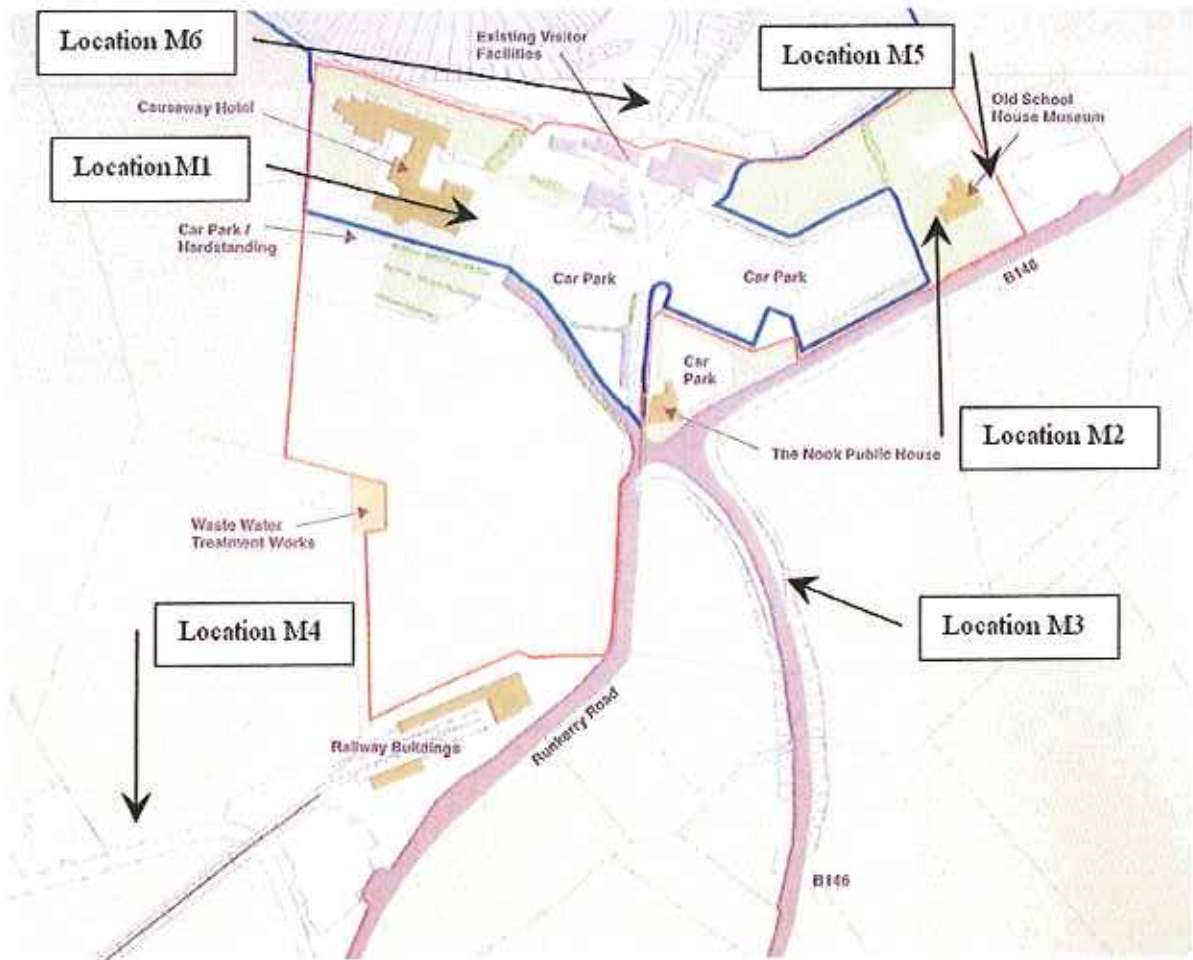


Appendix H

Noise and Vibration

H1 Baseline Noise Survey Locations



H2 Baseline Survey Results

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|--|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₉₀ | L ₁₀ | L _{max} | L _{eq} | |
| 15.11.06 | 15:30 | 15:40 | 2.0 | SW | 38.7 | 41.5 | 48 | 66 | 46.6 | Some pedestrian movement in car park, door slams etc, no vehicle movements in car park – some on main road |
| | 22:45 | 22:55 | 2.5 | SW | 35.9 | 38 | 42.5 | 58.8 | 41 | No vehicles on main road, noise mainly dominated by sea surf and wind. |
| 16.11.06 | 10:15 | 10:25 | 1.0 | SW | 34 | 36.5 | 44 | 62.3 | 42.1 | Main road, sea |
| | 11:15 | 11:25 | 0.9 | SW | 36.4 | 38.5 | 47.5 | 62.5 | 44.8 | Main road, sea, pedestrian movement in car park |

Table H1 Location M1 - East façade of Causeway Hotel (at least 5m from façade)

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|------------------------------|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₉₀ | L ₁₀ | L _{max} | L _{eq} | |
| 15.11.06 | 15:45 | 15:55 | 2.0 | SW | 35 | 37.5 | 45 | 60.2 | 43.6 | Noise from main road and sea |
| 16.11.06 | 10:40 | 10:50 | | SW | 32.6 | 34.5 | 44 | 59.2 | 41.8 | Noise from main road and sea |
| | 13:15 | 13:25 | 3.0 | SW | 38.6 | 40.5 | 47 | 60.7 | 45.1 | Noise from main road and sea |

Table H2 Location M2 - Near south façade of Causeway School

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|--|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₉₀ | L ₁₀ | L _{max} | L _{eq} | |
| 16.11.06 | 08:10 | 08:20 | 1.5 | SW | 41.8 | 44 | 48.5 | 58.7 | 47 | No vehicles, noise from sea |
| | 12:05 | 12:15 | 2.1 | SW | 39.9 | 41.5 | 59 | 81.7 | 59.2 | 10 vehicles pass by (controlling L _{eq}) |
| | 12:20 | 12:30 | 2.0 | SW | 39.6 | 42 | 48 | 77 | 48 | Any vehicle events edited out of measurement |

Table H3 Location M3 - 5m from kerb near Causeway bus stop

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|------------------------------|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₉₀ | L ₁₀ | L _{max} | L _{eq} | |
| 16.11.06 | 08:30 | 08:40 | 1.0 | SW | 38.7 | 41.5 | 48 | 59.1 | 45.6 | Noise from sea and main road |
| | 11:45 | 11:55 | 2.0 | SW | 38.4 | 41 | 51.5 | 58.2 | 48.3 | More traffic on main road |

Table H4 Location M4 – Near 'Runkerry' bungalow south of site

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|----------------------------|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₉₀ | L ₁₀ | L _{max} | L _{eq} | |
| 16.11.06 | 13:00 | 13:10 | 2.0 | SW | 35.3 | 37 | 43.5 | 58.7 | 41.5 | Noise from distant traffic |
| | 13:40 | 13:50 | 1.0 | SW | 35.7 | 38 | 46 | 63.7 | 44.3 | Noise from distant traffic |

Table H5 Location M5- Rear of house adjacent to Causeway School

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|--|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₅₀ | L ₁₀ | L _{max} | L _{eq} | |
| 16.11.06 | 13:25 | 13:35 | 1.3 | SW | 42.3 | 44.5 | 50.5 | 62 | 48.3 | Noise from visitors talking and noise from sea |

Table H6 Location M6- At top of coastal path to stones

| Date | Time | | Wind | | Noise Level, dB (A) | | | | | Comments |
|----------|-------|--------|---------------------------|-----------|---------------------|-----------------|-----------------|------------------|-----------------|--|
| | Start | Finish | Speed (ms ⁻¹) | Direction | L _{min} | L ₅₀ | L ₁₀ | L _{max} | L _{eq} | |
| 16.11.06 | 14:30 | 14:35 | 2.1 | SW | 48 | 49 | 56 | 65.8 | 53.4 | Noise from traffic on A2 and distant traffic |

Table H7 Location M7- Northern car park at Bushmills

H3 Construction Assumptions

| CONSTRUCTION ACTIVITIES / DURATIONS - ASSUMPTIONS FOR NOISE AND VIBRATION ASSESSMENT | | | | | | |
|--|--|---|--------------------|----------------------------|--|--------------------------|
| PROJECT: Giants Causeway | | Note: Where possible EIM has been adopted, using quartered loading, screened piles (or fully screened on other and lined screen) and acoustically enclosed generators & compressors | | | Construction Noise - based upon worst case scenarios | |
| Job No: 12005140 | | Version 1 | | | | |
| Phase | Stage Description | Phase Duration (months) | Principal Activity | Major Construction Plant | Plant L _{eq} dB | No. of Items / On Time % |
| Phase 1 | Stage 2: Earthworks | 5 | | tracked excavator/loader | 111 | 1 / 75 |
| | | | | dozer | 109 | 1 / 75 |
| | | | | dump truck | 107 | 1 / 75 |
| | | | | vibratory roller | 104 | 1 / 50 |
| | | | | scraper | 117 | 1 / 90 |
| | | | | grader | 117 | 1 / 90 |
| Phase 1 | Stage 3: Establishment and commissioning of the temporary facilities | 4 | | generator | 96 | 1 / 100 |
| | | | | pumping machine | 105 | 1 / 75 |
| | | | | dump truck | 107 | 1 / 100 |
| | | | | tipper trucks (sp/alt) | 112 | 1 / 30 / day |
| Phase 1 | Stage 4: Reinforcement works | 4 | | tracked excavator/loader | 111 | 1 / 90 |
| | | | | dozer | 109 | 1 / 90 |
| | | | | dump truck | 107 | 1 / 75 |
| | | | | tipper trucks | 112 | 1 / 30 / day |
| Phase 2 | Stage 2: Demolition works | 2 | | tracked excavator/loader | 111 | 1 / 90 |
| | | | | dozer | 109 | 1 / 90 |
| | | | | dump truck | 107 | 1 / 75 |
| | | | | jack hammering | 110 | 1 / 25 |
| Phase 2 | Stage 3: Earthworks | 8 | | tracked excavator/loader | 111 | 1 / 90 |
| | | | | dozer | 109 | 1 / 75 |
| | | | | dump truck | 107 | 1 / 75 |
| | | | | vibratory roller | 104 | 1 / 50 |
| | | | | scraper | 117 | 1 / 90 |
| | | | | grader | 117 | 1 / 90 |
| Phase 3 | Stage 4: Main construction works | 9 | | compressor | 96 | 1 / 100 |
| | | | | generator | 96 | 1 / 90 |
| | | | | very mounted concrete pump | 108 | 1 / 25 |
| | | | | tracked crane | 104 | 1 / 25 |
| | | | | dump truck | 107 | 1 / 50 |
| | | | | vibratory roller | 104 | 1 / 50 |
| | | | | dump truck | 107 | 1 / 100 |
| | | | | paving machine | 106 | 1 / 75 |
| | | | | dump truck | 107 | 1 / 100 |
| | | | | vibratory roller | 104 | 1 / 50 |
| | | | | tipper trucks | 112 | 1 / 30 / day |
| Phase 2 | Stage 5: Finishing Works | 3 | | tracked excavator/loader | 111 | 1 / 75 |
| | | | | dozer | 109 | 1 / 75 |
| | | | | dump truck | 107 | 1 / 75 |
| | | | | vibratory roller | 104 | 1 / 90 |
| | | | | scraper | 117 | 1 / 90 |
| | | | | grader | 117 | 1 / 90 |
| | | | | tipper trucks | 112 | 1 / 30 / day |

H4 Noise Sensitive Receiver Locations

