Insulation Trigger levels is still exceeded, then noise insulation to relevant properties will be offered, provided the corresponding existing or ambient noise level is routinely exceeded by at least 1dB. Noise insulation will be provided in accordance with the Noise Insulation (Railways and Other Guided Systems) Regulations. The noise level thresholds at which this will be offered are shown below in terms of free-field noise levels that are equivalent to the façade levels provided for in the Regulations.

Noise Insulation Trigger Levels	*Day* $> L_{Aeq,\ (0600\text{-}0000\ hours)}$ *66 dB* (1)
	Night $> L_{Aeq,\ (0000\text{-}0600\ hours)}$ *61 dB*

2.6. Even with the mitigation in paragraph 2.5, some of the properties close to the railway may still experience residual noise impacts that may be classed as 'high'. A 'high' impact is the equivalent of a noise impact of greater than +10 dB. If these properties are not already to be provided with insulation under the Noise Insulation Regulations, they will be offered additional mitigation, which is likely to be in the form of noise insulation.

2.7. If maximum pass-by free-field noise (L_{Amax}, the instantaneous 'peak' as the train passes) regularly exceeds 82 dB (free-field)at night, this is considered to be a significant impact, based on guidance on the prevention of sleep disturbance, except where ambient maximum noise levels are already above the predicted train noise level. One or two events per night would not be interpreted as regular, but the 8 assumed freight movements each night in Phase 2B are considered to be regular. In those very few locations likely to have such noise effects, additional noise attenuation measures will be taken to include the offer of noise insulation to affected properties. This form of mitigation is particularly effective in addressing night-time noise impacts when noise levels inside buildings are the key factor as regards sleep disturbance. The following additional criterion for noise insulation is therefore being applied.

Significant impact, need for further mitigation likely to be noise insulation:	*Night* $> L_{Amax}$ *82 dB* (2)

(1) Day is generally defined as 0700-2300 hours, except in the Noise Insulation Regulations, where it is defined as 0600 hours to midnight. These noise levels are free-field values that are equivalent to the values defined in the Noise Insulation Regulations

(2) L_{Amax} is a measure of the peak noise level, A-weighted

MITIGATION OF VIBRATION

2.8. The levels of vibration resulting from passenger and freight trains operating on the new railway will be far below the levels that might cause structural damage to buildings. However, the additional trains may give rise to perceptible levels of ground vibration in adjacent occupied properties. Vibration Dose Value (VDV) (1) is a measure of the accumulated level of ground vibration over a period, and, through the application of BS6472 (2) , is a standard metric for predicting the likelihood of adverse comments from building occupants. The standard gives the following threshold VDV levels at or below which the probability of adverse comment is low:

- Day (0700 – 2300 hours) - 0.4 $m/s^{1.75}$
- Night (2300 – 0700 hours) - 0.2 $m/s^{1.75}$

2.9. By comparison, the measured levels from the types of passenger and freight trains that will be used on the new railway, running on standard ballasted track, suggest that even at 8 m from the track the levels will be 0.14 $m/s^{1.75}$ during the day and 0.12 $m/S^{1.75}$ at night which are very much less than the "adverse comment" thresholds set out above. Trackforms will be designed and installed adjacent to occupied vibration sensitive receptor buildings using Best Practicable Means to keep within the thresholds.

2.10. Where existing vibration levels are already above either of the thresholds set out above, mitigation will be considered where the change in VDV is 50% or more as a result of the Phase 1, 2A and 2B works.

MONITORING AND MAINTENANCE

Monitoring

2.11. A noise and vibration monitoring scheme for the Phase 1 and 2A works will be implemented to ensure that the performance of the mitigation measures that are installed achieve the levels of noise mitigation predicted by the design contractor, whose design instructions will include the requirement to achieve the residual noise levels set out in the Environmental Statement. The monitoring scheme will include the carrying out of surveys, the first being undertaken at around 6 months after the opening of the railway for Chiltern Railways passenger services, at locations agreed with the local planning authorities. A second survey will be undertaken 18 months after opening. If defects in construction or performance are identified in the first survey, these will be corrected in a timely manner by the contractor. If any defects in construction or performance are found in the second survey, these will also be corrected in a timely manner by the contractor. The same procedure for post construction monitoring surveys and the remedy of defects or performance

(1) Vibration Dose Value, VDV, is the vibration metric recommended in BS6472 -1, 2008 for the assessment of annoyance from railway vibration. It is a measure of the overall vibration dose throughout a day or night period. It is highly weighted towards peaks and has the units $m/s^{1.75}$

(2) BS6472: 2008 Guide to Evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz) Part 1 Vibration Sources Other than Blasting.

will be undertaken after the Phase 2B works have been completed and EWR services introduced.

2.12. The results of the Phase 1 and 2A monitoring will be published in an easily accessible format on the Chiltern Railways website and in the project newsletter and will be made available, either in hard copy of in electronic format, to any person requesting the information. Arrangements for publishing the surveys after Phase 2B will be agreed with the local planning authorities.

Maintenance

2.13. The railway, and in particular the wheel and rail surfaces, will be maintained so as to minimise noise and vibration at sensitive receivers.

OTHER NOISE MITIGATION

Station Announcements

2.14. Directional public address systems will be used that minimise the impact on nearby properties whilst maintaining audibility on platforms. The station operator will establish appropriate sound levels for station Public Address systems and will seek to address complaints, if they are received from occupiers of noise sensitive premises, as far as is reasonably practicable within railway safety requirements.

Train Stabling and Servicing

2.15. Chiltern Railways trains will not be stabled or serviced in the carriage sidings at the north end of Oxford station. Drivers will be instructed to shut down engines if the train is not to be moved within 5 minutes of arrival at Oxford station, and all Chiltern trains are equipped with automatic systems to shut down the engines if the train has been standing for more than 15 minutes.

Train Horns

2.16. Safety regulations require train drivers to sound the train's horn to warn of their approach in certain situations, for example, at certain level crossings or where there is risk of collision. This is essential, but after the Phase 1 works are completed, all of the present level crossings, except London Road, Bicester will be permanently closed and the situations where horns need to be sounded will be much reduced. There will be audible alarms on the crossing at London Road, Bicester and horns will not be used except in emergency. Although it is an inherent feature of the scheme rather than a specific mitigation measure, the reduction in horn noise will reduce noise impacts from this distinctive noise source, and so it has been noted in this section.

ANNEX A NOISE TERMINOLOGY

WHAT IS 'NOISE'?

A.1 The terms "sound" and "noise" tend to be used interchangeably, but noise can be defined as unwanted sound. Your neighbour may enjoy the sound of his music at 2am but you would be disturbed by the noise.

A.2 Sound is a normal and desirable part of life. However, when noise is imposed on people (such as from industry, construction or transportation) it can lead to disturbance, annoyance and other undesirable effects.

A.3 It is relatively straightforward to physically measure sound with a sound level meter, but it is a different matter to quantify the sound in terms of how noisy it is perceived to be and the effects it may cause.

A.4 For this reason we draw on various standards and guidelines that relate a measured noise level to the effect it is likely to have. These guidelines are generally based on large scale social surveys that have produced accepted, all be it approximate, relationships between noise level and effect.

AN EXPLANATION OF NOISE LEVELS

A.5 Noise is measured and quantified using decibels (dB). This scale is logarithmic, which means that noise levels do not add up or change according to simple linear arithmetic. For example, any two equal noise sources added together give only an increase of 3dB higher than the individual levels (e.g. 60 dB + 60 dB = 63 dB, not 120 dB). This represents what happens in practice when two equal sounds coincide; the ear perceives only a slight increase in noise and not a doubling.

The following table provides examples typical of noise levels.

Examples of Noise Levels on the Decibel Scale

Noise Level dB(A)*	**Typical noise source / example**
0	Threshold of hearing (lowest sound an average person could hear)
30	Quiet bedroom at night
40	Whispered conversation at 2 metres
50	Conversational speech at 1 metre
60	Busy general office
70	Loud radio indoors
70 – 75	Existing trains at Lakeside
80	Lorry at 30 kph at 7 metres
90	Lawnmower at 1 metre

*The dB(A) scale is a particular way of measuring the different frequencies in sound designed to match how the human ear works, called 'A'-weighting.

A.6 The way human hearing works is conveniently similar to the logarithmic changes in noise.

- An increase of 1 dB in noise levels cannot usually be heard (except possibly in 'laboratory' conditions).
- An increase of 3 dB is generally accepted as the smallest change that is noticeable in ordinary conditions.
- An increase of 5dB is clearly perceptible.
- An increase of 10dB seems to be twice as loud.

HOW IS NOISE MEASURED?

A.7 There is a little more to the measurement of noise than pointing a sound level meter and taking a reading. Because noise tends to vary over time, we need to find a way of measuring it in a manner which represents the variation in noise level that also reflects people's perception of how noisy it is. Over the years a number of different ways to measure noise (metrics or parameters) have been developed as the best ways of representing different types of noise sources (single events, industry, road traffic, railway, aircraft etc). Those relevant to the Chiltern Railways are introduced below.

NOISE MEASUREMENT PARAMETERS

A.8 The parameter or metric $\mathbf{L_{Aeq,\,T}}$ is called the continuous equivalent sound level. It is a widely used noise parameter that represents a varying noise level by calculating the constant noise level that would have the same energy content over the measurement time period. The letter 'A' denotes that 'A'-weighting has been used and 'eq' indicates that an equivalent level has been calculated. Hence, $\mathbf{L_{Aeq}}$ is the A-weighted equivalent continuous sound level, measured over time period 'T'.

A.9 Detailed surveys have been carried out into people's responses to different sources of noise and these have been used to define which noise metrics provide good relationships with perceived noisiness. PPG 24 which deals with the assessment of environmental noise from sources for example, advocates $\mathbf{L_{Aeq\ Period}}$ for all types of transportation noise.

A.10 It is important to appreciate that whilst $\mathbf{L_{Aeq}}$ does give a measure of the accumulated noise over a period of time it is not like a conventional (arithmetic) average. It is in fact a logarithmic average. The effect of this is to give a high weighting to high noise levels even if they are relatively short lived or infrequent peaks.

A.11 The difference between arithmetic and logarithmic ($\mathbf{L_{Aeq}}$) averaging can be illustrated by considering the average age of a class of 30 children and their teacher. Suppose the children are 5 years old and the teacher is 40 years old. The arithmetic average age is just 6, whereas the logarithmic ($\mathbf{L_{eq}}$) average is 16. This partly explains why $\mathbf{L_{eq}}$ has been found to be a good indicator of the

effects of noise that comprise a series of varying signals over a period of time, such as railway noise.

A.12 An $\mathbf{L_{Aeq}}$ level can be calculated over different time periods depending on the characteristics of the noise and how people are exposed to it. If the noise is steady, a relatively short measurement period will be sufficient to characterise it. If it fluctuates randomly or has cyclical elements, then a longer measurement period will be required to obtain a representative sample. Some standards specify a measurement period, but 10 to 15 minutes is often adequate to obtain repeatable results. In terms of train noise for Chiltern Railways, the approach that has been taken is to identify the noise levels from individual trains and to use these to calculate the noise levels over suitable day and night periods.

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ARUP

Subject	Advice on rail dampers for Oxford City Council		
Date	5 January 2017	Job No/Ref	H05-OB

[1] Oxford City Council (OCC) has sought advice from Arup relating to planning Condition 2 of 15/00956/CND which relates to the use of 'Tata SilentTrack' in Section H of the East West Rail Link phase 1 (EWR) scheme and Condition 2 of 15/03503/CND, which relates to its use on Section I.

[2] Tata SilentTrack is a type of 'rail damper' which is a mitigation measure for reducing train noise. Arup have experience of evaluating the performance of this mitigation measure during the planning, design and construction stages of rail projects which include High Speed 2 and the Network Rail Thameslink Programme.

[3] On 2 September 2016 Arup provided OCC with answers[1] to specific questions about the performance of rail dampers and the effect that these measures could have on mitigation and insulation proposals defined in the two Noise Scheme of Assessments (NSoA) for section H and Section I. Our advice informed, in part, OCCs response to Network Rail.

[4] On the 28 October 2016 Network Rail provided a supplementary statement responding to further points made by OCC. The supplementary statement made reference to our advice and in some cases challenged statements made. OCC have requested that we respond to additional questions relating to NRs supplementary statement.

1 Response to Supplementary Statement submitted by ERM in respect of Network Rail's applications to remove Condition 2 of 15/00956/CND and 15/03503/CND

[5] Using the excerpts below and other relevant content OCC have requested that we comment on key items in the Supplementary Statement, as follows:

1.1 At source mitigation measures (Section 1.2, p.5)

"***Table 1.1*** *responds on the relevance of the at source noise mitigation measures identified in Table 1 of the Arup Technical Note prepared for OCC, 2 September 2016 which forms Appendix 4 of the WAPC Committee Report of 13 September 2016, and identifies where these are applied in Sections H and I/1.*

In summary, the majority of measures suggested by Arup are not relevant to the local conditions to this type of project, or in the case of noise barriers, noise insulation and maintenance, the measures are already being implemented. The only measure referred to which is within NR's power to provide, and which is not being proposed because, in Network Rail's view, it is not reasonably practicable is rail dampers in the form of SilentTrack"

[6] In H04-OB we set out different railway noise control measures which could be applied at source in specific circumstances to mitigate noise (Table 1 of H04-OB).

[7] We agree that many of the measures outlined in H04-OB are not relevant to the EWR Scheme. Our brief was to set out recognised mitigation measures in general, not to identify

[1] H04-OB_issue_1 – 2 September 2016.

measures which should necessarily be considered by NR in the context of the planning conditions under consideration.

1.2 Effect of Silent Track where insulation has been applied (Section 1.2, p7)

"*Arup, in Section 6 of its Technical Note, considers that were rail damping to be installed with noise barriers in situ, there would be a beneficial effect of removing the need to provide non-statutory noise insulation at a number of properties. Arup states in paragraph 36 that 'Rail dampers could therefore have the beneficial effect of removing the need to provide non-statutory noise insulation, according to the NVMP, at six receptors in Section H and two receptors in Section I'.*

NR disputes this point and the analysis on which Arup has based its conclusions. It is fundamentally inappropriate to describe the outcome that some properties would no longer be eligible for noise insulation as a benefit. This is because the result of providing noise insulation is to reduce the noise within the properties by substantially more than the reduction provided by SilentTrack. If the Arup logic were followed through, the net effect of providing SilentTrack rather than noise insulation would be to increase noise exposure within those buildings otherwise eligible for noise insulation under the NVMP. This is the result of the fact that provision of noise insulation and ventilation allows for windows to be kept closed which increases noise insulation by 10 dB(A) or more, whereas the effect of SilentTrack, based on the available evidence is 2.5 to 3 dB(A)."

[8] In paragraph 33 of H04-OB we set out the reasons why source based mitigation measures are preferred to transmission based measures, why source based and transmission based measures are preferable to sound insulation and why sound insulation measures should be regarded as a last resort. The reasons are:

- All else being equal, the benefits of noise reduction measures at source are universal i.e. not limited to particular directions or orientation;
- The installation of noise insulation is intrusive and its take up cannot be relied upon (the rate of uptake of offers is typically in the order of 50% but can vary significantly from scheme to scheme);
- The benefits of noise insulation are time limited and are not permanent and the noise reduction provided by secondary glazing diminishes over time.

[9] This remains our position. It is true that the level of noise reduction provided by rail dampers is less than the "*10dB(A) or more*" reduction quoted by NR that can be achieved with closed windows. However the same could be said of the other mitigation measures that are being proposed in the NSOAs.

1.3 Maximum noise level (LAmax) assumptions

"*Furthermore, eligibility for non-statutory noise insulation (which is by far the most common trigger for noise insulation) is usually driven by the maximum noise level parameter (LAmax) and its exceedance of the NVMP noise insulation trigger levels. However, none of the data provided by Tata for SilentTrack from the UK or any other country, provided any evidence of the reduction in maximum noise levels achievable due to the use of SilentTrack. Therefore, Arup's analysis is based on a false assumption regarding the effect on maximum noise levels and is not valid as a result. Whilst data does exist regarding the lowering of LAeq parameter (in situations without barriers) the mechanisms which may lead to maximum noise levels could produce significantly different results. For instance, the maximum noise level from freight trains can be dominated by the traction noise from the power unit of the diesel locomotive, whereas the LAeq can be dominated by the large number of freight wagons in a freight train. The results*

could differ because for the freight locomotive, the engine noise may dominate and the overall effect of SilentTrack would be very low as a result."

[10] We note NRs concerns, in particular in relation to whether traction noise, rolling noise or another source of noise are the contributor to maximum noise levels. We agree that rail dampers would provide reduced benefit if noise from another source on the train was contributing to the maximum noise level. We would accept NRs points if they could confirm that the maximum noise levels presented in the NSOA are as a result of a noise source other than wheel/rail noise. With reference to the NSOA for Section H, the assessment does not identify whether the predicted maximum noise levels presented are as a result of passenger trains or freight trains or for a source other than wheel/rail noise. We note that the maximum noise level prediction methodology employed considers the importance of rolling noise differently depending on whether the train is a passenger DMU, a freight locomotive off power or a freight locomotive on power. We note that the highest maximum noise levels predicted arise from the freight locomotive off power. The NSOA makes it clear that an underlying assumption of the method is that the maximum noise levels from freight off power are a result of rolling noise and not traction noise.

1.4 Minimum length for Silent Track use

"*NR has been advised by Tata that SilentTrack has to be installed over reasonably long lengths ie. over 300m to be effective. The advice from Tata is that there needs to be an overrun past properties that are to be protected. A length of 100 to 150m on either side of the property was deemed to be a suitable length*"

[11] We agree that the length of rail damper installation would need to extend either side of the properties that are to be protected. The optimal length will depend on factors such as the length of trains, distance of the properties to the railway and the 'angle of view' of the railway from the property. The lengths proposed by NR are reasonable for use in the cost benefit analysis presented.

1.5 Relevance of WebTAG to "reasonably practicable" test

"*WebTAG is an accepted economic appraisal tool for placing a monetary value on the environmental effects, in this case of reducing noise and the consequent effects on eg. disturbed sleep. It is the **only way** of comparing directly the financial costs and the economic benefits of a mitigation measure that only provides an environmental rather than financial return.*"

[12] NR have undertaken an economic appraisal of the benefits of the installation of rail dampers on the EWR scheme. To do so they have employed part of the methodology set out in the DfT Transport Analysis Guidance. The analysis concludes that there is no business case for the installation of rail dampers on EWR.

[13] WebTAG (Web-based Transport Analysis Guidance) is the Department's transport appraisal guidance and toolkit for appraising the economic case for a scheme. Unit A3 Environmental Impact Appraisal relates to the environment and noise is contained in in this unit. Unit 3.2 describes a process which monetises the impact of various health effects resulting from noise and their application to the appraisal of infrastructure schemes. The unit includes a methodology (and excel toolkit) to calculate the valuation[2]. TAG unit 3.2 was updated in 2015 to valuate noise impact based on Disability-Adjusted Life Years (DALYs) as opposed

[2] https://www.gov.uk/government/publications/webtag-environmental-impacts-worksheets

to previous guidance which assessed the noise impact on house prices. This methodology has been used by NR.

[14] NRs assessments calculate the Benefit to Cost Ratio (BCR) of installing rail dampers, taking into account the installation and replacement costs of rail dampers. The information provided by NR includes BCR calculations for multiple scenarios. In all cases the BCRs are calculated to be less than 1. On this basis it is concluded that rail dampers offer 'poor value for money' according to DfTs economic appraisal methods[3]. NRs evidence concludes that there is no business case for the trial installation of rail dampers.

[15] Typically WebTAG is used to assess the economic benefits of a transport scheme in its entirety (including all mitigation measures which form part of the transport scheme) and for all potential economic and environmental impacts/benefits, not just noise. DfT will consider a business case that is informed by an economical appraisal as well as other factors such as the strategic case for a project or the affordability of a scheme. Because TAG Unit 3.2 is used in NRs evidence outside its intended context, a full transport appraisal, we consider it over-simplistic to state that there is no business case for rail dampers based on a cost-benefit assessment of noise only. A complete Transport Business Case is necessary for Ministerial decisions on transport schemes. It was never the intended purpose of WebTAG to assess the costs and benefits of noise mitigation schemes let alone individual components of noise mitigation schemes.

[16] It is, however, reasonable to use WebTAG Unit 3.2 to inform mitigation decisions. WebTAG Unit 3.2 has been used as information to inform decision making during EIA or design on projects such as High Speed Two or the A14 highway improvement scheme. There is no clear guidance on reasonable BCRs for mitigation measures when Unit 3.2 is used in this way. However, contrary to NRs evidence, in our experience it is common for DfT sponsored schemes to accept mitigation measures with BCRs of less than 1. On HS2 there are examples of proposals accepted by DfT where a BCR as low as 0.24[4] is considered to be "*good noise benefit relative to cost*". It is important to emphasise that the purpose of referencing this specific example from HS2 is not to recommend an appropriate BCR for assessing whether rail dampers represent good value for money, but to highlight that there are no set rules for using the webTAG unit 3.2 to inform mitigation decisions in this way. The justification for proposing mitigation measures with BCRs of less than 1 is the consideration of other factors and costs not quantified by WebTAG[5,6]. In the local context of EWR, we would suggest that it will be for all parties to consider and agree what mitigation is reasonable and sustainable within the context of the NVMP.

[17] We also note that NRs WebTAG assessment evaluates only one component of the proposed mitigation package (rail dampers) rather than the combined benefits of all mitigation measures set out in the NVMP and the NSOAs. If the economic benefit of the proposed noise barriers outweigh the costs, then an economic appraisal of the combination of noise

[3] DfT guidance on value for money assessments - https://www.gov.uk/government/publications/transport-business-case
[4] https://www.parliament.uk/documents/lords-committees/High-Speed-Rail/HOL-00700_Berkswell_Parish_Council_Promoter.pdf (reference to barrier option 2b on page 0067)
[5] DfTs guidance on value for money assessments [3] acknowledges that "*appraisals that are produced following WebTAG guidance do not necessarily monetise all costs and benefits of a transport intervention*" and that "*The VfM assessment should take account of quantitative and qualitative assessments of impacts in two stages*".
[6] Specifically for noise, the overview of Government's Noise Economic Analysis explains that the aspects considered in a full WebTAG analysis do not include the effect of noise on the natural environment or productivity.

barriers and rail dampers is likely to result in a BCR that is much closer to 1 than the assessment of rail dampers alone.

1.6 Revised WebTAG assessment

"*In undertaking the analysis of 'focussed approach' to the installation of SilentTrack as proposed by Arup, we have rechecked and refined previous calculations and represented these alongside the new scenarios. These refinements relate to the reported Net Present Values [NPVs]. The refinement addresses an anomaly in early calculations which led to an overestimate of the noise benefits during the day in Section H. The methodology and assumptions otherwise remain consistent with the original analysis*"

[18] We have reviewed the revised WebTAG Unit 3.2 assessment by NR. We consider that the BCR calculation for rail dampers has been carried out appropriately.

[19] Regarding the approach to the assessment, it is noted that the BCR of rail dampers is calculated in isolation of other mitigation measures. As described above, an economic appraisal of the combination of noise barriers and rail dampers is likely to result in a BCR that is much closer to 1 than the assessment of rail dampers alone.

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OXFORD CITY COUNCIL

CHILTERN RAILWAYS (BICESTER TO OXFORD IMPROVEMENTS) ORDER 2012

DISCHARGE OF NOISE CONDITIONS AND RAIL DAMPENING

ADVICE

1. I am asked to advise Oxford City Council ("OCC") on the interpretation and application of condition 19 ("C19") of the deemed planning permission ("the 2012 Permission") granted in conjunction with the Chiltern Railways (Bicester to Oxford Improvements) Order 2012 ("the Order"). C19 provides that operational noise mitigation shall be carried out in accordance with the Noise and Vibration Mitigation Policy January 2011 ("the NVMP") and that development of each track section ("the Sections"") shall not commence until noise schemes of assessment ("NSoA") are submitted to and approved by OCC.

2. Under the NVMP, "at source" mitigation is the first preference where it is "reasonably practicable". Where "at source" measures are not reasonably practicable or sufficient to mitigate significant noise impacts, barriers and then noise insulation are provided for.

3. The issue I have been asked to advise on is whether on a correct understanding of C19 and the NVMP, Network Rail ("NR") has properly demonstrated that a form of "at source" mitigation namely rail dampening ("RD") is not RP on, in particular, section H. Resolution of that issue is central to then resolving various procedural issues which have arisen. I am not asked to advise on those procedural issues.

4. I will proceed on the basis that RD may mitigate noise impacts by 2.5dB and that this attenuation is in addition to any other noise mitigation measure. I will also proceed on the assumption that track noise (rather than traction or power on) is the dominant noise source in terms of LA_{max}.

5. I understand that:

    a. the barriers have been found to be acceptable in planning and safety terms; have been promoted as "reasonably practicable" and have been constructed;

    b. much of the noise insulation has been installed (in addition to barriers); and

    c. the line is now operational.

Background and Context for the Current Issue

6. In 2015, NR applied to discharge C19 in respect of Section H. The application was accompanied by the Noise Scheme of Assessment ("NSoA") for Section H which proceeded on the basis that because RD had not been "type approved" it was not considered to be a practicable mitigation measure. Barriers were thus proposed with residual impacts above 10dB or peak noise above 82 LA_{max} being addressed by noise insulation.

7. Given the terms of C19, OCC correctly questioned whether the absence of "type approval" meant that RD was not RP. It approved the NSOA for Section H ("the Partial Approval") but imposed condition 2 on it. I am not asked to advise on the legality of the imposition of that condition on the approval.

8. C2 provided that within 3 months of the Partial Approval, proposals for RD were to be submitted and the development was not to be brought into operation until either RD was installed or OCC had provided written confirmation that RD was not RP.

9. The essential point at this stage is that the other measures proposed in the NSoA were approved. They included barriers (see NSoA Fig 5.1) and entitlement to noise insulation for certain properties: p31. It necessarily follows from the Partial Approval of those works that RD was to considered *in addition to* and not *in substitution* for those works. Otherwise, Partial Approval could not have been granted and NR would have been required to submit a complete new NSoA starting from consideration of RD.

10. I am told that those approved works have been completely or largely carried out. The issue of whether RD is RP under C2 (or C19(12) – see below) remains outstanding.

11. The effect of that history is as follows:

    a. all the dwellings identified as representative noise sensitive receptors ("NSR") with a predicted impact of greater than 5dB have in fact been provided with mitigation in the form of noise barriers (see NSoA Scheme H table 5.2);
    b. for all dwellings which experience a residual impacts (namely the impact after provision of noise barriers) of greater than 10dB or a peak of 82, noise insulation has been (or will be) provided; and
    c. there is one house which has residual impacts after noise barriers of 3dB but which is not entitled to noise insulation.

12. There are also some houses which, if RD had been provided would have seen their residual impacts drop below 10dB and/or not experienced a peak of 82 – thus meaning that they would secure attenuation from RD of about 2.5dB but not be entitled to noise insulation. Given that noise insulation secures around 10dB attenuation, their noise environment would be significantly worse with RD than with noise insulation.

13. The question now is whether, in all the above, circumstances, it is RP to require RD in addition to the steps already taken[1] in order to achieve the standards of noise mitigation in the NVMP (see: C19(9)).

14. The following points are important to provide more of the context for addressing that question:
    a. from table 5.2 of the NSoA for most properties assessed the residual impacts in LA_{eq} terms (after barriers) are far greater than could be significantly attenuated by RD. With noise insulation, no significant effects to these properties are predicted (see ES page 6-54) and it is not, therefore, clear what significant additional benefit RD could therefore provide;
    b. for 4 properties the residual impact is 5dB or below. For 3 of these the residual impact is 3dB or less. Under the NVMP impacts of less than 3dB do not fall to be mitigated because the impact is not considered significant; and

[1] Where noise insulation has not yet been installed, I assume that if RD was RP, entitlement to noise insulation would be removed.

c. the standards in the NVMP are intended to achieve acceptable internal noise levels – the fact that RD will provide external mitigation whereas noise insulation does not has to be understood in the context of the NVMP aiming to mitigate internal noise.

Condition 19

15. The reason for C19 is to ensure that operational noise is adequately mitigated at residential and other noise sensitive properties.

16. As noted above, C19 provides that operational noise mitigation shall be carried out in accordance with the NVMP. Development of each Section shall not commence until the NSoA for that section setting out noise impacts and details of proposed mitigation measures have been agreed by OCC – C19(2). The submitted schemes shall show how the *standards* of noise mitigation in the NVMP will be achieved – C19(9). The robustness of the scheme will be verified by a report from an independent expert ("IE") - C19(9).

17. Condition 19(12) covers the situation where Chiltern Railways -now NR – considers that the provision of mitigation measures that would otherwise be required by the NVMP is "not reasonably practicable". In such circumstances, alternative mitigation is to be considered (and provided) unless that alternative mitigation is not reasonably practicable and there is no suitable substitute. "RP" is the central concept with which we are concerned.

Approach to Interpretation and Application

"Reasonably Practicable"

18. C19 does not define "reasonably practicable". It is however a well understood term - with ordinary words bearing their ordinary meaning. Here, the NVMP provides some assistance as to the relevant matters to be taken into account in deciding whether something is "reasonably practicable" - it is to judged having regard among other things to local conditions and circumstances, to the current state of technical knowledge and financial considerations. The list of relevant factors is not closed.

19. From the case law it is clear that the degree and nature of the harm has to be weighed against the money, time, trouble and any other disadvantages in avoiding that harm ("the sacrifice") - the greater the harm, the greater the sacrifice that will be RP to avoid that harm. However one words it the approach is the same: if the sacrifice is disproportionately heavy compared to the harm or the harm is insignificant in relation to the sacrifice or (using language from earlier cases) there is a "gross disproportion" between the harm and the sacrifice, the suggested steps to avoid the harm will not be reasonably practicable. Conversely where the sacrifice is not disproportionately heavy given the harm, the steps to avoid the harm will be reasonably practicable.

20. All of this is quintessentially a matter for the judgment of the decision maker with which the Courts will not interfere. The judgment is thus for OCC to reach informed by the Independent Expert and the detailed material provided to it. In that exercise, Webtag will assist but it does not purport to provide a conclusive answer to the RP question and there is a real danger in treating Webtag as providing a "scientific" answer to what is ultimately a question of judgment to be reached on the facts and in context.

21. There has been much debate as to whether the benefit-cost ratio ("BCR") exercise should be a BCR of the whole project, of the complete package of mitigation or of just the RD. Webtag does

not provide a clear answer to that issue[2]. I think the role of Webtag will depend on what it is assessing - and what it is assessing will determine what the BCR is to be of. Here, the scheme and the barriers have been installed. The remaining question for OCC under C2 or C19 is whether RD is RP given the context – given that the noise environment would be x without RD and Y with RD is the cost of installing it disproportionate to the benefits it would bring? Even if I am wrong on this, I do not think it affects the final conclusion for reasons I consider below.

22. I consider that OCC is required to judge the significance of the harm which can be avoided by use of RD and then to assess whether the steps required to avoid that harm are or are not disproportionately heavy in all the circumstances.

Approach to Construction

23. The principles on construing and applying conditions apply equally to construing and applying schemes incorporated by reference into those conditions.

24. First, conditions are to be given the meaning a reasonable reader would give to them having available to him only the permission and the documents expressly incorporated by reference into it: see *Carter Commercial v. SSTLGR* [2002] EWCA Civ 1994 in which Arden LJ stated as follows:

> ***"I start from the position that this planning permission is not to be construed like a commercial document, but is to be given the meaning that a reasonable reader would give to it, having available to him only the permission, the variation, the application form and the Lewin Fryer report referred to in condition 4 in the planning permission itself.***

25. Second, conditions are to be interpreted benevolently and not narrowly or strictly (see Sullivan J in the *Carter Commercial* case in the High Court). This is particularly relevant in the case of the NVMP which requires judgments to be reached at each stage and which is evidently intended to be applied flexibly in the way judged best able to avoid "significant" noise impacts – see below.

26. Third, the overall approach to construction is an objective exercise – based on the natural and ordinary meaning of the relevant words, the overall purpose of the consent, any other conditions which cast light on the purpose of the relevant words and common sense: see Lord Hodge in *Trump International Golf Club Scotland Ltd v. Scottish Ministers* [2015] UKSC 74 at [34]. I rely heavily on this formulation. The application of common sense and judgment here is, I think, particularly important given the wide range of potential circumstances which the condition covers, the range of impacts predicted, and that the most appropriate way of mitigating the impacts, is not capable of being, and is not, precisely defined in the conditions.

27. Fourth, the application of conditions will often require the application of judgment: see e.g. *Greaves v. Boston Borough Council* [2014] EWHC 3590 (Admin) at [37]. In that case, the condition left certain matters unspecified but the gaps could be appropriately filled by the judgment of those called upon to implement it. So here, where a strict application of an "at source first" approach would result in significant residual impact which the conditions as a whole would not further mitigate, judgment and commonsense will be a useful guide.

[22] Although I note that the BCR of 0.24 to which ARUP refer is a BCR of a particular piece of mitigation and not of the whole HS2 (including that mitigation).

28. Fifth, where judgments are required to be made, they are for the decision maker to make weighing up all the relevant factors and following the staged process of reasoning required by the conditions.

29. All those principles strongly indicate that the NVMP is not to be construed and applied mechanistically as if it creates a straitjacket for decision making but rather as a practical document to be used to guide appropriate judgments as to what form mitigation should take and what extent of mitigation should be secured in all the circumstances with a first preference for at source measures (for, broadly, the reasons given by ARUP), then barriers and if necessary noise insulation.

The NVMP and the ES

30. The NVMP refers extensively to, relies on and develops concepts from the ES. It is appropriate to start the analysis from the ES.

The ES

31. The ES states that "where noise, predictions show a potential for *significant* impacts, mitigation measures are set out": ES para 6.1 p6-1.

32. The ES has a detailed scheme for assessing *significance* – in a hierarchy of impacts.

33. First, predicted train noise below the noise impact thresholds (55 $_{\text{LAeq 16 hrs}}$ day and 45 $_{\text{LAeq 16 hrs}}$ night) are "never significant" – ES Chp 6 p. 6-6; and NVMP para 2.3.

34. Second, where train noise is above these noise impact thresholds but below the noise insulation trigger levels (66 $_{\text{LAeq 16 hrs}}$ day and 61 $_{\text{LAeq 16 hrs}}$ night) the increase above ambient is assessed in accordance with table 6.3 (ES: p6-5) with the significance of the impact categorised as no impact (0), slight (less than 3dB), moderate (3dB – 5dB), substantial (5 – 10dB) or high (greater than 10dB) impact.

35. Third, where the noise levels are above the noise insulation trigger levels and exceed the ambient by 1dB or more, noise insulation is triggered.

36. Fourth, if the peak "instantaneous" noise regularly exceeds 82dB, that is treated as significant and the need for noise insulation is triggered.

37. We are principally concerned with the second category and I focus on that. Within that, mitigation is only proposed for "substantial or high" impacts: see table 5.2. I interpolate that moderate (less than 5dB) and slight (less than 3dB) impacts were not, at that stage, judged "significant". Had they been judged to be significant in accordance with para 6.1 mitigation measures would have been set out. This appears to be confirmed by the following text: "areas rated as having no impact or where impacts have been rated as slight or moderate in this assessment are not considered suitable locations for further location specific mitigation given the potential disbenefits.

38. It is recognised that although some change in noise level may occur in these areas as a result of the Scheme (as presented in table 6.12 and table 6.13) they are either "small changes in noise level, or the noise from the railway is unlikely to be loud enough to cause a significant disturbance." [ES:6-47]. The ES does not therefore propose any mitigation for premises in the 3 – 5dB (moderate impact) category it having been judged at that time that any mitigation over and above standard at source measures (namely those measures referred to in the ES at para 6.5.1 page p6-47 which exclude RD) was not justified given that the noise impact was unlikely to be

sufficient to cause a "significant disturbance". The important point is that dwellings suffering 5dB impact *no mitigation at all* was proposed.

39. The ES goes on to explain that where, but (I interpolate) only where, "further measures are required in addition to those that are inherent in the Scheme's design and operation procedures, a range of mitigations may be appropriate including" rail dampers, reflective barriers, absorbent barriers, double glazing or full noise insulation: ES6-48.

40. The ES goes on:

> ***"During detailed design the first option will be to mitigate noise using infrastructure based mitigation which has the advantage of providing noise control at source. Following this, the introduction of noise barriers will be considered. Noise barriers are a widely used method of mitigating noise from the railway. However, noise barriers can also create a number of disbenefits depending on local conditions [these are then set out].***
>
> ***Given these inherent issues, it will be necessary to decide, in each location, whether the noise attenuation benefit of a noise barrier compares to the disbenefits it will create. This judgment should be based on local circumstances, but in general Chiltern Railways do not consider it appropriate to mitigate noise impacts of less than 5 to 7dB by the use of noise barriers. Where substantial or high noise impacts are likely, the benefits of noise barriers are increasingly likely to outweigh the dis-benefits as the noise impact increases in magnitude."***
>
> ***Other infrastructure based mitigation solutions, such as rail dampers, will also be considered where appropriate. Possible locations for these are where it is likely that barriers will not provide an effective mitigation solution and in other cases (such as tall properties close to and overlooking the railway) where barriers may not offer effective screening to the upper floors.***
>
> ***….***
>
> ***Noise insulation will reduce internal noise levels within eligible rooms…but it does not provide a total solution to a predicted noise impact because it can only mitigate noise levels inside the property and it can be restrictive in use. If noise barriers or other infrastructure solutions are likely to be cost-effective, these will be chosen in preference to noise insulation."***

41. The relevant measures applying that approach are then identified and table 6.22 identifies those receptors at which residual noise impacts greater than moderate are predicted [6-50].

42. Table 6.22 of the ES thus highlights those receptors where residual noise impacts "greater than moderate" are predicted.

> ***"The feasibility of a noise barrier has been considered in each case….It should be noted that in some cases a different infrastructure solution may be adopted if it proves to be more appropriate, and the noise barriers shown are intended to give an example of the level of mitigation that will be achieved….***
>
> ***Where noise barriers are not likely to be appropriate, an explanation is offered. Residual impacts have been predicted based on the likely performance of a 2m high barrier.***

Other infrastructure mitigation will also be considered at each of these locations and an appropriate solution chosen following a detailed study taking into account practicability and acoustic performance."

43. Tables 6.22 and 6.23 show the application of these principles in practice.

44. Those residual impacts then lead to a consideration of "Further Noise Mitigation Measures". "Some of the properties close to the railway may experience residual noise impacts that are classed as "high". These locations will be considered for non-statutory noise mitigation which is likely to take the form of noise insulation… Noise insulation packages, where provided, will create acceptable internal levels but some residual impacts to external/garden areas may remain. At other receptors where the impact is less than high, further mitigation will not be provided and the residual impacts are discussed in Table 6.22."

45. At this point impacts that are "moderate or greater are classed as significant".

The Inquiry

46. I have not seen how all the iterations of the various documents as the Order progressed. However NR's position was that "the [NVMP]… defines a significant noise impact as being at or above 3dB which defines the point at which mitigation will be considered": see para 3.2.7 of Addendum Report to the Secretary of State. I assume that this is a reflection of the provisions of para 2.4 first bullet of the NVMP (see below).

47. I will proceed on this basis – and assume that the identification of "significant" is thus 3dB or above.

48. The continuing significance of the ES is that the ES was only seeking to mitigate impacts above 5dB. For that level of impacts, under the NVMP (see below) NR had a choice as to whether to use "at source" measures or barriers. It was not required to provide "at source" first. NR chose barriers. Those barriers have been implemented. In many cases they are anticipated to be highly effective in reducing residual noise impacts. They are now part of the factual circumstances in which the current issue on RD has to be considered.

The NVMP

49. The purpose of the NVMP is to set out the approach to mitigation of noise from operation of the railway – "based on the commitments made in the Environmental Statement" (para 1.4) which "outlines, where necessary, appropriate mitigation measures" (para 1.6 last bullet). The detailed design will require "refinement of the mitigation following the principles set out in this policy" (para 1.7) to ensure that "the residual noise effects at any location are no worse than those reported in the [ES]". I note the centrality of the ES to the approach in the NVMP and that the mitigation which the ES provides for is specifically adopted in the NVMP. The NVMP is not seeking to change the commitments in the ES but to refine the mitigation set out there in accordance with the principles in the NVMP. The NVMP therefore has to be understood in the light of the approach in the ES and in particular its approach to barriers above 5db and to noise insulation where there are significant residual impacts.

50. Paragraph 2.2 sets out the overarching approach:

"The Promoter is committed to using Best Practicable Means to design the railway so as to avoid significant noise….impacts at existing sensitive receptors…. The first

preference will be to apply necessary noise control measures at source where this is reasonably practicable. These may include rail dampening or other infrastructure measures to reduce noise at source. Where this is not reasonably practicable or <u>sufficient</u> to mitigate <u>significant</u> noise impacts, the Promoter will:

51. where they are effective and reasonably practicable to install , provide noise barriers…, and

52. after considering all practicable mitigation measures that can be taken at source…including noise barriers… offer noise insulation to properties where residual noise impacts on sensitive receptors remain high."

53. The noise thresholds are then summarised. Para 2.4 goes on:

"Where train noise is predicted to be above either of these thresholds but where the level is still less than that set out in the Noise Insulation Regulations, the Promoter will provide mitigation to reduce the adverse impacts of noise. These will vary according to the extent to which train noise levels exceed the threshold levels and the extent to which the overall noise is increased above the existing or ambient noise level, as follows:

54. Exceedances of 3dB or greater and increases of 3dB or greater, - mitigation at source through rail infrastructure solutions will be implemented where reasonably practicable.;

55. Exceedances of greater than 5 and up to 7dB and increases of greater than 5dB and up to 7dB - at source and/or in the form of noise barriers if reasonably practicable and have no other negative effects;

56. Exceedances of greater than 7dB and increases of greater than 7dB - at source through all rail infrastructure solutions and where these cannot be reasonably practicably achieved, noise barriers will be provided where reasonably practicable.

These standards are consistent with those applied in the [ES] where noise mitigation is considered at source for impacts that are greater than 3dB and in the form of noise barriers for impacts above a minimum of 5dB….The noise benefits of noise barriers are more likely to outweigh the disbenefits where the noise increase is above 7dB. "

57. The text then goes on to assess residual impacts and the provision of noise insulation (paras 2.5 – 2.7).

58. Paragraphs 2.2 and 2.4 have to be read in context (including the ES) and as a whole. NR is committed to using the Best Practicable Means (which incorporates "reasonably practicable" – see footnote) to design the railway so as to avoid *significant* noise impacts. There is no commitment or obligation to remove all noise impacts. Impacts less than 3dB are not judged to be significant. What is the "best practicable means" will be impacted by a very wide range of factors.

59. The first preference is at source mitigation where reasonably practicably (notably including rail damping). There is no suggestion that At Source will always trump other mitigation or that irrespective as to the overall package, At Source always has to be included if RP (see below).

60. Conversely, there is no suggestion at this stage that rail dampening is ruled out as not being reasonably practicable. "At source" is however much wider than just RD – see para 39 above. Below 5db, "at source" is all that will be offered – barriers will not even be considered.

61. "Where [At Source] is not reasonably practicable or sufficient to mitigate significant noise impacts" NR will provide noise barriers (if RP), and "after considering all practicable measures that can be taken at source" (including barriers) offer noise insulation where impacts remain high.

62. Whilst the wording is far from perfect, the overall structure is tolerably clear (applying the principles on interpretation of conditions set out above) and when the NVMP is read fairly and a as a whole in its context:
    a. the aim is to avoid *significant* noise impacts. This does not require all impacts to be eliminated but to reduce noise impacts so far as RP to ensure residual impacts are not significant;
    b. the measures vary according to the extent of exceedance/increase – this is a function of the fact that the higher the impact, the greater the need for physical barriers to the noise reaching the sensitive receptor and the less likely that mitigation at source will be able to sufficiently reduce the impacts;
    c. "At Source" is preferred but where it is not sufficient to mitigate significant noise impacts or not RP, other measures will be considered – there is no suggestion that if not sufficient At Source has to be used first and then additions to it provided;
    d. impacts below 3dB are not significant and no mitigation will be provided;
    e. below 5dB the only mitigation to be considered (if RP) is At Source. There is no requirement to consider barriers. In other words, these levels of impact do not justify the cost and disbenefits of barriers;
    f. between 5 and 7dB, NR has a choice between barriers and At Source. Plainly that choice will be influenced by whether just one of them is sufficient to mitigate significant noise impacts. If just one of those options would provide adequate mitigation, para 2.2 and 2.4 cannot be construed as requiring both to be provided;
    g. above 7dB, the wording is confused but the overall intent is plain – the higher the impacts the more likely it is that noise barriers will be RP despite their drawbacks; and
    h. where barriers do not provide adequate mitigation and the residual impact is still high (greater than 10dB or 82) to provide noise insulation *to avoid significant noise impacts* - in other words in an attempt to get the residual impact down below 3dB. I do not see how provision of RD in place of noise insulation which would result in a residual noise impact which is still significant, is consistent with the primary aim of "avoiding" significant noise impacts".

The Current Arguments

63. As I understand it, NR has reapplied for discharge of C19 for Section H on the basis that RD is not "reasonably practicable". Its argument has two central, and potentially, independent, limbs which can be shortly summarised as follows:

    a. it says that because of the magnitude of unmitigated noise impacts, RD alone is not sufficient to avoid significant noise impacts and to reduce impacts to the levels

anticipated in the NVMP and the ES. It therefore says that barriers will be required in any event and that those barriers will be sufficient (in most cases) to secure less than significant residual impacts. In some cases, barriers would not be sufficient but neither would barriers plus RD and thus noise barriers and noise insulation would be required instead. It says that provision of RD would have a significant disbenefit in those latter cases because it would, in theory, disentitle some residents to noise insulation which delivers much greater noise attenuation than RD; and

b. RD is not RP. In terms of finances, using Webtag, NR has assessed a BCR of about 0.35 for the RD taken in isolation from the wider scheme. It says that there is no alternative to use of Webtag, that its approach to looking at the costs and benefits of RD in isolation from the wider scheme is appropriate and that in the circumstances (limited residual noise impacts and noise attenuation) the financial costs mean RD is not RP. All these assumptions are in dispute. RP is more than just about finances. It says that the "local circumstances" component of RP includes the fact that other mitigation has already been provided and must be taken into account in the RP analysis for RD.

64. If either or both of those arguments are correct, it would follow that RD would not be required irrespective, NR says, of the NVMP's first preference for "at source" mitigation.

65. I think NR is correct on a.. For impacts above 5dB, NR could choose barriers if RP. They have been provided. They are an essential part of the context for now considering RD. Noise insulation will, as I understand it, mean that all significant LA_{eq} impacts are avoided. Provision of RD in place of noise insulation, conversely, would not avoid significant noise impacts. Dwellings promised noise insulation would fall out of entitlement to it because their residual impacts would be less than 10dB or the peak less than 82dB. The resulting noise impact they would experience would thus be far worse than if RD was not provided. If those facts are correct, I can find no support in the NVMP for requiring NR to take steps which would not achieve the objective and would result in a worse residual situation than that anticipated in the ES. It is only if one treats the At Source First approach as an inflexible obligation irrespective as to context or outputs that RD could be required. I therefore do not think that it is necessary to address b. above.

66. In any event, I think NR's approach to RP is broadly correct. It is for OCC to judge whether applying that approach in the current context, RD is RP. That will require identifying what significant benefits it will achieve, what harm it will cause (including to those who will lose entitlement to noise insulation) and then to weigh that against the costs. The Webtag figures, on NR's approach, are not in dispute – at about 0.35 BCR. That is far lower than would *normally* be expected (although as already noted the 0.35 has to be understood and applied in its context – what is it measuring). Standing back, OCC needs to consider whether the number of houses which will gain internal benefits and the quantum of those gains (including not having to close windows in summer) outweighs the costs.

Issue A: Need for Barriers and Noise Insulation anyway to "avoid significant effects"

Table 5.2 of the Section H NSoA

67. The ES identified representative Noise Sensitive Properties ("NSR") for assessment (numbered as "ES/no."). The NSoA uses those and other properties for which assessments were undertaken during the public inquiry (numbered as "PI/no.") to assess impacts and define mitigation. In addition for the purposes of defining the start and end point of mitigation measures needed for the NSRs (in particular barriers), the NSoA has assessed some further properties (numbered as

"SoA/no."). Because the ES NSRs were selected on the basis that they were representative of the most exposed properties I will first use them for considering the issues which now arise.

68. In Section H there were 3 NSRs in the ES – ES14 Lakeside (a property on Lakeside backing on to the line); ES15 Wolvercote Primary School and ES16 St Peter's Road (the large home immediately adjoining the line) as shown on ES fig 6.1N – O. By the time of the NSoA the numbering had changed but from it, I understand that for the most exposes houses in Lakeside, the unmitigated impact was up to 11dB (La_{eq}) and for St Peter's Road, 17dB. Barriers were therefore obviously required. Fig 5.1 shows the extent of those barriers. They are provided in all areas where unmitigated impacts greater than 5dB were predicted and of a sufficient length to achieve the maximum possible attenuation to the NSR (as subject to detailed modelling). The result is that those barriers also provide attenuation for other properties.

69. After barriers, there are a number of houses which experience high residual effects – in the range of 11 – 17dB. Noise insulation will be provided to them. I will only consider the non-statutory – so those with residual impacts of 11 – 12dB. If RD is provided and on the 2.5dB attenuation assumption all would fall below 10dB impact and thus fall outside entitlement to noise insulation using the 10dB criteria. Several of those would also fall outside entitlement to noise insulation on the 82dB criteria[3]. All those houses would therefore experience a far worse noise environment internally with windows closed if RD was adopted and "significant" impacts to them would not be "avoided". If these facts are right, then RD would not be "sufficient" with barriers to avoid significant impacts but barriers with noise insulation would.

70. Arup says that "all else being equal", RD should still be applied. I agree but "all else" is not equal. Application of RD *removes* entitlement to noise insulation from a number of houses and makes their noise environment (windows closed) significantly worse. ARUP's response to the disbenefit is that the same could be said of other mitigation measures being proposed - with the inference that one would always end up undertaking noise insulation in preference to other steps. That is to take the argument in isolation from the facts. Of course, C19 would not allow one to jump straight to noise insulation but where barriers are correctly chosen and RD would not be sufficient to mitigate the residual effects, I cannot understand why the disbenefit and the consequent failure to achieve the basic objective (avoid significant impacts) does not mean that noise insulation is required and RD is not.

71. I accept that there are two gaps in this logic:

    a. On my understanding of the data, the application of this approach leaves one house experiencing 5db residual impact (with no entitlement to noise insulation). RD would benefit it and avoid significant noise impacts to it (and the BCR question may be triggered in respect of that house); and

    b. The impact of open windows in summer. With noise insulated windows open, the benefit is reduced and RD would marginally (2.5db) improve the situation. If OCC consider that this scenario is more important than the periods when windows are likely to be closed then I accept it would be necessary to move on to the BCR question.

Issue B: BCR

[3] Assuming as I do that the 2.5db attenuation would also apply to LA(max) as appears to be claimed.

72. I have not attempted to analyse the BCR information in detail. I have made general comments above.

73. In the RP balance, the actual benefits to be judged are "internal" because that is what the NVMP focusses on. Those benefits are to any house which would avoid a significant noise impact if RD is used or if the severity of the impact is reduced. This would include consideration of the open window point. The signifcance of the residual impacts would also be highly important – noting that the ES considered that less than 5db was not significant and the accepted norm that a 3db difference is at the margin of perceptibilty. OCC would have to consider what importance they attach in planning terms to 2.5db attenuation of what is already a relatively minor impact. The Webtag values are one way of assessing those benefits but the methodology covers also much higher impacts.

74. On the disbenefits side, would be the fact that for a number of houses their noise environment would be worse. The costs of RD are broadly agreed.

75. I have seen nothing to suggest there is a modelling alternative to Webtag for present purposes; all parties agree it is an appropriate model to use as part of the RP exercise. Given the current circumstances I think the BCR is just of RD being applied in the context of the barriers already provided and any noise insulation already installed/committed to.

76. I accept that a BCR of 1 is not determinative. What BCR is appropriate on the facts is a matter for judgment. I can understand that a BCR of less than 1 may be justified where the impacts are very significant and unacceptable absent mitigation. Sometimes very expensive measures are required at the planning stage to make a scheme acceptable. That is not the situation here. OCC will therefore need to assess if a BCR of 0.35 for just RD indicates that RD is or is not RP in all the circumstances – including the severity of the residual impacts.

Summary of Advice

77. C19 and the NVMP has to be applied with judgment and in a commonsense way. I cannot read the NVMP as always requiring At Source first irrespective as to the facts, the context and the efficacy of the various options. Where At Source will not be sufficient to avoid significant impacts or where other measures are already being provided, then the NVMP does not require At Source if other measures will achieve the objectives.

78. On that approach, and given the current circumstances, NR's approach to the application of the NVMP is permissible (and I think correct). On that approach, the potential role of RD for section H is very limited. This is before one gets to the RP/BCR question.

79. At the BCR stage, the issue is one for the judgment of OCC informed by, but not dictated to, by Webtag. The context, the severity of the impacts and the scale of the benefits and to how many people are the crucial elements. If, as I think is the correct approach, the BCR of RD is to be assessed from the starting point of the implemented Partial Approval, the RD serves to mitigate open window noise from those who have noise insulation and reduces one house from 5db to less than 3db; whilst removing entitlement to noise insulation from any who have not yet had it installed.

Train Number and Timing Assumptions

80. The NVMP defines the train number and timing assumptions (para 1.8 – 1.9). Para 1.10 provides that the noise mitigation will be designed based on those assumptions.

81. NR omitted some cross-country services from its assessment – see para 11 of Appx 24 to the June 2015 report to committee on vibration. Given that those services are not included in the NVMP, its approach appears justified and consistent with the approach at the Inquiry.

82. Objectors complain that NR has plans for major increases in usage of the line in the future (in addition to those assumed in phase 2B). There are two issues here: (1) is the growth in trains from phase 2B to be taken into account in current modelling; and (2) is further possible growth to be assessed under C19?

83. The answer to (1) is clearly yes. This is for the simple reason that that is what the NVMP provides. I cannot tell from table D2.7 of Annex D to the NSOA for Section H whether this has been done (although I have been told that the assessment assumes phase 2B).

84. The answer to (2) is more complex. The NVMP does not require the assessments to address any such future increase and defines the assumptions to be made. It therefore follows that in discharging C19, future possible growth in train numbers is not required to be modelled.

85. That, though, may not be the full answer. Given that no condition limiting the number of trains was imposed on the Permission, NR could increase the number of trains on the line without being in breach of any condition. However, the ES assessed the then predicted number of trains. It did not assess or propose mitigation for a far higher number of trains (and therefore potentially higher impacts). I will proceed on the basis that there may in the future be a "project" to increase the number of trains which does not require further engineering works. Under the current permission there would be no requirement to seek a further consent. However, there is an argument that if the effect of the "project" is to arguably cause additional significant environmental effects, NR could not carry it out without an ES. This issue though does not arise at this stage and I say nothing further on it.

David Forsdick QC

27th January 2017

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Minutes of a meeting of the WEST AREA PLANNING COMMITTEE on Tuesday 21 February 2017

www.oxford.gov.uk OXFORD CITY COUNCIL

Committee members:

Councillor Upton (Chair)
Councillor Landell Mills (Vice-Chair)
Councillor Cook
Councillor Curran
Councillor Fooks
Councillor Pegg
Councillor Price
Councillor Tanner
Councillor Henwood (for Councillor Hollingsworth)

Officers:

Michael Morgan, Lawyer

Adrian Arnold, Development Management Service Manager

Robert Fowler, Planning Team Leader

Fiona Bartholomew, Principal Planner

Patsy Dell, Head of Planning & Regulatory Services

David Stevens, Principal Environmental Health Officer

Catherine Phythian, Committee Services Officer

Apologies:

Councillor(s) Hollingsworth sent apologies.

100. Declarations of interest

Agenda items 4 & 5

Councillor Upton drew the Committee's attention to a statement in the North Oxford Labour News Winter 2016 leaflet which referenced local Labour councillors' insistence that NR honours its mitigation commitments. She explained that the leaflet was specifically about the track south of Aristotle Lane (section I-2) which was not part of the current applications before the Committee.

Agenda item 6

Councillor Upton and Councillor Cook as Oxford City Council appointed trustees for the Oxford Preservation Trust.

101. East West Rail Phase 1 - 2 applications

Discussion

The Committee considered two applications for the Noise Scheme of Assessments: H 16/02507/CND for route section H and 16/02509/CND for route section I-1.

The Planning Officer presented the report. In summary she explained the nature of the applications and the officer advice as set out in the report to committee. She explained that Network Rail (NR) had resubmitted the approved Noise Scheme of Assessments with additional information so that the issues around the conditions imposed on previous approvals of those schemes concerning rail damping and restricting rail services can be reconsidered. This was regarded as best practice being an attempt to eliminate or minimise outstanding differences between the applicant and the planning authority.

The Planning Officer explained that the Council had consulted Queen's Counsel on the two applications and had asked Arup to comment on specific technical matters in NR's Supplementary Statement. That technical advice from Arup was taken into account by Queen's Counsel.

The Planning Officer then referred the Committee to the key points in the advice from Queen's Counsel:

Rail damping

- The NVMP does not require 'at source' mitigation if the other measures already provided will achieve the objectives of the NVMP
- "At source" is preferred but where it is not sufficient to mitigate noise impacts or not reasonably practicable, other measures will be considered – there is no suggestion that if not sufficient "at source" has to be used first and then additions to it provided"
- [the NVMP] "cannot be construed as requiring both [barriers and rail damping] to be provided"
- In respect of residual noise a "significant impact" means 5dB or above
- Rail damping may mitigate noise impacts by 2.5dB
- A 3dB difference is at the margin of perceptibility
- The NVMP standards concern internal, not external noise levels
- For those who already have noise insulation, open window noise will be reduced
- At one house there will be noise reduction from 5db to less than 3db

Train services

- the NVMP does not require any assessments to address any future increases in service and these potential changes do not need to be modelled

- NR can increase services without being in breach of condition 19 of the deemed planning permission, and do not need to seek further consent

The following residents spoke against the two applications: Mike Gotch, Michael Drolet, Jackie Gray, Adrian Olsen, Jeremy Thorowgood and Paul Buckley.

Representatives from Network Rail, Ian Gilder and Paul Panini, were present to answer questions relating to the application.

The Committee asked questions of the officers and Network Rail representatives about the details of the two applications.

In reaching its decisions, the Committee considered all of the information put before it.

In debate members of the Committee indicated that they were not minded to accept the officer recommendation to approve the schemes of assessment without conditions relating to rail damping and restriction of train services. This was because they did not consider that NR had demonstrated to the satisfaction of the Council that the provision of rail damping was not reasonably practicable and they were concerned that the modelling did not reflect the possible future increase in train services.

The meeting adjourned at 7.35pm to allow officers to consider the likely consequences should the Committee reject the officer recommendation to approve the two applications and to provide advice as to the risks and issues that might arise in that event.

Councillor Price left the meeting at 7.35pm.

The meeting reconvened at 7.45pm.

Decisions

When the meeting resumed the Planning Officer advised the Committee that if they were minded to go against the officer recommendation then rather than refuse the applications it would be more procedurally appropriate to approve the Noise Scheme of Assessment applications subject to the original conditions requiring rail damping and a restriction on train services. It was also clarified that a condition requiring the development to be carried out in accordance with the submitted details should also be imposed.

The Head of Planning & Regulatory Services reminded the Committee that a vote against the officer recommendation was likely to prompt NR to launch an appeal and that there were potential risks of an adverse award of costs against the Council from the decision. If that was the case then the officers involved in the NR applications would not be able to support those decisions at appeal as the position of the Council at appeal would be irreconcilable with the professional advice provided by those officers. The Council would need to appoint a new team of advisers to support those members of the Committee presenting the Council's case at appeal.

A proposal was made and seconded that the two applications be approved subject to the previous conditions on rail damping, restricting train services and works in accordance with the submitted details, the reasons for imposition for those conditions being the same as provided in the context of the previous approvals.

On being put to the vote a majority of the Committee agreed that proposal.

102. East West Rail Phase 1 - 16/02507/CND for route section H

The Committee resolved to **approve** application 16/02507/CND and condition 19 be partially approved in relation to the Noise Schemes of Assessment for route section H for the reasons stated in the report and subject to the following amended conditions which have been imposed for the reasons stated:

1. Development in accordance with submitted details

   The development is to be carried out strictly in accordance with the documents titled "Noise Scheme of Assessment for Route Section H" (ref 0221083/11/H06) dated 6 March 2015; the ERM further technical note submitted to the Council on 5 May 2015 titled "Technical Note to Provide Information on the Effect of Relocating the Woodstock Road Crossover (ref 0221083/H07) and drawing numbers 0221083_SecH_Sheet24_Ver1,0221083_SecH_Sheet25_Ver1, 0221083_SecH_Sheet26_Ver1 and 0221083_SecH_Sheet27_Ver1 all dated May 2015. In the event of conflict between these drawings and other documents the four May 2015 drawings shall prevail and as between the other documents the later produced document shall prevail.

   Reason: the Noise Scheme of Assessment has been prepared upon the basis of these details and deviation from them would not necessarily result in the standards of vibration mitigation required by the Noise and Vibration Mitigation Policy (January 2011) being achieved.

2. Within three months of this partial approval under condition 19 of the deemed planning permission, proposals shall be submitted for the written approval of the local planning authority showing how at-source noise attenuation by rail dampening to at least the standard achievable by the use of Tata Silentrail can be incorporated into the scheme. The development to which this approval relates shall not be brought into operation EITHER without that written approval having been obtained and other than in accordance with such approved details OR without the Council having given written confirmation that it is satisfied that the provision of such rail dampening is not reasonably practicable.

   Reason: The local planning authority is not satisfied that rail dampening as an at source mitigation measure has been shown to not be reasonably practicable in the absence of any attempt on the part of the applicant to secure approval for the use of such a measure.

3. Passenger train movements on Section H between 0700 hours and 2300 hours shall not be in excess of 8 movements per hour. Freight train movements between 2300 hours 0700 hours on the following day shall not exceed 8.

   Reason: to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)

103. East West Rail Phase 1 - 16/02509/CND for route section I-1

The Committee resolved to **approve** application 16/02507/CND and condition 19 be partially approved in relation to the Noise Schemes of Assessment for route section H for the reasons stated in the report and subject to the following amended conditions which have been imposed for the reasons given:

1. The development is to be carried out strictly in accordance with the documents titled "Noise Scheme of Assessment for Route Section 1/1, Main Report" and "Annexes A-E and G" (ref 0221083/11.11-07) dated 2nd December 2015; "East-West Rail: Baseline Acoustic Survey, Network Rail" (ref 5114534 2015/May/06) dated 20th July 2015; the further details contained in the report (and Appendix 1 to the report) of the Independent Expert darea- 1st December 2015; and Figures 1.1 (version A01, dated 04/08/2015) 5.1a (version A02 dated 06/08/2015) 5.1b (version A02 dated 28/09/2015) and 5.2 (version A01, dated 06/08/2015). In the event of conflict between these drawings and other documents the four August/September 2015 drawings shall prevail; and as between the other documents, the later produced document shall prevail.

   Reason: the Noise Scheme of Assessment has been prepared upon the basis of these details and deviation from them would not necessarily result in the standards of noise mitigation required by the Noise and Vibration Mitigation Policy (January 2011) being achieved.

2. Within three months of this partial approval under condition 19 of the deemed planning permission, proposals shall be submitted for the written approval of the local planning authority showing how at-source noise attenuation by rail dampening to at least the standard achievable by the use of Tata Silenttrack can be incorporated into the scheme. The development to which this approval relates shall not be brought into operation EITHER without that written approval having been obtained and other than in accordance with such approved details OR without the Council having given written confirmation that it is satisfied that the provision of such rail dampening is not reasonably practicable.

   Reason: The local planning authority is not satisfied that rail dampening as an at source mitigation measure has been shown to not be reasonably practicable in the absence of any attempt on the part of the applicant to secure approval for the use of such a measure.

3. Passenger train movements on Section I-1 between 0700 hours and 2300 hours shall not be in excess of 8 movements per hour. Freight train movements between 2300 hours 0700 hours on the following day shall not exceed 8.

   Reason: to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)

104. 16/03166/FUL: Junction Of Headington Road and Morrell Avenue, Oxford

The Committee considered a report detailing an application (16/03166/FUL) for planning permission for the installation of a stone memorial at the junction of Headington Road and Morrell Avenue, Oxford.

The Planning Officer presented the report. He referred the Committee to paragraph 7 of the officer's report and advised them that the main determining issues for the application were:

- Principle
- Location, form & design and impact heritage assets
- Trees
- Highways

He said that planning permission was granted in 1981 for a statue of an Ox on this land which supported officers' view that this would be a suitable location for a piece of art work or memorial. The memorial at 1.8m high, 1m wide and 30cm deep was considered appropriately proportioned in size in relation to its setting within this open area.

He referred the Committee to the additional comments that were received since the publication of the report. Firstly, an additional response was received in support of the application from Colin Caritt from the International Brigade Memorial Trust. Additional objections and comments were also received from Councillor Wade, the Friends of South Park, Oxford Preservation Trust and Councillor Hollingsworth. All of these responses were circulated to the Committee in advance of the meeting.

The Committee noted that the application had been called-in on the following grounds:

1. it is a controversial application and should be considered in public
2. size, design, materials and impact on views into and out of Oxford

The following individuals spoke against the application: Debbie Dance (Oxford Preservation Trust), Cllr Wade, Alexander Haydon, Alison Boulton, Barbara Foran, Cllr Azad, Richard Martin and Trevor Mostyn.

Colin Carritt (agent) and Cllr Hayes spoke in support of the application.

In reaching their decision, the Committee considered the officers' report and presentation and the address of the public speakers. In debate the Committee noted the following points:

- that the style, design and location of the proposed memorial had, as was often the case with public art installations, generated considerable public debate
- the strength of opinion both for and against the proposed memorial in terms of its political and religious context while recognising that this was not a material planning consideration

- notwithstanding the grant of planning permission the applicant would still require approval from the City Council, as landowner, to actually site the memorial
- that the current application did not include the provision of benches
- concerns that the subsequent introduction of benches might lead to an increase in anti-social behaviour
- the City Council, as landowner, had permitted development rights to install benches at the site

On being put to the vote a majority of the Committee agreed with the officer recommendation.

The Committee resolved to **approve** planning permission (16/03166/FUL) for the proposed memorial stone at the junction of Headington Road and Morell Avenue, for the reason(s) set out in the report and subject to the (amended) conditions and informative listed below:

Conditions:

1. Development begun within time limit
2. Develop in accordance with approved plans
3. Materials as approved
4. Landscape plan - as approved
5. Landscape - carry out by completion
6. ~~Benches – further details required:~~ *condition removed*
7. Tree Protection Plan – details required

Informative: that the applicant and landowner should seek to come to an agreement regarding a maintenance regime.

105. Minutes

The Committee resolved to **approve** the minutes of the meeting held on 24 January 2017 as a true and accurate record.

106. Forthcoming applications

The Committee noted the list of forthcoming applications.

107. Dates of future meetings

The Committee noted the dates of future meetings.

The meeting started at 6.00 pm and ended at 9.00 pm

Minutes of a meeting of the PLANNING REVIEW COMMITTEE on Wednesday 15 February 2017

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OXFORD CITY COUNCIL

Committee members:

Councillor Fry (Chair)
Councillor Munkonge (Vice-Chair)
Councillor Anwar
Councillor Brandt
Councillor Goddard
Councillor Kennedy
Councillor Sinclair

Officers:

Michael Morgan, Lawyer
Adrian Arnold, Development Management Service Manager
Sian Saadeh, Development Management Team Leader
Catherine Phythian, Committee Services Officer

Apologies:

Councillor(s) Turner sent apologies.

20. Declarations of Interest

There were no declarations of interest.

21. 16/01726/FUL: Unit 5, Ashville Way, Oxford, OX4 6TU

The Committee considered a report detailing an application for planning permission for a change of use from Storage and Distribution (Use Class B8) to Assemble and Leisure (Use Class D2) on the ground floor and offices (Use Class B1a) on first floor and provision of additional car parking, bin and cycle store at Unit 5, Ashville Way, Oxford, OX4 6TU.

The Committee noted that the application had been called-in to the Planning Review Committee on the grounds that:

"East Area Planning Committee have now both allowed and refused the application and, in the interest of ensuring consistency in decision making it would be sensible for Planning Review Committee to look again at all the issues before a final decision is made".

The Committee noted the East Area Planning Committee decision to a) approve the application on 12 October 2016 and b) refuse the application on 11 January 2017.

The Planning Officer presented the report and drew the Committee's attention to the following matters:

- There was an erroneous reference to an Appendix 4 in the addendum report submitted in January 2017 – no appendix 4 was attached to that report.
- There was an erroneous reference to CS8 in para. 8 of the original report submitted in October 2016 – the reference should have been to CS28.
- Member of the Committee and officers who had undertaken a site visit had seen the permanent equipment and long vault run which the applicant had drawn attention to in their submissions

Cameron Thompson, representing Mayfield Press, spoke against the application. He made the following points:

- Mayfield Press had been at the Ashville Way location since 2002
- The majority of employees were local
- One third of the business was local
- The need to expand to Unit 5 was immediate due to an acquisition in December 2016 and a further acquisition which was pending
- The business would have to move if there was no possibility of expansion
- There were no other suitable locations in the city

Councillor Linda Smith (ward councillor and Leisure portfolio holder) and Michael Crofton Briggs (agent), Sarah Fry, Rob English and Denise Brown spoke in support of the application from Cherwell Gym Club. They made the following points:

- The Council's leisure team had been working with Cherwell Gym Club for some time but they had been unable to identify suitable alternative premises
- The Cherwell Gym Club met many of the Council's corporate aspirations, to promote healthy lifestyles and social inclusion, provide a range of leisure opportunities and encourage young women to participate in sport
- The success of other gym clubs in neighbouring counties was testimony to the demand for such facilities and their commercial viability
- The application would provide employment opportunities in classes D2 and B1a

In conclusion the applicant asked the Committee to consider granting temporary planning permission for a period of three years to allow the Cherwell Gym Club to find alternative premises.

The Committee considered the officers report, presentation and the address of the public speakers and asked questions to clarify the material planning issues. In particular they noted that:

- the weight given to CS28 should be significant

- the circumstances of any potential occupant of the premises was not a material consideration
- granting a temporary change of use would not be reasonable as it would still cause harm through the loss (temporary) of a key protected employment site

After debate and on being put to the vote the Committee agreed unanimously with the officer recommendation.

In reaching this decision to refuse the planning application the Committee expressed their sympathy for the difficulties facing the applicant in identifying suitable premises within the city. They were pleased to note the portfolio holder's commitment that officers from the Council's leisure team would continue to provide assistance to the applicant in securing an alternative location.

They also noted officer comments that, should the application be refused, any enforcement action would be reasonable, proportionate and would take account of the circumstances of those involved.

The Committee further noted that the Local Plan had, in this instance, constrained the Council's decision making process with regard to the addressing of specific leisure land use needs and asked that officers use the current review of the Local Plan to address this.

The Committee resolved to refuse application 16/01726/FUL at Unit 5, Ashville Way, Oxford, OX4 6TU for the following reason:

The proposed development would result in the loss of a key protected employment site, which would be harmful to the range of job opportunities in the city and contrary to Policy CS28 of the Oxford Core Strategy 2026.

22. Minutes

The Committee resolved to **approve** the minutes of the meeting held on 18 January 2017.

23. Date of Future Meetings

The Committee noted the dates for future meetings (if required).

The meeting started at 6.00 pm and ended at 7.15 pm

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