

TCP/11/16(257)
Planning Application 13/00672/IPL – Erection of a dwellinghouse (in principle) at The Paddocks, Redgorton, Perth, PH1 3EL

INDEX

- (a) Papers submitted by the Applicant (***Pages 299-318***)
- (b) Decision Notice (***Pages 307-308***)
 - Report of Handling (***Pages 321-326***)
 - Reference Documents (***Pages 311 and 327-350***)
- (c) Representations (***Pages 351-356***)

TCP/11/16(257)

Planning Application 13/00672/IPL – Erection of a dwellinghouse (in principle) at The Paddocks, Redgorton, Perth, PH1 3EL

**PAPERS SUBMITTED
BY THE
APPLICANT**

Andrew Rettie M.C.I.A.T
24 Florence Place, Perth. PH1 5BH

**Building Design Consultant
 & Architectural Technologist**

Telephone: 01738 627 782
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Local Review Body
 Perth & Kinross Council
 2 High Street
 Perth
 PH1 5PH

14 June 2013



Dear Sir,

Proposed Dwellinghouse at The Paddocks, Redgorton, Perth. PH1 2EL
For Mr Neil Donald

I enclose application to The Local Review Body in respect of the refusal of planning permissions for the erection of single house on this site.

While I accept there have been several applications lodged for this development I do not believe that there has been sufficient investigation or acceptance by the planning officer that my client intends to reduce the level of the land on which this proposed house will be erected.

In past reports reference was made to:

1. Red boundary line extending across the width of the former A9 road when this was incorrect.
2. Complaints about the core path being included within the application when it was made quite clear that my client had no intentions to block up or restrict access along this community path.
3. Reference to noise from main road has been resolved in the proposal of providing bunding as per Sound Consultant's report at considerable cost to the client.

Documents enclosed;

1. Site and location plan – drg no. 2606/002
2. Photographs of the site which show clearly the reduced level proposed.
3. Part copy of delegated report by planning officer
4. Memorandum from Environmental Health Manager
5. Copy of my letter to planning dated 11th September 2012
6. Copy of my letter to planning dated 22nd February 2013
7. Copy of my letter to planning dated 1st April 2013
8. Copy of notice of refusal from planning
9. Application form 'Notice of Review' duly completed .

I look forward to the result of this application.

Yours sincerely,

Andrew Rettie M.C.I.A.T

17 JUN 2013

Notice of Review

NOTICE OF REVIEW
RECEIVEDUNDER SECTION 43A(8) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 (AS AMENDED) IN
RESPECT OF DECISIONS ON LOCAL DEVELOPMENTSTHE TOWN AND COUNTRY PLANNING (SCHEMES OF DELEGATION AND LOCAL REVIEW PROCEDURE)
(SCOTLAND) REGULATIONS 2008

THE TOWN AND COUNTRY PLANNING (APPEALS) (SCOTLAND) REGULATIONS 2008

IMPORTANT: Please read and follow the guidance notes provided when completing this form.
Failure to supply all the relevant information could invalidate your notice of review.

Use BLOCK CAPITALS if completing in manuscript

Applicant(s)Name MR NEIL DONALDAddress THE PADDOCKS
REDGORTON
PERTH
Postcode PH1 2ELContact Telephone 1
Contact Telephone 2
Fax No E-mail* **Agent (if any)**Name ANDREW RETTIEAddress 24 FLORENCE PLACE
PERTH
Postcode PH1 5BHContact Telephone 1 01738 627782
Contact Telephone 2 07210 628400
Fax No E-mail* andrew@arcthe.co.ukMark this box to confirm all contact should be
through this representative: ☒Yes No
☒ ☐

* Do you agree to correspondence regarding your review being sent by e-mail?

Planning authority

PERTH & KINROSS COUNCIL

Planning authority's application reference number

13/00672/PL

Site address

THE PADDOCKS, REDGORTON, PERTH PH1 2ELDescription of proposed
developmentERECTOR OF SINGLE OUTRILLING HOUSEDate of application 2-6-13Date of decision (if any) 31 MAY 2013**Note.** This notice must be served on the planning authority within three months of the date of the decision
notice or from the date of expiry of the period allowed for determining the application.

Nature of application

- | | |
|--|-------------------------------------|
| 1. Application for planning permission (including householder application) | <input checked="" type="checkbox"/> |
| 2. Application for planning permission in principle | <input type="checkbox"/> |
| 3. Further application (including development that has not yet commenced and where a time limit has been imposed; renewal of planning permission; and/or modification, variation or removal of a planning condition) | <input type="checkbox"/> |
| 4. Application for approval of matters specified in conditions | <input type="checkbox"/> |

Reasons for seeking review

- | | |
|---|-------------------------------------|
| 1. Refusal of application by appointed officer | <input checked="" type="checkbox"/> |
| 2. Failure by appointed officer to determine the application within the period allowed for determination of the application | <input type="checkbox"/> |
| 3. Conditions imposed on consent by appointed officer | <input type="checkbox"/> |

Review procedure

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Please indicate what procedure (or combination of procedures) you think is most appropriate for the handling of your review. You may tick more than one box if you wish the review to be conducted by a combination of procedures.

- | | |
|---|-------------------------------------|
| 1. Further written submissions | <input type="checkbox"/> |
| 2. One or more hearing sessions | <input type="checkbox"/> |
| 3. Site inspection | <input checked="" type="checkbox"/> |
| 4. Assessment of review documents only, with no further procedure | <input type="checkbox"/> |

If you have marked box 1 or 2, please explain here which of the matters (as set out in your statement below) you believe ought to be subject of that procedure, and why you consider further submissions or a hearing are necessary:

Site inspection

In the event that the Local Review Body decides to inspect the review site, in your opinion:

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Can the site be viewed entirely from public land? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is it possible for the site to be accessed safely, and without barriers to entry? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If there are reasons why you think the Local Review Body would be unable to undertake an unaccompanied site inspection, please explain here:

Statement

You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. Note: you may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

If the Local Review Body issues a notice requesting further information from any other person or body, you will have a period of 14 days in which to comment on any additional matter which has been raised by that person or body.

State here the reasons for your notice of review and all matters you wish to raise. If necessary, this can be continued or provided in full in a separate document. You may also submit additional documentation with this form.

REFUSAL ON GROUNDS OF BEING UNACCEPTABLE
VISUAL IMPACT ON LOCAL SURROUNDINGS
I DO NOT BELIEVE THE PROPOSED HOUSE AT THE
SAME FLOOR LEVEL TO CLIENTS OWN HOUSE WILL
CREATE VISUAL IMPACT ON LOCAL SURROUNDINGS
ESPECIALLY WITH SOUND BUND TO BE PROVIDED
AS PER FULL REPORT PROVIDED,
FAILURE TO ACCEPT THAT CHART IS REDUCING
EXISTING GROUND LEVEL CONSIDERABLY.
SEE ENCLOSED LETTER

Have you raised any matters which were not before the appointed officer at the time the determination on your application was made?

Yes ☐ No ☒

If yes, you should explain in the box below, why you are raising new material, why it was not raised with the appointed officer before your application was determined and why you consider it should now be considered in your review.

List of documents and evidence

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review.

Note. The planning authority will make a copy of the notice of review, the review documents and any notice of the procedure of the review available for inspection at an office of the planning authority until such time as the review is determined. It may also be available on the planning authority website.

Checklist

Please mark the appropriate boxes to confirm you have provided all supporting documents and evidence relevant to your review:

- ☐ Full completion of all parts of this form
- ☐ Statement of your reasons for requiring a review
- ☐ All documents, materials and evidence which you intend to rely on (e.g. plans and drawings or other documents) which are now the subject of this review.

Note. Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice from that earlier consent.

Declaration

I the applicant/agent [delete as appropriate] hereby serve notice on the planning authority to review the application as set out on this form and in the supporting documents.

Signed

Date

PERTH AND KINROSS COUNCIL

Mr Neil Donald
c/o Andrew Rettie
24 Florence Place
Perth
PH1 5BH

Pullar House
35 Kinnoull Street
PERTH
PH1 5GD

Date 31st May 2013

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT

Application Number: **13/00672/IPL**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to refuse your application registered on 3rd April 2013 for permission for **Erection of a dwellinghouse (in principle) The Paddocks Redgorton Perth PH1 3EL** for the reasons undernoted.

Development Quality Manager

Reasons for Refusal

1. As the proposed development will have an unacceptable visual impact on the local surroundings due to the prominent location of the site, an approval would be contrary to Policies 32 and 1 of the Perth Area Local Plan 1995 (Incorporating Alteration No 1 Housing Land 2000) and the Housing in the Countryside Guide 2012, all of which seek to ensure that new developments do not have an adverse impact on the amenity of existing areas.

Justification

The proposal is contrary to the Development Plan, and there are no material reasons which justify approval of the planning application.

Notes

The plans relating to this decision are listed below and are displayed on Perth and Kinross Council's website at www.pkc.gov.uk "Online Planning Applications" page

Plan Reference

13/00672/1

13/00672/2

Memorandum

To Nick Brian
Development Quality Manager

From Frances Berry
Policy Officer (Access & Infrastructure)

Your ref 13/00672/IPL

Our ref cc36/FB

Date 11 April 2013

Tel No 01738 475324

The Environment Service

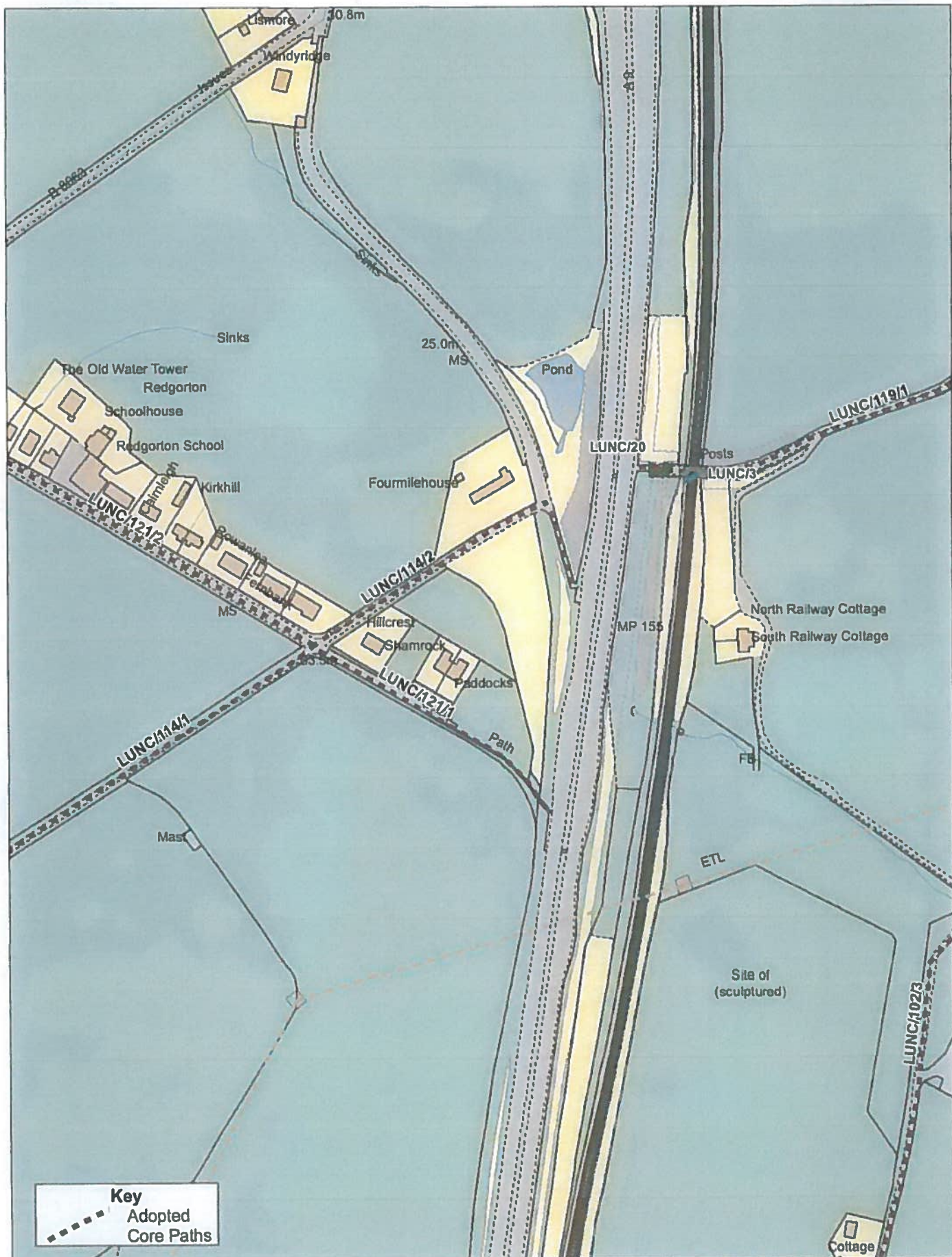
Pullar House, 35 Kinnoull Street, Perth PH1 5GD

With reference to the application for Erection of a dwellinghouse (in principle) at The Paddocks Redgorton Perth PH1 3EL please note that a core path LUNC/121 provides access to, and borders, the development site. A condition is essential here. Please see map attached.

Suggested Condition: The core path shown in PURPLE on the attached plan must not be obstructed during building works or on completion. Any damage done to the route and associated signage during building works must be made good before the house is occupied.

Reason: To ensure continued public access along the public paths.

Please contact Frances Berry, Policy Officer (Access & Infrastructure), on Ext 75324 if you wish to discuss matters.



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Core Paths west of A9 at Luncarty

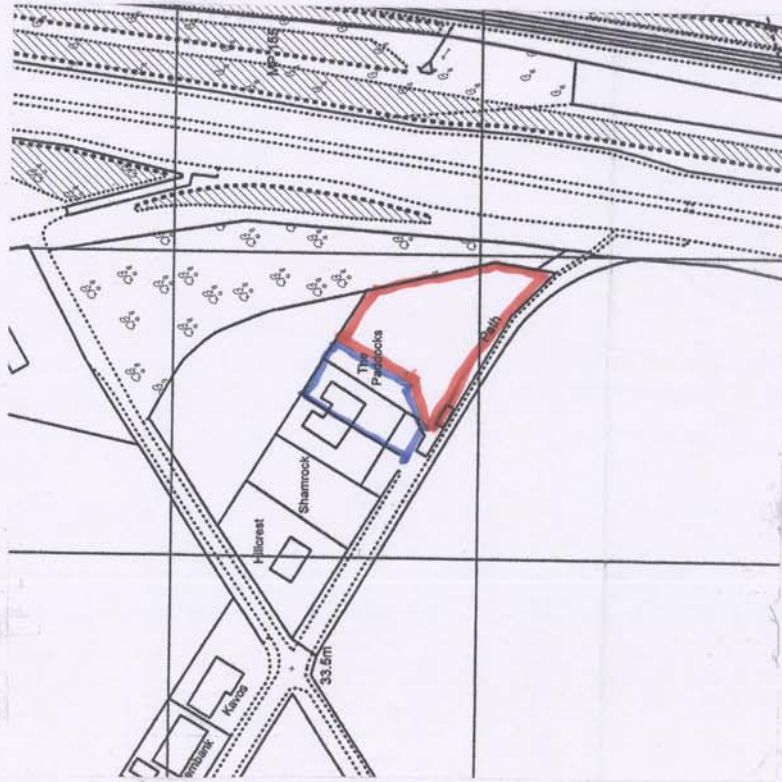
Contact: F Berry

Date: 11/04/2013

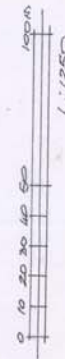
Map for use in connection with Council duties
under the Land Reform (Scotland) Act 2003

Z Scale:
1:3,000





LOCATION PLAN

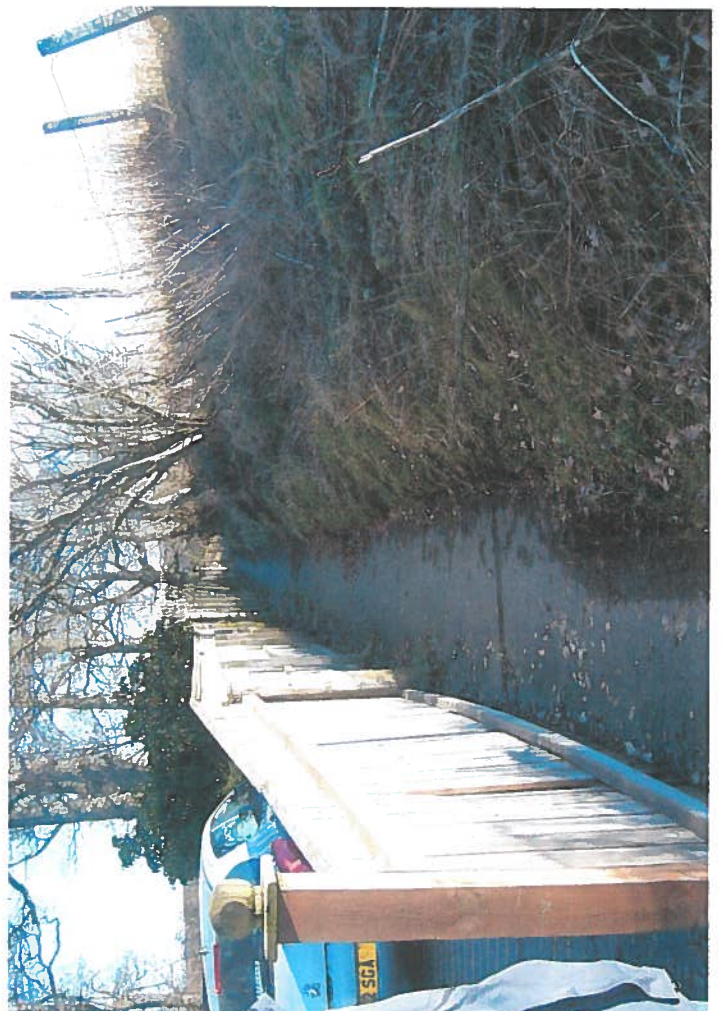


SITE PLAN



Project: Erection of Dwellinghouse at The Paddocks, Redgorton, Perth for Mr Neil Donald		
Scale:	Date:	Drg. No.
As shown	22.2.13	2606/002
Andrew Rettie M.C.I.A.T. Building Design Consultant & Architectural Technologist 24 Florence Place, Perth, PH1 5BH Tel: 01738 627782 mob. 07710 678400 e-mail: andrew@arette.co.uk		
<i>This drawing is copyright to Andrew Rettie</i>		

01.2.57 NISSON ROAD CHAND



PERTH AND KINROSS COUNCIL

**ERECTION OF A DWELLINGHOUSE (IN PRINCIPLE) AT THE PADDOCKS,
REDGORTON, PERTH, PH1 3EL**

DELEGATED REPORT OF HANDLING

(PART OF)

Ref No	12/01671/IPL	Case Officer	Team Leader	Decision to be Issued?	
Ward	N5 – Strathtay			Yes	No
Target	26 Nov 2012				

RECOMMENDATION

Refuse the planning application on the grounds that the proposal will have an unacceptable visual impact and that it has not been fully demonstrated that noise from the adjacent A90 can be adequately mitigated.

BACKGROUND & DESCRIPTION

The application site relates to a vacant area of ground located to the eastern edge of Redgorton, east of a residential property named 'The Paddocks'. The 0.14 ha site is roughly triangular in shape and is bounded by mature trees along its south and east boundaries. The A9 runs past the site to the east, whilst to the west is the private garden ground associated with 'The Paddocks'. To the south of the site runs a right of way / core path which links Redgorton to the A9.

This planning application seeks to obtain a planning in principle consent for the erection of a single dwelling. An indicative layout has been submitted with the application which indicates the dwelling will be positioned on the western side of the plot, with a double garage located in a more central position. Vehicular access to the site is proposed to the south.

PROCEDURAL MATTER

LRB Conditions

In the event that the ultimate recommendation to refuse the planning application is reversed by the LRB, it is recommend that the DQM is afforded the opportunity to comment on any proposed conditions which the LRB may wish to attach to any consent.

APPRAISAL

An outline planning application (07/00121/OUT) for the erection of two dwellings (one on the application site, and one on an adjacent site to the west) was submitted in 2007. In the consideration of that application, the planning officer at the time opined that the site was (on plan form only), in combination with the second plot was a natural infill opportunity (which is still the case), however he resolved to refuse the planning application on the grounds of the unacceptable visual impact that the development would have on the surrounding area, and that it had not been fully

demonstrated that noise from the passing A9 would not adversely impact on the residential amenity of potential occupiers of the proposed dwelling.

Since 2007, there has been a material change in Council policy in respect of new housing in the countryside with the SPG on HITCP being revised in 2009. However, the general content of that policy is extremely similar to the 2005 version - which the 2007 planning application was assessed against. It is therefore my view that from a policy perspective, little has changed since 2007, so to that end the key test of the acceptability of this proposal is therefore whether or not there has been any change in the sites characteristics which would merit a different interpretation of relevant policies.

It would appear to me that nothing physically has changed on the site since the refusal in 2007, and information regarding noise nuisance from the adjacent A9 has still not been submitted with this planning application – despite this being cited as a reason of refusal in the previous planning application. Although I am not specifically bound by the decisions of previous colleagues, it is a matter of fact that the planning history of a site is a significant material consideration in the determination of all planning applications and in this case the relatively short period of time which has elapsed since the previous refusal leads to me give substantial weight to the previous decision.

However, I nevertheless fully agree with the assessment of the previous planning officer in that the proposal would accord constitute an infill opportunity (in terms of the HITCPs), however the likely impact on the (visual) amenity of the area that a new dwelling would have (even a single storey property) in this location would be an adverse impact and it is still unknown what impact on residential amenity noise from the A9 will have potential future occupiers.

It is disappointing that the applicant has not attempted to address either of the previous reasons of refusal, and to this end, I recommend the planning application for a refusal based on similar reasons which were cited in 2007.

DEVELOPMENT PLAN

The Development Plan for the area comprises the approved Tay Plan 2012 and the Perth Area Local Plan 1995 (Incorporating Alteration No1, Housing Land 2000). There are no specific policies of relevance contained in the TayPlan.

Perth Area Local Plan 1995 (Incorporating Alteration No1, Housing Land 2000)

Within the Local Plan, the site lies within the landward area where Policies 1 and 32 are directly applicable. *Policy 1* (amongst other things) seeks to ensure that all new developments should not have an unacceptable environmental impact and that new developments are compatible with existing lands, whilst *Policy 32* is the Local Plan version of the HITCP. Policy 32 offers support, in principle for developments which extend existing building groups into definable sites providing the amenity of the group is not adversely affected by the development proposed.

NATIONAL PLANNING GUIDANCE / POLICIES

The Scottish Government expresses its planning policies through the National Planning Framework 1 & 2, the Scottish Planning Policy (SPP), Scottish Historic

Memorandum

To	Development Quality Manager	From	Environmental Health Manager
Your ref	PK12/01671/FLL	Our ref	JC
Date	19 October 2012	Tel No	(01738) 476 464

The Environment Service

Pullar House, 35 Kinnoull Street, Perth PH1 5GD

**Consultation on an Application for Planning Permission
PK12/01671/FLL RE: Erection of a Dwellinghouse (in principle) The Paddock
Redgorton Perth PH1 3EL for Mr Neil Donald**

I refer to your letter dated 27 September 2012 in connection with the above application and have the following comments to make.

The application proposed the erection of a dwelling in close proximity to the A9 trunk road.

I refer to the previous comment made by this service on 07/00121/OUT for the erection of two houses and request additional information than that provided with this application.

This service does not consider this to be ideally suited to domestic residence and assume that vehicle noise at this location may well be a material consideration in your assessment of residential amenity of future occupiers of these dwellings.

I have no doubt that future occupiers of the proposed properties could not fail, day and night, to be very aware of noise and vibration from passing vehicles, however I have no statutory powers to deal with road traffic noise movements.

There is precedent within Perth and Kinross for the development of dwellings in close proximity to major roads and consequently it may be possible to mitigate noise and vibration problems to the satisfaction of the planning authority. However, information relating to the mitigation of noise levels provided is not sufficient.

If you are minded to approve the application I would recommend that the applicant submit a noise impact assessment be carried out by a suitably qualified consultant in accordance with PAN1/TAN1 guidance, and submitted to and approved in writing by the planning authority. This assessment should include proposed mitigation measures such that an acceptable level of amenity is ensured for the proposed development.

I am currently unable to complete my appraisal of this application, and request that the application be deferred until a noise impact assessment has been submitted to, and evaluated by this Service.



Andrew Rettie M.C.I.A.T
24 Florence Place, Perth. PH1 5BH

**Building Design Consultant
& Architectural Technologist**

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E-mail: andrew@arettie.co.uk

Planning
Perth & Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

1 April 2013

Dear Sir,

**Erection of One and a Half Storey Dwellinghouse on ground at the Paddock, Redgorton, Perth.
PH1 3EL for Mr & Mrs N Donald**

I refer to the previous planning applications 07/00121/OUT and 12/01671/IPL which were refused

My client is very anxious to obtain approval and has instructed me to make a further application and request that more careful consideration be given to this application.

The site plan indicates some small changes to the layout and location of proposed house to ensure that the house is well away from any tree canopies. The access into the site from the existing road is now taken alongside the new access into the ground retained by my client as additional garden for his own house and also improves the amenity of the proposed site. The access into the site will provide suitable facilities for parking of two vehicles and turning facilities to enable vehicles to turn and exit in forward gear. With this change in access, the existing raised ground level will not be disturbed along the line of trees adjacent to former road and path which will provide a visual barrier between path and proposed house. It is essential to note that the site boundary is now shown along the Eastern boundary of the path and there is no intention to block off this important path network which links Redgorton to the A9 beyond. The raised ground along this line of trees will also retain the ground cover for existing tree roots.

While I acknowledge one of the reasons stated for refusal was the elevated nature of the site I request that this be looked at in more detail. The elevated nature of the site is not relevant as my client intends to excavate the sand and gravel down to a level similar to his own house and the proposed house will not be built on an elevated site.

The excavated material will be utilised to form sound deafening by means of bunding to reduce traffic noise from the A9. In order to reduce the likely noise from the A9 my client obtained a report on road traffic noise from Charlie Fleming Associates and a copy is enclosed. From the evidence from that report it is obvious that bunding along the Eastern boundary formed by excavated material from the site will reduce the traffic noise to satisfactory level and provide an appropriate environment for residential use.

I look forward to hearing from you.

Yours sincerely,

Andrew Rettie M.C.I.A.T

Andrew Rettie M.C.I.A.T
24 Florence Place, Perth. PH1 5BH

**Building Design Consultant
& Architectural Technologist**

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Planning
Perth & Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

22 February 2013

Dear Sir/Madam,

**Erection of One and a Half Storey Dwellinghouse on ground at the Paddock, Redgorton, Perth. PH1 3EL
for Mr & Mrs N Donald**

I hereby submit an application for planning permission in respect of this site.

While I accept that there have been previous applications lodged for this site, I respectfully request a much closer look at this application and consider fully the information provided.

The applicant requests approval for one and half storey house on the vacant land to the eastern edge of Redgorton and east of the residential property named 'The Paddock'. The site is roughly triangular in shape and is bounded by mature trees along its south and eastern boundaries. The A9 runs past the site to the east, whilst to the west is agricultural land. The original access road which was a part of the old A9 is presently covered in soil but this soil would be removed to permit access into the new site and also improve access path to A9. The existing trees along the eastern, southern and western boundaries are clearly shown and it is not the intention to remove any.

In order to address the matters in the delegated report by the planning officer handling the application 07/00121/OUT it is recorded that this was a natural infill opportunity (which is still the case) but resolved to refuse the application on the grounds of unacceptable visual impact. And this was again recorded a reason for refusal to application 12/01671/IPL despite the fact that my client has clearly intimated that he intends to reduce the entire area of the land on which the house would be sited down to the same level of his own house adjacent.

I fail to understand your concern the likely impact on the (visual) amenity of the area that a new dwelling would have in this location at the very end of a very quiet cul-de-sac.

In order to address the possible traffic noise from the A9 it is possible to have noise assessment undertaken but this will cost in the region of £900.

I look forward to hearing from you.

Yours sincerely,

Andrew Rettie M.C.I.A.T

Andrew Rettie M.C.I.A.T
24 Florence Place, Perth. PH1 5BH

**Building Design Consultant
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Planning
Perth & Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

11 September 2012

Dear Sir/Madam,

**Erection of One and a Half Storey Dwellinghouse on ground at the Paddock, Redgorton, Perth.
PH1 3EL for Mr & Mrs N Donald**

I refer to the previous application for planning permission to erect two houses on this site which was refused on 11th December 2007 (Ref. 07/00121/OUT)

This present application is only for one house and contains further evidence to overcome the reasons for refusal on the previous application regarding elevated nature of the site and affect from traffic noise from the A9.

The proposed site is separated from the A9 by a strip of woodland and is bounded on the north-east by agricultural land. On the south-west of the site is an existing public path lined with oak trees which links with the village to the A9. It is important to note that this path access will not be affected by the proposed development.

The level of the site will be greatly reduced by removal of approximately one metre depth of existing sand and gravel material. Please see photographs enclosed showing part of the land already reduced. By reducing the ground levels this will greatly reduce the elevated nature of the present site. Traffic noise between the proposed plot and A9 will be greatly reduced by forming a bund of soil (and fence if necessary) along the boundary of the plot fronting the A9.

The footprint of the proposed house is well outwith the area of any roots and canopy of existing trees as referred to in the tree report enclosed.

The access into the site will be taken at the level of the existing road and will provide turning facilities within the site to enable vehicles to enter and exit the site in forward gear.

I look forward to hearing from you.

Yours sincerely,

Andrew Rettie M.C.I.A.T

TCP/11/16(257)
Planning Application 13/00672/IPL – Erection of a dwellinghouse (in principle) at The Paddocks, Redgorton, Perth, PH1 3EL

PLANNING DECISION NOTICE

REPORT OF HANDLING

REFERENCE DOCUMENTS

PERTH AND KINROSS COUNCIL

ERECTION OF A DWELLINGHOUSE (IN PRINCIPLE) AT THE PADDOCKS, REDGORTON, PERTH, PH1 3EL

DELEGATED REPORT OF HANDLING

Ref No	13/00672/IPL	Case Officer	Team Leader	Decision to be Issued?	
Ward	N5 – Strathtay			Yes	No
Target	3 Jun 2013				
RECOMMENDATION					
Refuse the planning application on the grounds that the proposal will have an unacceptable visual impact on the area.					

BACKGROUND & DESCRIPTION

The application site relates to a vacant area of ground located to the eastern edge of Redgorton, east of a residential property named 'The Paddocks'. The 0.14 ha site is roughly triangular in shape and is bounded by mature trees along its southern and eastern boundaries. The A9 runs past the site to the east, whilst to the west is the private garden ground associated with 'The Paddocks'. To the south of the site runs a right of way / core path which links Redgorton to the A9.

This planning application seeks to obtain a planning in principle consent for the erection of a single dwelling. An indicative layout has been submitted with the application which indicates the dwelling will be positioned on the western side of the plot, with a new vehicular access also being formed to the west.

A similar planning application (12/01671/IPL) was refused last year under delegated powers on the grounds of a) the unacceptable visual impact and b) noise issues from the adjacent road.

APPRAISAL

An outline planning application (07/00121/OUT) for the erection of two dwellings (one on the application site, and one on an adjacent site to the west) was submitted in 2007. In the consideration of that planning application, the planning officer at the time opined that the site was (on plan form only), in combination with the second plot, was a natural infill opportunity (which is still the case), however he resolved to refuse the planning application on the grounds of the unacceptable visual impact that the development would have on the surrounding area, and that it had not been fully demonstrated that noise from the passing A9 would not adversely impact on the residential amenity of potential occupiers of the proposed dwelling.

In addition to this, a planning application for the same proposal - which is subject of this planning application - was refused last year (12/01671/IPL) on the grounds of the unacceptable visual impact that it would have on the local area, and the potential impact that road noise may have on any future occupiers.

As was stated in the assessment of the 2012 planning application, since 2007, there has been a material change in Council policy in respect of new housing in the open countryside with the SPG on HITCP being revised with the most recent version now being the 2012 HITCG. However, the general content of that policy is extremely similar to the 2005 version - which the 2007 planning application was assessed against. It is therefore my view that from a policy perspective, little has changed since 2007.

To that end, the key test of the acceptability of this proposal is therefore whether or not there has been any change in the sites physical characteristics which would merit a different interpretation of the relevant general land use policies or whether or not the noise nuisance from the A9 can be adequately mitigated.

As expected, it would appear to me that nothing physically has changed on the site since 2012, or since the refusal in 2007 which would result in less of a visual impact occurring as a result of this development. Although I am not specifically bound by the decisions of previous colleagues, it is a matter of fact that previous Council decisions are material considerations in the determination of all planning applications and in this case the relatively short period of time which has elapsed since the previous refusals in 2007 and 2012 leads to me give substantial weight to those previous decisions.

However, my own opinion is directly comparable with the assessment of previous planning officers in that the proposal would constitute an infill opportunity (in terms of the HITCPs), however the likely impact on the (visual) amenity of the area that a new dwelling would have (even a single storey property) in this location would not be acceptable. I note that the applicant is now proposing to lower the FFL of the dwelling; however this, in my opinion will not fully address the unacceptable visual impact on the area that the proposal will have- and in any event, this application is in principle only.

In terms of the second reason of refusal which was attached to the 2012 and 2007 planning applications, the applicant has attempted to address the issue of noise nuisance by submitting a NIA which concluded that a noise barrier could mitigate noise to an acceptable level. Although my colleagues in Environmental Health are still of the opinion that noise will be an issue in this location, based on the acoustic barrier being implemented as per the reports recommendations they have no objections to the proposal subject to a acoustic barrier.

Whilst the acoustic barrier (which will likely be a combination of a bund and a fence/wall), would not be particularly pleasing to the eye visually, it is somewhat difficult to fully assess its potential impact without specific details of landscaping etc being submitted - which would inevitably be associated with any bund. To this end, I am of the view that whilst the acoustic barrier would have some visual impact, its impact could potentially be diluted by a suitably designed scheme incorporating landscaping etc, and it would ultimately be the impact of the dwelling which would be more significant, and detrimental to the area.

In conclusion, I recommend the planning application be refused based on the unacceptable visual impact that the new dwelling will have on the local area.

DEVELOPMENT PLAN

The Development Plan for the area comprises the approved Tay Plan 2012 and the Perth Area Local Plan 1995 (Incorporating Alteration No1, Housing Land 2000).

There are no specific policies of relevance, relevant to this proposal contained in the TayPlan.

Perth Area Local Plan 1995 (Incorporating Alteration No1, Housing Land 2000)

Within the Local Plan, the site lies within the landward area where Policies 1 and 32 are directly applicable. *Policy 1* (amongst other things) seeks to ensure that all new developments should not have an unacceptable environmental impact and that new developments are compatible with existing lands, whilst *Policy 32* is the Local Plan version of the HITCP. Policy 32 offers support, in principle for developments which extend existing building groups into definable sites providing the amenity of the group is not adversely affected by the development proposed.

NATIONAL PLANNING GUIDANCE / POLICIES

The Scottish Government expresses its planning policies through the National Planning Framework 1 & 2, the Scottish Planning Policy (SPP), Scottish Historic Environment Policy (SHEP), Planning Advice Notes (PAN), Designing Places, Designing Streets, and a series of Circulars. Of relevance to this planning application are,

Scottish Planning Policy (2010)

The Scottish Government's planning policies are set out in the National Planning Framework, this SPP, Designing Places, Designing Streets and Circulars. This SPP is a statement of Scottish Government policy on land use planning and contains:

- the Scottish Government's view of the purpose of planning,
- the core principles for the operation of the system and the objectives for key parts of the system,
- statutory guidance on sustainable development and planning under Section 3E of the Planning etc. (Scotland) Act 2006,
- concise subject planning policies, including the implications for development planning and development management, and
- the Scottish Government's expectations of the intended outcomes of the planning system.

Of relevance to this application is paragraphs 92-97 which relates to rural development

Planning Advice Note 73 – Housing in the Countryside

Designing Places, published in November 2001, sets out the then Scottish Executive's expectations of the planning system to deliver high standards of design in development for rural and urban areas. The design based Planning Advice Note

(PAN) series is an additional means by which we can maintain the profile of design and identify best practice in planning for high quality development. This PAN supersedes and reinforces many of the key themes set out in *PAN 36 Siting and Design of New Housing in the Countryside* (published in 1991) and brings the advice up to date with the new emphasis on design and quality. The advice in this PAN sets out key design principles which need to be taken into account: by applicants when planning a new development and by planning authorities, when preparing development plans and supporting guidance, and determining applications. The purpose is to create more opportunities for good quality rural housing which respects Scottish landscapes and building traditions. The advice should not, however, be seen as a constraint on architects and designers wishing to pursue innovative and carefully considered contemporary designs.

OTHER COUNCIL POLICIES

Proposed LDP 2012

Within the proposal LDP, the site lies within the landward area where the SPG on HITC policy is applicable.

Housing in the Countryside Guide 2012

This policy is the most recent expression of Council policy towards new housing in the open countryside, and is applicable across the entire landward area of Perth & Kinross. This policy offers a more up to date expression of Council Policy towards housing in the countryside to that contained the Local Plans and recognises that most new housing will continue to be in or adjacent to existing settlements, and states that the Council will support proposals for the erection of single houses in the countryside which fall into certain specified categories. Of particular relevance to this planning application are Section 1, building groups.

Developer Contributions

This guidance sets out the basis on which Perth and Kinross Council will seek to secure contributions from developers of new homes towards the cost of meeting primary education infrastructure improvements necessary as a consequence of development. All new housing from the date of adoption including those on sites identified in adopted Local Plans will have the policy applied. In the event that an appeal to the LRB is successful, the appropriate standard condition relating to Education must be attached to the consent.

SITE HISTORY

Outline planning consent for the erection of two dwellings (07/00121/OUT) was refused planning consent in 2007 on the grounds that the proposal would have an unacceptable visual impact on the local area, and that it was not demonstrated that noise from the adjacent A9 could be adequately mitigated. Considering the recent timeline since this decision, and the fact that little has changed in terms of the sites characteristics, this decision is considered to be a material consideration in the determination of this planning application.

In addition to this, a planning application for the same proposal which is subject of this planning application was refused planning permission last year (12/01671/IPL)

on the grounds of the unacceptable visual impact and the potential for noise nuisance to occur.

PKC CONSULTATIONS

Environmental Health Manager has commented on the proposal and has raised concerns relating to the potential noise nuisance arising from the A9. However, subject to the creation of an acoustic barrier, they raise no objection to the proposal.

ECS has indicated that the local primary school is operating at capacity. In the event that an appeal / review of this refusal where to be successful, an appropriately worded condition should be attached to any consent.

Access Officer has commented on the planning application and confirmed that the application site extends across an existing core path / right of way. In the event that any subsequent appeal to the Council's LRB is successful, appropriate planning conditions should be attached to safeguard access along the route.

EXTERNAL CONSULTATIONS

Transport Scotland have commented on the proposal and raised no concerns.

REPRESENTATIONS RECEIVED

None received.

ADDITIONAL STATEMENTS

Environment Statement	Not required
Screening Opinion	Not required
Environmental Impact Assessment	Not required
Appropriate Assessment	Not required
Design Statement / Design and Access Statement	Not required
Report on Impact or Potential Impact	Noise Impact Assessment

PUBLICITY UNDERTAKEN

The application was advertised in the local press on the 12 April 2013.

LEGAL AGREEMENTS REQUIRED

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

RECOMMENDED REASONS FOR REFUSAL

1. As the proposed development will have an unacceptable visual impact on the local surroundings due to the prominent location of the site, an approval would be contrary to Policies 32 and 1 of the Perth Area Local Plan 1995 (Incorporating Alteration No 1 Housing Land 2000) and the Housing in the Countryside Guide 2012, all of which seek to ensure that new developments do not have an adverse impact on the amenity of existing areas.

JUSTIFICATION

The proposal is contrary to the Development Plan, and there are no material reasons which justify approval of the planning application.

INFORMATIVES

None

PROCEDURAL NOTES

None

REFUSED PLANS

13/00672/1 – 13/00672/3 (inclusive)

Report on Road Traffic Noise

For

Mr Neil Donald

At

The Paddocks, Redgorton, Luncarty, Perthshire

PERTH AND KINROSS COUNCIL

DRAWING REF: 13/00672/2

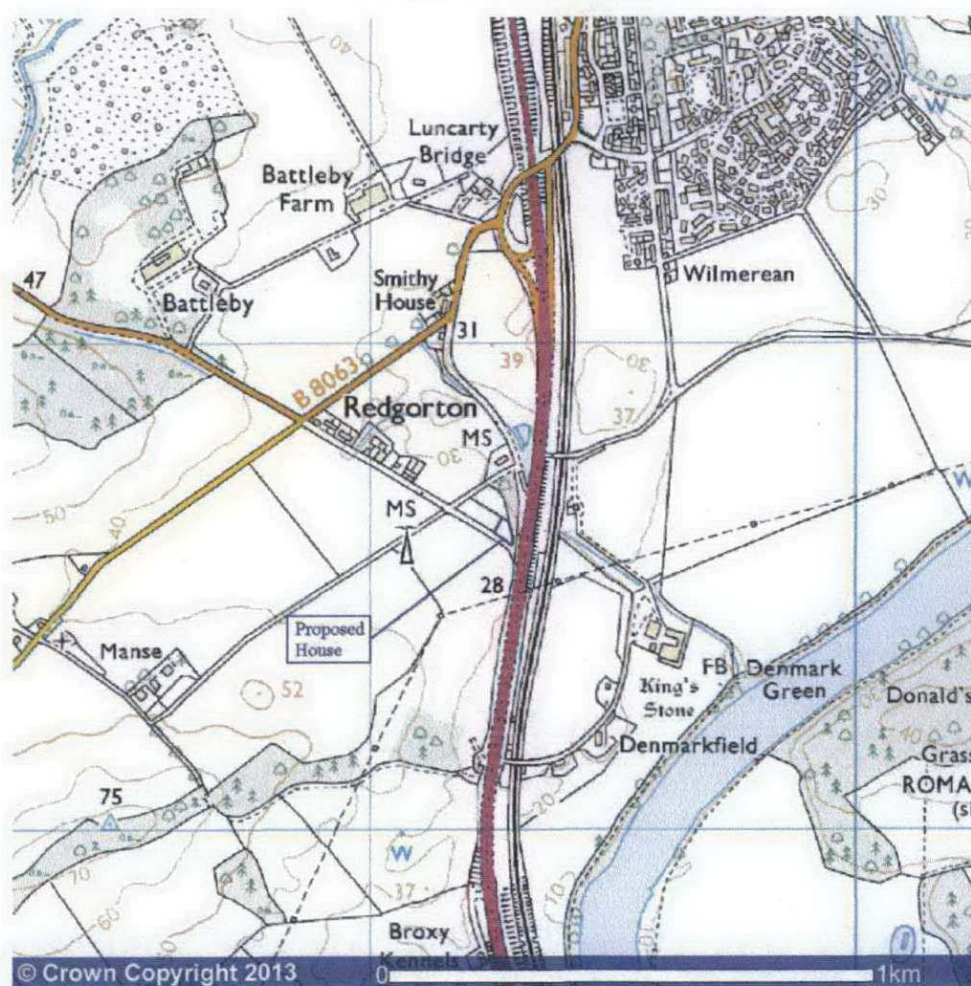
Table of Contents	Page No.
1.0 Introduction	3
2.0 Road Traffic Noise Level Measurement Procedures	5
3.0 Road Traffic Noise Level Measurement Results and Discussion	7
4.0 Determination of <i>Level of Significance</i> of Road Traffic Noise	10
5.0 Calculation to Determine Internal Levels of Road Traffic Noise	13
6.0 Conclusions	15
7.0 References	16
A1.0 Appendix: Basic Principles of Acoustics	17

1.0 Introduction

- 1.1 Mr Neil Donald proposes to construct a house on a plot of land known as *The Paddocks*, at Redgorton, near Luncarty in Perthshire. The A9 trunk road runs close to the eastern edge of the land. The land, on which it is proposed to construct the house, is shown outlined in blue below in Figure 1, which is reproduced with the permission of Ordnance Survey.

Figure 1

Location of Proposed House (Courtesy of Ordnance Survey)



- 1.2 The concern was raised, by officers of Perth & Kinross Council, that the noise of the traffic on the A9 might disturb the residents of the proposed house. Charlie Fleming Associates was appointed, by Mr Andrew Rettie, the architect working on the project, acting as an agent of Mr Donald, to measure the noise and determine whether this would be the case and, if necessary, recommend how to reduce it.

- 1.3** Road traffic noise affecting the site of proposed residential development is usually assessed in accordance with *Planning Advice Note PAN 1/2011 Planning and Noise*¹, (PAN 1/2011). In turn, PAN 1/2011 refers to *Technical Advice Note Assessment of Noise*² (TAN 2011). This suggests that daytime is from 07.00hrs to 23.00hrs, and that night-time is from 23.00hrs to 07.00hrs. The noise levels over these periods are then used to determine the *Magnitude of Impact* that the noise of the traffic will have on the residents of the proposed development. In turn, this determines the *Level of Significance*, according to which it may, or may not, be necessary to reduce the noise.
- 1.4** It is extremely rare for a full 24-hour noise survey to be carried out. The daytime levels can be calculated very accurately based on measurements of the noise made over 3 consecutive one-hour periods. Details of this measurement technique are specified in the Department of Transport document titled *Calculation of Road Traffic Noise*³. This technique has been used many times before in Perth & Kinross, the results accepted by its Council's officers, and so it has been used in this case.
- 1.5** Section 2.0 of this report describes how the road traffic noise levels were measured and the results of the measurements are presented in Section 3.0. The *Magnitude of Impact* and *Level of Significance* of the traffic noise are determined, as required by TAN 2011, in Section 4.0. In Section 5.0, the noise levels likely inside the house are calculated.

Section 6.0 concludes the main text of the report and the various documents referred to herein are referenced in Section 7.0. The Appendix describes basic principles of acoustics, the measurement of sound and explains the technical terms used in the report.

2.0 Road Traffic Noise Level Measurement Procedures

2.1 Mr Craig Cloy, of Charlie Fleming Associates, visited the site of the proposed house on Tuesday 5th March 2013 to measure the noise levels of the traffic.

2.2 The following instrumentation was used to conduct the measurements.

Brüel & Kjær Modular Precision Sound Analyzer Type 2260
Serial No. 1875656

Brüel & Kjær Enhanced Sound Analysis Software Type BZ7202
Serial No. 9445FBA

Brüel & Kjær Prepolarised Condenser Microphone Cartridge Type 4189
Serial No. 2643248

Brüel & Kjær Sound Level Calibrator Type 4231
Serial No. 2656302

Brüel & Kjær Windscreen Type UA0237
Serial No. Not applicable

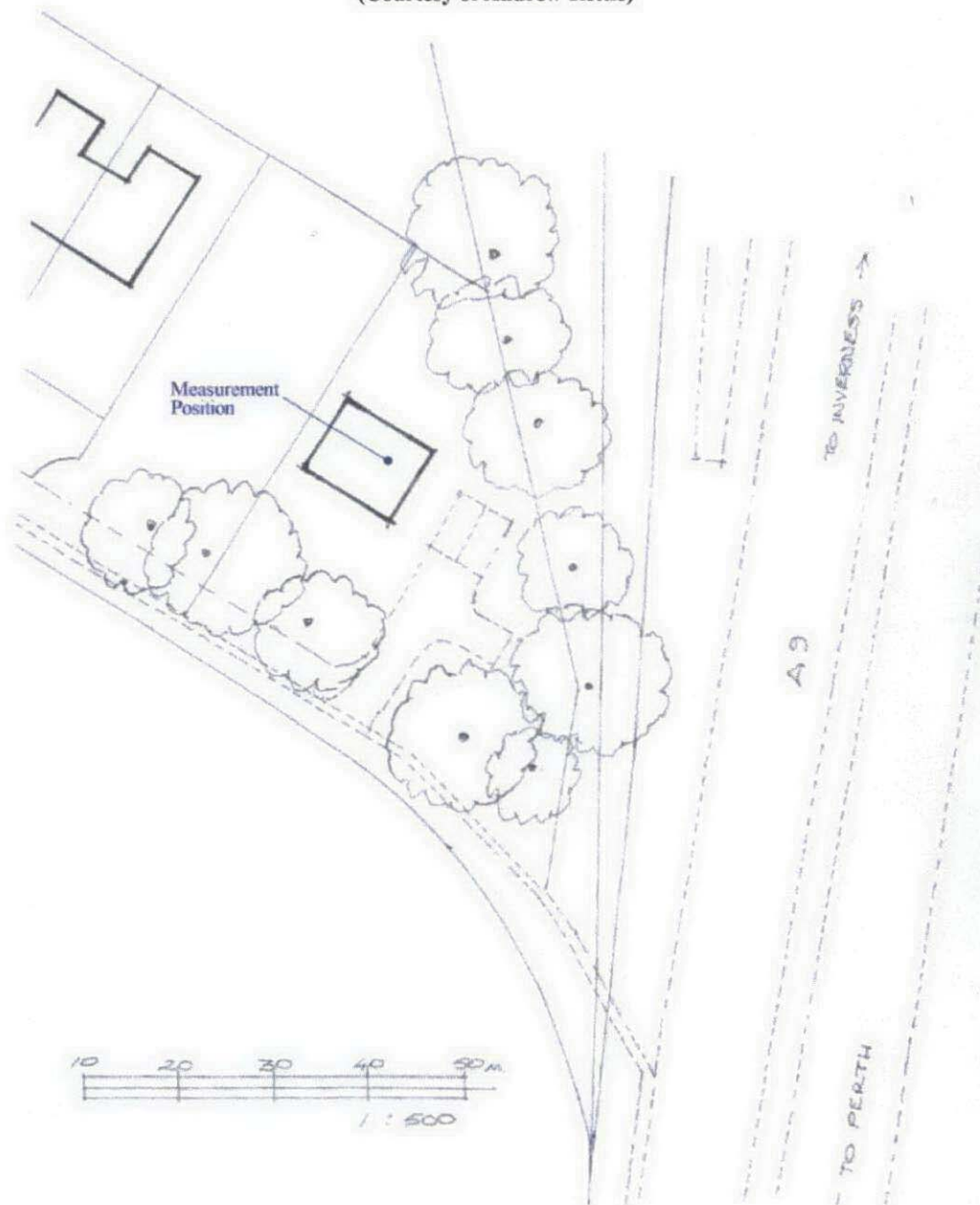
RS Components Digital Anemometer Type RS212-578 AM-4201
Serial No. L482154

2.3 It is usual, in an assessment such as this, to measure the noise close to the most exposed elevation of the house. The principle in this is that, if the noise at the most exposed elevation is acceptable, it follows that it will also be acceptable at the others. The noise was thus measured at the location, shown overleaf on Figure 2, which is reproduced from a drawing titled *Site Plan*, by Andrew Rettie.

In detail, the measurement position was 25m north-east of, at ninety degrees to, the southern boundary of the land on which it is proposed to construct the house. From there it was 20m from the post and wire fence defining the eastern boundary of the land. The microphone of the sound level analyzer was horizontal, at a height of 1.50m above the ground.

Figure 2

Location of Measurement Position
(Courtesy of Andrew Rettie)



- 2.4 The noise was measured over 3 consecutive hourly periods, the shortened procedure suggested in paragraphs 43 and 44 of *Calculation of Road Traffic Noise*³. Measurement procedures were otherwise as specified in Section III of that document.
- 2.5 The L_{AF10} (1-hour) noise levels were measured. The analyzer also measured the equivalent continuous sound levels both in octave bands and with A-weighting applied. All noise levels were measured in decibels referenced to 2×10^{-5} Pa.

- 2.6** The sound level analyzer was calibrated before and after conducting the measurements. On completion of the measurements the calibration level was found not to have changed.

3.0 Road Traffic Noise Level Measurement Results and Discussion

- 3.1 The results of the L_{Aeq} (1-hour) and L_{AF10} (1-hour) noise level measurements are shown below in Table 1.

Table 1

**Measured Sound Pressure Levels, L_{Aeq} and L_{AF10}
(dB re 2×10^{-5} Pa)**

Start of Measurement (hrs:mins:secs)	End of Measurement (hrs:mins:secs)	Duration of Measurement (hrs:mins:secs)	L_{Aeq} dB(A)	L_{AF10} dB(A)
11:10:00	01:00:00	12:10:00	63.1	66.4
12:10:00	01:00:00	13:10:00	63.1	66.0
13:10:00	01:00:00	14:10:00	63.5	66.6
Averages			63.2	66.3

- 3.2 The octave band noise levels measured are shown below in Table 2 and overleaf in Figure 3.

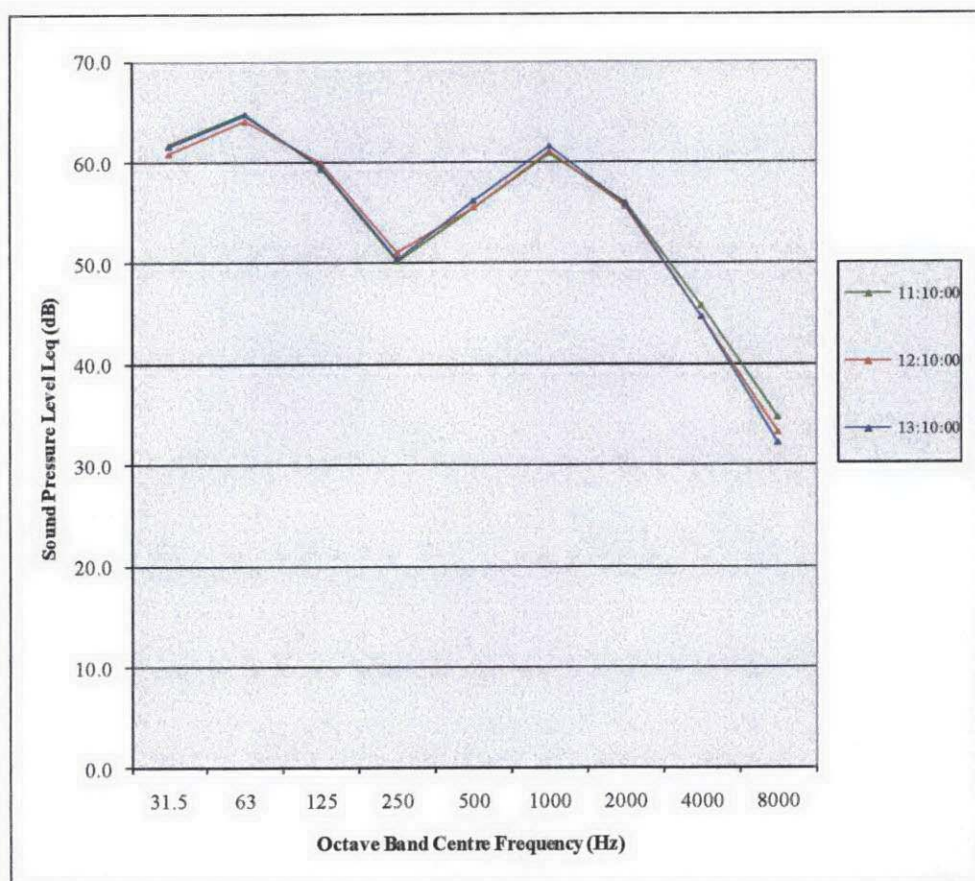
Table 2

**Measured Octave Band Sound Pressure Levels, L_{eq}
(dB re 2×10^{-5} Pa)**

Start of Measurement (hrs:mins:secs)	Octave Band Centre Frequency (Hz)									A
	31.5	63	125	250	500	1000	2000	4000	8000	
11:10:00	61.8	64.9	59.4	50.3	55.6	61.0	56.1	45.8	34.7	63.1
12:10:00	60.9	64.1	60.0	51.1	55.6	61.1	55.7	44.7	33.3	63.1
13:10:00	61.6	64.8	59.6	50.5	56.2	61.6	55.9	44.7	32.2	63.5
Averages	61.4	64.6	59.7	50.6	55.8	61.2	55.9	45.1	33.4	63.2

Figure 3

Measured Octave Band Sound Pressure Levels, L_{eq}
(dB re 2×10^{-5} Pa)



3.3 The noise measured was predominantly that of traffic on the A9. That traffic noise was measured is apparent on Figure 3, in that the spectra shown are characteristic thereof.

3.4 The meteorological conditions prevailing whilst the noise levels were measured were as shown in Table 3 below.

Table 3

Meteorological Conditions Prevailing During Measurements

Time (hrs:mins)	Direction of Wind	Range of Wind Speed (ms^{-1})	Temperature ($^{\circ}$ Centigrade)	Relative Humidity (%)	Atmospheric Pressure (mBars)
11.30	South-west	1.0 to 2.0	4	93	1005
12.30	South-west	1.2 to 2.3	5	87	1005
13.30	South-west	1.0 to 2.5	7	81	1004

- 3.5** During the measurements, the sky was mostly cloudy with a few clear patches. The road surface was dry. The noise level measurements were therefore generally carried out within the meteorological condition "window" given in *Calculation of Road Traffic Noise*³.

One meteorological condition which was not satisfied was clause i) on page 27, which states:

- (i) *the wind direction is such as to give a component from the nearest part of the road towards the reception point exceeding the component parallel to the road:*

That this clause was not satisfied was not important given the distance between the road and microphone. (It is only at distances of 50m and more that the wind significantly affects the propagation of the noise). Furthermore, if satisfying all three conditions relating to wind given in the document³ was considered a fundamental requirement, no measurements would ever be carried out.

4.0 Determination of Level of Significance of Road Traffic Noise

- 4.1 The first stage in the process for assessing the noise levels, as prescribed in TAN 2011², is to conduct the *Quantitative Assessment*, which involves calculating the *Magnitude of Impact* the traffic noise will have on the residents of the proposed house.
- 4.2 To determine the *Magnitude of Impact* of the road traffic noise on the site, it is firstly necessary to calculate the arithmetic average of the three L_{A10} (1-hour) sound pressure levels. This has been done and found to be 66.3dB(A). Using the procedure given in paragraph 43 of *Calculation of Road Traffic Noise*³, 1dB(A) is subtracted from the average of the three L_{A10} (1-hour) levels to give the L_{A10} (18-hour). To relate the L_{A10} (18-hour) value to the L_{Aeq} (07.00hrs to 23.00hrs) used in TAN 2011, a further 2dB(A) must be subtracted, giving a total reduction of 3dB(A). This gives a level L_{Aeq} (07.00hrs to 23.00hrs) of 63.3dB(A).
- 4.3 The noise levels were measured slightly further back from the A9 than where the most exposed elevation of the house will be constructed. The noise at the elevation will, therefore, be slightly greater than that measured because of the reduced distance it will have to travel. The amount by which it will be greater has been calculated³ and found to be 0.4dB(A). This has been added to the L_{Aeq} (07.00hrs to 23.00hrs) to give a level of 64dB(A).
- 4.4 At night, the external noise level, L_{Aeq} (23.00hrs to 07.00hrs), will be around 54dB(A)⁴.
- 4.5 The *Magnitude of Impact* is determined by the amount by which the L_{Aeq} exceeds 45dB(A) at night, and 55dB(A) during the day, as shown below in Table 4.

Table 4

Magnitude of Impacts Associated with Night and Day Exceedance Levels²

Night Noise Level ¹ , $x = (\text{Existing} - 45) L_{Aeq,9h}$	Day Noise Level ¹ , $x = (\text{Existing} - 55) L_{Aeq,16h}$	Magnitude of Impact
> 15	> 10	Major adverse
$10 \leq x \leq 15$	$5 \leq x \leq 10$	Moderate adverse
$5 \leq x < 10$	$3 \leq x < 5$	Minor adverse
$0 \leq x < 5$	$0 \leq x < 3$	Negligible adverse
$x < 0$	$x < 0$	No adverse impact

During the night, the noise of the road traffic is likely to exceed 45dB(A) by around 9dB(A), and will, therefore, have a *Minor adverse* impact on the residents of the house.

During the day, the noise of the road traffic exceeds 55dB(A) by 9dB(A), and will, therefore, have a *Moderate adverse* impact on the residents of the house.

- 4.6 The second stage in the process is to conduct the *Qualitative Assessment*. In this case, however, it is considered that the *Quantitative Assessment* adequately addresses the impact of the road traffic noise on the residents of the house. The final stage is to determine the *Level of Significance* of the traffic noise. This is determined using Table 5, shown below.

Table 5
Significance of Effects²

Magnitude of Impact	Sensitivity of Receptor		
	Low	Medium	High
Major	Slight/Moderate	Moderate/Large	Large/Very Large
Moderate	Slight	Moderate	Moderate/Large
Minor	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral/Slight	Neutral/Slight	Slight
No change	Neutral	Neutral	Neutral

The *Sensitivity of Receptor* will be high as it is a house which is to be constructed. As the impact of the road traffic noise during the night on the residents of the house will be *Minor*, the significance will be *Slight/Moderate*, which are defined in TAN 2011² as:

Slight: These effects may be raised but are unlikely to be of importance in the decision making process.

Moderate: These effects, if adverse, while important, are not likely to be key decision making issues.

The daytime noise will have a *Moderate* impact on the residents of the house. The significance of the noise impact will, therefore, also be *Moderate/Large*, which are defined in TAN 2011² as:

Moderate: These effects, if adverse, while important, are not likely to be key decision making issues.

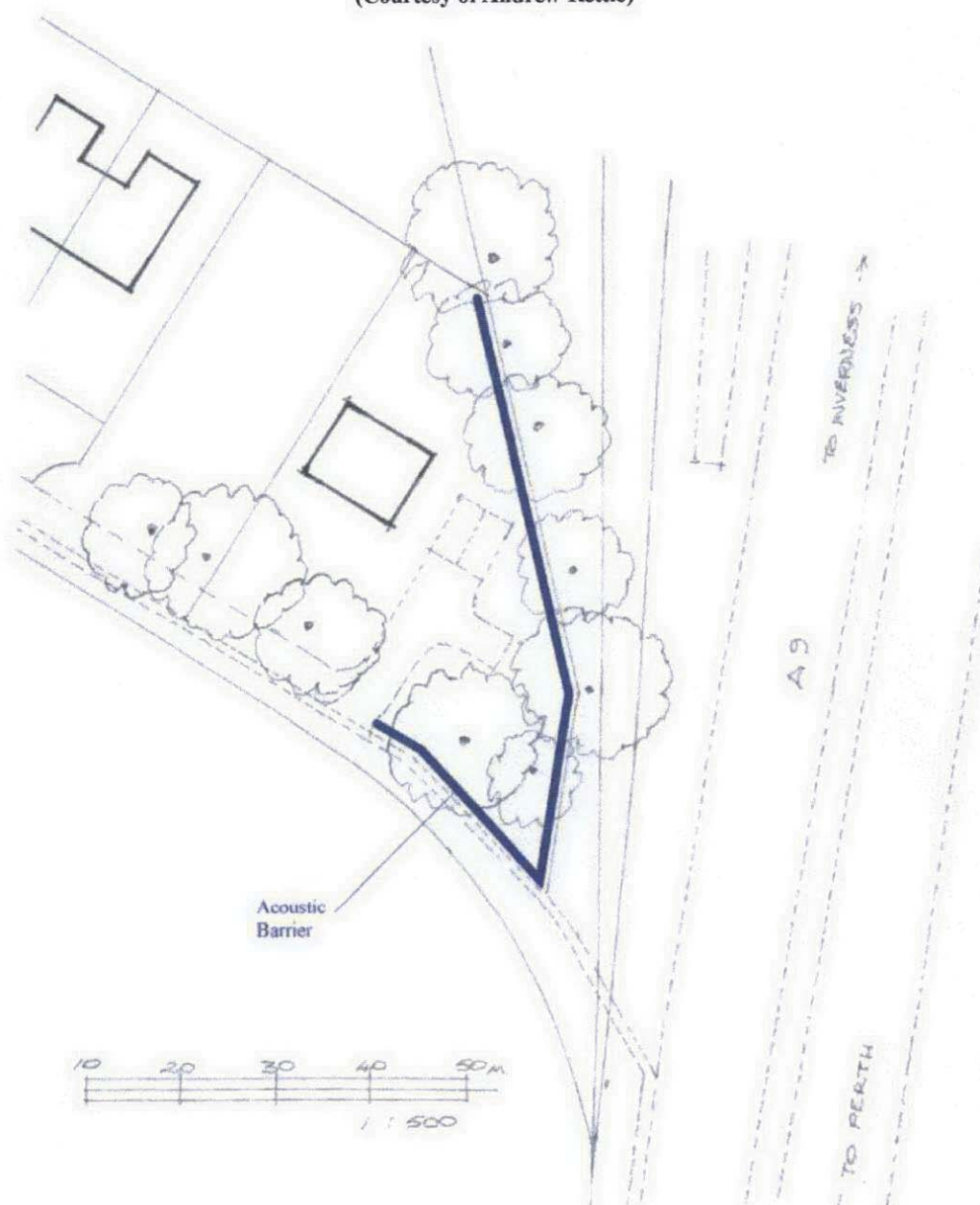
Large: These effects are likely to be important considerations but where mitigation may be effectively employed such that resultant adverse effects are likely to have a *Moderate* or *Slight* significance.

- 4.7 The *Level of Significance* of the traffic noise is thus *Large*. To reduce the noise so that the resultant adverse effects are likely to have a *Moderate* or *Slight* Significance, as quoted in Section 4.6 in *Large*, requires a reduction of 5dB(A). Notwithstanding, it is likely that Perth and Kinross Council's officers will want the noise to be reduced to 55dB(A). A 9dB(A) reduction could be achieved by constructing an acoustic barrier along the boundary of the site with the A9. It would also have to return in a north-westerly direction to the extent shown in blue overleaf on Figure 4.

The barrier would have to be 102.6m high, as per the levels shown in *Site Plan* by Andrew Rettie. The barrier could be constructed of stone, concrete blockwork, brickwork, earth bunding, 25mm thick timber fencing with overlapping boards, or any combination of these materials.

Figure 4

Extent of Acoustic Barrier
(Courtesy of Andrew Rettie)



- 4.8 The acoustic barrier will almost certainly reduce the noise inside the house at ground floor level to the 35dB(A) limit given in TAN 2011. To confirm that this will be the case, the internal noise levels are calculated in Section 5.0.

5.0 Calculations to Determine Internal Levels of Road Traffic Noise

- 5.1 When this report was being prepared, the house had not been designed and so it was assumed that it would be typical of houses being built in Scotland just now. The noise has been calculated in the lounge of the house using the equation given below. It has been assumed that the lounge is on the north-eastern elevation of the building. This is perhaps unlikely, but some form of living room might be on this side of the house.

$$L_{\text{Internal}} = L_{\text{External}} - R + 10 \log S - 10 \log 0.161 V + 10 \log T$$

Where, R = sound reduction index of elevation.
 S = area of elevation.
 V = volume of receiving room.
 T = reverberation time of receiving room.

- 5.2 The average octave band noise levels, shown earlier in bold print in Table 2, were used as the basis of the external noise level, L_{External} , as this is more accurate than using the A-weighted level alone. The A-weighted level corresponding to the average octave band levels is 63.2dB(A), which is 0.1dB(A) less than the $L_{\text{Aeq}}(07.00\text{hrs to } 23.00\text{hrs})$ of 63.3dB(A). Hence 0.1dB(A) must be added to the octave band levels, as shown overleaf in Table 6, which shows the variables used in the calculations.

- 5.3 As mentioned in Section 4.3, the noise levels were measured slightly further back from the A9 than where the north-eastern elevation of the house will be constructed. The noise at the elevation will, therefore, be greater in level than that measured because of the reduced distance it will have to travel. The amount by which it will be greater has been calculated³ and found to be 0.3dB(A). This has been added to the octave band levels, as shown overleaf in Table 6.

- 5.4 The effect of the acoustical barrier, described in Section 4.7, has been calculated and subtracted from the noise levels as shown overleaf in Table 6.

- 5.5 The noise levels were measured in the free-field, as is required by TAN 2011². When the house is constructed, its north-eastern elevation will cause a slight façade effect. This is normally taken to increase the noise by 2.5dB(A)³, for an angle of incidence of 90 degrees, but has been taken to be 1dB(A) in this case.

- 5.6 The ingress of sound through the elevation of the house into the lounge will be determined by the transmission path through the glazing, this being far greater than that through the concrete blockwork.

The glazing was assumed to be at least the minimum standard required in the *Building Standards (Scotland) Regulations* for thermal insulation, of 2 panes of 6mm thick glass separated by a 16mm wide cavity. The sound reduction indices of this glazing have been derived from values given in the literature^{5&6}. The sound reduction index of the open parts of the windows has been taken to be 0dB.

- 5.7 The dimensions of the windows of the lounge were assumed to be the same as those in a house built by Taylor Wimpey in its development off Balgillo Road in Dundee, and the area calculated to be 1.8m².

- 5.8** The dimensions of the lounge were taken to be the same as those of the house mentioned earlier in Section 5.7, and the volume calculated to be 42m³.
- 5.9** The reverberation times of the room have been taken to be the same as those measured by Charlie Fleming Associates in a lounge in a house in Whitburn, in West Lothian. These are shown in Table 6 below.
- 5.10** The variables discussed in Sections 5.2 to 5.9 have been incorporated into the equation, given earlier in Section 5.1, as shown below in Table 6.

Table 6

Calculation of Internal Traffic Noise Levels, L_{eq}
(dB re 2 x 10⁻⁵ Pa)

Parameter	Octave Band Centre Frequency (Hz)								
	31.5	63	125	250	500	1000	2000	4000	8000
Level <i>External</i>	61.4	64.6	59.7	50.6	55.8	61.2	55.9	45.1	33.4
Correction to 16 hour level	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Correction for Distance	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Correction Barrier Effect	-5.0	-5.1	-5.2	-5.4	-5.8	-6.6	-7.8	-9.7	-12.2
Correction for Facade Effect	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R <i>Glazing</i>	24.7	24.7	21.9	20.1	29.5	37.9	35.1	39.6	39.6
10log S	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
10log 0.161 x V	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
T	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3
10log T	-1.4	-2.2	-3.0	-4.0	-3.9	-4.3	-4.9	-5.4	-5.4
Level <i>Internal</i>	26.0	28.2	25.2	16.7	12.3	8.1	3.7	-14.0	-28.1

Figures shown in italicised print have been extrapolated.

- 5.11** The “Level *Internal*”, L_{Aeq} (07.00hrs to 23.00hrs), is 15dB(A), with the windows closed, which is well within the 35dB(A) daytime limit given in TAN 2011². With the windows 5% open, the level will be 35dB(A), which just within the limit. These calculations included the effect of the acoustical barrier described in Section 4.7.
- 5.12** As explained in Section 4.4, the external L_{Aeq} (23.00hrs to 07.00hrs) will be around 54dB(A). Based on this, the noise level in a bedroom, which may be on the north-eastern elevation of the house, has been calculated. With the window closed, the noise level was calculated to be 6dB(A), which is well within the 30dB(A) night-time limit given in TAN 2011. With the window 5% open, the level will be 27dB(A), which is also within the limit. These calculations do not include any effect of the acoustical barrier described in Section 4.7 as it is not tall enough.

6.0 Conclusions

6.1 Mr Neil Donald proposes to construct a house on a plot of land known as *The Paddocks*, at Redgorton, near Luncarty in Perthshire. The A9 trunk road runs close to the eastern edge of the land. The concern was raised, by officers of Perth & Kinross Council, that the noise of the traffic on the A9 might disturb the residents of the proposed house. Charlie Fleming Associates was appointed, by Mr Donald, to measure the noise and determine whether this would be the case and, if necessary, recommend how to reduce it.

6.2 The noise of the traffic was measured as described in Section 2.0 of this report, and the results are presented in Section 3.0.

6.3 In Section 4.0, the noise levels have been assessed as prescribed in The Scottish Government publication *Planning Advice Note 1/2011 Planning and Noise*¹ (PAN 1/2011). PAN 1/2011, in turn, refers to *Technical Advice Note Assessment of Noise*² (TAN 2011). TAN 2011 requires the *Magnitude of Impact* and *Significance of Effects* to be worked out.

6.4 During the night, the impact of the road traffic noise on the residents of the house will be *Minor*, and the significance will be *Slight/Moderate*, which are defined in TAN 2011 as:

Slight: *These effects may be raise but are unlikely to be of importance in the decision making process.*

Moderate: *These effects, if adverse, while important, are not likely to be key decision making issues.*

The daytime noise will have a *Moderate* impact on the residents of the house, and the significance will be *Moderate/Large*. *Large* is defined in TAN 2011 as:

Large: *These effects are likely to be important considerations but where mitigation may be effectively employed such that resultant adverse effects are likely to have a Moderate or Slight significance.*

6.5 To reduce the noise in the garden of the house to the 55dB(A) limit, which it is anticipated Perth & Kinross Council will impose, an acoustical barrier could be erected, as described in Section 4.7.

6.6 The noise levels likely inside the house are calculated in Section 5.0, and found to be within the limits given in TAN 2011.



Eur Ing Charlie Fleming BSc MSc CEng FIOA MCIBSE MIET

7.0 References

- 1) The Scottish Government, *Planning Advice Note PAN 1/2011 Planning and Noise*, Crown Copyright 2011, ISBN 978-1-78045-043-8 (web only).
- 2) The Scottish Government, *Technical Advice Note TAN 2011 Assessment of Noise*, Crown Copyright 2011, ISBN 978-1-78045-042-1 (web only).
- 3) Department of Transport, *Calculation of Road Traffic Noise*, HMSO, London, 1988, ISBN 0-11-550847-3.
- 4) Highways Agency, *Design Manual for Roads and Bridges: Volume 11 Environmental Assessment*, Section 3, Part 7, paragraph 3.7, The Stationery Office, London 2006, ISBN 10: 0115527648.
- 5) Saint Gobain, *Acoustic Performance of Glazing*.
- 6) Inman C., *A Practical Guide to the Selection of Glazing for Acoustic Performance in Buildings*, *Acoustics Bulletin*, **19**, (5), September/October 1994, pp19-24.

A1.0 Appendix: Basic Principles of Acoustics

A1.1 Sound Pressure

The sound we hear is due to tiny changes in pressure in the air, caused by something disturbing the air, such as a loudspeaker cone moving back and forward, the blades of a fan heater going round, the moving parts of a car engine, and so on. From the initial point of the disturbance the sound travels to the receiver in the form of a wave. It is not like a wave in water, rather like one that would travel along a stretched spring, such as a child's *Slinky* toy laid flat on the ground and "pinged" at one end. Whether the human ear can hear the sound wave as it travels through the air, however, depends on the size of the disturbance and the frequency of it. That is, if the loudspeaker moves very slightly we may not be able to hear the changes in air pressure that it causes because they are too small for the ear to detect. The magnitude of sound pressures that the human ear can detect ranges from about 0.00002 Pascals (Pa) to 200Pa. This enormous range presents difficulties in calculation and so, for arithmetic convenience, the sound pressure is expressed in decibels, dB. Decibels are a logarithmic ratio as shown below:

$$\text{Sound Pressure Level } L \text{ (dB)} = 20 \log_{10} \{p/p\}$$

Where p = the sound pressure to be expressed in dB

and P = reference sound pressure 0.00002Pa

Hence, if we substitute 0.00002Pa, the smallest sound the ear can hear, for p , the result is 0dB. Conversely, if we substitute 200Pa, the loudest sound the ear can hear, for p , the result is 140dB. Hence, sound is measured in terms of sound pressure level in dB relative to 0.00002Pa.

A1.2 Range of Audible Sound Pressure Levels

An approximate guide to the range of audible pressures is presented overleaf in Table A1. The sound pressure levels noted are typical of the source given and should not be considered to be precise. The notes in the "Threshold" column of the Table are for general guidance, the sound pressure levels of those thresholds varying between individuals.

Table A1

Range of Audible Sound Pressure Levels and Sound Pressures

Sound Pressure Level (dB re 2x10 ⁻⁵ Pa)	Sound Pressure (Pa)	Source	Threshold of:
160	2000	Rifle at ear	Damage
140	200	Jet aircraft take off @ 25m	Pain
120	20	Boiler riveting shop	Feeling
100	2	Disco, noisy garden centre	
80	0.2	Busy street	
60	0.02	Conversation @ 2m	
40	0.002	Quiet office or living room	
20	0.0002	Quiet, still night in country	
0	0.00002	Acoustic test laboratory	Hearing

A1.3 Frequency and Audible Sound

Returning to the example of the loudspeaker cone, if it moves back and forward very slowly, for example once or twice a second, then we will not be able to hear the sound because the ear cannot physically respond to such a low frequency sound. Human ears are sensitive to sound pressure waves with frequencies between about 30Hertz (Hz) and 16,000Hz, where Hz is the unit of frequency and is also known as the number of cycles per second. That is, the number of times each second that the loudspeaker cone moves in and out, the fan blade goes round, etc. At the other end of the frequency spectrum, a sound with a frequency of 30,000Hz will also be inaudible, again because the ear cannot physically respond to sound pressure waves having such a high frequency.

Across the audible frequency range, the response of the ear varies. For example, a sound having a frequency of 63Hz will not be perceived as being as loud as a sound of exactly the same sound pressure level, having a frequency of 250Hz. A sound having a frequency of 500Hz will not be perceived as being as loud as a sound of the same sound pressure level with a frequency of 1,000Hz. Indeed, for a given sound pressure level, the hearing becomes progressively more sensitive as the frequency increases up to around 2,500Hz. Thereafter, from 2,500Hz upwards to about 16,000Hz, the sensitivity decreases, with sounds having frequencies above 16,000Hz being inaudible to most adults.

Virtually all sounds are made up of a great many component sound waves of different sound pressure levels and frequencies combined together. To measure the sound pressure level contributed at each of the frequencies between 30Hz and 16,000Hz, that is, 15,970 individual frequencies, would require 15,970 individual measurements. This would yield a massive, unwieldy amount of data.

A1.4 Octave Bands of Frequency

As a compromise, the sound pressure level in particular ranges, or "bands", of frequencies can be measured. One of the commonest ranges of frequency is the octave band. An octave band of frequencies is defined as a range of frequencies with an upper limit twice the frequency of the lower limit, eg 500Hz to 1,000Hz. This octave is exactly the same as a musical octave, on the piano, violin, etc, or *doh* to high *doh* on the singing scale. Octave bands are defined in international standards and are identified by their centre frequency. Sound measurements are generally made in the eight octave bands between 63Hz and 8,000Hz. This is because human hearing is at its most sensitive, in terms of its frequency response, over this range of frequencies. Furthermore, the sound waves that make up speech have frequencies in this range.

A1.5 Linear, (Lin) Measurement of Sound

A measurement that encompasses all the frequencies making up the sound. It is the most basic of measurements as it only provides a single value of the magnitude of the noise or vibration, with no information as to the frequency content of the noise, which is useful in the analysis of problems. It is also used to describe sounds which have approximately equal contributions across the frequency range.

A1.6 "A-Weighting" and dB(A)

Whilst an octave band analysis gives quite detailed information as to the frequency content of the sound, it is rather clumsy in terms of presenting results of measurements, that is, having to note sound pressure levels measured at eight separate octave bands. Furthermore, the ear hears all these separate frequency components as a whole and thus it would seem sensible to measure sound in that way.

When sound pressure level is measured with a sound level meter, the instrument can analyse the sound in terms of its octave band content as described above in section A1.4, or measure all the frequencies at once. Bearing in mind that the response of the ear varies with frequency, the sound level meter can apply a correction to the sound it is measuring to simulate the frequency response of the ear. This correction is known as "A-weighting" and sound pressure levels measured with this applied are described as having been measured in dB(A).

A1.7 Variation of Sound Level With Time

Virtually all sounds vary with time. For example, speech, music, a person hammering, road traffic, an aircraft flying overhead, all vary with respect to time. Various terms can be applied to describe the temporal nature of a sound as shown in Table A2.

Table A2

Examples of the Temporal Nature of Sound

Description	Example of Noise Source
Constant or steady state	Fan heater, waterfall
Impulsive	Gun shot, hammer blow, quarry blast
Irregular or fluctuating	Road traffic, speech, music
Cyclical	Washing machine, grass mowing
Irregular impulsive	Clay pigeon shooting
Regular impulsive	Regular hammering, tap dripping, pile driving

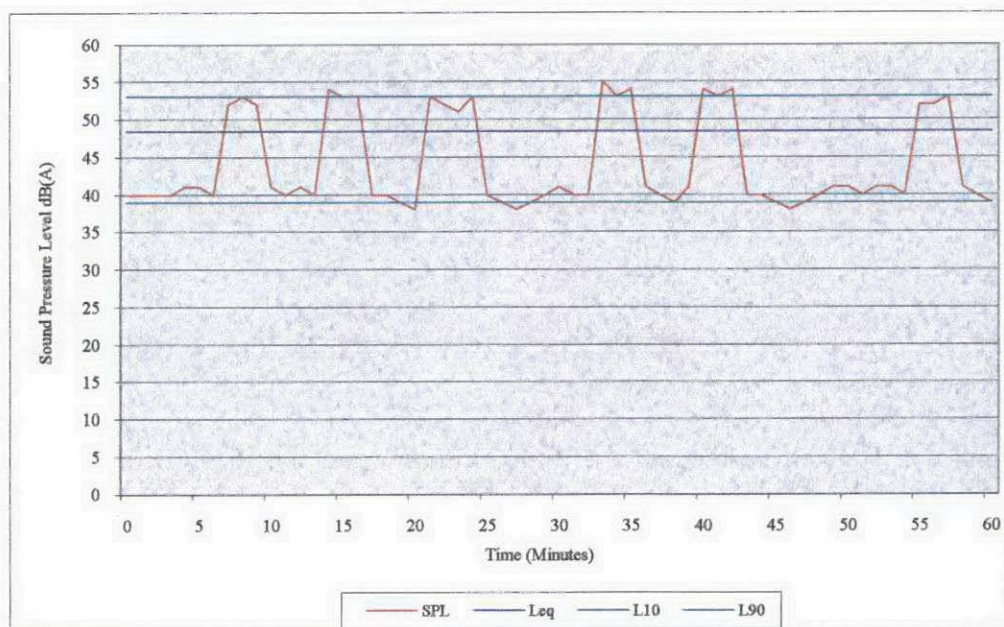
In practice, combinations of virtually any of the above can exist. In measuring noise it is necessary to deal with the level as it varies with respect to time.

A1.8 Time History

Consider the time history, as it is known, shown overleaf in Figure A1. Note that it is not an actual time history, rather an approximate representation of that which a person might experience some 100m away from a building site on which a man is operating a pneumatic drill.

Figure A1

Example of Time History of Construction Site Noise



The noise of the compressor and other activity on the site is reasonably constant with time, having a level of between 38dB(A) and 41dB(A). When the drill operates the noise level rises to between around 51dB(A) and 55dB(A).

A measurement of the noise between the 25th minute and the 32nd minute, when the noise is that of the compressor, would result in a level of about 40dB(A). This is very different from the result of a measurement made between the 33rd minute and the 35th minute, when the drill is operating, which would give a noise level of about 54dB(A). In the past acousticians therefore had to develop some way of measuring the noise which gives us information as to its variation in time. The easiest parameters to understand are the maximum and minimum levels, in this case 55dB(A) and 38dB(A) respectively. These do not tell us much about the noise other than the range of levels involved. The most widely used parameter is the equivalent continuous sound level, L_{eq} , which is explained in Section A1.9.

A1.9 Equivalent Continuous Sound Level, L_{eq}

A representative measurement of the noise to which the person in the example is exposed must deal with these changes in level. This can be done by measuring what is known as the equivalent continuous sound level, denoted as L_{eq} . If the measurement has been made in dB(A) it can be denoted as L_{Aeq} and expressed in dB. This is the sound level which, if maintained continuously over a given period, would have the same sound energy as the actual sound (which varied with time) had. In the example the L_{eq} is 48.4dB(A) and it is shown on Figure A1 as a blue line. In layman's terms it may be considered to be the average of the sound over a period of time.

A1.10 Percentiles, L_x , L_{10}

Another parameter often used in describing noise is the percentile. This is a statistical parameter and with respect to noise is that level exceeded for $x\%$ of the measurement period. Hence the L_{10} is that level which was exceeded for 10% of the measurement period. In the example this is 53dB(A) and it is shown in green on Figure A1. It can be seen to be a reasonable representation of the typical value of the peaks in the time history. The L_{10} is often used to describe road traffic noise, such as in the *Calculation of Road Traffic Noise* by the Department of Transport and in the *Noise Insulation Regulations 1975/1988*.

A1.11 Time Weighting, Fast, L_F , or Slow, L_S

Time weighting refers to the speed at which the sound level meter follows variations in the time history. The “fast” weighting of 125 milli-seconds corresponds to the way in which the human ear follows sound. The “slow” weighting effectively introduces more averaging of the noise. Note that the L_{eq} is independent of the time weighting, which only applies in the measurement of maxima, minima and percentiles.

A1.12 Free-field

As sound propagates from the source it may do so freely, or it may be obstructed in some way by a wall, fence, building, earth bund, etc. The former is known as free-field propagation. The noise exposure categories prescribed in PAN56 are based on free-field noise levels.

A1.13 Façade Effect

When sound is reflected back towards its source, off a surface, such as a wall, the reflected and incident sound waves interfere constructively, causing what is known as façade effect, or pressure doubling. This increases the noise, compared to that which exist in free-field, by 2.5dB(A)³ for traffic noise, or 3.0dB(A) for other sources.

A1.14 Level Difference, D

This is the most basic of sound transmission measurements. It is the difference in sound pressure level due to a building element, that is, a floor or wall. It is determined by placing a sound source in one room, measuring the sound pressure level in that room, which is then known as L_1 (source). Whilst the sound source is still radiating, the sound pressure level is measured in the room upstairs in the flat below, for a floor test, or next door through the separating wall, for a wall test. This is known as L_2 (received). The level difference D is then simply:

$$\text{Level Difference } D = L_1 \text{ (source)} - L_2 \text{ (received)}$$

Hence the parameter D represents the reduction in sound pressure level that occurs as the sound passes from one room to another through the floor or wall. This applies equally to the noise of televisions, hi-fi systems, speech and so on, as it does to the noise used in conducting the test. The greater the value of D the better the “sound insulation”. This can be seen if we re-arrange the above equation and work out the received level as:

$$L_2 \text{ (received)} = L_1 \text{ (source)} - \text{Level Difference } D$$

That is, for a given source of noise such as a television, the bigger the level difference D , the less L_2 (received) will be.

A1.15 Sound Reduction Index, R

The level difference described above is a function of the wall in terms of how much sound is transmitted through that element. It is, however, also a function of the acoustical absorption in the receiving room, and the area of the wall radiating the sound.

Considering the acoustical absorption first, for example, the same sound energy will be transmitted through a wall depending on the construction of that element. If the receiving room is full of furniture, curtains and carpeting, the measured sound pressure level L_2 (received) will be less than if all the furnishings were removed. Thus, with the furnishings present, D , equal to L_1 (source) - L_2 (received) will be greater, (because L_2 (received) will be less). If the furnishings are removed, L_2 (received) will increase as there is no longer anything to absorb the sound, and hence D will decrease.

The level difference D is also a function of the area of the partition radiating the sound from one room to the other. The bigger the area, the more sound will be transmitted, the received level will increase, and the difference D will decrease.

To determine the sound transmission performance of the wall itself, regardless of the effect of the acoustical absorption in the receiving room, and the area of the partition, the sound reduction index R is defined as:

$$R = D + 10 \log S - 10 \log A$$

Where S = area of wall radiating sound into receiving room.

A = the acoustical absorption in the receiving room.

A1.16 Composite Sound Reduction Index, $R_{\text{Composite}}$

This is the sound reduction index of a building element which consists of 2 or more component parts. For example, the façade of a building may consist of brickwork and several windows. The composite sound reduction index is that of the whole element and is derived from the sound reduction indices of the components, multiplied by their respective areas, divided by the total area of the element. As the sound transmission through a façade is usually through the window, and planners insist on windows being open, S_1 is the area of the glass, and S_2 is the area of the open part of the window. In this case;

$$R_{\text{Composite}} = 10 \log 1/\tau_{\text{Composite}}$$

$$\text{Where } \tau_{\text{Composite}} = (S_1\tau_1 + S_2\tau_2)/(S_1 + S_2)$$

$$\text{and } R_1 = 10 \log 1/\tau_1$$

$$\text{or, } \tau_1 = 10^{(-R_1/10)}$$

$$\text{and } R_2 = 10 \log 1/\tau_2$$

$$\text{and, } \tau_2 = 10^{(-R_2/10)}$$

A1.17 Reverberation Time, T

The acoustical absorption of a room can be quantified by measuring what is called the reverberation time, in seconds, of the room.

$$A = 0.161 V / T$$

where V = volume of the room.

In turn, the reverberation time is defined as the time taken for the sound pressure level in a room to decay to -60dB relative to its original value from the time the sound source is switched off. It may be subjectively described as a measure of the amount of echo in a room, which is dependent on the room's volume, internal surface area and acoustical absorption.

TCP/11/16(257)

Planning Application 13/00672/IPL – Erection of a dwellinghouse (in principle) at The Paddocks, Redgorton, Perth, PH1 3EL

REPRESENTATIONS

- Representation from Policy Officer (Access and Infrastructure), dated 11 April 2013 (*included in applicant's submission, see pages 309-310*)
- Representation from Regulatory Services Manager, dated 1 May 2013
- Representation from Transport Planning, dated 9 May 2013

Memorandum

To	Development Quality Manager	From	Regulatory Services Manager
Your ref	PK13/00672/IPL	Our ref	ME
Date	1 May 2013	Tel No	(01738) 476456

The Environment Service

Pullar House, 35 Kinnoull Street, Perth PH1 5GD

Consultation on an Application for Planning Permission

RE: Erection of a dwellinghouse (in principle) The Paddocks Redgorton Perth PH1 3EL for Mr Neil Donald

I refer to your letter dated 8 April 2013 in connection with the above application and have the following comments to make.

Environmental Health (assessment date 1/5/2013)

The application proposes the erection of a dwelling in close proximity to the A9 trunk road. I refer to the previous comments made by this service on 12/01671/IPL for the erection of a dwelling house at this location when a request for a noise impact assessment was made.

This service still does not consider this location to be ideally suited to domestic residence and assumes that vehicle noise at this location may well be a material consideration in your assessment of residential amenity of future occupiers of these dwellings.

I have no doubt that future occupiers of the proposed properties could not fail, day and night, to be very aware of noise and vibration from passing vehicles, however I have no statutory powers to deal with road traffic noise movements.

There is precedent within Perth and Kinross for the development of dwellings in close proximity to major roads and it is possible to mitigate noise and vibration problems. The applicant has submitted a Road Traffic Noise Report carried out in accordance with PAN1/TAN1 guidance. I accept that the measurements and calculations are correct. The report proposes mitigation measures such that an acceptable level of amenity is ensured for the proposed development. i.e. the construction of an acoustic barrier.

I have no objections to the application but recommend that the undernoted condition be included in any given consent.

Condition

An acoustic barrier shall be constructed along the boundary of the site with the A9 and along the north-westerly boundary of the site. The barrier shall be 103 metres above road level, the equivalent of 2 metres above ground level. The barrier shall be constructed of stone, concrete blockwork, brickwork, earth bunding, 25mm thick timber fencing with overlapping boards or any combination of these materials.

Contaminated Land (assessment date 9/4/2013)

A search of the historic records did not raise any concerns regarding ground contamination, therefore I have no adverse comments to make on the application.

A handwritten signature or set of initials, possibly 'KS', written in black ink.



MEMORANDUM

To	Andy Baxter Planning Officer	From	Niall Moran Transport Planning Technician Transport Planning
Our ref:	NM	Tel No.	Ext 76512
Your ref:	13/00672/IPL	Date	9 May 2013

Pullar House, 35 Kinnoull Street, Perth, PH1 5GD

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 & ROADS (SCOTLAND) ACT 1984

With reference to the application 13/00672/IPL for planning consent for:- **Erection of a dwellinghouse (in principle) The Paddocks Redgorton Perth PH1 3EL for Mr Neil Donald**

Insofar as the Roads matters are concerned I do not object to the proposed development provided the conditions indicated below are applied, in the interests of pedestrian and traffic safety.

- Prior to the occupation or use of the approved development the vehicular access shall be formed in accordance with specification Type B, Fig 5.6 access detail to the satisfaction of the Planning Authority.
- Prior to the occupation or use of the approved development turning facilities shall be provided within the site to enable all vehicles to enter and leave in a forward gear.
- Prior to the occupation or use of the approved development a minimum of 2 No. car parking spaces shall be provided within the site.

The applicant should be advised that in terms of Section 56 of the Roads (Scotland) Act 1984 he must obtain from the Council as Roads Authority consent to open an existing road or footway prior to the commencement of works. Advice on the disposal of surface water must be sought at the initial stages of design from Scottish Water and the Scottish Environmental Protection Agency.

I trust these comments are of assistance.

