

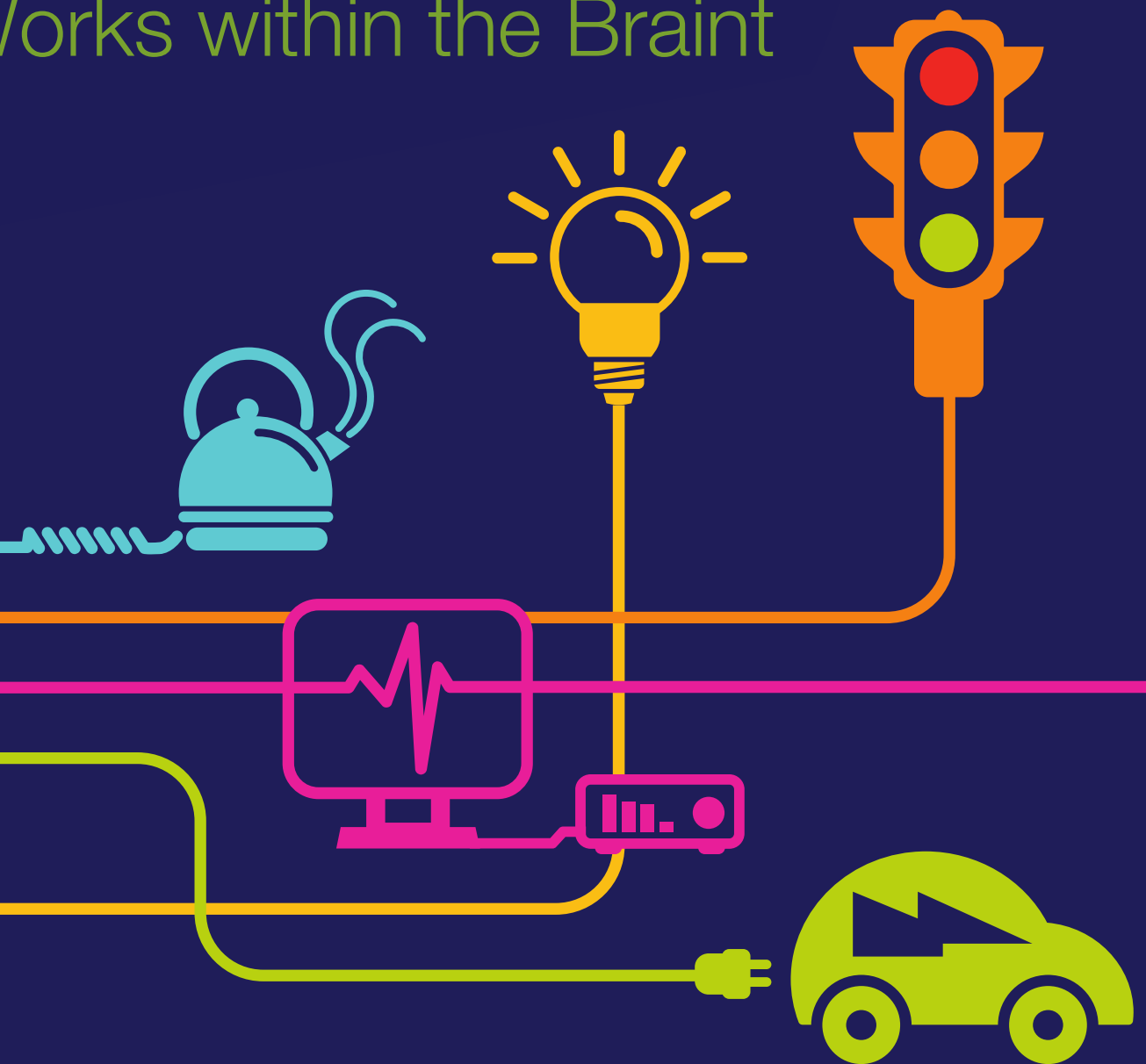
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## Assessment of Noise Effects from Works within the Braint Construction Compound

### Chapter 15 – Appendix 12

National Grid (North Wales Connection Project)

*Regulation 5(2)(a) including (l) and (m) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009*







## **North Wales Connection Project**

### **Volume 5**

## **Document 5.15.2.12 Appendix 15.12 Assessment of Noise Effects from Works within the Braint Construction Compound**

National Grid  
National Grid House  
Warwick Technology Park  
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CV34 6DA

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# 1. Enabling Works

## 1.1 ENABLING WORKS - DAYTIME EFFECTS

Enabling Works - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	42	60	60	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	42	63	63	0	No Effect
C5/00459	Shop / Showroom	Low	42	63	63	0	No Effect
C5/00460	Shop / Showroom	Low	42	63	63	0	No Effect
C5/00462	Retail	Low	42	63	63	0	No Effect
C5/00464	Shop / Showroom	Low	42	63	63	0	No Effect
C5/00465	Shop / Showroom	Low	42	63	63	0	No Effect
C5/00469	Shop / Showroom	Low	42	64	64	0	No Effect
C5/00490	Commercial	Low	53	48	54	6	Very Low
C5/00525	Other Educational Establishment	Medium	41	45	46	1	Very Low
C5/00544	Retail	Low	43	48	49	1	Very Low
C5/00559	Retail	Low	42	53	53	0	No Effect
C5/00560	Shop / Showroom	Low	42	53	53	0	No Effect
C5/00561	Shop / Showroom	Low	42	53	53	0	No Effect
R5/02613	Dwelling	Medium	42	52	52	0	Very Low
R5/02635	Detached	Medium	44	48	49	1	Very Low
R5/02636	Detached	Medium	44	48	49	1	Very Low
R5/02641	Detached	Medium	44	48	50	2	Very Low
R5/02649	Dwelling	Medium	43	58	58	0	No Effect
R5/02654	Dwelling	Medium	42	58	58	0	No Effect
R5/02678	Dwelling	Medium	43	45	47	2	Very Low
R5/02687	Dwelling	Medium	43	62	62	0	No Effect

Enabling Works - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02691	Dwelling	Medium	42	67	67	0	No Effect
R5/02705	Dwelling	Medium	43	61	61	0	No Effect
R5/02725	Dwelling	Medium	48	48	51	3	Very Low
R5/02726	Dwelling	Medium	42	64	64	0	No Effect
R5/02728	Semi-Detached	Medium	42	63	63	0	No Effect
R5/02731	Dwelling	Medium	42	60	60	0	No Effect
R5/02741	Dwelling	Medium	42	58	58	0	No Effect
R5/02743	Dwelling	Medium	42	60	60	0	No Effect
R5/02751	Dwelling	Medium	41	58	58	0	No Effect
R5/02761	Dwelling	Medium	42	59	59	0	No Effect
R5/02812	Detached	Medium	42	57	58	0	No Effect
R5/02815	Dwelling	Medium	54	45	54	9	Very Low
R5/02878	Detached	Medium	49	45	50	5	Very Low
R5/02908	Dwelling	Medium	44	60	60	0	No Effect
R5/02914	Dwelling	Medium	44	58	58	0	No Effect
R5/02917	Dwelling	Medium	44	60	60	0	No Effect
R5/02920	Dwelling	Medium	44	60	60	0	No Effect
R5/02925	Dwelling	Medium	44	59	59	0	No Effect
R5/02927	Dwelling	Medium	44	59	60	0	No Effect
R5/02929	Dwelling	Medium	42	45	47	2	Very Low
R5/02987	Dwelling	Medium	55	48	56	8	Very Low
R5/02996	Detached	Medium	43	57	57	0	No Effect
R5/02998	Dwelling	Medium	43	57	57	0	No Effect
R5/03013	Caravan	Medium	43	57	57	0	No Effect
R5/03134	Dwelling	Medium	49	55	56	1	Very Low
R5/03211	Dwelling	Medium	44	45	47	2	Very Low
R5/03236	Dwelling	Medium	43	45	47	2	Very Low
R5/03353	Dwelling	Medium	44	66	66	0	No Effect

Enabling Works - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03383	Dwelling	Medium	44	48	49	1	Very Low
R5/03422	Dwelling	Medium	44	48	49	1	Very Low
R5/03423	Dwelling	Medium	48	52	53	2	Very Low
R5/03425	Dwelling	Medium	48	52	53	2	Very Low
R5/03427	Dwelling	Medium	44	59	59	0	No Effect
R5/03429	Dwelling	Medium	48	52	53	2	Very Low
R5/03435	Dwelling	Medium	48	52	53	2	Very Low
R5/03438	Dwelling	Medium	44	59	59	0	No Effect
R5/03440	Dwelling	Medium	48	52	53	1	Very Low
R5/03443	Dwelling	Medium	48	52	53	1	Very Low
R5/03460	Dwelling	Medium	44	58	58	0	No Effect
R5/03469	Dwelling	Medium	44	58	58	0	No Effect
R5/03475	Terraced	Medium	43	59	59	0	No Effect
R5/03482	Terraced	Medium	43	58	59	0	No Effect
R5/03484	Dwelling	Medium	44	57	58	0	No Effect
R5/03493	Terraced	Medium	43	58	58	0	No Effect
R5/03496	Dwelling	Medium	43	57	57	0	No Effect
R5/03505	Dwelling	Medium	43	57	57	0	No Effect
R5/03513	Terraced	Medium	43	58	58	0	No Effect
R5/03516	Dwelling	Medium	43	57	57	0	No Effect
R5/03521	Terraced	Medium	43	58	58	0	No Effect
R5/03533	Terraced	Medium	43	58	58	0	No Effect
R5/03554	Dwelling	Medium	43	57	57	0	No Effect
R5/03565	Dwelling	Medium	43	57	57	0	No Effect
R5/03576	Dwelling	Medium	43	57	57	0	No Effect
R5/03591	Dwelling	Medium	43	57	57	0	No Effect
R5/03607	Dwelling	Medium	43	57	57	0	No Effect
R5/03617	Dwelling	Medium	43	56	56	0	No Effect

Enabling Works - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03647	Dwelling	Medium	43	56	56	0	No Effect
R5/03691	Dwelling	Medium	42	56	56	0	No Effect
R5/03694	Dwelling	Medium	42	57	57	0	No Effect
R5/03705	Dwelling	Medium	42	57	57	0	No Effect
R5/03723	Dwelling	Medium	42	56	56	0	No Effect
R5/03726	Dwelling	Medium	42	55	55	0	No Effect
R5/03741	Dwelling	Medium	42	56	56	0	No Effect
R5/03746	Terraced	Medium	45	57	57	0	No Effect
R5/03751	Dwelling	Medium	45	59	59	0	No Effect
R5/03755	Dwelling	Medium	45	60	60	0	No Effect
R5/03768	Dwelling	Medium	42	55	55	0	No Effect
R5/03769	Dwelling	Medium	42	55	55	0	No Effect
R5/03796	Dwelling	Medium	42	55	55	0	No Effect
R5/03819	Dwelling	Medium	42	55	55	0	No Effect
R5/03820	Dwelling	Medium	42	54	55	0	No Effect
R5/03902	Dwelling	Medium	42	54	54	0	No Effect
R5/03932	Dwelling	Medium	42	54	54	0	No Effect
R5/03972	Dwelling	Medium	42	53	54	0	No Effect
R5/04078	Dwelling	Medium	44	65	65	0	No Effect
R5/04091	Dwelling	Medium	44	65	65	0	No Effect
R5/04116	Dwelling	Medium	44	65	65	0	No Effect
R5/04481	Dwelling	Medium	42	62	62	0	No Effect
R5/04503	Dwelling	Medium	42	54	54	0	No Effect
R5/04518	Residential	Medium	42	57	57	0	No Effect
R5/04534	Dwelling	Medium	42	54	54	0	No Effect
R5/04537	Dwelling	Medium	42	54	54	0	No Effect
R5/04551	Residential	Medium	42	62	62	0	No Effect
R5/04571	Dwelling	Medium	42	55	55	0	No Effect

Enabling Works - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/04594	Dwelling	Medium	41	53	54	0	No Effect
R5/13319	Detached	Medium	44	48	49	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	44	48	49	1	Very Low
R5/13711	Residential	Medium	48	48	51	3	Very Low
R5/13724	Residential	Medium	54	48	55	7	Very Low
AONB	Recognised Area of Tranquillity	Medium	46	45	49	4	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	46	45	49	4	Very Low

## 2. Enabling Works with Surface Drilling and Grouting

### 1.2 ENABLING WORKS WITH SURFACE DRILLING AND GROUTING - DAYTIME EFFECTS

Enabling Works with Surface Drilling and Grouting - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	44	60	60	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	44	63	63	0	No Effect
C5/00459	Shop / Showroom	Low	44	63	63	0	No Effect
C5/00460	Shop / Showroom	Low	44	63	63	0	No Effect
C5/00462	Retail	Low	44	63	63	0	No Effect
C5/00464	Shop / Showroom	Low	44	63	63	0	No Effect
C5/00465	Shop / Showroom	Low	44	63	63	0	No Effect
C5/00469	Shop / Showroom	Low	44	64	64	0	No Effect
C5/00490	Commercial	Low	55	48	56	8	Very Low
C5/00525	Other Educational Establishment	Medium	42	45	47	2	Very Low
C5/00544	Retail	Low	46	48	50	2	Very Low
C5/00559	Retail	Low	44	53	54	1	Very Low
C5/00560	Shop / Showroom	Low	44	53	54	1	Very Low
C5/00561	Shop / Showroom	Low	44	53	54	1	Very Low
R5/02613	Dwelling	Medium	44	52	52	1	Very Low
R5/02635	Detached	Medium	45	48	50	2	Very Low
R5/02636	Detached	Medium	45	48	50	2	Very Low
R5/02641	Detached	Medium	46	48	50	2	Very Low
R5/02649	Dwelling	Medium	44	58	58	0	No Effect
R5/02654	Dwelling	Medium	44	58	58	0	No Effect
R5/02678	Dwelling	Medium	44	45	47	2	Very Low
R5/02687	Dwelling	Medium	44	62	62	0	No Effect

Enabling Works with Surface Drilling and Grouting - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02691	Dwelling	Medium	44	67	67	0	No Effect
R5/02705	Dwelling	Medium	44	61	61	0	No Effect
R5/02725	Dwelling	Medium	50	48	52	4	Very Low
R5/02726	Dwelling	Medium	44	64	64	0	No Effect
R5/02728	Semi-Detached	Medium	44	63	63	0	No Effect
R5/02731	Dwelling	Medium	44	60	60	0	No Effect
R5/02741	Dwelling	Medium	44	58	58	0	No Effect
R5/02743	Dwelling	Medium	44	60	60	0	No Effect
R5/02751	Dwelling	Medium	44	58	58	0	No Effect
R5/02761	Dwelling	Medium	44	59	59	0	No Effect
R5/02812	Detached	Medium	44	57	58	0	No Effect
R5/02815	Dwelling	Medium	55	45	55	10	Very Low
R5/02878	Detached	Medium	51	45	52	7	Very Low
R5/02908	Dwelling	Medium	46	60	60	0	No Effect
R5/02914	Dwelling	Medium	46	58	58	0	No Effect
R5/02917	Dwelling	Medium	46	60	60	0	No Effect
R5/02920	Dwelling	Medium	46	60	60	0	No Effect
R5/02925	Dwelling	Medium	46	59	59	0	No Effect
R5/02927	Dwelling	Medium	46	59	60	0	No Effect
R5/02929	Dwelling	Medium	43	45	47	2	Very Low
R5/02987	Dwelling	Medium	58	48	58	10	Very Low
R5/02996	Detached	Medium	45	57	58	0	No Effect
R5/02998	Dwelling	Medium	45	57	57	0	No Effect
R5/03013	Caravan	Medium	45	57	57	0	No Effect
R5/03134	Dwelling	Medium	51	55	57	1	Very Low
R5/03211	Dwelling	Medium	45	45	48	3	Very Low
R5/03236	Dwelling	Medium	44	45	48	3	Very Low
R5/03353	Dwelling	Medium	47	66	66	0	No Effect
R5/03383	Dwelling	Medium	46	48	50	2	Very Low
R5/03422	Dwelling	Medium	47	48	50	2	Very Low



Enabling Works with Surface Drilling and Grouting - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03423	Dwelling	Medium	51	52	54	2	Very Low
R5/03425	Dwelling	Medium	51	52	54	2	Very Low
R5/03427	Dwelling	Medium	47	59	59	0	No Effect
R5/03429	Dwelling	Medium	50	52	54	2	Very Low
R5/03435	Dwelling	Medium	50	52	54	2	Very Low
R5/03438	Dwelling	Medium	46	59	59	0	No Effect
R5/03440	Dwelling	Medium	50	52	54	2	Very Low
R5/03443	Dwelling	Medium	50	52	54	2	Very Low
R5/03460	Dwelling	Medium	46	58	58	0	No Effect
R5/03469	Dwelling	Medium	46	58	58	0	No Effect
R5/03475	Terraced	Medium	46	59	59	0	No Effect
R5/03482	Terraced	Medium	46	58	59	0	No Effect
R5/03484	Dwelling	Medium	46	57	58	0	No Effect
R5/03493	Terraced	Medium	46	58	59	0	No Effect
R5/03496	Dwelling	Medium	46	57	58	0	No Effect
R5/03505	Dwelling	Medium	46	57	57	0	No Effect
R5/03513	Terraced	Medium	45	58	58	0	No Effect
R5/03516	Dwelling	Medium	46	57	57	0	No Effect
R5/03521	Terraced	Medium	45	58	58	0	No Effect
R5/03533	Terraced	Medium	45	58	58	0	No Effect
R5/03554	Dwelling	Medium	45	57	58	0	No Effect
R5/03565	Dwelling	Medium	45	57	57	0	No Effect
R5/03576	Dwelling	Medium	45	57	57	0	No Effect
R5/03591	Dwelling	Medium	45	57	57	0	No Effect
R5/03607	Dwelling	Medium	45	57	57	0	No Effect
R5/03617	Dwelling	Medium	45	56	57	0	No Effect
R5/03647	Dwelling	Medium	45	56	56	0	No Effect
R5/03691	Dwelling	Medium	45	56	56	0	No Effect
R5/03694	Dwelling	Medium	44	57	57	0	No Effect
R5/03705	Dwelling	Medium	44	57	57	0	No Effect



Enabling Works with Surface Drilling and Grouting - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03723	Dwelling	Medium	44	56	56	0	No Effect
R5/03726	Dwelling	Medium	45	55	56	0	No Effect
R5/03741	Dwelling	Medium	44	56	56	0	No Effect
R5/03746	Terraced	Medium	48	57	58	0	Very Low
R5/03751	Dwelling	Medium	48	59	59	0	No Effect
R5/03755	Dwelling	Medium	48	60	60	0	No Effect
R5/03768	Dwelling	Medium	44	55	56	0	No Effect
R5/03769	Dwelling	Medium	44	55	55	0	No Effect
R5/03796	Dwelling	Medium	44	55	55	0	No Effect
R5/03819	Dwelling	Medium	44	55	55	0	No Effect
R5/03820	Dwelling	Medium	44	54	55	0	No Effect
R5/03902	Dwelling	Medium	44	54	54	0	Very Low
R5/03932	Dwelling	Medium	44	54	54	0	Very Low
R5/03972	Dwelling	Medium	44	53	54	0	Very Low
R5/04078	Dwelling	Medium	46	65	65	0	No Effect
R5/04091	Dwelling	Medium	46	65	65	0	No Effect
R5/04116	Dwelling	Medium	46	65	65	0	No Effect
R5/04481	Dwelling	Medium	44	62	62	0	No Effect
R5/04503	Dwelling	Medium	44	54	54	0	Very Low
R5/04518	Residential	Medium	44	57	57	0	No Effect
R5/04534	Dwelling	Medium	44	54	54	0	No Effect
R5/04537	Dwelling	Medium	44	54	54	0	No Effect
R5/04551	Residential	Medium	44	62	62	0	No Effect
R5/04571	Dwelling	Medium	44	55	56	0	No Effect
R5/04594	Dwelling	Medium	44	53	54	0	Very Low
R5/13319	Detached	Medium	46	48	50	2	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	45	48	50	2	Very Low
R5/13711	Residential	Medium	50	48	52	4	Very Low
R5/13724	Residential	Medium	57	48	58	10	Very Low

Enabling Works with Surface Drilling and Grouting - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
AONB	Recognised Area of Tranquillity	Medium	49	45	50	5	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	49	45	50	5	Very Low

## 3. Shaft Sinking

### 1.3 SHAFT SINKING – DAYTIME EFFECTS

Shaft Sinking – Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	38	63	63	0	No Effect
C5/00459	Shop / Showroom	Low	38	63	63	0	No Effect
C5/00460	Shop / Showroom	Low	38	63	63	0	No Effect
C5/00462	Retail	Low	38	63	63	0	No Effect
C5/00464	Shop / Showroom	Low	38	63	63	0	No Effect
C5/00465	Shop / Showroom	Low	38	63	63	0	No Effect
C5/00469	Shop / Showroom	Low	38	64	64	0	No Effect
C5/00490	Commercial	Low	50	48	52	4	Very Low
C5/00525	Other Educational Establishment	Medium	37	45	46	1	Very Low
C5/00544	Retail	Low	40	48	49	1	Very Low
C5/00559	Retail	Low	39	53	53	0	No Effect
C5/00560	Shop / Showroom	Low	39	53	53	0	No Effect
C5/00561	Shop / Showroom	Low	39	53	53	0	No Effect
R5/02613	Dwelling	Medium	38	52	52	0	No Effect
R5/02635	Detached	Medium	40	48	49	1	Very Low
R5/02636	Detached	Medium	40	48	49	1	Very Low
R5/02641	Detached	Medium	40	48	49	1	Very Low
R5/02649	Dwelling	Medium	38	58	58	0	No Effect
R5/02654	Dwelling	Medium	38	58	58	0	No Effect
R5/02678	Dwelling	Medium	39	45	46	1	Very Low
R5/02687	Dwelling	Medium	38	62	62	0	No Effect

Shaft Sinking – Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02691	Dwelling	Medium	38	67	67	0	No Effect
R5/02705	Dwelling	Medium	39	61	61	0	No Effect
R5/02725	Dwelling	Medium	44	48	49	1	Very Low
R5/02726	Dwelling	Medium	38	64	64	0	No Effect
R5/02728	Semi-Detached	Medium	38	63	63	0	No Effect
R5/02731	Dwelling	Medium	38	60	60	0	No Effect
R5/02741	Dwelling	Medium	37	58	58	0	No Effect
R5/02743	Dwelling	Medium	38	60	60	0	No Effect
R5/02751	Dwelling	Medium	37	58	58	0	No Effect
R5/02761	Dwelling	Medium	38	59	59	0	No Effect
R5/02812	Detached	Medium	37	57	57	0	No Effect
R5/02815	Dwelling	Medium	50	45	51	6	Very Low
R5/02878	Detached	Medium	46	45	48	3	Very Low
R5/02908	Dwelling	Medium	40	60	60	0	No Effect
R5/02914	Dwelling	Medium	40	58	58	0	No Effect
R5/02917	Dwelling	Medium	40	60	60	0	No Effect
R5/02920	Dwelling	Medium	40	60	60	0	No Effect
R5/02925	Dwelling	Medium	40	59	59	0	No Effect
R5/02927	Dwelling	Medium	40	59	59	0	No Effect
R5/02929	Dwelling	Medium	39	45	46	1	Very Low
R5/02987	Dwelling	Medium	53	48	54	6	Low
R5/02996	Detached	Medium	40	57	57	0	No Effect
R5/02998	Dwelling	Medium	39	57	57	0	No Effect
R5/03013	Caravan	Medium	39	57	57	0	No Effect
R5/03134	Dwelling	Medium	46	55	56	0	Very Low
R5/03211	Dwelling	Medium	41	45	46	1	Very Low
R5/03236	Dwelling	Medium	41	45	46	1	Very Low
R5/03353	Dwelling	Medium	41	66	66	0	No Effect
R5/03383	Dwelling	Medium	41	48	49	1	Very Low

Shaft Sinking – Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03422	Dwelling	Medium	41	48	49	1	Very Low
R5/03423	Dwelling	Medium	46	52	53	1	Very Low
R5/03425	Dwelling	Medium	46	52	53	1	Very Low
R5/03427	Dwelling	Medium	41	59	59	0	No Effect
R5/03429	Dwelling	Medium	46	52	53	1	Very Low
R5/03435	Dwelling	Medium	46	52	53	1	Very Low
R5/03438	Dwelling	Medium	41	59	59	0	No Effect
R5/03440	Dwelling	Medium	45	52	53	1	Very Low
R5/03443	Dwelling	Medium	45	52	53	1	Very Low
R5/03460	Dwelling	Medium	41	58	58	0	No Effect
R5/03469	Dwelling	Medium	40	58	58	0	No Effect
R5/03475	Terraced	Medium	40	59	59	0	No Effect
R5/03482	Terraced	Medium	40	58	58	0	No Effect
R5/03484	Dwelling	Medium	40	57	57	0	No Effect
R5/03493	Terraced	Medium	40	58	58	0	No Effect
R5/03496	Dwelling	Medium	40	57	57	0	No Effect
R5/03505	Dwelling	Medium	40	57	57	0	No Effect
R5/03513	Terraced	Medium	40	58	58	0	No Effect
R5/03516	Dwelling	Medium	40	57	57	0	No Effect
R5/03521	Terraced	Medium	40	58	58	0	No Effect
R5/03533	Terraced	Medium	40	58	58	0	No Effect
R5/03554	Dwelling	Medium	40	57	57	0	No Effect
R5/03565	Dwelling	Medium	40	57	57	0	No Effect
R5/03576	Dwelling	Medium	40	57	57	0	No Effect
R5/03591	Dwelling	Medium	40	57	57	0	No Effect
R5/03607	Dwelling	Medium	40	57	57	0	No Effect
R5/03617	Dwelling	Medium	40	56	56	0	No Effect
R5/03647	Dwelling	Medium	39	56	56	0	No Effect
R5/03691	Dwelling	Medium	39	56	56	0	No Effect

Shaft Sinking – Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03694	Dwelling	Medium	39	57	57	0	No Effect
R5/03705	Dwelling	Medium	39	57	57	0	No Effect
R5/03723	Dwelling	Medium	39	56	56	0	No Effect
R5/03726	Dwelling	Medium	39	55	55	0	No Effect
R5/03741	Dwelling	Medium	39	56	56	0	No Effect
R5/03746	Terraced	Medium	43	57	57	0	No Effect
R5/03751	Dwelling	Medium	43	59	59	0	No Effect
R5/03755	Dwelling	Medium	43	60	60	0	No Effect
R5/03768	Dwelling	Medium	39	55	55	0	No Effect
R5/03769	Dwelling	Medium	39	55	55	0	No Effect
R5/03796	Dwelling	Medium	39	55	55	0	No Effect
R5/03819	Dwelling	Medium	39	55	55	0	No Effect
R5/03820	Dwelling	Medium	39	54	54	0	No Effect
R5/03902	Dwelling	Medium	39	54	54	0	No Effect
R5/03932	Dwelling	Medium	39	54	54	0	No Effect
R5/03972	Dwelling	Medium	39	53	54	0	No Effect
R5/04078	Dwelling	Medium	41	65	65	0	No Effect
R5/04091	Dwelling	Medium	41	65	65	0	No Effect
R5/04116	Dwelling	Medium	41	65	65	0	No Effect
R5/04481	Dwelling	Medium	39	62	62	0	No Effect
R5/04503	Dwelling	Medium	39	54	54	0	No Effect
R5/04518	Residential	Medium	39	57	57	0	No Effect
R5/04534	Dwelling	Medium	39	54	54	0	No Effect
R5/04537	Dwelling	Medium	39	54	54	0	No Effect
R5/04551	Residential	Medium	39	62	62	0	No Effect
R5/04571	Dwelling	Medium	39	55	55	0	No Effect
R5/04594	Dwelling	Medium	39	53	54	0	No Effect
R5/13319	Detached	Medium	40	48	49	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	40	48	49	1	Very Low

Shaft Sinking – Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/13711	Residential	Medium	44	48	49	1	Very Low
R5/13724	Residential	Medium	52	48	53	5	Very Low
AONB	Recognised Area of Tranquillity	Medium	44	45	48	3	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	44	45	48	3	Very Low



#### 1.4 SHAFT SINKING – WEEKEND EFFECTS

Shaft Sinking – Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	38	57	57	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	38	60	60	0	No Effect
C5/00459	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00460	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00462	Retail	Low	38	60	60	0	No Effect
C5/00464	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00465	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00469	Shop / Showroom	Low	38	61	61	0	No Effect
C5/00490	Commercial	Low	50	44	51	4	Very Low
C5/00525	Other Educational Establishment	Medium	37	41	42	1	Very Low
C5/00544	Retail	Low	40	44	45	1	Very Low
C5/00559	Retail	Low	39	50	50	0	No Effect
C5/00560	Shop / Showroom	Low	39	50	50	0	No Effect
C5/00561	Shop / Showroom	Low	39	50	50	0	No Effect
R5/02613	Dwelling	Medium	38	49	49	0	No Effect
R5/02635	Detached	Medium	40	45	46	1	Very Low
R5/02636	Detached	Medium	40	45	46	1	Very Low
R5/02641	Detached	Medium	40	45	46	1	Very Low
R5/02649	Dwelling	Medium	38	55	55	0	No Effect
R5/02654	Dwelling	Medium	38	55	55	0	No Effect
R5/02678	Dwelling	Medium	39	41	43	1	Very Low
R5/02687	Dwelling	Medium	38	59	59	0	No Effect
R5/02691	Dwelling	Medium	38	64	64	0	No Effect
R5/02705	Dwelling	Medium	39	58	58	0	No Effect
R5/02725	Dwelling	Medium	44	45	47	1	Very Low
R5/02726	Dwelling	Medium	38	61	61	0	No Effect
R5/02728	Semi-Detached	Medium	38	60	60	0	No Effect
R5/02731	Dwelling	Medium	38	57	57	0	No Effect



Shaft Sinking – Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02741	Dwelling	Medium	37	55	55	0	No Effect
R5/02743	Dwelling	Medium	38	57	57	0	No Effect
R5/02751	Dwelling	Medium	37	55	55	0	No Effect
R5/02761	Dwelling	Medium	38	56	56	0	No Effect
R5/02812	Detached	Medium	37	54	54	0	No Effect
R5/02815	Dwelling	Medium	50	41	50	6	Very Low
R5/02878	Detached	Medium	46	41	47	3	Very Low
R5/02908	Dwelling	Medium	40	57	57	0	No Effect
R5/02914	Dwelling	Medium	40	55	55	0	No Effect
R5/02917	Dwelling	Medium	40	57	57	0	No Effect
R5/02920	Dwelling	Medium	40	57	57	0	No Effect
R5/02925	Dwelling	Medium	40	56	56	0	No Effect
R5/02927	Dwelling	Medium	40	56	57	0	No Effect
R5/02929	Dwelling	Medium	39	41	43	1	Very Low
R5/02987	Dwelling	Medium	53	44	53	6	Low
R5/02996	Detached	Medium	40	54	54	0	No Effect
R5/02998	Dwelling	Medium	39	54	54	0	No Effect
R5/03013	Caravan	Medium	39	54	54	0	No Effect
R5/03134	Dwelling	Medium	46	52	53	0	Very Low
R5/03211	Dwelling	Medium	41	41	44	1	Very Low
R5/03236	Dwelling	Medium	41	41	44	1	Very Low
R5/03353	Dwelling	Medium	41	63	63	0	No Effect
R5/03383	Dwelling	Medium	41	44	46	1	Very Low
R5/03422	Dwelling	Medium	41	44	46	1	Very Low
R5/03423	Dwelling	Medium	46	49	50	1	Very Low
R5/03425	Dwelling	Medium	46	49	50	1	Very Low
R5/03427	Dwelling	Medium	41	56	56	0	No Effect
R5/03429	Dwelling	Medium	46	49	50	1	Very Low
R5/03435	Dwelling	Medium	46	49	50	1	Very Low

Shaft Sinking – Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03438	Dwelling	Medium	41	56	56	0	No Effect
R5/03440	Dwelling	Medium	45	49	50	1	Very Low
R5/03443	Dwelling	Medium	45	49	50	1	Very Low
R5/03460	Dwelling	Medium	41	55	55	0	No Effect
R5/03469	Dwelling	Medium	40	55	55	0	No Effect
R5/03475	Terraced	Medium	40	56	56	0	No Effect
R5/03482	Terraced	Medium	40	55	56	0	No Effect
R5/03484	Dwelling	Medium	40	54	55	0	No Effect
R5/03493	Terraced	Medium	40	55	55	0	No Effect
R5/03496	Dwelling	Medium	40	54	54	0	No Effect
R5/03505	Dwelling	Medium	40	54	54	0	No Effect
R5/03513	Terraced	Medium	40	55	55	0	No Effect
R5/03516	Dwelling	Medium	40	54	54	0	No Effect
R5/03521	Terraced	Medium	40	55	55	0	No Effect
R5/03533	Terraced	Medium	40	55	55	0	No Effect
R5/03554	Dwelling	Medium	40	54	54	0	No Effect
R5/03565	Dwelling	Medium	40	54	54	0	No Effect
R5/03576	Dwelling	Medium	40	54	54	0	No Effect
R5/03591	Dwelling	Medium	40	54	54	0	No Effect
R5/03607	Dwelling	Medium	40	54	54	0	No Effect
R5/03617	Dwelling	Medium	40	53	53	0	No Effect
R5/03647	Dwelling	Medium	39	53	53	0	No Effect
R5/03691	Dwelling	Medium	39	53	53	0	No Effect
R5/03694	Dwelling	Medium	39	54	54	0	No Effect
R5/03705	Dwelling	Medium	39	54	54	0	No Effect
R5/03723	Dwelling	Medium	39	53	53	0	No Effect
R5/03726	Dwelling	Medium	39	52	52	0	No Effect
R5/03741	Dwelling	Medium	39	53	53	0	No Effect
R5/03746	Terraced	Medium	43	54	54	0	No Effect

Shaft Sinking – Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03751	Dwelling	Medium	43	56	56	0	No Effect
R5/03755	Dwelling	Medium	43	57	57	0	No Effect
R5/03768	Dwelling	Medium	39	52	52	0	No Effect
R5/03769	Dwelling	Medium	39	52	52	0	No Effect
R5/03796	Dwelling	Medium	39	52	52	0	No Effect
R5/03819	Dwelling	Medium	39	52	52	0	No Effect
R5/03820	Dwelling	Medium	39	51	52	0	No Effect
R5/03902	Dwelling	Medium	39	51	51	0	No Effect
R5/03932	Dwelling	Medium	39	51	51	0	No Effect
R5/03972	Dwelling	Medium	39	50	51	0	No Effect
R5/04078	Dwelling	Medium	41	62	62	0	No Effect
R5/04091	Dwelling	Medium	41	62	62	0	No Effect
R5/04116	Dwelling	Medium	41	62	62	0	No Effect
R5/04481	Dwelling	Medium	39	59	59	0	No Effect
R5/04503	Dwelling	Medium	39	51	51	0	No Effect
R5/04518	Residential	Medium	39	54	54	0	No Effect
R5/04534	Dwelling	Medium	39	51	51	0	No Effect
R5/04537	Dwelling	Medium	39	51	51	0	No Effect
R5/04551	Residential	Medium	39	59	59	0	No Effect
R5/04571	Dwelling	Medium	39	52	52	0	No Effect
R5/04594	Dwelling	Medium	39	50	51	0	No Effect
R5/13319	Detached	Medium	40	45	46	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	40	45	46	1	Very Low
R5/13711	Residential	Medium	44	45	47	1	Very Low
R5/13724	Residential	Medium	52	44	52	5	Very Low
AONB	Recognised Area of Tranquillity	Medium	44	41	46	3	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	44	57	57	3	Very Low



## 1.5 SHAFT SINKING - NIGHT-TIME EFFECTS

Shaft Sinking – Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	28	38	38	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	28	38	38	0	No Effect
C5/00459	Shop / Showroom	Low	28	38	38	0	No Effect
C5/00460	Shop / Showroom	Low	28	38	38	0	No Effect
C5/00462	Retail	Low	28	38	38	0	No Effect
C5/00464	Shop / Showroom	Low	28	38	38	0	No Effect
C5/00465	Shop / Showroom	Low	28	38	38	0	No Effect
C5/00469	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00490	Commercial	Low	40	38	42	4	Low
C5/00525	Other Educational Establishment	Medium	27	37	37	0	Very Low
C5/00544	Retail	Low	30	38	39	1	Very Low
C5/00559	Retail	Low	29	38	39	1	Very Low
C5/00560	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00561	Shop / Showroom	Low	29	38	39	1	Very Low
R5/02613	Dwelling	Medium	28	38	38	0	No Effect
R5/02635	Detached	Medium	29	38	39	1	Very Low
R5/02636	Detached	Medium	29	38	39	1	Very Low
R5/02641	Detached	Medium	30	38	39	1	Very Low
R5/02649	Dwelling	Medium	28	38	38	0	No Effect
R5/02654	Dwelling	Medium	28	38	38	0	No Effect
R5/02678	Dwelling	Medium	28	37	38	1	Very Low
R5/02687	Dwelling	Medium	28	38	38	0	Very Low
R5/02691	Dwelling	Medium	28	38	38	0	No Effect
R5/02705	Dwelling	Medium	28	38	38	0	Very Low
R5/02725	Dwelling	Medium	33	38	39	1	Very Low
R5/02726	Dwelling	Medium	28	38	38	0	No Effect
R5/02728	Semi-Detached	Medium	28	38	38	0	No Effect

Shaft Sinking – Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/02731	Dwelling	Medium	28	38	38	0	No Effect
R5/02741	Dwelling	Medium	27	38	38	0	No Effect
R5/02743	Dwelling	Medium	28	38	38	0	No Effect
R5/02751	Dwelling	Medium	27	38	38	0	No Effect
R5/02761	Dwelling	Medium	28	38	38	0	No Effect
R5/02812	Detached	Medium	27	38	38	0	No Effect
R5/02815	Dwelling	Medium	39	37	41	4	Low
R5/02878	Detached	Medium	35	37	39	2	Very Low
R5/02908	Dwelling	Medium	30	38	39	1	Very Low
R5/02914	Dwelling	Medium	30	38	39	1	Very Low
R5/02917	Dwelling	Medium	31	38	39	1	Very Low
R5/02920	Dwelling	Medium	30	38	39	1	Very Low
R5/02925	Dwelling	Medium	30	38	39	1	Very Low
R5/02927	Dwelling	Medium	30	38	39	1	Very Low
R5/02929	Dwelling	Medium	28	37	37	0	Very Low
R5/02987	Dwelling	Medium	43	38	44	6	Low
R5/02996	Detached	Medium	30	38	39	1	Very Low
R5/02998	Dwelling	Medium	30	38	39	1	Very Low
R5/03013	Caravan	Medium	30	38	39	1	Very Low
R5/03134	Dwelling	Medium	36	38	40	2	Low
R5/03211	Dwelling	Medium	30	37	38	1	Very Low
R5/03236	Dwelling	Medium	30	37	38	1	Very Low
R5/03353	Dwelling	Medium	31	38	39	1	Very Low
R5/03383	Dwelling	Medium	31	38	39	1	Very Low
R5/03422	Dwelling	Medium	31	38	39	1	Very Low
R5/03423	Dwelling	Medium	36	38	40	2	Very Low
R5/03425	Dwelling	Medium	35	38	40	2	Very Low
R5/03427	Dwelling	Medium	31	38	39	1	Very Low

Shaft Sinking – Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03429	Dwelling	Medium	35	38	40	2	Very Low
R5/03435	Dwelling	Medium	35	38	40	2	Very Low
R5/03438	Dwelling	Medium	31	38	39	1	Very Low
R5/03440	Dwelling	Medium	35	38	40	2	Very Low
R5/03443	Dwelling	Medium	35	38	40	2	Very Low
R5/03460	Dwelling	Medium	30	38	39	1	Very Low
R5/03469	Dwelling	Medium	30	38	39	1	Very Low
R5/03475	Terraced	Medium	30	38	39	1	Very Low
R5/03482	Terraced	Medium	30	38	39	1	Very Low
R5/03484	Dwelling	Medium	30	38	39	1	Very Low
R5/03493	Terraced	Medium	30	38	39	1	Very Low
R5/03496	Dwelling	Medium	30	38	39	1	Very Low
R5/03505	Dwelling	Medium	30	38	39	1	Very Low
R5/03513	Terraced	Medium	30	38	39	1	Very Low
R5/03516	Dwelling	Medium	30	38	39	1	Very Low
R5/03521	Terraced	Medium	30	38	39	1	Very Low
R5/03533	Terraced	Medium	30	38	39	1	Very Low
R5/03554	Dwelling	Medium	30	38	39	1	Very Low
R5/03565	Dwelling	Medium	30	38	39	1	Very Low
R5/03576	Dwelling	Medium	30	38	39	1	Very Low
R5/03591	Dwelling	Medium	30	38	39	1	Very Low
R5/03607	Dwelling	Medium	30	38	39	1	Very Low
R5/03617	Dwelling	Medium	30	38	39	1	Very Low
R5/03647	Dwelling	Medium	29	38	39	1	Very Low
R5/03691	Dwelling	Medium	29	38	39	1	Very Low
R5/03694	Dwelling	Medium	29	38	38	0	Very Low
R5/03705	Dwelling	Medium	29	38	38	0	Very Low
R5/03723	Dwelling	Medium	29	38	38	0	Very Low



Shaft Sinking – Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03726	Dwelling	Medium	29	38	39	1	Very Low
R5/03741	Dwelling	Medium	29	38	38	0	Very Low
R5/03746	Terraced	Medium	32	38	39	1	Very Low
R5/03751	Dwelling	Medium	32	38	39	1	Very Low
R5/03755	Dwelling	Medium	32	38	39	1	Very Low
R5/03768	Dwelling	Medium	29	38	38	0	Very Low
R5/03769	Dwelling	Medium	29	38	39	1	Very Low
R5/03796	Dwelling	Medium	29	38	38	0	Very Low
R5/03819	Dwelling	Medium	29	38	38	0	Very Low
R5/03820	Dwelling	Medium	29	38	38	0	Very Low
R5/03902	Dwelling	Medium	29	38	38	0	Very Low
R5/03932	Dwelling	Medium	29	38	38	0	Very Low
R5/03972	Dwelling	Medium	29	38	38	0	Very Low
R5/04078	Dwelling	Medium	31	38	39	1	Very Low
R5/04091	Dwelling	Medium	31	38	39	1	Very Low
R5/04116	Dwelling	Medium	31	38	39	1	Very Low
R5/04481	Dwelling	Medium	29	38	39	1	Very Low
R5/04503	Dwelling	Medium	29	38	38	0	Very Low
R5/04518	Residential	Medium	29	38	38	0	Very Low
R5/04534	Dwelling	Medium	29	38	38	0	Very Low
R5/04537	Dwelling	Medium	29	38	38	0	Very Low
R5/04551	Residential	Medium	29	38	38	0	Very Low
R5/04571	Dwelling	Medium	29	38	38	0	Very Low
R5/04594	Dwelling	Medium	28	38	38	0	Very Low
R5/13319	Detached	Medium	29	38	39	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	29	38	39	1	Very Low
R5/13711	Residential	Medium	33	38	39	1	Very Low
R5/13724	Residential	Medium	42	38	43	5	Low



Shaft Sinking – Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
AONB	Recognised Area of Tranquillity	Medium	33	37	39	2	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	33	37	39	2	Very Low

## 1.6 SHAFT SINKING - OVERALL MAGNITUDE OF EFFECT

Shaft Sinking - Overall Magnitude of Effect			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
C5/00457	Shop / Showroom	Low	No Effect
C5/00458	Workshop / Light Industrial	Very low	No Effect
C5/00459	Shop / Showroom	Low	No Effect
C5/00460	Shop / Showroom	Low	No Effect
C5/00462	Retail	Low	No Effect
C5/00464	Shop / Showroom	Low	No Effect
C5/00465	Shop / Showroom	Low	No Effect
C5/00469	Shop / Showroom	Low	Very Low
C5/00490	Commercial	Low	Low
C5/00525	Other Educational Establishment	Medium	Very Low
C5/00544	Retail	Low	Very Low
C5/00559	Retail	Low	Very Low
C5/00560	Shop / Showroom	Low	Very Low
C5/00561	Shop / Showroom	Low	Very Low
R5/02613	Dwelling	Medium	No Effect
R5/02635	Detached	Medium	Very Low
R5/02636	Detached	Medium	Very Low
R5/02641	Detached	Medium	Very Low
R5/02649	Dwelling	Medium	No Effect
R5/02654	Dwelling	Medium	No Effect
R5/02678	Dwelling	Medium	Very Low
R5/02687	Dwelling	Medium	Very Low
R5/02691	Dwelling	Medium	No Effect
R5/02705	Dwelling	Medium	Very Low
R5/02725	Dwelling	Medium	Very Low
R5/02726	Dwelling	Medium	No Effect
R5/02728	Semi-Detached	Medium	No Effect
R5/02731	Dwelling	Medium	No Effect
R5/02741	Dwelling	Medium	No Effect

Shaft Sinking - Overall Magnitude of Effect			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/02743	Dwelling	Medium	No Effect
R5/02751	Dwelling	Medium	No Effect
R5/02761	Dwelling	Medium	No Effect
R5/02812	Detached	Medium	No Effect
R5/02815	Dwelling	Medium	Low
R5/02878	Detached	Medium	Very Low
R5/02908	Dwelling	Medium	Very Low
R5/02914	Dwelling	Medium	Very Low
R5/02917	Dwelling	Medium	Very Low
R5/02920	Dwelling	Medium	Very Low
R5/02925	Dwelling	Medium	Very Low
R5/02927	Dwelling	Medium	Very Low
R5/02929	Dwelling	Medium	Very Low
R5/02987	Dwelling	Medium	Low
R5/02996	Detached	Medium	Very Low
R5/02998	Dwelling	Medium	Very Low
R5/03013	Caravan	Medium	Very Low
R5/03134	Dwelling	Medium	Low
R5/03211	Dwelling	Medium	Very Low
R5/03236	Dwelling	Medium	Very Low
R5/03353	Dwelling	Medium	Very Low
R5/03383	Dwelling	Medium	Very Low
R5/03422	Dwelling	Medium	Very Low
R5/03423	Dwelling	Medium	Low
R5/03425	Dwelling	Medium	Low
R5/03427	Dwelling	Medium	Very Low
R5/03429	Dwelling	Medium	Low
R5/03435	Dwelling	Medium	Low
R5/03438	Dwelling	Medium	Very Low
R5/03440	Dwelling	Medium	Low

Shaft Sinking - Overall Magnitude of Effect			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03443	Dwelling	Medium	Low
R5/03460	Dwelling	Medium	Very Low
R5/03469	Dwelling	Medium	Very Low
R5/03475	Terraced	Medium	Very Low
R5/03482	Terraced	Medium	Very Low
R5/03484	Dwelling	Medium	Very Low
R5/03493	Terraced	Medium	Very Low
R5/03496	Dwelling	Medium	Very Low
R5/03505	Dwelling	Medium	Very Low
R5/03513	Terraced	Medium	Very Low
R5/03516	Dwelling	Medium	Very Low
R5/03521	Terraced	Medium	Very Low
R5/03533	Terraced	Medium	Very Low
R5/03554	Dwelling	Medium	Very Low
R5/03565	Dwelling	Medium	Very Low
R5/03576	Dwelling	Medium	Very Low
R5/03591	Dwelling	Medium	Very Low
R5/03607	Dwelling	Medium	Very Low
R5/03617	Dwelling	Medium	Very Low
R5/03647	Dwelling	Medium	Very Low
R5/03691	Dwelling	Medium	Very Low
R5/03694	Dwelling	Medium	Very Low
R5/03705	Dwelling	Medium	Very Low
R5/03723	Dwelling	Medium	Very Low
R5/03726	Dwelling	Medium	Very Low
R5/03741	Dwelling	Medium	Very Low
R5/03746	Terraced	Medium	Very Low
R5/03751	Dwelling	Medium	Very Low
R5/03755	Dwelling	Medium	Very Low
R5/03768	Dwelling	Medium	Very Low

Shaft Sinking - Overall Magnitude of Effect			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03769	Dwelling	Medium	Very Low
R5/03796	Dwelling	Medium	Very Low
R5/03819	Dwelling	Medium	Very Low
R5/03820	Dwelling	Medium	Very Low
R5/03902	Dwelling	Medium	Very Low
R5/03932	Dwelling	Medium	Very Low
R5/03972	Dwelling	Medium	Very Low
R5/04078	Dwelling	Medium	Very Low
R5/04091	Dwelling	Medium	Very Low
R5/04116	Dwelling	Medium	Very Low
R5/04481	Dwelling	Medium	Very Low
R5/04503	Dwelling	Medium	Very Low
R5/04518	Residential	Medium	Very Low
R5/04534	Dwelling	Medium	Very Low
R5/04537	Dwelling	Medium	Very Low
R5/04551	Residential	Medium	Very Low
R5/04571	Dwelling	Medium	Very Low
R5/04594	Dwelling	Medium	Very Low
R5/13319	Detached	Medium	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	Very Low
R5/13711	Residential	Medium	Very Low
R5/13724	Residential	Medium	Low
AONB	Recognised Area of Tranquillity	Medium	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	Very Low

## 4. Tunnel Related Works – TBM Method (Scenarios 1 and 2)

### 1.7 TUNNEL RELATED WORKS TBM METHOD (SCENARIOS 1 AND 2) - DAYTIME EFFECTS

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Daytime Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	39	60	60	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	38	63	63	0	No Effect
C5/00459	Shop / Showroom	Low	38	63	63	0	No Effect
C5/00460	Shop / Showroom	Low	39	63	63	0	No Effect
C5/00462	Retail	Low	39	63	63	0	No Effect
C5/00464	Shop / Showroom	Low	39	63	63	0	No Effect
C5/00465	Shop / Showroom	Low	39	63	63	0	No Effect
C5/00469	Shop / Showroom	Low	39	64	64	0	No Effect
C5/00490	Commercial	Low	49	48	52	4	Very Low
C5/00525	Other Educational Establishment	Medium	38	45	46	1	Very Low
C5/00544	Retail	Low	40	48	49	1	Very Low
C5/00559	Retail	Low	39	53	53	0	No Effect
C5/00560	Shop / Showroom	Low	39	53	53	0	No Effect
C5/00561	Shop / Showroom	Low	39	53	53	0	No Effect
R5/02613	Dwelling	Medium	39	52	52	0	No Effect
R5/02635	Detached	Medium	41	48	49	1	Very Low
R5/02636	Detached	Medium	41	48	49	1	Very Low
R5/02641	Detached	Medium	42	48	49	1	Very Low
R5/02649	Dwelling	Medium	39	58	58	0	No Effect
R5/02654	Dwelling	Medium	39	58	58	0	No Effect
R5/02678	Dwelling	Medium	41	45	46	1	Very Low

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Daytime Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02687	Dwelling	Medium	39	62	62	0	No Effect
R5/02691	Dwelling	Medium	38	67	67	0	No Effect
R5/02705	Dwelling	Medium	39	61	61	0	No Effect
R5/02725	Dwelling	Medium	45	48	50	2	Very Low
R5/02726	Dwelling	Medium	38	64	64	0	No Effect
R5/02728	Semi-Detached	Medium	38	63	63	0	No Effect
R5/02731	Dwelling	Medium	38	60	60	0	No Effect
R5/02741	Dwelling	Medium	38	58	58	0	No Effect
R5/02743	Dwelling	Medium	38	60	60	0	No Effect
R5/02751	Dwelling	Medium	38	58	58	0	No Effect
R5/02761	Dwelling	Medium	38	59	59	0	No Effect
R5/02812	Detached	Medium	38	57	57	0	No Effect
R5/02815	Dwelling	Medium	51	45	52	7	Very Low
R5/02878	Detached	Medium	47	45	49	4	Very Low
R5/02908	Dwelling	Medium	40	60	60	0	No Effect
R5/02914	Dwelling	Medium	40	58	58	0	No Effect
R5/02917	Dwelling	Medium	40	60	60	0	No Effect
R5/02920	Dwelling	Medium	40	60	60	0	No Effect
R5/02925	Dwelling	Medium	40	59	59	0	No Effect
R5/02927	Dwelling	Medium	40	59	59	0	No Effect
R5/02929	Dwelling	Medium	40	45	46	1	Very Low
R5/02987	Dwelling	Medium	53	48	54	6	Low
R5/02996	Detached	Medium	40	57	57	0	No Effect
R5/02998	Dwelling	Medium	39	57	57	0	No Effect
R5/03013	Caravan	Medium	40	57	57	0	No Effect
R5/03134	Dwelling	Medium	46	55	56	0	Very Low
R5/03211	Dwelling	Medium	42	45	47	2	Very Low
R5/03236	Dwelling	Medium	42	45	47	2	Very Low
R5/03353	Dwelling	Medium	41	66	66	0	No Effect



Tunnel Related Works TBM Method (Scenarios 1 and 2) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Daytime Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03383	Dwelling	Medium	41	48	49	1	Very Low
R5/03422	Dwelling	Medium	41	48	49	1	Very Low
R5/03423	Dwelling	Medium	46	52	53	1	Very Low
R5/03425	Dwelling	Medium	46	52	53	1	Very Low
R5/03427	Dwelling	Medium	41	59	59	0	No Effect
R5/03429	Dwelling	Medium	46	52	53	1	Very Low
R5/03435	Dwelling	Medium	46	52	53	1	Very Low
R5/03438	Dwelling	Medium	41	59	59	0	No Effect
R5/03440	Dwelling	Medium	46	52	53	1	Very Low
R5/03443	Dwelling	Medium	45	52	53	1	Very Low
R5/03460	Dwelling	Medium	41	58	58	0	No Effect
R5/03469	Dwelling	Medium	41	58	58	0	No Effect
R5/03475	Terraced	Medium	41	59	59	0	No Effect
R5/03482	Terraced	Medium	41	58	58	0	No Effect
R5/03484	Dwelling	Medium	41	57	57	0	No Effect
R5/03493	Terraced	Medium	41	58	58	0	No Effect
R5/03496	Dwelling	Medium	41	57	57	0	No Effect
R5/03505	Dwelling	Medium	41	57	57	0	No Effect
R5/03513	Terraced	Medium	40	58	58	0	No Effect
R5/03516	Dwelling	Medium	41	57	57	0	No Effect
R5/03521	Terraced	Medium	40	58	58	0	No Effect
R5/03533	Terraced	Medium	40	58	58	0	No Effect
R5/03554	Dwelling	Medium	40	57	57	0	No Effect
R5/03565	Dwelling	Medium	40	57	57	0	No Effect
R5/03576	Dwelling	Medium	40	57	57	0	No Effect
R5/03591	Dwelling	Medium	40	57	57	0	No Effect
R5/03607	Dwelling	Medium	40	57	57	0	No Effect
R5/03617	Dwelling	Medium	40	56	56	0	No Effect
R5/03647	Dwelling	Medium	40	56	56	0	No Effect



Tunnel Related Works TBM Method (Scenarios 1 and 2) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Daytime Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03691	Dwelling	Medium	40	56	56	0	No Effect
R5/03694	Dwelling	Medium	39	57	57	0	No Effect
R5/03705	Dwelling	Medium	39	57	57	0	No Effect
R5/03723	Dwelling	Medium	39	56	56	0	No Effect
R5/03726	Dwelling	Medium	40	55	55	0	No Effect
R5/03741	Dwelling	Medium	39	56	56	0	No Effect
R5/03746	Terraced	Medium	43	57	57	0	No Effect
R5/03751	Dwelling	Medium	43	59	59	0	No Effect
R5/03755	Dwelling	Medium	43	60	60	0	No Effect
R5/03768	Dwelling	Medium	39	55	55	0	No Effect
R5/03769	Dwelling	Medium	39	55	55	0	No Effect
R5/03796	Dwelling	Medium	39	55	55	0	No Effect
R5/03819	Dwelling	Medium	39	55	55	0	No Effect
R5/03820	Dwelling	Medium	39	54	54	0	No Effect
R5/03902	Dwelling	Medium	39	54	54	0	No Effect
R5/03932	Dwelling	Medium	39	54	54	0	No Effect
R5/03972	Dwelling	Medium	39	53	54	0	No Effect
R5/04078	Dwelling	Medium	42	65	65	0	No Effect
R5/04091	Dwelling	Medium	41	65	65	0	No Effect
R5/04116	Dwelling	Medium	41	65	65	0	No Effect
R5/04481	Dwelling	Medium	40	62	62	0	No Effect
R5/04503	Dwelling	Medium	39	54	54	0	No Effect
R5/04518	Residential	Medium	40	57	57	0	No Effect
R5/04534	Dwelling	Medium	39	54	54	0	No Effect
R5/04537	Dwelling	Medium	39	54	54	0	No Effect
R5/04551	Residential	Medium	39	62	62	0	No Effect
R5/04571	Dwelling	Medium	40	55	55	0	No Effect
R5/04594	Dwelling	Medium	39	53	54	0	No Effect
R5/13319	Detached	Medium	41	48	49	1	Very Low

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Daytime Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	41	48	49	1	Very Low
R5/13711	Residential	Medium	45	48	50	2	Very Low
R5/13724	Residential	Medium	52	48	53	5	Low
AONB	Recognised Area of Tranquillity	Medium	45	45	48	3	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	45	45	48	3	Very Low

## 1.8 TUNNEL RELATED WORKS TBM METHOD (SCENARIOS 1 AND 2) - WEEKEND EFFECTS

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Evening and Weekend Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	39	57	57	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	38	60	60	0	No Effect
C5/00459	Shop / Showroom	Low	38	60	60	0	No Effect
C5/00460	Shop / Showroom	Low	39	60	60	0	No Effect
C5/00462	Retail	Low	39	60	60	0	No Effect
C5/00464	Shop / Showroom	Low	39	60	60	0	No Effect
C5/00465	Shop / Showroom	Low	39	60	60	0	No Effect
C5/00469	Shop / Showroom	Low	39	61	61	0	No Effect
C5/00490	Commercial	Low	49	44	50	6	Low
C5/00525	Other Educational Establishment	Medium	38	41	43	2	Very Low
C5/00544	Retail	Low	40	44	46	2	Very Low
C5/00559	Retail	Low	39	50	50	0	No Effect
C5/00560	Shop / Showroom	Low	39	50	50	0	No Effect
C5/00561	Shop / Showroom	Low	39	50	50	0	No Effect
R5/02613	Dwelling	Medium	39	49	49	0	Very Low
R5/02635	Detached	Medium	41	45	46	1	Very Low
R5/02636	Detached	Medium	41	45	47	2	Very Low
R5/02641	Detached	Medium	42	45	47	2	Very Low
R5/02649	Dwelling	Medium	39	55	55	0	No Effect
R5/02654	Dwelling	Medium	39	55	55	0	No Effect
R5/02678	Dwelling	Medium	41	41	44	3	Very Low
R5/02687	Dwelling	Medium	39	59	59	0	No Effect
R5/02691	Dwelling	Medium	38	64	64	0	No Effect
R5/02705	Dwelling	Medium	39	58	58	0	No Effect
R5/02725	Dwelling	Medium	45	45	48	3	Very Low
R5/02726	Dwelling	Medium	38	61	61	0	No Effect
R5/02728	Semi-Detached	Medium	38	60	60	0	No Effect

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Evening and Weekend Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02731	Dwelling	Medium	38	57	57	0	No Effect
R5/02741	Dwelling	Medium	38	55	55	0	No Effect
R5/02743	Dwelling	Medium	38	57	57	0	No Effect
R5/02751	Dwelling	Medium	38	55	55	0	No Effect
R5/02761	Dwelling	Medium	38	56	56	0	No Effect
R5/02812	Detached	Medium	38	54	54	0	No Effect
R5/02815	Dwelling	Medium	51	41	52	11	Low
R5/02878	Detached	Medium	47	41	48	7	Very Low
R5/02908	Dwelling	Medium	40	57	57	0	No Effect
R5/02914	Dwelling	Medium	40	55	55	0	No Effect
R5/02917	Dwelling	Medium	40	57	57	0	No Effect
R5/02920	Dwelling	Medium	40	57	57	0	No Effect
R5/02925	Dwelling	Medium	40	56	56	0	No Effect
R5/02927	Dwelling	Medium	40	56	57	0	No Effect
R5/02929	Dwelling	Medium	40	41	43	2	Very Low
R5/02987	Dwelling	Medium	53	44	54	10	Low
R5/02996	Detached	Medium	40	54	54	0	No Effect
R5/02998	Dwelling	Medium	39	54	54	0	No Effect
R5/03013	Caravan	Medium	40	54	54	0	No Effect
R5/03134	Dwelling	Medium	46	52	53	1	Very Low
R5/03211	Dwelling	Medium	42	41	44	3	Very Low
R5/03236	Dwelling	Medium	42	41	44	3	Very Low
R5/03353	Dwelling	Medium	41	63	63	0	No Effect
R5/03383	Dwelling	Medium	41	44	46	2	Very Low
R5/03422	Dwelling	Medium	41	44	46	2	Very Low
R5/03423	Dwelling	Medium	46	49	51	2	Low
R5/03425	Dwelling	Medium	46	49	51	2	Low
R5/03427	Dwelling	Medium	41	56	56	0	No Effect
R5/03429	Dwelling	Medium	46	49	50	2	Low
R5/03435	Dwelling	Medium	46	49	50	2	Low

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Evening and Weekend Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03438	Dwelling	Medium	41	56	56	0	No Effect
R5/03440	Dwelling	Medium	46	49	50	2	Low
R5/03443	Dwelling	Medium	45	49	50	2	Low
R5/03460	Dwelling	Medium	41	55	55	0	No Effect
R5/03469	Dwelling	Medium	41	55	55	0	No Effect
R5/03475	Terraced	Medium	41	56	56	0	No Effect
R5/03482	Terraced	Medium	41	55	56	0	No Effect
R5/03484	Dwelling	Medium	41	54	55	0	No Effect
R5/03493	Terraced	Medium	41	55	55	0	No Effect
R5/03496	Dwelling	Medium	41	54	54	0	No Effect
R5/03505	Dwelling	Medium	41	54	54	0	No Effect
R5/03513	Terraced	Medium	40	55	55	0	No Effect
R5/03516	Dwelling	Medium	41	54	54	0	No Effect
R5/03521	Terraced	Medium	40	55	55	0	No Effect
R5/03533	Terraced	Medium	40	55	55	0	No Effect
R5/03554	Dwelling	Medium	40	54	54	0	No Effect
R5/03565	Dwelling	Medium	40	54	54	0	No Effect
R5/03576	Dwelling	Medium	40	54	54	0	No Effect
R5/03591	Dwelling	Medium	40	54	54	0	No Effect
R5/03607	Dwelling	Medium	40	54	54	0	No Effect
R5/03617	Dwelling	Medium	40	53	53	0	No Effect
R5/03647	Dwelling	Medium	40	53	53	0	No Effect
R5/03691	Dwelling	Medium	40	53	53	0	No Effect
R5/03694	Dwelling	Medium	39	54	54	0	No Effect
R5/03705	Dwelling	Medium	39	54	54	0	No Effect
R5/03723	Dwelling	Medium	39	53	53	0	No Effect
R5/03726	Dwelling	Medium	40	52	52	0	No Effect
R5/03741	Dwelling	Medium	39	53	53	0	No Effect
R5/03746	Terraced	Medium	43	54	55	0	No Effect
R5/03751	Dwelling	Medium	43	56	56	0	No Effect

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Evening and Weekend Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03755	Dwelling	Medium	43	57	57	0	No Effect
R5/03768	Dwelling	Medium	39	52	53	0	No Effect
R5/03769	Dwelling	Medium	39	52	52	0	No Effect
R5/03796	Dwelling	Medium	39	52	52	0	No Effect
R5/03819	Dwelling	Medium	39	52	52	0	No Effect
R5/03820	Dwelling	Medium	39	51	52	0	No Effect
R5/03902	Dwelling	Medium	39	51	51	0	No Effect
R5/03932	Dwelling	Medium	39	51	51	0	No Effect
R5/03972	Dwelling	Medium	39	50	51	0	No Effect
R5/04078	Dwelling	Medium	42	62	62	0	No Effect
R5/04091	Dwelling	Medium	41	62	62	0	No Effect
R5/04116	Dwelling	Medium	41	62	62	0	No Effect
R5/04481	Dwelling	Medium	40	59	59	0	No Effect
R5/04503	Dwelling	Medium	39	51	51	0	No Effect
R5/04518	Residential	Medium	40	54	54	0	No Effect
R5/04534	Dwelling	Medium	39	51	51	0	No Effect
R5/04537	Dwelling	Medium	39	51	51	0	No Effect
R5/04551	Residential	Medium	39	59	59	0	No Effect
R5/04571	Dwelling	Medium	40	52	52	0	No Effect
R5/04594	Dwelling	Medium	39	50	51	0	No Effect
R5/13319	Detached	Medium	41	45	47	2	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	41	45	46	1	Very Low
R5/13711	Residential	Medium	45	45	48	3	Very Low
R5/13724	Residential	Medium	52	44	52	8	Low
AONB	Recognised Area of Tranquillity	Medium	45	41	46	5	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	45	41	46	5	Very Low



## 1.9 TUNNEL RELATED WORKS TBM METHOD (SCENARIOS 1 AND 2) - NIGHT-TIME EFFECTS

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00458	Workshop / Light Industrial	Very low	28	38	38	0	Very Low
C5/00459	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00460	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00462	Retail	Low	28	38	38	0	Very Low
C5/00464	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00465	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00469	Shop / Showroom	Low	28	38	38	0	Very Low
C5/00490	Commercial	Low	40	38	43	5	Low
C5/00525	Other Educational Establishment	Medium	27	37	38	1	Very Low
C5/00544	Retail	Low	30	38	39	1	Very Low
C5/00559	Retail	Low	29	38	39	1	Very Low
C5/00560	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00561	Shop / Showroom	Low	29	38	39	1	Very Low
R5/02613	Dwelling	Medium	28	38	38	0	Very Low
R5/02635	Detached	Medium	29	38	39	1	Very Low
R5/02636	Detached	Medium	29	38	39	1	Very Low
R5/02641	Detached	Medium	30	38	39	1	Very Low
R5/02649	Dwelling	Medium	28	38	38	0	No Effect
R5/02654	Dwelling	Medium	28	38	38	0	No Effect
R5/02678	Dwelling	Medium	28	37	38	1	Very Low
R5/02687	Dwelling	Medium	28	38	38	0	Very Low
R5/02691	Dwelling	Medium	28	38	38	0	Very Low
R5/02705	Dwelling	Medium	28	38	39	1	Very Low
R5/02725	Dwelling	Medium	33	38	39	1	Very Low
R5/02726	Dwelling	Medium	28	38	38	0	No Effect
R5/02728	Semi-Detached	Medium	28	38	38	0	No Effect

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/02731	Dwelling	Medium	28	38	38	0	No Effect
R5/02741	Dwelling	Medium	27	38	38	0	No Effect
R5/02743	Dwelling	Medium	28	38	38	0	No Effect
R5/02751	Dwelling	Medium	27	38	38	0	No Effect
R5/02761	Dwelling	Medium	28	38	38	0	No Effect
R5/02812	Detached	Medium	27	38	38	0	No Effect
R5/02815	Dwelling	Medium	39	37	41	4	Low
R5/02878	Detached	Medium	35	37	40	3	Very Low
R5/02908	Dwelling	Medium	30	38	39	1	Very Low
R5/02914	Dwelling	Medium	30	38	39	1	Very Low
R5/02917	Dwelling	Medium	31	38	39	1	Very Low
R5/02920	Dwelling	Medium	30	38	39	1	Very Low
R5/02925	Dwelling	Medium	30	38	39	1	Very Low
R5/02927	Dwelling	Medium	30	38	39	1	Very Low
R5/02929	Dwelling	Medium	28	37	38	1	Very Low
R5/02987	Dwelling	Medium	43	38	45	7	Low
R5/02996	Detached	Medium	30	38	39	1	Very Low
R5/02998	Dwelling	Medium	30	38	39	1	Very Low
R5/03013	Caravan	Medium	30	38	39	1	Very Low
R5/03134	Dwelling	Medium	36	38	40	2	Low
R5/03211	Dwelling	Medium	30	37	38	1	Very Low
R5/03236	Dwelling	Medium	30	37	38	1	Very Low
R5/03353	Dwelling	Medium	31	38	39	1	Very Low
R5/03383	Dwelling	Medium	31	38	39	1	Very Low
R5/03422	Dwelling	Medium	31	38	39	1	Very Low
R5/03423	Dwelling	Medium	36	38	40	2	Low
R5/03425	Dwelling	Medium	35	38	40	2	Low
R5/03427	Dwelling	Medium	31	38	39	1	Very Low
R5/03429	Dwelling	Medium	35	38	40	2	Low
R5/03435	Dwelling	Medium	35	38	40	2	Low



Tunnel Related Works TBM Method (Scenarios 1 and 2) - Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03438	Dwelling	Medium	31	38	39	1	Very Low
R5/03440	Dwelling	Medium	35	38	40	2	Low
R5/03443	Dwelling	Medium	35	38	40	2	Low
R5/03460	Dwelling	Medium	30	38	39	1	Very Low
R5/03469	Dwelling	Medium	30	38	39	1	Very Low
R5/03475	Terraced	Medium	30	38	39	1	Very Low
R5/03482	Terraced	Medium	30	38	39	1	Very Low
R5/03484	Dwelling	Medium	30	38	39	1	Very Low
R5/03493	Terraced	Medium	30	38	39	1	Very Low
R5/03496	Dwelling	Medium	30	38	39	1	Very Low
R5/03505	Dwelling	Medium	30	38	39	1	Very Low
R5/03513	Terraced	Medium	30	38	39	1	Very Low
R5/03516	Dwelling	Medium	30	38	39	1	Very Low
R5/03521	Terraced	Medium	30	38	39	1	Very Low
R5/03533	Terraced	Medium	30	38	39	1	Very Low
R5/03554	Dwelling	Medium	30	38	39	1	Very Low
R5/03565	Dwelling	Medium	30	38	39	1	Very Low
R5/03576	Dwelling	Medium	30	38	39	1	Very Low
R5/03591	Dwelling	Medium	30	38	39	1	Very Low
R5/03607	Dwelling	Medium	30	38	39	1	Very Low
R5/03617	Dwelling	Medium	30	38	39	1	Very Low
R5/03647	Dwelling	Medium	29	38	39	1	Very Low
R5/03691	Dwelling	Medium	29	38	39	1	Very Low
R5/03694	Dwelling	Medium	29	38	39	1	Very Low
R5/03705	Dwelling	Medium	29	38	39	1	Very Low
R5/03723	Dwelling	Medium	29	38	39	1	Very Low
R5/03726	Dwelling	Medium	29	38	39	1	Very Low
R5/03741	Dwelling	Medium	29	38	39	1	Very Low
R5/03746	Terraced	Medium	32	38	39	1	Very Low
R5/03751	Dwelling	Medium	32	38	39	1	Very Low

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Night-time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Night-time Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03755	Dwelling	Medium	32	38	39	1	Very Low
R5/03768	Dwelling	Medium	29	38	39	1	Very Low
R5/03769	Dwelling	Medium	29	38	39	1	Very Low
R5/03796	Dwelling	Medium	29	38	39	1	Very Low
R5/03819	Dwelling	Medium	29	38	39	1	Very Low
R5/03820	Dwelling	Medium	29	38	39	1	Very Low
R5/03902	Dwelling	Medium	29	38	39	1	Very Low
R5/03932	Dwelling	Medium	29	38	39	1	Very Low
R5/03972	Dwelling	Medium	29	38	39	1	Very Low
R5/04078	Dwelling	Medium	31	38	39	1	Very Low
R5/04091	Dwelling	Medium	31	38	39	1	Very Low
R5/04116	Dwelling	Medium	31	38	39	1	Very Low
R5/04481	Dwelling	Medium	29	38	39	1	Very Low
R5/04503	Dwelling	Medium	29	38	39	1	Very Low
R5/04518	Residential	Medium	29	38	39	1	Very Low
R5/04534	Dwelling	Medium	29	38	39	1	Very Low
R5/04537	Dwelling	Medium	29	38	39	1	Very Low
R5/04551	Residential	Medium	29	38	39	1	Very Low
R5/04571	Dwelling	Medium	29	38	39	1	Very Low
R5/04594	Dwelling	Medium	28	38	39	1	Very Low
R5/13319	Detached	Medium	29	38	39	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	29	38	39	1	Very Low
R5/13711	Residential	Medium	33	38	39	1	Very Low
R5/13724	Residential	Medium	42	38	44	6	Low
AONB	Recognised Area of Tranquillity	Medium	33	37	39	2	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	28	37	39	2	Very Low

## 1.10 TUNNEL RELATED WORKS TBM METHOD (SCENARIOS 1 AND 2) - OVERALL MAGNITUDE OF EFFECTS

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
C5/00457	Shop / Showroom	Low	Very Low
C5/00458	Workshop / Light Industrial	Very low	Very Low
C5/00459	Shop / Showroom	Low	Very Low
C5/00460	Shop / Showroom	Low	Very Low
C5/00462	Retail	Low	Very Low
C5/00464	Shop / Showroom	Low	Very Low
C5/00465	Shop / Showroom	Low	Very Low
C5/00469	Shop / Showroom	Low	Very Low
C5/00490	Commercial	Low	Low
C5/00525	Other Educational Establishment	Medium	Very Low
C5/00544	Retail	Low	Very Low
C5/00559	Retail	Low	Very Low
C5/00560	Shop / Showroom	Low	Very Low
C5/00561	Shop / Showroom	Low	Very Low
R5/02613	Dwelling	Medium	Very Low
R5/02635	Detached	Medium	Very Low
R5/02636	Detached	Medium	Very Low
R5/02641	Detached	Medium	Very Low
R5/02649	Dwelling	Medium	No Effect
R5/02654	Dwelling	Medium	No Effect
R5/02678	Dwelling	Medium	Very Low
R5/02687	Dwelling	Medium	Very Low
R5/02691	Dwelling	Medium	Very Low
R5/02705	Dwelling	Medium	Very Low
R5/02725	Dwelling	Medium	Very Low
R5/02726	Dwelling	Medium	No Effect
R5/02728	Semi-Detached	Medium	No Effect
R5/02731	Dwelling	Medium	No Effect

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/02741	Dwelling	Medium	No Effect
R5/02743	Dwelling	Medium	No Effect
R5/02751	Dwelling	Medium	No Effect
R5/02761	Dwelling	Medium	No Effect
R5/02812	Detached	Medium	No Effect
R5/02815	Dwelling	Medium	Low
R5/02878	Detached	Medium	Very Low
R5/02908	Dwelling	Medium	Very Low
R5/02914	Dwelling	Medium	Very Low
R5/02917	Dwelling	Medium	Very Low
R5/02920	Dwelling	Medium	Very Low
R5/02925	Dwelling	Medium	Very Low
R5/02927	Dwelling	Medium	Very Low
R5/02929	Dwelling	Medium	Very Low
R5/02987	Dwelling	Medium	Low
R5/02996	Detached	Medium	Very Low
R5/02998	Dwelling	Medium	Very Low
R5/03013	Caravan	Medium	Very Low
R5/03134	Dwelling	Medium	Low
R5/03211	Dwelling	Medium	Very Low
R5/03236	Dwelling	Medium	Very Low
R5/03353	Dwelling	Medium	Very Low
R5/03383	Dwelling	Medium	Very Low
R5/03422	Dwelling	Medium	Very Low
R5/03423	Dwelling	Medium	Low
R5/03425	Dwelling	Medium	Low
R5/03427	Dwelling	Medium	Very Low
R5/03429	Dwelling	Medium	Low
R5/03435	Dwelling	Medium	Low
R5/03438	Dwelling	Medium	Very Low

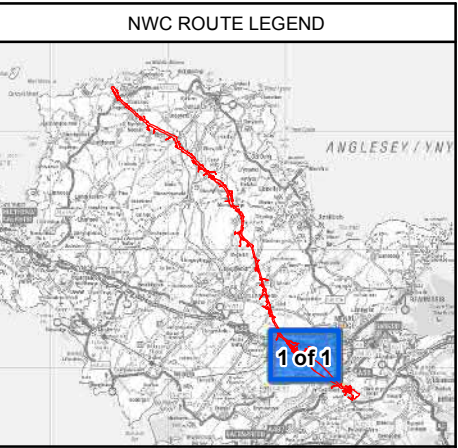
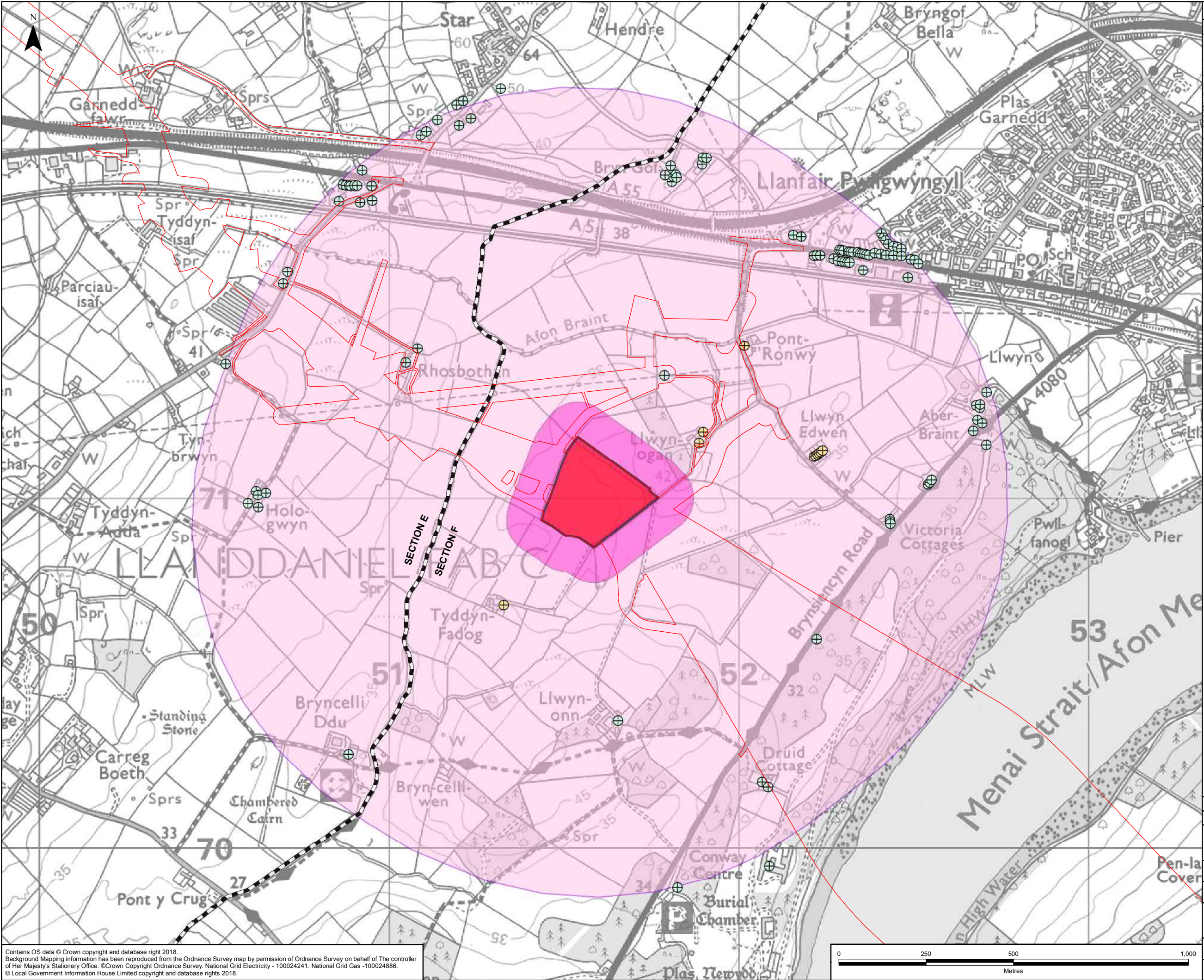
Tunnel Related Works TBM Method (Scenarios 1 and 2) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03440	Dwelling	Medium	Low
R5/03443	Dwelling	Medium	Low
R5/03460	Dwelling	Medium	Very Low
R5/03469	Dwelling	Medium	Very Low
R5/03475	Terraced	Medium	Very Low
R5/03482	Terraced	Medium	Very Low
R5/03484	Dwelling	Medium	Very Low
R5/03493	Terraced	Medium	Very Low
R5/03496	Dwelling	Medium	Very Low
R5/03505	Dwelling	Medium	Very Low
R5/03513	Terraced	Medium	Very Low
R5/03516	Dwelling	Medium	Very Low
R5/03521	Terraced	Medium	Very Low
R5/03533	Terraced	Medium	Very Low
R5/03554	Dwelling	Medium	Very Low
R5/03565	Dwelling	Medium	Very Low
R5/03576	Dwelling	Medium	Very Low
R5/03591	Dwelling	Medium	Very Low
R5/03607	Dwelling	Medium	Very Low
R5/03617	Dwelling	Medium	Very Low
R5/03647	Dwelling	Medium	Very Low
R5/03691	Dwelling	Medium	Very Low
R5/03694	Dwelling	Medium	Very Low
R5/03705	Dwelling	Medium	Very Low
R5/03723	Dwelling	Medium	Very Low
R5/03726	Dwelling	Medium	Very Low
R5/03741	Dwelling	Medium	Very Low
R5/03746	Terraced	Medium	Very Low
R5/03751	Dwelling	Medium	Very Low
R5/03755	Dwelling	Medium	Very Low

Tunnel Related Works TBM Method (Scenarios 1 and 2) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03768	Dwelling	Medium	Very Low
R5/03769	Dwelling	Medium	Very Low
R5/03796	Dwelling	Medium	Very Low
R5/03819	Dwelling	Medium	Very Low
R5/03820	Dwelling	Medium	Very Low
R5/03902	Dwelling	Medium	Very Low
R5/03932	Dwelling	Medium	Very Low
R5/03972	Dwelling	Medium	Very Low
R5/04078	Dwelling	Medium	Very Low
R5/04091	Dwelling	Medium	Very Low
R5/04116	Dwelling	Medium	Very Low
R5/04481	Dwelling	Medium	Very Low
R5/04503	Dwelling	Medium	Very Low
R5/04518	Residential	Medium	Very Low
R5/04534	Dwelling	Medium	Very Low
R5/04537	Dwelling	Medium	Very Low
R5/04551	Residential	Medium	Very Low
R5/04571	Dwelling	Medium	Very Low
R5/04594	Dwelling	Medium	Very Low
R5/13319	Detached	Medium	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	Very Low
R5/13711	Residential	Medium	Very Low
R5/13724	Residential	Medium	Low
AONB	Recognised Area of Tranquillity	Medium	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	Very Low

## Figure A

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**LEGEND**

ORDER LIMITS

SECTION OUTLINES

SIGNIFICANCE OF EFFECT:

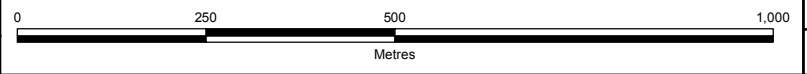
- MINOR
- NEGLECTIBLE

CONSTRUCTION COMPOUND

NOISE STUDY AREA: BRAINT CONSTRUCTION COMPOUND

VIBRATION STUDY AREA: BRAINT CONSTRUCTION COMPOUND

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Document Number: 5.15.2.12					
Document Title: FIGURE A SIGNIFICANCE OF EFFECTS FROM WORKS WITHIN THE BRAINT CONSTRUCTION COMPOUND - TUNNEL BORING MACHINE METHOD (SCENARIOS 1 AND 2) SECTION E & F					
Creator: JF	Date: 10/08/2018	Checker: SH	Date: 10/08/2018	Approver: PE	Date: 10/08/2018
Document Type: FIGURE	Scale: 1:10,000	Format: A3	Sheets: 1 of 1	Rev: A	





## 5. Tunnel Related Works – D&B Method (Scenario 3)

### 1.11 TUNNEL RELATED WORKS D&B METHOD (SCENARIO 3) - DAYTIME EFFECTS

Tunnel Related Works D&B Method (Scenario 3) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	41	60	60	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	40	63	63	0	No Effect
C5/00459	Shop / Showroom	Low	40	63	63	0	No Effect
C5/00460	Shop / Showroom	Low	40	63	63	0	No Effect
C5/00462	Retail	Low	40	63	63	0	No Effect
C5/00464	Shop / Showroom	Low	40	63	63	0	No Effect
C5/00465	Shop / Showroom	Low	40	63	63	0	No Effect
C5/00469	Shop / Showroom	Low	41	64	64	0	No Effect
C5/00490	Commercial	Low	51	48	53	5	Very Low
C5/00525	Other Educational Establishment	Medium	38	45	46	1	Very Low
C5/00544	Retail	Low	42	48	49	1	Very Low
C5/00559	Retail	Low	41	53	53	0	No Effect
C5/00560	Shop / Showroom	Low	41	53	53	0	No Effect
C5/00561	Shop / Showroom	Low	41	53	53	0	No Effect
R5/02613	Dwelling	Medium	40	52	52	0	No Effect
R5/02635	Detached	Medium	42	48	49	1	Very Low
R5/02636	Detached	Medium	42	48	49	1	Very Low
R5/02641	Detached	Medium	43	48	49	1	Very Low
R5/02649	Dwelling	Medium	41	58	58	0	No Effect
R5/02654	Dwelling	Medium	41	58	58	0	No Effect
R5/02678	Dwelling	Medium	42	45	47	2	Very Low
R5/02687	Dwelling	Medium	41	62	62	0	No Effect
R5/02691	Dwelling	Medium	40	67	67	0	No Effect
R5/02705	Dwelling	Medium	41	61	61	0	No Effect

Tunnel Related Works D&B Method (Scenario 3) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02725	Dwelling	Medium	46	48	50	2	Very Low
R5/02726	Dwelling	Medium	40	64	64	0	No Effect
R5/02728	Semi-Detached	Medium	40	63	63	0	No Effect
R5/02731	Dwelling	Medium	40	60	60	0	No Effect
R5/02741	Dwelling	Medium	40	58	58	0	No Effect
R5/02743	Dwelling	Medium	40	60	60	0	No Effect
R5/02751	Dwelling	Medium	40	58	58	0	No Effect
R5/02761	Dwelling	Medium	40	59	59	0	No Effect
R5/02812	Detached	Medium	40	57	57	0	No Effect
R5/02815	Dwelling	Medium	52	45	53	8	Low
R5/02878	Detached	Medium	48	45	50	5	Very Low
R5/02908	Dwelling	Medium	42	60	60	0	No Effect
R5/02914	Dwelling	Medium	42	58	58	0	No Effect
R5/02917	Dwelling	Medium	42	60	60	0	No Effect
R5/02920	Dwelling	Medium	42	60	60	0	No Effect
R5/02925	Dwelling	Medium	42	59	59	0	No Effect
R5/02927	Dwelling	Medium	42	59	59	0	No Effect
R5/02929	Dwelling	Medium	40	45	46	1	Very Low
R5/02987	Dwelling	Medium	54	48	55	7	Low
R5/02996	Detached	Medium	41	57	57	0	No Effect
R5/02998	Dwelling	Medium	41	57	57	0	No Effect
R5/03013	Caravan	Medium	41	57	57	0	No Effect
R5/03134	Dwelling	Medium	47	55	56	1	Very Low
R5/03211	Dwelling	Medium	42	45	47	2	Very Low
R5/03236	Dwelling	Medium	42	45	47	2	Very Low
R5/03353	Dwelling	Medium	42	66	66	0	No Effect
R5/03383	Dwelling	Medium	42	48	49	1	Very Low
R5/03422	Dwelling	Medium	43	48	49	1	Very Low
R5/03423	Dwelling	Medium	47	52	53	1	Very Low

Tunnel Related Works D&B Method (Scenario 3) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03425	Dwelling	Medium	47	52	53	1	Very Low
R5/03427	Dwelling	Medium	42	59	59	0	No Effect
R5/03429	Dwelling	Medium	47	52	53	1	Very Low
R5/03435	Dwelling	Medium	47	52	53	1	Very Low
R5/03438	Dwelling	Medium	42	59	59	0	No Effect
R5/03440	Dwelling	Medium	46	52	53	1	Very Low
R5/03443	Dwelling	Medium	46	52	53	1	Very Low
R5/03460	Dwelling	Medium	42	58	58	0	No Effect
R5/03469	Dwelling	Medium	42	58	58	0	No Effect
R5/03475	Terraced	Medium	42	59	59	0	No Effect
R5/03482	Terraced	Medium	42	58	58	0	No Effect
R5/03484	Dwelling	Medium	42	57	58	0	No Effect
R5/03493	Terraced	Medium	42	58	58	0	No Effect
R5/03496	Dwelling	Medium	42	57	57	0	No Effect
R5/03505	Dwelling	Medium	42	57	57	0	No Effect
R5/03513	Terraced	Medium	42	58	58	0	No Effect
R5/03516	Dwelling	Medium	42	57	57	0	No Effect
R5/03521	Terraced	Medium	42	58	58	0	No Effect
R5/03533	Terraced	Medium	41	58	58	0	No Effect
R5/03554	Dwelling	Medium	41	57	57	0	No Effect
R5/03565	Dwelling	Medium	41	57	57	0	No Effect
R5/03576	Dwelling	Medium	41	57	57	0	No Effect
R5/03591	Dwelling	Medium	41	57	57	0	No Effect
R5/03607	Dwelling	Medium	41	57	57	0	No Effect
R5/03617	Dwelling	Medium	41	56	56	0	No Effect
R5/03647	Dwelling	Medium	41	56	56	0	No Effect
R5/03691	Dwelling	Medium	41	56	56	0	No Effect
R5/03694	Dwelling	Medium	40	57	57	0	No Effect
R5/03705	Dwelling	Medium	41	57	57	0	No Effect

Tunnel Related Works D&B Method (Scenario 3) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03723	Dwelling	Medium	41	56	56	0	No Effect
R5/03726	Dwelling	Medium	41	55	55	0	No Effect
R5/03741	Dwelling	Medium	41	56	56	0	No Effect
R5/03746	Terraced	Medium	44	57	57	0	No Effect
R5/03751	Dwelling	Medium	44	59	59	0	No Effect
R5/03755	Dwelling	Medium	44	60	60	0	No Effect
R5/03768	Dwelling	Medium	40	55	55	0	No Effect
R5/03769	Dwelling	Medium	41	55	55	0	No Effect
R5/03796	Dwelling	Medium	40	55	55	0	No Effect
R5/03819	Dwelling	Medium	40	55	55	0	No Effect
R5/03820	Dwelling	Medium	40	54	54	0	No Effect
R5/03902	Dwelling	Medium	40	54	54	0	No Effect
R5/03932	Dwelling	Medium	40	54	54	0	No Effect
R5/03972	Dwelling	Medium	40	53	54	0	No Effect
R5/04078	Dwelling	Medium	43	65	65	0	No Effect
R5/04091	Dwelling	Medium	42	65	65	0	No Effect
R5/04116	Dwelling	Medium	42	65	65	0	No Effect
R5/04481	Dwelling	Medium	41	62	62	0	No Effect
R5/04503	Dwelling	Medium	41	54	54	0	No Effect
R5/04518	Residential	Medium	41	57	57	0	No Effect
R5/04534	Dwelling	Medium	40	54	54	0	No Effect
R5/04537	Dwelling	Medium	40	54	54	0	No Effect
R5/04551	Residential	Medium	41	62	62	0	No Effect
R5/04571	Dwelling	Medium	41	55	55	0	No Effect
R5/04594	Dwelling	Medium	40	53	54	0	No Effect
R5/13319	Detached	Medium	43	48	49	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	42	48	49	1	Very Low
R5/13711	Residential	Medium	46	48	50	2	Very Low

Tunnel Related Works D&B Method (Scenario 3) - Daytime Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Daytime Noise Level $L_{Aeq,T}$ dB	Pre Construction Daytime Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/13724	Residential	Medium	52	48	54	6	Low
AONB	Recognised Area of Tranquillity	Medium	45	45	48	3	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	45	45	48	3	Very Low

## 1.12 TUNNEL RELATED WORKS D&B METHOD (SCENARIO 3) - WEEKEND EFFECTS

Tunnel Related Works D&B Method (Scenario 3) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Evening and Weekend Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	41	57	57	0	No Effect
C5/00458	Workshop / Light Industrial	Very low	40	60	60	0	No Effect
C5/00459	Shop / Showroom	Low	40	60	60	0	No Effect
C5/00460	Shop / Showroom	Low	40	60	60	0	No Effect
C5/00462	Retail	Low	40	60	60	0	No Effect
C5/00464	Shop / Showroom	Low	40	60	60	0	No Effect
C5/00465	Shop / Showroom	Low	40	60	60	0	No Effect
C5/00469	Shop / Showroom	Low	41	61	61	0	No Effect
C5/00490	Commercial	Low	51	44	52	8	Low
C5/00525	Other Educational Establishment	Medium	38	41	43	2	Very Low
C5/00544	Retail	Low	42	44	46	2	Very Low
C5/00559	Retail	Low	41	50	50	0	Very Low
C5/00560	Shop / Showroom	Low	41	50	50	0	Very Low
C5/00561	Shop / Showroom	Low	41	50	50	0	Very Low
R5/02613	Dwelling	Medium	40	49	49	1	Very Low
R5/02635	Detached	Medium	42	45	47	2	Very Low
R5/02636	Detached	Medium	42	45	47	2	Very Low
R5/02641	Detached	Medium	43	45	47	2	Very Low
R5/02649	Dwelling	Medium	41	55	55	0	No Effect
R5/02654	Dwelling	Medium	41	55	55	0	No Effect
R5/02678	Dwelling	Medium	42	41	44	3	Very Low
R5/02687	Dwelling	Medium	41	59	59	0	No Effect
R5/02691	Dwelling	Medium	40	64	64	0	No Effect
R5/02705	Dwelling	Medium	41	58	58	0	No Effect
R5/02725	Dwelling	Medium	46	45	49	4	Very Low
R5/02726	Dwelling	Medium	40	61	61	0	No Effect
R5/02728	Semi-Detached	Medium	40	60	60	0	No Effect
R5/02731	Dwelling	Medium	40	57	57	0	No Effect



Tunnel Related Works D&B Method (Scenario 3) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Evening and Weekend Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/02741	Dwelling	Medium	40	55	55	0	No Effect
R5/02743	Dwelling	Medium	40	57	57	0	No Effect
R5/02751	Dwelling	Medium	40	55	55	0	No Effect
R5/02761	Dwelling	Medium	40	56	56	0	No Effect
R5/02812	Detached	Medium	40	54	55	0	No Effect
R5/02815	Dwelling	Medium	52	41	53	12	Low
R5/02878	Detached	Medium	48	41	49	8	Very Low
R5/02908	Dwelling	Medium	42	57	57	0	No Effect
R5/02914	Dwelling	Medium	42	55	55	0	No Effect
R5/02917	Dwelling	Medium	42	57	57	0	No Effect
R5/02920	Dwelling	Medium	42	57	57	0	No Effect
R5/02925	Dwelling	Medium	42	56	56	0	No Effect
R5/02927	Dwelling	Medium	42	56	57	0	No Effect
R5/02929	Dwelling	Medium	40	41	44	3	Very Low
R5/02987	Dwelling	Medium	54	44	55	11	Low
R5/02996	Detached	Medium	41	54	55	0	No Effect
R5/02998	Dwelling	Medium	41	54	54	0	No Effect
R5/03013	Caravan	Medium	41	54	54	0	No Effect
R5/03134	Dwelling	Medium	47	52	53	1	Low
R5/03211	Dwelling	Medium	42	41	45	4	Very Low
R5/03236	Dwelling	Medium	42	41	44	3	Very Low
R5/03353	Dwelling	Medium	42	63	63	0	No Effect
R5/03383	Dwelling	Medium	42	44	46	2	Very Low
R5/03422	Dwelling	Medium	43	44	46	2	Very Low
R5/03423	Dwelling	Medium	47	49	51	2	Low
R5/03425	Dwelling	Medium	47	49	51	2	Low
R5/03427	Dwelling	Medium	42	56	56	0	No Effect
R5/03429	Dwelling	Medium	47	49	51	2	Low
R5/03435	Dwelling	Medium	47	49	51	2	Low

Tunnel Related Works D&B Method (Scenario 3) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Evening and Weekend Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03438	Dwelling	Medium	42	56	56	0	No Effect
R5/03440	Dwelling	Medium	46	49	51	2	Low
R5/03443	Dwelling	Medium	46	49	51	2	Low
R5/03460	Dwelling	Medium	42	55	55	0	No Effect
R5/03469	Dwelling	Medium	42	55	55	0	No Effect
R5/03475	Terraced	Medium	42	56	56	0	No Effect
R5/03482	Terraced	Medium	42	55	56	0	No Effect
R5/03484	Dwelling	Medium	42	54	55	0	No Effect
R5/03493	Terraced	Medium	42	55	55	0	No Effect
R5/03496	Dwelling	Medium	42	54	55	0	No Effect
R5/03505	Dwelling	Medium	42	54	54	0	No Effect
R5/03513	Terraced	Medium	42	55	55	0	No Effect
R5/03516	Dwelling	Medium	42	54	54	0	No Effect
R5/03521	Terraced	Medium	42	55	55	0	No Effect
R5/03533	Terraced	Medium	41	55	55	0	No Effect
R5/03554	Dwelling	Medium	41	54	55	0	No Effect
R5/03565	Dwelling	Medium	41	54	54	0	No Effect
R5/03576	Dwelling	Medium	41	54	54	0	No Effect
R5/03591	Dwelling	Medium	41	54	54	0	No Effect
R5/03607	Dwelling	Medium	41	54	54	0	No Effect
R5/03617	Dwelling	Medium	41	53	53	0	No Effect
R5/03647	Dwelling	Medium	41	53	53	0	No Effect
R5/03691	Dwelling	Medium	41	53	53	0	No Effect
R5/03694	Dwelling	Medium	40	54	54	0	No Effect
R5/03705	Dwelling	Medium	41	54	54	0	No Effect
R5/03723	Dwelling	Medium	41	53	53	0	No Effect
R5/03726	Dwelling	Medium	41	52	52	0	No Effect
R5/03741	Dwelling	Medium	41	53	53	0	No Effect
R5/03746	Terraced	Medium	44	54	55	0	No Effect

Tunnel Related Works D&B Method (Scenario 3) - Weekend Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level $L_{Aeq,T}$ dB	Pre Construction Evening and Weekend Ambient Noise Level, $L_{Aeq,T}$ dB	Log Sum of Daytime Pre Construction Ambient Noise and Predicted Noise Level, $L_{Aeq,T}$ dB	Exceedance of Daytime Pre Construction Noise, dB	Magnitude of Effect
R5/03751	Dwelling	Medium	44	56	56	0	No Effect
R5/03755	Dwelling	Medium	44	57	57	0	No Effect
R5/03768	Dwelling	Medium	40	52	53	0	No Effect
R5/03769	Dwelling	Medium	41	52	52	0	No Effect
R5/03796	Dwelling	Medium	40	52	52	0	No Effect
R5/03819	Dwelling	Medium	40	52	52	0	No Effect
R5/03820	Dwelling	Medium	40	51	52	0	No Effect
R5/03902	Dwelling	Medium	40	51	51	0	No Effect
R5/03932	Dwelling	Medium	40	51	51	0	No Effect
R5/03972	Dwelling	Medium	40	50	51	0	No Effect
R5/04078	Dwelling	Medium	43	62	62	0	No Effect
R5/04091	Dwelling	Medium	42	62	62	0	No Effect
R5/04116	Dwelling	Medium	42	62	62	0	No Effect
R5/04481	Dwelling	Medium	41	59	59	0	No Effect
R5/04503	Dwelling	Medium	41	51	51	0	No Effect
R5/04518	Residential	Medium	41	54	54	0	No Effect
R5/04534	Dwelling	Medium	40	51	51	0	No Effect
R5/04537	Dwelling	Medium	40	51	51	0	No Effect
R5/04551	Residential	Medium	41	59	59	0	No Effect
R5/04571	Dwelling	Medium	41	52	52	0	No Effect
R5/04594	Dwelling	Medium	40	50	51	0	No Effect
R5/13319	Detached	Medium	43	45	47	2	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	42	45	47	2	Very Low
R5/13711	Residential	Medium	46	45	49	4	Very Low
R5/13724	Residential	Medium	52	44	53	9	Low
AONB	Recognised Area of Tranquillity	Medium	45	41	46	5	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	45	41	46	5	Very Low

### 1.13 TUNNEL RELATED WORKS D&B METHOD (SCENARIO 3) - NIGHT-TIME EFFECTS

Tunnel Related Works D&B Method (Scenario 3) - Night-Time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Night-time Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
C5/00457	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00458	Workshop / Light Industrial	Very low	29	38	39	1	Very Low
C5/00459	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00460	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00462	Retail	Low	29	38	39	1	Very Low
C5/00464	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00465	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00469	Shop / Showroom	Low	29	38	39	1	Very Low
C5/00490	Commercial	Low	39	38	42	4	Low
C5/00525	Other Educational Establishment	Medium	27	37	37	0	Very Low
C5/00544	Retail	Low	31	38	39	1	Very Low
C5/00559	Retail	Low	30	38	39	1	Very Low
C5/00560	Shop / Showroom	Low	30	38	39	1	Very Low
C5/00561	Shop / Showroom	Low	30	38	39	1	Very Low
R5/02613	Dwelling	Medium	29	38	38	0	Very Low
R5/02635	Detached	Medium	30	38	39	1	Very Low
R5/02636	Detached	Medium	30	38	39	1	Very Low
R5/02641	Detached	Medium	30	38	39	1	Very Low
R5/02649	Dwelling	Medium	29	38	38	0	Very Low
R5/02654	Dwelling	Medium	29	38	38	0	Very Low
R5/02678	Dwelling	Medium	29	37	38	1	Very Low
R5/02687	Dwelling	Medium	30	38	39	1	Very Low
R5/02691	Dwelling	Medium	29	38	38	0	Very Low
R5/02705	Dwelling	Medium	30	38	39	1	Very Low
R5/02725	Dwelling	Medium	35	38	40	2	Very Low
R5/02726	Dwelling	Medium	29	38	39	1	Very Low
R5/02728	Semi-Detached	Medium	29	38	38	0	Very Low

Tunnel Related Works D&B Method (Scenario 3) - Night-Time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Night-time Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/02731	Dwelling	Medium	28	38	38	0	Very Low
R5/02741	Dwelling	Medium	28	38	38	0	No Effect
R5/02743	Dwelling	Medium	28	38	38	0	Very Low
R5/02751	Dwelling	Medium	28	38	38	0	No Effect
R5/02761	Dwelling	Medium	28	38	38	0	Very Low
R5/02812	Detached	Medium	28	38	38	0	No Effect
R5/02815	Dwelling	Medium	40	37	42	5	Low
R5/02878	Detached	Medium	36	37	40	3	Very Low
R5/02908	Dwelling	Medium	29	38	39	1	Very Low
R5/02914	Dwelling	Medium	29	38	39	1	Very Low
R5/02917	Dwelling	Medium	30	38	39	1	Very Low
R5/02920	Dwelling	Medium	30	38	39	1	Very Low
R5/02925	Dwelling	Medium	30	38	39	1	Very Low
R5/02927	Dwelling	Medium	30	38	39	1	Very Low
R5/02929	Dwelling	Medium	29	37	38	1	Very Low
R5/02987	Dwelling	Medium	44	38	45	7	Low
R5/02996	Detached	Medium	29	38	39	1	Very Low
R5/02998	Dwelling	Medium	29	38	39	1	Very Low
R5/03013	Caravan	Medium	29	38	39	1	Very Low
R5/03134	Dwelling	Medium	35	38	40	2	Very Low
R5/03211	Dwelling	Medium	31	37	38	1	Very Low
R5/03236	Dwelling	Medium	30	37	38	1	Very Low
R5/03353	Dwelling	Medium	31	38	39	1	Very Low
R5/03383	Dwelling	Medium	31	38	39	1	Very Low
R5/03422	Dwelling	Medium	31	38	39	1	Very Low
R5/03423	Dwelling	Medium	36	38	40	2	Low
R5/03425	Dwelling	Medium	36	38	40	2	Low
R5/03427	Dwelling	Medium	31	38	39	1	Very Low
R5/03429	Dwelling	Medium	36	38	40	2	Low

Tunnel Related Works D&B Method (Scenario 3) - Night-Time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Night-time Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03435	Dwelling	Medium	36	38	40	2	Low
R5/03438	Dwelling	Medium	31	38	39	1	Very Low
R5/03440	Dwelling	Medium	36	38	40	2	Low
R5/03443	Dwelling	Medium	36	38	40	2	Low
R5/03460	Dwelling	Medium	31	38	39	1	Very Low
R5/03469	Dwelling	Medium	31	38	39	1	Very Low
R5/03475	Terraced	Medium	31	38	39	1	Very Low
R5/03482	Terraced	Medium	31	38	39	1	Very Low
R5/03484	Dwelling	Medium	31	38	39	1	Very Low
R5/03493	Terraced	Medium	31	38	39	1	Very Low
R5/03496	Dwelling	Medium	31	38	39	1	Very Low
R5/03505	Dwelling	Medium	31	38	39	1	Very Low
R5/03513	Terraced	Medium	31	38	39	1	Very Low
R5/03516	Dwelling	Medium	31	38	39	1	Very Low
R5/03521	Terraced	Medium	31	38	39	1	Very Low
R5/03533	Terraced	Medium	31	38	39	1	Very Low
R5/03554	Dwelling	Medium	31	38	39	1	Very Low
R5/03565	Dwelling	Medium	31	38	39	1	Very Low
R5/03576	Dwelling	Medium	31	38	39	1	Very Low
R5/03591	Dwelling	Medium	31	38	39	1	Very Low
R5/03607	Dwelling	Medium	31	38	39	1	Very Low
R5/03617	Dwelling	Medium	30	38	39	1	Very Low
R5/03647	Dwelling	Medium	30	38	39	1	Very Low
R5/03691	Dwelling	Medium	30	38	39	1	Very Low
R5/03694	Dwelling	Medium	30	38	39	1	Very Low
R5/03705	Dwelling	Medium	30	38	39	1	Very Low
R5/03723	Dwelling	Medium	30	38	39	1	Very Low
R5/03726	Dwelling	Medium	30	38	39	1	Very Low
R5/03741	Dwelling	Medium	30	38	39	1	Very Low



Tunnel Related Works D&B Method (Scenario 3) - Night-Time Effects							
Receptor	Receptor Classification	Sensitivity of Receptor	Predicted Noise Level L <sub>Aeq,T</sub> dB	Pre Construction Night-time Ambient Noise Level, L <sub>Aeq,T</sub> dB	Log Sum of Night-time Pre Construction Ambient Noise and Predicted Noise Level, L <sub>Aeq,T</sub> dB	Exceedance of Night-time Pre Construction Noise, dB	Magnitude of Effect
R5/03746	Terraced	Medium	34	38	40	2	Very Low
R5/03751	Dwelling	Medium	34	38	40	2	Very Low
R5/03755	Dwelling	Medium	34	38	40	2	Very Low
R5/03768	Dwelling	Medium	30	38	39	1	Very Low
R5/03769	Dwelling	Medium	30	38	39	1	Very Low
R5/03796	Dwelling	Medium	30	38	39	1	Very Low
R5/03819	Dwelling	Medium	30	38	39	1	Very Low
R5/03820	Dwelling	Medium	30	38	39	1	Very Low
R5/03902	Dwelling	Medium	29	38	39	1	Very Low
R5/03932	Dwelling	Medium	29	38	39	1	Very Low
R5/03972	Dwelling	Medium	29	38	39	1	Very Low
R5/04078	Dwelling	Medium	32	38	39	1	Very Low
R5/04091	Dwelling	Medium	32	38	39	1	Very Low
R5/04116	Dwelling	Medium	32	38	39	1	Very Low
R5/04481	Dwelling	Medium	30	38	39	1	Very Low
R5/04503	Dwelling	Medium	30	38	39	1	Very Low
R5/04518	Residential	Medium	30	38	39	1	Very Low
R5/04534	Dwelling	Medium	30	38	39	1	Very Low
R5/04537	Dwelling	Medium	30	38	39	1	Very Low
R5/04551	Residential	Medium	30	38	39	1	Very Low
R5/04571	Dwelling	Medium	30	38	39	1	Very Low
R5/04594	Dwelling	Medium	30	38	39	1	Very Low
R5/13319	Detached	Medium	31	38	39	1	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	31	38	39	1	Very Low
R5/13711	Residential	Medium	35	38	40	2	Very Low
R5/13724	Residential	Medium	42	38	44	6	Low
AONB	Recognised Area of Tranquillity	Medium	35	37	39	2	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	35	37	39	2	Very Low

#### 1.14 TUNNEL RELATED WORKS D&B METHOD (SCENARIO 3) - OVERALL MAGNITUDE OF EFFECTS

Tunnel Related Works D&B Method (Scenario 3) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
C5/00457	Shop / Showroom	Low	Very Low
C5/00458	Workshop / Light Industrial	Very low	Very Low
C5/00459	Shop / Showroom	Low	Very Low
C5/00460	Shop / Showroom	Low	Very Low
C5/00462	Retail	Low	Very Low
C5/00464	Shop / Showroom	Low	Very Low
C5/00465	Shop / Showroom	Low	Very Low
C5/00469	Shop / Showroom	Low	Very Low
C5/00490	Commercial	Low	Low
C5/00525	Other Educational Establishment	Medium	Very Low
C5/00544	Retail	Low	Very Low
C5/00559	Retail	Low	Very Low
C5/00560	Shop / Showroom	Low	Very Low
C5/00561	Shop / Showroom	Low	Very Low
R5/02613	Dwelling	Medium	Very Low
R5/02635	Detached	Medium	Very Low
R5/02636	Detached	Medium	Very Low
R5/02641	Detached	Medium	Very Low
R5/02649	Dwelling	Medium	Very Low
R5/02654	Dwelling	Medium	Very Low
R5/02678	Dwelling	Medium	Very Low
R5/02687	Dwelling	Medium	Very Low
R5/02691	Dwelling	Medium	Very Low
R5/02705	Dwelling	Medium	Very Low
R5/02725	Dwelling	Medium	Very Low
R5/02726	Dwelling	Medium	Very Low



Tunnel Related Works D&B Method (Scenario 3) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/02728	Semi-Detached	Medium	Very Low
R5/02731	Dwelling	Medium	Very Low
R5/02741	Dwelling	Medium	No Effect
R5/02743	Dwelling	Medium	Very Low
R5/02751	Dwelling	Medium	No Effect
R5/02761	Dwelling	Medium	Very Low
R5/02812	Detached	Medium	No Effect
R5/02815	Dwelling	Medium	Low
R5/02878	Detached	Medium	Very Low
R5/02908	Dwelling	Medium	Very Low
R5/02914	Dwelling	Medium	Very Low
R5/02917	Dwelling	Medium	Very Low
R5/02920	Dwelling	Medium	Very Low
R5/02925	Dwelling	Medium	Very Low
R5/02927	Dwelling	Medium	Very Low
R5/02929	Dwelling	Medium	Very Low
R5/02987	Dwelling	Medium	Low
R5/02996	Detached	Medium	Very Low
R5/02998	Dwelling	Medium	Very Low
R5/03013	Caravan	Medium	Very Low
R5/03134	Dwelling	Medium	Low
R5/03211	Dwelling	Medium	Very Low
R5/03236	Dwelling	Medium	Very Low
R5/03353	Dwelling	Medium	Very Low
R5/03383	Dwelling	Medium	Very Low
R5/03422	Dwelling	Medium	Very Low
R5/03423	Dwelling	Medium	Low
R5/03425	Dwelling	Medium	Low
R5/03427	Dwelling	Medium	Very Low
R5/03429	Dwelling	Medium	Low

Tunnel Related Works D&B Method (Scenario 3) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03435	Dwelling	Medium	Low
R5/03438	Dwelling	Medium	Very Low
R5/03440	Dwelling	Medium	Low
R5/03443	Dwelling	Medium	Low
R5/03460	Dwelling	Medium	Very Low
R5/03469	Dwelling	Medium	Very Low
R5/03475	Terraced	Medium	Very Low
R5/03482	Terraced	Medium	Very Low
R5/03484	Dwelling	Medium	Very Low
R5/03493	Terraced	Medium	Very Low
R5/03496	Dwelling	Medium	Very Low
R5/03505	Dwelling	Medium	Very Low
R5/03513	Terraced	Medium	Very Low
R5/03516	Dwelling	Medium	Very Low
R5/03521	Terraced	Medium	Very Low
R5/03533	Terraced	Medium	Very Low
R5/03554	Dwelling	Medium	Very Low
R5/03565	Dwelling	Medium	Very Low
R5/03576	Dwelling	Medium	Very Low
R5/03591	Dwelling	Medium	Very Low
R5/03607	Dwelling	Medium	Very Low
R5/03617	Dwelling	Medium	Very Low
R5/03647	Dwelling	Medium	Very Low
R5/03691	Dwelling	Medium	Very Low
R5/03694	Dwelling	Medium	Very Low
R5/03705	Dwelling	Medium	Very Low
R5/03723	Dwelling	Medium	Very Low
R5/03726	Dwelling	Medium	Very Low
R5/03741	Dwelling	Medium	Very Low
R5/03746	Terraced	Medium	Very Low

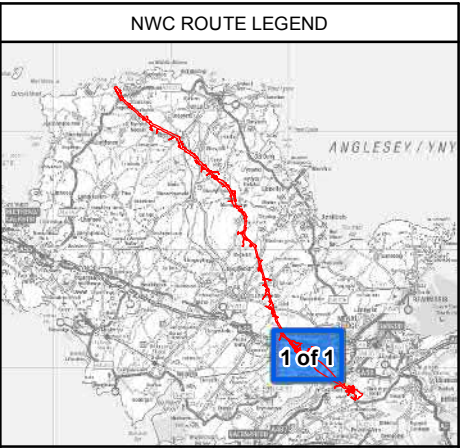
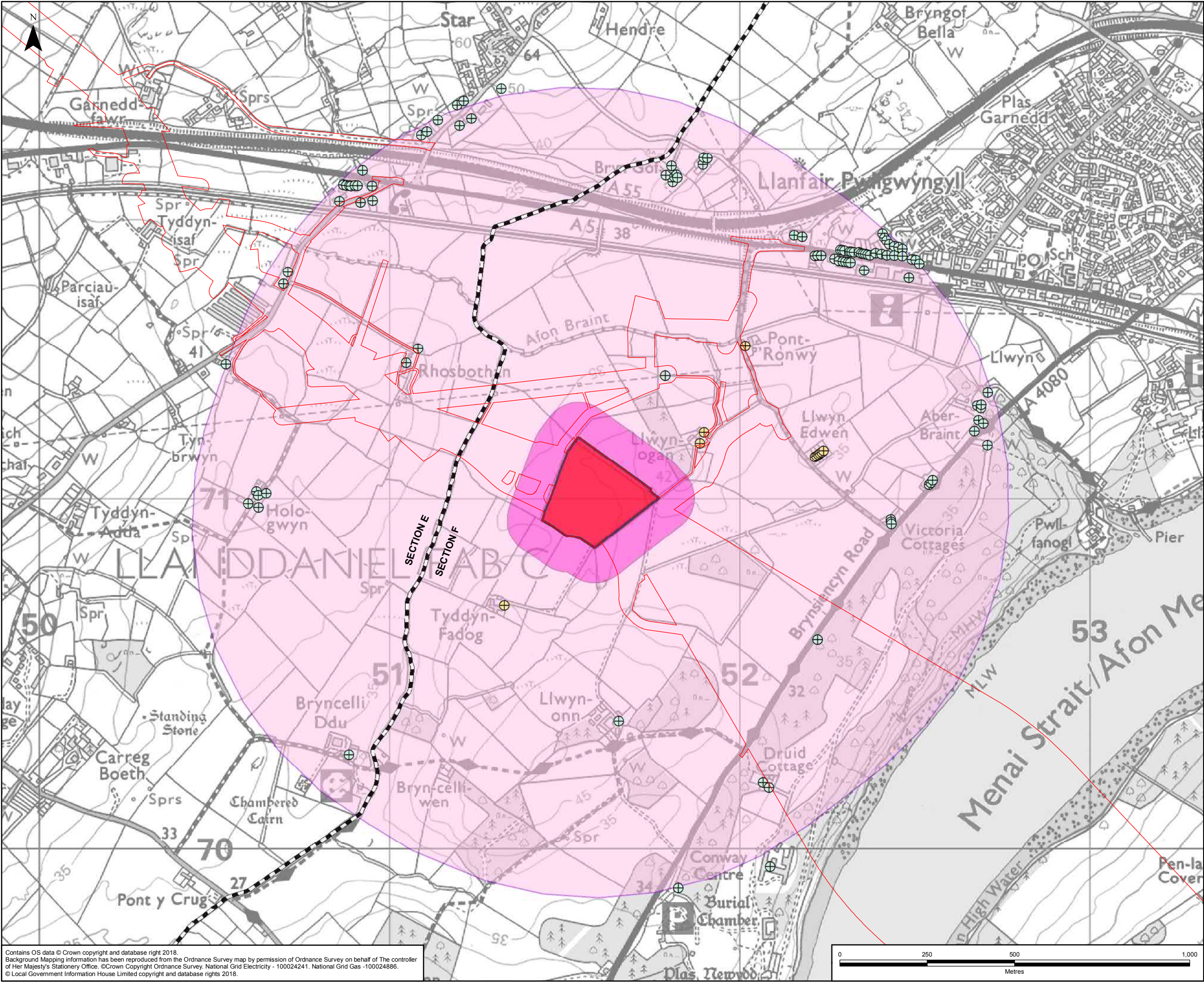
Tunnel Related Works D&B Method (Scenario 3) - Overall Magnitude of Effects			
Receptor	Receptor Classification	Sensitivity of Receptor	Maximum Magnitude of Effect Over all Periods
R5/03751	Dwelling	Medium	Very Low
R5/03755	Dwelling	Medium	Very Low
R5/03768	Dwelling	Medium	Very Low
R5/03769	Dwelling	Medium	Very Low
R5/03796	Dwelling	Medium	Very Low
R5/03819	Dwelling	Medium	Very Low
R5/03820	Dwelling	Medium	Very Low
R5/03902	Dwelling	Medium	Very Low
R5/03932	Dwelling	Medium	Very Low
R5/03972	Dwelling	Medium	Very Low
R5/04078	Dwelling	Medium	Very Low
R5/04091	Dwelling	Medium	Very Low
R5/04116	Dwelling	Medium	Very Low
R5/04481	Dwelling	Medium	Very Low
R5/04503	Dwelling	Medium	Very Low
R5/04518	Residential	Medium	Very Low
R5/04534	Dwelling	Medium	Very Low
R5/04537	Dwelling	Medium	Very Low
R5/04551	Residential	Medium	Very Low
R5/04571	Dwelling	Medium	Very Low
R5/04594	Dwelling	Medium	Very Low
R5/13319	Detached	Medium	Very Low
R5/13339	Privately Owned Holiday Caravan / Chalet	Medium	Very Low
R5/13711	Residential	Medium	Very Low
R5/13724	Residential	Medium	Low
AONB	Recognised Area of Tranquillity	Medium	Very Low
Plas Newydd (users of)	Plas Newydd National Trust (Grounds and Buildings)	Medium	Very Low

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## Figure B

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**LEGEND**

ORDER LIMITS

SECTION OUTLINES

SIGNIFICANCE OF EFFECT:

- MINOR
- NEGLIGIBLE

CONSTRUCTION COMPOUND

NOISE STUDY AREA: BRAINT CONSTRUCTION COMPOUND

VIBRATION STUDY AREA: BRAINT CONSTRUCTION COMPOUND

A	10/08/2018	ENVIRONMENTAL STATEMENT	JF	SH	PE
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: NORTH WALES CONNECTION PROJECT					
Document Number: 5.15.2.12					
Document Title: FIGURE B SIGNIFICANCE OF EFFECTS FROM WORKS WITHIN THE BRAINT CONSTRUCTION COMPOUND - DRILL AND BLAST METHOD (SCENARIO 3) SECTION E & F					
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