The Sizewell C Project

6.3 Volume 2 Main Development Site

Chapter 11 Noise and Vibration

Appendix 11B Construction Noise Assessment

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Appendix 11B

Sizewell C Project

Environmental Statement Volume 2, Chapter 11, Appendix 11B -
Main Development Site Construction Noise Assessment

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1.0 Main Development Site Construction Noise Prediction Methodology

1.1 Introduction

1.1.1 This document presents the methodology, inputs, assumptions and limitations associated with modelling and prediction of noise emissions associated with construction activities at the main development site of the proposed Sizewell C nuclear power station.

1.1.2 The construction activities and programme, and the main construction land uses within the main development site are set out in **Volume 2, Chapter 3** of the Sizewell C Project **Environmental Statement** (ES) (Doc Ref. 6.2).

1.1.3 In accordance with that document, main development site construction would comprise the following principal areas:

- Power station (main) platform: the area that would become the power station itself.
- Sizewell B relocated facilities and National Grid land: the area that specific Sizewell B facilities would be moved to in order to release other land.
- Offshore works area: the area where offshore cooling water infrastructure and other marine works would be located.
- Temporary construction area: the area located primarily to the north and west of the proposed Site of Special Scientific Interest (SSSI) crossing, which would be used to support construction activity on the main platform.
- Land east of Eastlands Industrial Estate (LEEIE): the area including, and directly to the north of Sizewell Halt, which would be used to support construction.
- Other site structures, infrastructure and works, including highway works and earthworks. These areas of work include site water supply and drainage measures.

1.1.4 While the Sizewell B relocated facilities land is included within the main development site redline boundary, the noise impact assessment for the relocation of Sizewell B facilities was undertaken as a separate exercise, and noise sources and activities associated with relocated facilities were therefore not included in the prediction models described in this document.

1.1.5 Proposals for the main development site during the construction period are presented in **Chapter 3** of this volume. **Chapter 3** presents an illustrative approach to main development site construction, including the construction programme, layout and working methods, with a particular focus on activities most relevant to assessment of environmental effects.

1.1.6 Although the programme and working methods described are indicative, they represent the likely approach, given the existing site constraints, the adjacent land uses and the construction requirements. The programme and methods may be subject to modification once a contractor is appointed, but the details provided in **Chapter 3** of this volume are sufficient to enable a robust, representative worst-case assessment of construction noise.

1.1.7 The main development site construction noise prediction methodology set out in this document is focused on human receptors. However, the construction noise prediction models were also used to assess potential impacts on ecology and amenity and

recreation. The full list of adopted noise-sensitive receptors is presented in **Table 11B/2.1** and shown on the annotated red line boundary plan of the main development site presented in **Annex 11B/D**. In some cases, a single receptor point has been adopted to represent multiple noise-sensitive premises and in all such cases that point is considered the worst-case, i.e. the location within that receptor group that would be closest to and/or most exposed to main development site construction noise.

1.1.8 Worker accommodation provided within the main development site (accommodation campus), and within the LEEIE have not been considered as independent receptors in the same manner as separately owned and occupied residential dwellings around the development site. Nonetheless, it is considered important that workers resting and sleeping at the various accommodations within the development site are protected from construction phase noise as far as is reasonably practicable. It is expected that this would be achieved through suitable design of the building envelope of the accommodation campus (including appropriate ventilation strategy) with a view to achieving British Standard (BS) 8233:2014 internal sound level criteria in habitable rooms.

1.2 Construction Programme, Phasing and Working Hours

1.2.1 Main Development Site Construction Programme and Phasing

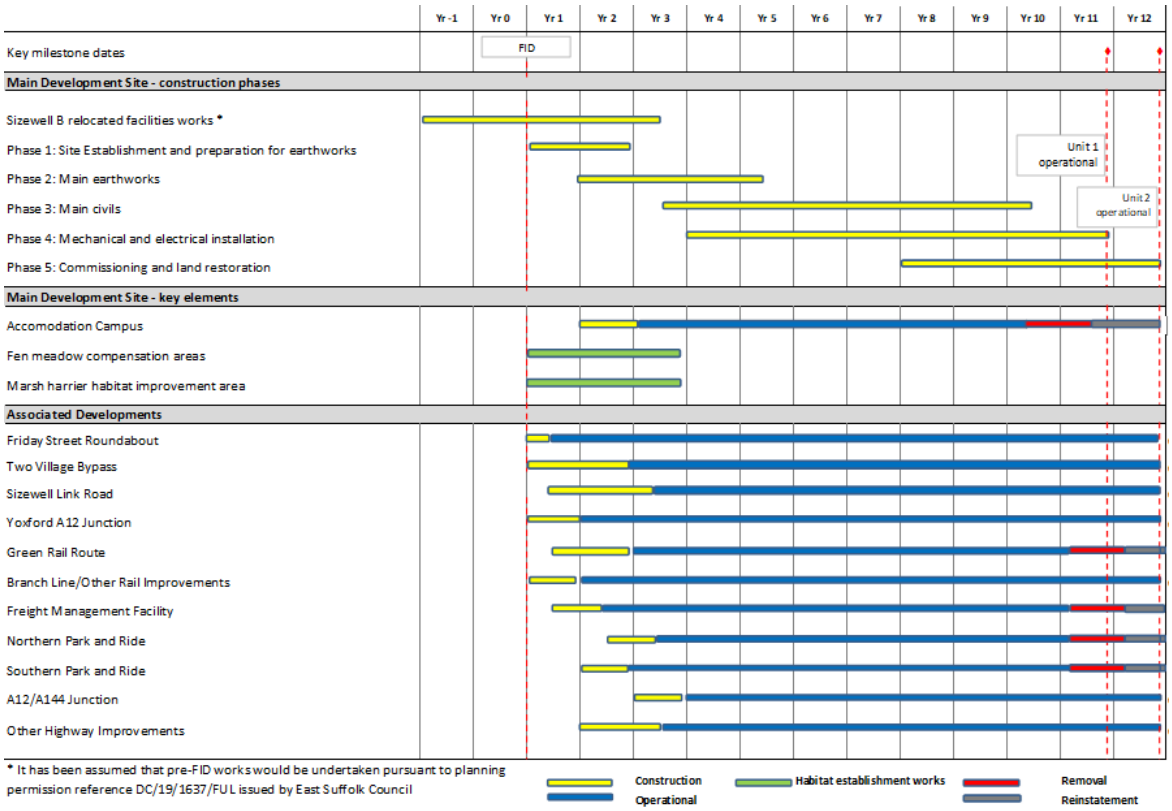
1.2.1.1 The proposed main development site construction programme and phasing are described in **Chapter 3** of this volume. Construction is likely to commence immediately following the grant of the Development Consent Order (DCO) (Year 1) and be completed approximately nine to twelve years later (Years 9 to 12). The first reactor unit would become operational approximately 9.5 years following DCO grant, and the second reactor approximately 12 months later.

1.2.1.2 Construction would be undertaken in five main phases, with some overlap, as follows:

- Phase 1: Site establishment and preparation for earthworks (Years 1 – 2);
- Phase 2: Main earthworks (Years 1 – 4);
- Phase 3: Main civils (Years 3 – 9);
- Phase 4: Mechanical and Engineering (M&E) fit out, instrumentation and commissioning (Years 4 – 11); and,
- Phase 5: Removal of temporary facilities and restoration of the land (Years 10 – 12).

1.2.1.3 The duration and overlap of the five phases are shown below (per **Plate 3.1** of the **Chapter 3**).

Figure 11B/1.1: Assumed Construction Programme



1.2.1.4 Project-wide assumptions and a detailed description of the likely construction works in each sub-area during each phase are also provided in **Chapter 3** of this volume.

1.2.1.5 The construction phasing plans used to inform the main development site construction noise modelling predictions are presented in **Chapter 3, Figures 3.2 to 3.6** of the **ES**. These show the indicative site layout and relevant activities for the principle construction phases and as such were used as the basis for the layout of the noise prediction models.

1.2.1.6 The LEEIE would be critical during the early years as a construction support area for the main development site. Construction activities on the LEEIE during each phase are described in **Chapter 3** of this volume.

1.2.1.7 The LEEIE would also help facilitate rail delivery of bulk materials prior to construction of the green rail route, which would require upgrades to the existing Saxmundham to Leiston branch line for which a new rail spur would be constructed on the LEEIE.

1.2.1.8 The green rail route would be constructed as early as practicable to facilitate rail deliveries directly to the main construction area, at which point the rail spur on LEEIE would no longer be used. The likely phasing and crossover of these works is understood to be:

- Months 1-9: Preparation of the LEEIE for use as construction support area, including completion of rail branch line extension into LEEIE and construction of new rail spur.

- Months 9-18: LEEIE fully operational as construction support area. Rail branch line extension and new rail spur on LEEIE also operational as a terminal for incoming freight. Green rail route under construction.

- Month 18 onward: green rail route operational. Rail spur in LEEIE no longer in use. LEEIE still in use as a construction support area, probably largely for materials storage.

1.2.2 Main Development Site Construction Working Hours

1.2.2.1 Proposed working patterns for SZC construction are presented in **Table 3B.5** of the **Chapter 3** of this volume. Most workers are expected to work a double day shift or a single construction shift. The double day shift would run from 0600-0000 hours and the single shift 0700-1830 hours. There would also be a night-shift spanning the period 2030-0800 hours.

1.2.2.2 These hours include a period for worker arrival and departure at the start and end of each shift and it is assumed that noise-generating construction activities associated with day and night shifts respectively could be present during the following core times:

- Double day and/or single shift. Noise-generating construction between 0700-2300 hours

- Night shift. Noise-generating construction between 2300-0700 hours

1.2.2.3 The majority of the remaining employees would work to office hours.

1.2.2.4 Most construction activities generating elevated noise levels would be undertaken during the double day and/or single shifts. As set out in **Chapter 3** of this volume, the night shift would generally be limited to maintenance and logistics support activities, including unloading and storing of both marine, and Heavy Goods Vehicle (HGV) delivered freight, essential plant refuelling, repositioning of scaffolding, maintenance and repair, and dewatering activities. These maintenance and logistics support activities and potential noise effects are discussed further in **section 1.3.3**.

1.2.2.5 As described **Chapter 3** of this volume, tunnelling would be a continuous activity requiring 24 hour working for approximately 15 months (based on current estimates). Excavated material would be transported directly to stockpiles 4 and 5 at any time, but material distribution would be restricted to the daytime to reduce night-time noise levels.

1.2.2.6 According to **Chapter 3** of this volume, during periods where continuity of work is essential the night shift could also include additional works such as welding of reactor containment liners, fixing of concrete formwork and the continuation of large concrete pours (exceeding 18 hours).

1.2.2.7 Prior to commissioning of the green rail route, no trains would run into the main development site during the night. Instead, two trains per night would arrive and be held at signals to the west of Leiston. The following morning both trains would proceed through Leiston (during daytime hours) to the LEEIE. Once unloaded they would depart and pass through Leiston to be held at signals west of Leiston until after 2300 hours. Once the green rail route is operational, five of the six planned daily trains into the main development site would occur during the night-time and be unloaded and material transported directly to the stockpiles, due to the available freight trains and rail paths.

1.2.2.8 In summary, of the planned night-time construction activities that would occur within the main development site boundary during the night, the activities which are considered likely to generate elevated noise levels at noise-sensitive receptors are:

- Unloading of trains entering site via the Green Rail Route with materials being transported directly to on-site stockpiles. Current estimates indicate this would generate up to 50 HGV movements per night on site haulage routes.
- Night-time tunnelling and transportation of excavated materials from that work area directly to stockpiles. Current estimates indicate this would generate up to 50 HGV movements per night.
- Mobile plant required for maintenance of stockpile areas.

1.2.2.9 Consequently, there are expected to be two scenarios throughout the construction programme where elevated levels of construction noise could be generated at night:

1. The entire period when the green rail route and main development site are operational, when rail freight arrivals, unloading and transportation of materials to stockpiles at night would generate noise. This could span a period of around 8.5 years including 24 months of Phase 2 and all of Phases 3 and 4.
2. 15 months during Phase 3 (based on current estimates) when night-time tunnelling and excavation would be ongoing, including the direct transportation of excavated materials to stockpiles 4 and 5. During this period, noise associated with the unloading of materials from train arrivals into the main development site via the green rail route (as per the first scenario, above) could also be present.

1.3 Main Development Site Construction Noise Prediction Methodology

1.3.1 Main Development Site Construction Noise Prediction – The Challenges

1.3.1.1 The proposed construction of the Sizewell C nuclear power station is a hugely complex project and it is evident from **Chapter 3** of this volume that the inherent complexity of the construction project, programme and phasing makes accurate and representative noise prediction a challenge.

1.3.1.2 **Chapter 3** of this volume sets out the assumed indicative approach to construction. This represents the most likely approach to construction given the site constraints and Sizewell C project requirements. The proposals do enable a robust assessment of the likely effects, although the absence of final, confirmed construction details creates some challenges for noise prediction.

1.3.1.3 The following examples represent specific challenges in terms of noise modelling:

- At any one time there are likely to be multiple construction activities underway, utilising multiple types of fixed and/or mobile plant in multiple potential locations.
- There are multiple sensitive receptors which could be exposed to main development site construction noise. This could be as a result of a single activity or multiple activities in combination.
- Within the five main construction phases there are around 20 sub-phases, with multiple activities occurring within each sub-phase and often also multiple types of machinery and plant used for each activity.
- Most construction activities involve one or more mobile/transient noise sources, often covering an area of 3 to 4 kilometres^2 (km^2) or more. The noise generated by such activities would vary depending on where mobile/transient sources are operating during a period.
- The construction would take place over a period of twelve years and it is necessary to predict construction noise in a way that is sufficiently detailed but also provides a representative indication of construction noise levels over the duration of the Sizewell C project.
- Ground levels and the height of individual noise sources (e.g. mobile plant) would change over time through the five main construction phases and various sub-phases, most significantly due to excavation and stockpiling of soil and other ground materials.
- Some water supply, resource and drainage proposals are still subject to final scheme design. The extent of excavation and landscaping and therefore associated mobile plant may therefore be subject to refinement. Should additional formal site compounds be required to enable water resource facilities involving site preparation and hardstanding areas, assessments to local receptors should be reviewed. This would follow appointment of main contractors.
- There is some uncertainty over 'on-times' for construction noise sources and activities.
- For large construction projects occurring over a period of many years, it is necessary to predict construction noise in a way which provides a representative impression of how the noise levels, and any resulting impact, would change over time.

- Final construction proposals would not ultimately be confirmed until post-DCO once relevant main and sub-contractors are appointed and develop their own proposals.

1.3.1.4 Sharps Redmore has used a combination of 3D computer noise modelling and statistical post-processing to produce representative predictions of main development site construction noise levels. SoundPLAN™ software was used to create a 3D noise model of the main development site and surrounding environs. The construction phasing plans were used to create variants representing the changing landscape over all phases of the Sizewell C project, based on the indicative construction programme and the five main construction phases as described in **section 1.2**.

1.3.2 SoundPLAN™ 3D Noise Model and Statistical Post-Processing

1.3.2.1 The SoundPLAN™ model implements the methodology in International Organization for Standardization 9613-2 – 'Attenuation of sound during propagation outdoors', to predict downwind noise propagation under typical worst-case conditions. The noise predictions take into account attenuation, reflection and diffraction effects caused by distance, ground conditions and intervening obstacles.

1.3.2.2 Information regarding the specific items of plant and machinery which are expected to be used for various construction processes and activities was taken from **Chapter 3** of this volume which contains the plant assessment scenarios detailing the sub-phases of the development and providing an indication of the plant and machinery which could be used in each case, with scheduling information, photos and annotated phasing plans.

1.3.2.3 Noise source input data for the SoundPLAN™ model was mainly derived from information contained in BS 5228-1:2009+A1:2014 – 'Code of practice for noise and vibration control on construction and open sites. Noise' (BS 5228). Annexes C and D of BS 5228 provide current and historic sound level data for construction equipment and activities, in the form of 1/1 octave-band and A-weighted sound pressure levels, and A-weighted sound power levels. Where necessary (i.e. where suitable data was not available in BS 5228) input data was taken from Sharps Redmore's own database of construction sound level measurements.

1.3.2.4 The construction source noise levels used as input data for the SoundPLAN™ model are presented in **Annex 11B/A**. The construction source schedule in **Annex 11B/B** presents the significant noise sources anticipated during each main phase of construction, with suitable on-times and quantities derived in accordance with **Chapter 3** of this volume.

1.3.2.5 The SoundPLAN™ model was constructed using topographical and terrain data provided by WSP and the phasing plans presented in **Chapter 3, Figures 3.2 to 3.6** of the Project **ES.**

1.3.2.6 To address some of the challenges described above, the following steps were taken:

- For each activity, the extent of the area where this could potentially occur during each phase was defined. A matrix of identical noise sources was then created in this area.
- For each phase, this step was repeated for each type of plant and/or activity shown in the plant assessment scenarios.

- Corresponding noise predictions were produced for each activity at each receptor and statistical post-processing used to calculate and rank the contribution of each source at any noise-sensitive receptor.
- For activities occurring along a linear path, sources were spaced out along the path and the same method used to calculate worst-case source location for that activity.
- This process was then repeated for each receptor, combined with relevant on-time corrections (as per **Annex 11B/B**) to calculate the average sound pressure level over a typical day in the busiest month at each receptor, and also over the entire phase.
- The resulting output shows relative contributions from each activity and source at any given receptor. This data was used to create corresponding SoundPLAN™ grid maps which were in turn used to produce noise contours showing significant noise sources.

1.3.3 Assumptions and Limitations

There is inevitable uncertainty associated with the approach described above, and the following assumptions and limitations are considered to be particularly significant:

- The method described in **section 1.3.2** assumes works would progress at steady rate across the defined area or path.
- The method set out in **section 1.3.2** assumes each activity lasts the duration of the phase and all sub-phases occur simultaneously, largely because there is insufficient detail within the proposals to fully account for phase overlaps and sub-phase duration.
- **Chapter 3** of this volume contains necessarily limited details of the removal of temporary facilities and land restoration during Phase 5, while the plant assessment scenarios do not contain any details or data for expected activities and processes during this phase.
- Source data for many expected Phase 5 activities was therefore partly derived from details of similar activities during Phases 1 and 2 per the plant assessment scenarios, particularly for earthworks and other activities associated with land restoration, plus additional activities exclusive to this phase, such as the breaking up of hardstanding. Remaining inputs and assumptions for Phase 5 were primarily derived from BS 5228.
- Phase 5 assessments therefore provide indicative average sound levels at receptors during that phase, as well as levels for a typical day during the worst case month (when restoration taking place at the closest site area to receptors). It is not possible to be precise about this balance till detailed site restoration plans and methods are known.
- The SoundPLAN™ model incorporates terrain data provided by WSP for each phase.
- Appropriate on-times for activities, plant and machinery were derived from **Chapter 3** of this volumewith worst-case assumptions generally adopted in all cases, meaning that in some cases the assumed on-times would be an over-estimate.

- Material haulage and/or vehicle movements along a defined route were modelled as moving point sources with defined sound source levels, speeds and number of movements per hour/day.
- Activities taking place in a fixed location were modelled as discreet point sources.
- Ground and first floor are assumed to be 1.5 metres (m) and 4.5m above ground respectively.
- Noise predictions for main development site construction activities, those on the LEEIE and construction and operation of the green rail route must be combined to produce an accurate representation of typical worst-case construction noise levels during any given phase.
- Operational on-site rail was modelled as rail in accordance with the methodology set out in the 1995 Department of Transport publication – 'Calculation of Railway Noise', based on 2 freight trains per day into LEEIE during the early years and 5 freight trains per day while the green rail route is operational.
- Operational on-site rail predictions assume that the transport of unloaded materials delivered via the green rail route would generate average daily traffic of 50 HGVs per night along the haulage routes between the railhead and stockpiles 4 and 5.
- Noise predictions for continuous tunnel excavation assume that transport of unloaded materials would generate average daily traffic of 50 HGVs per night along the haulage routes between the excavation sites and the main stockpiles.
- At this stage, the same earthmoving plant assumed for construction of the water management zones has been assumed for the water resource storage area, and water detention area (anticipated during Phase 1). The extent of water storage required and therefore excavation is expected to be further refined. The types of mobile plant employed for creation of the water resource storage area may change, however as a precaution, the current assessment includes for excavators working at the closest position relative to receptors, in practice, plant is not likely to be required in this proximity. Assessments to receptors in these areas should be reviewed when the construction contractor is appointed and the work areas, contractor compound areas, and plant items are known in detail.
- At night, there are a number of activities that may occur within this predominantly maintenance and logistics support shift. Some of these activities have the potential to generate sound levels at receptor locations that may be noticeable. Unloading and storage of marine delivered materials is likely to be a considerable distance from the nearest receptor and be an occasional event only. This activity should be assessed in more detail when contractors are appointed and the proposal has been further defined to ensure no likelihood of a significant impact from noise.
- Dewatering may be required at night during construction. At this stage it is not possible to determine locations and durations of pumping operations. It is however anticipated that dewatering could have the potential for a short-term impact only (if in the vicinity of a receptor) but could be locally mitigated as necessary.
- It is not possible at this stage to be specific about frequency, times or locations of early morning unloading of goods from HGV's. This activity is considered a relatively

low risk of causing noise impacts, however, this activity should be assessed in more detail when contractors are appointed and the proposal has been further defined to ensure no likelihood of a significant impact from noise.

- The fixing of concrete formwork and reinforcement bars has the potential to generate noise, and particularly short duration, higher sound level events (L_{Amax}). The main locations where this work is proposed would be within excavations on site and therefore these activities are unlikely to generate significant noise levels at receptors. These works would need to be managed so for example, they are not taking place in contractor compounds at night closer to residential receptors.

- Finally, there is the possibility of scaffolding re-positioning at night. Although this work could also generate noise, and particularly short duration, higher sound level events (L_{Amax}), this is assumed to be predominantly at the main platform area and therefore some distance from receptor locations.

1.3.4 Presentation of Results

1.3.4.1 The necessary, inherent uncertainty in the construction noise prediction methodology, and the associated assumptions and limitations (such as those described in **section 1.3.3**), make appropriate presentation of results critically important. The primary aim was to produce an accurate prediction of construction noise levels during each phase, in a format sufficiently representative to identify and assess potential significant effects, while also providing a clearly understood narrative for how construction noise would change at any given receptor over the duration of the Sizewell C project and at any given receptor. All values presented are predicted free field levels.

1.3.4.2 Most noise generating construction activity would occur during daytime working. This is where most of the assumptions and limitations in **section 1.3.3** are most relevant and therefore a great deal of time was spent analysing the modelling outputs for daytime construction noise, predicted and post-processed as described above, indicating that:

- The highest noise levels at human receptors are likely to occur during site stripping/ levelling and concurrent noisy works (relatively early in the Sizewell C project during Phase 1).

- Construction noise levels would then drop off slightly for the rest of site preparation and earthworks (the rest of Phases 1 and 2), but remain significant at some receptors.

- Noise levels during the main civils, M&E fit-out, instrumentation and commissioning (Phases 3 and 4) would be significantly lower for much of the construction period.

- Construction noise would increase again during temporary facilities removal and land restoration (Phase 5) with the highest noise levels likely to be similar to those predicted during Phase 1a, and noise levels over the rest of Phase 5 likely to be similar to those during Phase 1b/2.

1.3.4.3 The assessments indicate that the most significant construction noise would be generated early on, with the highest noise levels likely to occur for a relatively short period during Phase 1. Noise levels would then drop off slightly for the rest of Phases 1 and 2, and then again for a majority of the overall construction period during Phases 3

and 4. Current predictions indicate that highest noise levels during Phase 5 are likely to be similar to during Phase 1, although it is not currently possible to define the duration or activities during this period (or associated noise predictions) based on the limited assumptions presented for Phase 5.

1.3.4.4 Taking the above into account, daytime construction noise prediction modelling outputs are therefore categorised as follows for the purposes of assessment:

1. Phase 1a - Initial site stripping/levelling and concurrent noisy activities. Based on a typical day in the busiest month for each receptor and presented as dB $L_{Aeq,0700\text{-}2300hrs}$.

2. Phase 1b/2 – Construction of site infrastructure and earth moving. Based on the phase average across the rest of Phases 1 and 2 at each receptor and presented as dB $L_{Aeq,0700\text{-}2300hrs}$ representing any typical construction day during that period.

3. Phase 3/4 - Construction of above ground power station buildings. Based on the phase average across the rest of Phases 3 and 4 at each receptor and presented as dB $L_{Aeq,0700\text{-}2300hrs}$ representing any typical construction day during that period.

4. Phase 5 – Based on the phase average across Phase 5 at each receptor and presented as dB $L_{Aeq,0700\text{-}2300hrs}$ representing any typical construction day during that period. Short periods of higher sound levels can be expected when restoration works (which may include breaking up of hardstanding areas) are taking place at the edges of the site nearest receptors. Sound levels are therefore also presented for a typical day in the busiest month.

Presenting the results in this way is considered to be a reasonable representation of the way in which daytime construction noise levels are expected to change over time, particularly given the inherent uncertainty associated with the indicative construction assumptions.

1.3.4.5 As described in **section 1.2.2.9**, there are expected to be two scenarios throughout the construction where significant levels of construction noise could be generated at night:

1. The entire period when the green rail route and main development site are operational, when rail freight arrivals, then unloading and transportation of materials at night would generate noise. This may span 8.5 years (current estimate) including 24 months of Phase 2 and the entirety of Phases 3 and 4.

2. 15 months during Phase 3 (current estimate) when night-time tunnelling and excavation activities would be ongoing, including direct transportation of excavated materials to stockpiles 4 and 5. During this period noise associated with the unloading of materials and hauling to stockpiles from train arrivals into the main development site via the green rail route (as per the first scenario, above) may also be present.

1.3.4.6 Night-time construction modelling outputs are therefore presented as dB $L_{Aeq,2300\text{-}0700hrs}$ to represent a typical night-time period during each of these scenarios. This assumes that all of the noise sources associated with these scenarios would, on average, be present to a consistent level every night for the duration of each scenario and is consequently considered to represent a typical worst-case night-time period for each receptor location.

1.3.5 <u>Mitigation</u>

1.3.5.1 The SoundPLAN™ model was also used to explore mitigation options for construction noise in the form of barriers or screens. For modelling purposes the composition of the barrier or screen is unimportant because SoundPLAN™ simply assumes that each is solid, imperforate and of sufficient density/mass, and then calculates the predicted absorption, reflection and diffraction effects based on user-defined parameters, including the height.

1.3.5.2 The construction noise modelling outputs, presented as described in **section 1.3.4** above, were used to identify where barriers and/or screens could be effective by comparing the predictions with the criteria for all sources during construction (the full main development site construction noise assessment methodology is included as an appendix to **Volume 1**, **Chapter 6** of the Project **ES**). Where the predicted construction noise levels during any phase had the potential to a negligible level, then barrier and screening options were explored, and where demonstrated to be effective, incorporated into the model to reduce construction noise levels as far as could reasonably be achieved.

1.3.5.3 Determining what can reasonably be achieved in terms of construction noise barriers or screens was completed in collaboration with the SZC Co. engineering team. Considerations included the expected height of noise sources (particularly mobile plant), the topography between source and receiver, and in many cases a combination of the two. It was generally agreed that limiting most screens to 3m height above ground would result in a reasonable balance between achieving optimal screening and ensuring that screens are practical, i.e. that they could be constructed safely and securely given the site constraints and that the height would not be visually intrusive, where visible to receptors. However, 5m (as well as 3m) screening options were explored in some cases where the modelling outputs indicated that the greatest reductions in construction noise might be required.

1.3.5.4 The locations of the barriers included in the main development site construction noise prediction model are shown in **Annex 11B/C1 and C2** – Sizewell Construction Noise Barrier Locations.

1.3.5.5 The barrier height (or multiple heights in some cases) modelled for each barrier are:

- B1 –3m and 5m above ground.
- B2 – 3m above ground.
- B3 – 3m above ground.
- B4 – 5m above ground (along boundary adjacent to main haul road).
- B5 – 3m above ground.
- B6 –3m and 5m above ground.
- B7 –3m and 5m above ground.
- B8 – 3m and 5m above ground.

1.3.5.6 In some cases these screening options are embedded into the proposed development as an acoustic fence, landscape bund or in the case of B7, a combination of the two. These are as follows and can be seen on the indicative boundary treatments cross-section drawings presented in **Volume 2, Chapter 3, Appendix 3C** of the Project **ES:**

- B4 – 5m acoustic fence.
- B6 – 3m earth bund.
- B7 - 3m earth bund with a 2m Acoustic fence on the ridge (5m total height).

1.3.5.7 Where screening is embedded in the proposals this represents ‘primary mitigation’.

1.3.5.8 Should it be identified post-DCO once contractors are appointed and detailed construction methodology has been confirmed, that the remaining screens (or others not yet identified) are necessary to mitigate any significant noise effects, then contractors would need to provide appropriate screening for the duration that it is required to mitigate those effects. This would be secured through the **Code of Construction Practice (CoCP)** (Doc Ref. 8.11) which sets out the control measures to be put in place to mitigate potential construction noise effects, including a commitment to install noise barriers to provide optimal screening for the duration of any noisy works requiring the mitigation. This commitment is 'tertiary mitigation' because it is imposed as a result of standard sectoral practices (in this case, the application of Best Practicable Means as defined by Section 72 of the Control of Pollution Act 1974) to minimise construction noise on sensitive receptors, but the screens themselves are considered additional mitigation for assessment purposes.

1.3.5.9 The **CoCP** requires all construction contractors follow standard good construction practice as per BS 5228-1:2009 (Ref. 1) and BS 5228-2:2009 (Ref. 2). This includes measures which could not be assumed in the model as it is not possible to know where and how certain construction activities would be undertaken, including the positioning of noisy plant as far as practicable from receptors and, where possible the application of silencers, mufflers or enclosures to items of plant. For some receptors this is likely to result in construction noise levels lower than those predicted.

2.0 Main Development Site Construction Noise Assessment

2.1 Introduction

2.1.1 Construction noise emissions generated by the main development site of the proposed Sizewell C nuclear power station have been predicted in accordance with the methodology set out in **section 1.0** at relevant noise-sensitive human receptors (note that worker accommodation provided within the development site would be addressed as described in **section 1.1.8**)

2.1.2 The daytime (0700-2300 hours) main development site construction noise contours presented within this assessment typically show the spread of predicted main development site construction noise levels around each noise-sensitive human receptor for the following main development site construction phases:

- Phase 1a – Site stripping / levelling and other concurrent noisy activities.
- Phase 1b/2 – Construction of site infrastructure and earth moving.
- Phase 3/4 - Construction of above ground power station buildings.

2.1.3 Contours were not produced for Phase 5. However, the phase average noise levels likely to be experienced at each receptor on any typical day during Phase 5 were predicted. Higher noise levels are likely to be experienced at some receptors for a relatively short period during Phase 5 but this cannot currently be defined based on the available details, but similar short-term noise levels to those during Phase 1a are likely at some receptors. The assessment therefore also provides indicative sound levels of a typical day during the busiest month.

2.1.4 Daytime construction noise at some receptors on the eastern outskirts of Leiston would be dictated by activities on the LEEIE, which would be critical during the early years of construction as a support area and to enable rail delivery of bulk materials prior to the green rail route being completed, and where construction-related activity would be relatively early on. These receptors include:

1. Residential properties on and around Valley Road, Leiston.
2. Residential properties on and around King George's Avenue, Leiston.
3. Residential properties on and around Heath View, Leiston.
4. Sizewell Sports and Social Club, Leiston.
5. Crown Lodge, situated off King George's Avenue on the eastern outskirts of Leiston.
6. Barley Rise, situated off Sizewell Gap on the eastern outskirts of Leiston.
7. Crown Land Cottage, on Grimseys Lane situated on the eastern outskirts of Leiston.

2.1.5 While the LEEIE is part of the main development site, phasing of construction-related activities in this area would differ from the wider main development site and contours for these receptors are thus broken down and presented according to the following broadly chronological LEEIE construction stages:

A. Initial site stripping / levelling and concurrent noisy activities at the start of Phase 1.

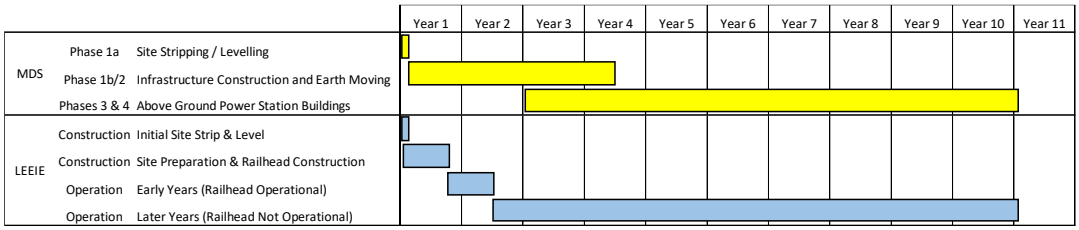
B. Preparation of the LEEIE for use as construction support area, including completion of rail branch line extension into LEEIE and construction of new rail spur. It is estimated that these works would take around nine months to complete during Phases 1 and 2.

C. Rail branch line extension and rail spur on LEEIE operational and LEEIE operating as a terminal for incoming freight. The green rail route currently under construction. This period is estimated to span approximately nine months during Phases 1 and 2.

D. Green rail route operational and the rail spur in LEEIE no longer in use. LEEIE still in use as a construction support area, probably largely for materials storage. This scenario is currently estimated to start approximately half way through Phase 2 and continuing through Phases 3 and 4, a period potentially spanning more than 8.5 years.

2.1.6 The way in which these four LEEIE work stages correspond to, and would crossover with the overarching main development site construction phases described in **section 1.2** is indicated below.

Figure 11B/2.1: Crossover of Main Development Site Construction Programme with LEEIE Stages



2.1.7 In addition, there are four receptors where daytime construction noise would be dictated by a combination of general main development site construction and activities on the LEEIE specifically. Phase 1a contours for these receptors therefore include site stripping/levelling and concurrent noisy activities within the LEEIE and around the wider main development site simultaneously. In practice, it is possible that site stripping and levelling on the LEEIE would be completed before the rest of the main development site, so this represents a likely worst-case for these receptors:

1. Residential properties at the junction of Lovers Lane and Sandy Lane, east of Leiston.
2. The Studio, situated on Sandy Lane to the north-east of Leiston.
3. Keepers Cottage, situated on Sandy Lane to the north-east of Leiston.
4. Common Cottages, situated off Lovers Lane to the north-east of Leiston.

2.1.8 Phase 1b/2 spans an assumed period of approximately 3.5 years, during which usage of (and noise emissions associated with) the LEEIE would evolve significantly. With this in mind, Phase 1b/2 predictions for these four receptors also encompass the main work stages for the LEEIE (stages B, C and D in **section 2.14** above). Stage D would continue through Phases 3 and 4 and the contours for Phase 3/4 include associated noise sources.

2.1.9 Contours were not produced for Phase 5. However, the phase average noise levels likely to be experienced at each receptor on any typical day during Phase 5 were predicted. Higher noise levels are likely to be experienced at some receptors for a relatively short period during Phase 5 but this cannot currently be defined based on the available details,

but similar short-term noise levels to those during Phase 1a are likely at some receptors. The assessment therefore also provides indicative sound levels of a typical day during the busiest month.

2.1.10 Night-time construction (2300-0700 hours) would generally be limited to maintenance and logistics support (**see section 1.3.3**), except for continuous tunnelling and transportation of excavations (circa 15 months) to stockpiles, and unloading of materials and haulin to stockpiles from freight trains entering the main development site via the green rail route (circa 8.5 years). Accordingly, levels from these night-time activities have been predicted.

2.1.11 Main development site construction noise levels were predicted and assessed at the noise-sensitive human receptors/groups of receptors set out in **Table 11B/2.1**. The receptors are numbered in ascending alphabetical order and the dominant source of construction noise indicated, being either main development site (main development site excluding the LEEIE), LEEIE (activities on the Land east of Eastlands Industrial Estate specifically) or main development site/LEEIE (noise from the LEEIE and the wider main development site significantly contribute to combined noise levels at that receptor).

Table 11B/2.1: Human Receptor Locations for Main Development Site Construction Noise Assessment

Receptor Reference	Receptor Name	Dominant Source of Main Development Site Construction Noise
1	Abbey Cottage	Main development site
2	Abbey Farm	Main development site
3	Abbey Road, Leiston	Main development site
4	Ash Wood Cottages	Main development site
5	Barley Rise	LEEIE
6	Common Cottages	Main development site / LEEIE
7	Crown Lodge	LEEIE
8	Eastbridge	Main development site
9	Grimseys Lane	LEEIE
10	Heath View	LEEIE
11	Keepers Cottage	Main development site / LEEIE
12	King George's Avenue	LEEIE
13	Leiston Abbey	Main development site
14	Lovers Lane/Sandy Lane Junction	Main development site / LEEIE
15	Old Abbey Farm/Care Home	Main development site
16	Plantation Cottages	Main development site
17	Potters Farm	Main development site
18	Potters Street	Main development site
19	Rosery Cottages	Main development site
20	Roundhouse	Main development site
21	Sizewell Sports and Social Club	LEEIE
22	Sizewell Village	Main development site
23	The Studio	Main development site / LEEIE
24	Valley Road North[1]	LEEIE
25	Valley Road South[1]	LEEIE

Note 1: Valley Road North and South covered as one assessment in **section 2.25**

2.1.12 The locations of the noise-sensitive receptors set out in **Table 11B/2.1** are indicated on the annotated red line boundary plan of the main development site presented in **Annex 11B/D**.

2.1.13 The acceptability of the predicted construction noise levels at each receptor is considered in terms of compliance with proposed main development site criteria for all sources during construction, which are presented below in **Table 11B/2.2**.

Table 11B/2.2: Proposed Main Development Site Criteria for All Sources during Construction

Sensitivity of receptor	Period	Magnitude of impact				Parameter
		Very low	Low	Medium	High	
High	Any	Bespoke assessment method to be used				
Medium	Day	Below baseline noise levels	Baseline noise levels	>60	>70	$L_{Aeq, 16h}$, dB,
	Night			>45	>55	$L_{Aeq, 8h}$, dB,
		<60	60	>65	>70	L_{Amax}, dB,
Low	Day	Below baseline noise levels	Baseline noise levels	>60	>70	$L_{Aeq, 16h}$, dB,
	Night			>45	>55	$L_{Aeq, 8h}$, dB,
Very low	Any	No assessment normally required				

2.1.14 A significant effect is deemed to occur where the relevant criterion is exceeded for the following periods of time:

1) 10 or more days or nights in any 15 consecutive days or nights;

2) a total number of days exceeding 40 in any 6 consecutive months.

2.2 Abbey Cottage

Baseline Sound Levels

2.2.1 Measurements carried out during September and October 2014 indicated typical ambient sound levels at Abbey Cottage of around 56dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic on the local road and nearby B1122. Occasional aircraft and pheasant calls were noticeable in the absence of road traffic noise.

Main Development Site Construction Noise Assessment

2.2.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Abbey Cottages are presented below.

2.2.3 Abbey Cottage would be close to the primary main development site construction entrance for Sizewell C where construction activity would be relatively intense, particularly during Phases 1 and 2. Noise levels were therefore predicted both with and without the benefits of a 5m acoustic screen along the main development boundary, wrapping around the northern and eastern property boundaries which have have been assumed to be kept in place for all construction phases. This is expected to be the maximum practicable height for effective acoustic screening. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. This would be secured through the **CoCP**.

2.2.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Abbey Cottages are presented in **Annex 11B/E.1.** The contours indicate that:

- During site stripping / levelling and other concurrent noisy activities (Phase 1a) Abbey Cottage would be exposed to daytime construction noise levels of around 70dB $L_{Aeq,T}$ which would represent a moderate effect from noise and therefore significant. As well as site stripping and levelling, construction of the main access road and entrance plaza would also be significant during this period. Construction noise would be reduced to between 63-66dB $L_{Aeq,T}$ with the 5m boundary screen, which would still represent a moderate effect from noise and remain a significant impact. Phase 1a would, however, take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) construction noise would drop off significantly, with daytime noise levels of 51-58dB $L_{Aeq,T}$ predicted during Phase 1b/2 with no screening. This noise level represents a very low magnitude, a negligible effect and therefore no significant impact from noise. The 5m boundary screen would further reduce noise levels to 45-54dB $L_{Aeq,T}$. These works may span more than three years and the predictions represent an average for the period.

- During construction of above ground power station buildings (Phases 3 and 4) the main development site daytime construction noise levels at Abbey Cottage would again drop off substantially, with predicted levels during this period generally 43-52dB $L_{Aeq,T}$ without any screening, which would remain a very low magnitude, a

negligible effect and therefore no significant impact from noise. Phase 3 and 4 works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels are an average for the period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would increase to approximately 57dB $L_{Aeq,T}$ without screening, representing a low magnitude, and a minor effect therefore not a significant noise impact. The 5m boundary screen would reduce this to around 53dB $L_{Aeq,T}$. The highest noise levels at Abbey Cottage during Phase 5 are currently expected to be similar to those predicted during Phase 1a, and therefore for a short duration during the busiest month could be up to 70dB $L_{Aeq,T}$, representing a significant impact from noise. With the 5m boundary screen retained to the end of the phase, levels would be reduced to 66dB $L_{Aeq,T}$ though still a significant noise impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.2.5 Predicted average night-time construction noise levels would be around 43dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), including approximately fifteen months when night-time construction noise would also be generated by continuous tunnelling and transportation of excavated materials. This predicted level represents a low magnitude in noise levels, a minor effect and therefore would be below the threshold of a significant impact from noise. This does not include any screening, and while 3m screens are unlikely to significantly reduce construction noise levels at first floor level (where bedrooms are typically located) 5m screens may be more effective. Predicted maximum (dB L_{Amax}) night-time noise levels represent a very low magnitude, and again therefore would be below the threshold of a significant impact from noise.

Summary

2.2.6 In summary, daytime main development site construction noise levels at Abbey Cottage are predicted to be highest at the start of Phase 1, when a medium magnitude is predicted representing a moderate effect and therefore a significant impact from noise. This would be reduced to a maximum of 66dB $L_{Aeq,T}$ with a 5m screen, and remain a significant impact from noise. This would take place for a relatively short period and for the rest of Phases 1 and 2 (around three years) daytime construction noise would represent a very low magnitude and therefore not a significant impact. Noise levels during this period would be 45-54dB $L_{Aeq,T}$ with a 5m screen on the main development site boundary. Noise levels during Phases 3 and 4 (approximately eight years) would drop off substantially and would represent a very low magnitude and not be a significant impact regardless of any screening. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not be significant, but that levels could be elevated for short period when restoration works are at their closest point to the receptor, and a significant impact from noise is expected. Night-time average construction noise levels and maximum noise levels are predicted to represent a 'low' and 'very low' magnitude respectively and therefore a negligible to minor effect. Night-time noise throughout the construction phase would not result in a significant impact from noise.

2.3 Abbey Farm

Baseline Sound Levels

2.3.1 Measurements carried out during September 2016 at a location approximately 300m to the south-east of Abbey Farm indicated typical ambient sound levels of around 36dB $L_{Aeq,T}$ during the day and 31dB $L_{Aeq,T}$ at night. The sound climate primarily comprised agricultural activity and occasional aircraft, plus birdsong from various species. Various sounds were audible from the Sizewell B Station including public address announcements and alarms.

2.3.2 Measurements carried out during September and October 2014 indicated typical ambient sound levels at Abbey Cottages of around 56dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic on the local road and nearby B1122 including motorbikes and tractors. Occasional aircraft and pheasant calls were noticeable in the absence of road traffic noise.

Main Development Site Construction Noise Assessment

2.3.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Abbey Farm are presented below.

2.3.4 Noise levels were predicted both with and without the benefits of a 3m acoustic screen along the northern boundary of the main development site. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. This would be secured through the **CoCP**.

2.3.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Abbey Farm are presented in **Annex 11B/E.2**. The contours indicate that:

- During site stripping / levelling and other concurrent noisy activities (Phase 1a) Abbey Farm would be exposed to noise levels up to around 62dB $L_{Aeq,T.}$ which would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. These noise levels would be largely dictated by ground excavation works associated with the creation of a water storage resource area to the east and south-east of Abbey Farm, and a water management zone to the south-west. Phase 1a would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- Once the water management zone and water storage resource area have been created during Phase 1a, construction noise levels at Abbey Farm would be considerably lower. During the construction of site infrastructure and earth moving (the rest of Phases 1 and 2) average construction noise levels at Abbey Farm would be between 40-48dB $L_{Aeq,T}$ with no 3m screen, which would represent a low magnitude, a minor effect and therefore below the threshold of a significant impact for daytime construction noise. These works may span more than three years and the predicted levels are the average for the period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime main development site construction noise levels at Abbey Farm would again be slightly lower, with average levels between 40-46dB $L_{Aeq,T}$ predicted with no 3m

screen in place along the main development site boundary, which would represent a low magnitude, and therefore no significant impact fropm noise. These works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels thus represent average levels for these phases.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day at Abbey Farm would be approximately 45dB $L_{Aeq,T}$ with no 3m boundary screening, which would not represent a significant impact from noise. The highest construction noise levels at Abbey Farm during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 62dB $L_{Aeq,T}$ representing a moderate effect and therefore a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.3.6 Predicted average night-time construction noise levels would be around 38dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), and increasing to around 40dB $L_{Aeq,T}$ during the period of around fifteen months when continuous tunnelling and excavation would be underway. Predicted noise levels represent a low magnitude, a minor effect and therefore no significant impact. While this does not include any acoustic screening, 3m screens along the main development site boundary are unlikely to significantly reduce first-floor construction noise levels (where bedrooms are typically located), although marginal reductions may occur. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude in noise levels, and again therefore would be below the threshold of a significant impact from noise.

Summary

2.3.7 In summary, the highest predicted daytime main development site construction noise levels at Abbey Farm would be experienced during Phase 1, when a medium magnitude is predicted representing a moderate effect and therefore a significant noise impact with or without a 3m acoustic screen in place along the northern main development site boundary. However, the highest daytime noise levels would only occur for a relatively short period at the start of Phase 1 during site stripping/levelling and concurrent activities (Phase 1a), with predictions based on a typical day in the busiest month. Predicted daytime construction noise levels for the rest of Phases 1 and 2 (and indeed for most of the Sizewell C project during Phases 3 and 4) would be considerably lower and are expected to be below the threshold of a significant noise impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not be significant regardless of screening, but that levels could represent a significant impact for a short period when restoration works are at their closest point to the receptor. Typical worst-case night-time construction noise levels are not predicted to result in a significant impact from noise. Predicted maximum night-time noise levels represent a very low magnitude in noise levels, and again therefore would be below the threshold of a significant impact from noise.

2.4 Abbey Road, Leiston

Baseline Sound Levels

2.4.1 The noise-sensitive human receptors on Abbey Road in Leiston extend from the town centre (close to the junction with Carr Avenue) to those around 750m north on the outskirts of town.

2.4.2 Measurements carried out during October 2014 and subsequently during May and July 2019 were close to the road. Typical ambient sound levels at human receptors set back from Abbey Road north of Leiston town centre are around 65dB $L_{Aeq,T}$ during the day, and 55dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic including heavy goods vehicles and tractors, birdsong from various species, and regular aircraft.

Main Development Site Construction Noise Assessment

2.4.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Abbey Road, Leiston are presented below.

2.4.4 Noise levels were predicted without any screening on the main development site boundary. These receptors do not share a boundary with the main development site, and main development site boundary screening therefore would not appreciably reduce noise levels due to the height of noise sources and intervening topography. Such mitigation may also only be required for a relatively short period at the start of Phase 1.

2.4.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Abbey Road, Leiston are presented in **Annex 11B/E.3**. The contours indicate that:

- During site stripping / levelling and other concurrent noisy activities (Phase 1a) daytime noise levels at receptors on Abbey Road, Leiston would vary greatly, with higher noise exposure to receptor dwellings at the northern end (furthest from Leiston). Predicted noise levels represent a medium magnitude representing a moderate effect and therefore a significant impact from noise. Phase 1a would take place for a relatively short duration at the start of Phase 1 and the predictions are based on a typical day during a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) daytime main development site construction noise levels on Abbey Road would drop off substantially, although the green rail route would be constructed in relative proximity. Predicted levels to all properties represent a very low magnitude, repreenting a negligible effect and therefore below the threshold of a significant impact from noise. These works may span more than three years and the predicted noise levels are average daytime levels over this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime main development site construction noise levels at human receptors on Abbey Road would be relatively low, not exceeding 42dB $L_{Aeq,T.}$ As for phases 1 and 2, predicted sound levels represent a very low magnitude, representing a negligible effect and therefore no significant impact from noise. Phase 3 and 4 works represent the largest portion of the overall construction period and may span more than eight years. The predicted noise levels are average daytime levels over this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would increase to around 56dB $L_{Aeq,T}$ however this represents a very low magnitude, a minor effect and therefore not a significant impact from noise. The highest noise levels during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 69dB $L_{Aeq,}$T. These noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.4.6 Predicted average night-time construction noise levels would be around 37dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), including approximately fifteen months when night-time construction noise would also be generated by continuous tunnelling and transportation of excavated materials. Predicted noise levels represent a very low magnitude, a negligible effect and therefore no significant impact. Predicted night-time maximum noise levels are low and represent a very low magnitude, therefore no significant noise impact.

Summary

2.4.7 In summary, daytime main development site construction noise levels at noise-sensitive human receptors on Abbey Road, Leiston are predicted to be highest for a relatively short duration at the start of Phase 1. Noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. For the rest of Phases 1 and 2 (around three years) daytime construction noise would drop off substantially and no significant impact from noise is predicted. Noise levels would be lower still during Phases 3 and 4 (potentially spanning a period of eight years), with a very low magnitude, and no significant noise impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not represent a significant impact from noise. For a short period when restoration works are at their closest point to the receptor, at this time a medium magnitude is predicted, representing a moderate effect and therefore a significant impact from noise. Both average and maximum predicted noise levels represent a very low magnitude to this receptor area and therefore no significant impact.

2.5 Ash Wood Cottages

Baseline Sound Levels

2.5.1 Measurements carried out during September 2014 indicated typical ambient sound levels at Ash Wood Cottages of around 45dB $L_{Aeq,T}$ during the day and 39dB $L_{Aeq,T}$ at night. The sound climate was comprised of birdsong from various species, buzzing insects, occasional aircraft and barking dogs and a distant hum from Sizewell B station.

Main Development Site Construction Noise Assessment

2.5.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Ash Wood Cottages are presented below.

2.5.3 Noise levels were predicted including the benefits of a 5m acoustic screen extending along much of the main development site boundary including areas adjacent to Ash Wood Cottages. This screen is proposed as primary mitigation and is shown on the Sizewell C project construction proposals so would definitely be installed for as long as it is required should the DCO be granted.

2.5.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Ash Wood Cottages are presented in **Annex 11B/E.4**. The contours indicate that:

- During site stripping / levelling and other concurrent noisy activities (Phase 1) the area immediately surrounding Ash Wood Cottages would generally be exposed to daytime main development site construction noise levels between 62-66dB $L_{Aeq,T}$ and in some areas this may be as high as 67dB $L_{Aeq,T}$. Predicted noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Phase 1a would to take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during the a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) main development site construction noise levels would be 56-64dB $L_{Aeq,T}$, and would be highest to the south of the property. At times during these phases therefore the predicted noise levels would represent a medium magnitude, a moderate effect and a significant impact from noise. These works may span more than three years and the predicted levels are an average over this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime construction noise levels would drop off substantially, ranging between 50-56dB $L_{Aeq,T}$. These noise levels would then represent a low magnitude, and below the threshold for a significant noise impact. Phases 3 and 4 represent the largest portion of the overall construction period and may span more than eight years. The predicted levels are therefore typical for this period.

- During restoration and removal of temporary facilities (Phase 5) initial modelling predictions indicate that the highest noise levels during Phase 5 would be similar to those predicted during Phase 1a, but for the remainder would be lower. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would increase to approximately 54dB $L_{Aeq,T}$ and not a significant noise impact. The highest noise levels during Phase 5 are currently expected to be similar to during Phase 1a and therefore for a short duration during the busiest month could be up to 67dB $L_{Aeq,T}$ and representing a significant impact from noise.

2.5.5 Predicted average night-time construction noise levels would be around 46dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), and increasing to around 49dB $L_{Aeq,T}$ during the period of around fifteen months when continuous tunnelling and excavation would be underway. Both these predicted noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. The 5m high screen on the main development site boundary represents the limit of what is likely to be practicable. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, a negligible effect and therefore below the threshold of a significant impact.

Summary

2.5.6 In summary, the daytime main development site construction noise levels at Ash Wood Cottages are predicted to be highest relatively early during Phase 1, when site stripping / levelling and other concurrent works would result in a significant impact from noise. Daytime construction noise would remain relatively high for the remainder of Phases 1 and 2 (estimated to be around three years) and remain a significant impact from noise. Noise levels would then drop off for eight years or more during Phases 3 and 4, during which time, a low magnitude is predicted, representing a minor effect and noise levels would be below the threshold of a significant impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not be significant. A significant impact from noise is expected during this period. Night-time average construction noise levels are predicted to represent a medium magnitude, a moderate effect and therefore a significant impact from noise potentially for up to 8.5 years. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and therefore below the threshold of a significant impact. All of the predicted main development site construction noise levels include the benefits of a 5m acoustic screen extending along much of the main development site boundary including areas adjacent to Ash Wood Cottages. This is proposed as primary mitigation and is also likely to be the maximum of what can be achieved with acoustic boundary screening.

2.6 Barley Rise

Baseline Sound Levels

2.6.1 Measurements carried out on an access track approximately 50m from Sizewell Gap indicated typical ambient sound levels at Barley Rise of 53dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. Measurements were carried out during October 2015 and then again during June and July 2019. The main contribution to ambient sound levels was from road traffic on Sizewell Gap Road. Birdsong, a tractor working in a nearby field and noise from pigs in a neighbouring field also contributed to measured levels. In 2019 it was noted that the neighbouring fields had crops rather than livestock, but tractors and sprayers in use.

Main Development Site Construction Noise Assessment

2.6.2 Main development site construction noise levels were predicted and assessed at Barley Rise, situated off and accessed from Sizewell Gap on the eastern outskirts of Leiston, and approximately 150m from the south-east boundary of the Land east of Eastlands Industrial Estate (LEEIE).

2.6.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Barley Rise are presented below.

2.6.4 Noise levels were predicted with and without the benefits of a 5m acoustic screen on the boundary separating Crown Lodge from the LEEIE. Construction activity in the south-east of the LEEIE and immediately adjacent to Crown Lodge would be relatively intensive, particularly early on, so acoustic screening is to be provided as a combination of a 3m earth bund with a 2m acoustic screen installed on the ridge. This primary mitigation is shown on the construction proposals so would definitely be in place should the DCO be granted.

2.6.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Barley Rise are presented in **Annex 11B/E.5**. The contours indicate that:

- During site stripping / levelling and concurrent noisy activities at the start of Phase 1, Barley Rise would experience noise levels up to 60dB $L_{Aeq,T}$ regardless of any screening. Noise levels would represent a low magnitude, a minor effect and therefore just below the threshold of a significant impact from noise. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction daytime noise levels at Barley Rise would reduce significantly. With no screening, noise levels would not exceed 50dB $L_{Aeq,T}$ and would be reduced to 47dB $L_{Aeq,T}$ by the 5m screening combination on the LEEIE boundary. Noise levels predicted represent a very low magnitude, a negligible effect and therefore below the threshold for a significant impact. These works may take nine months to complete during Phases 1 and 2 and the predicted levels represent a typical average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, daytime construction noise levels at Barley Rise would be slightly lower, not exceeding 42dB $L_{Aeq,T}$ with 5m screening on the LEEIE boundary. No significant noise impact is predicted from this phase of work.

This period would span approximately nine months and the predictions represent a daytime average level over this period.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, daytime noise levels at Barley Rise would remain relatively low and again, no significant impact from noise is predicted. This represents the longest portion of the overall construction and may span most of Phases 2, 3 and 4, a period of approximately 8.5 years. The predictions represent a daytime average level over this time.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 45dB $L_{Aeq,T}$ including the benefits of the 5m noise screening and no significant impact is predicted. The highest construction noise levels at Barley Rise during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 60dB $L_{Aeq,T}$. This level represents a minor effect and just below the threshold of a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.6.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.6.7 In summary, daytime main development site construction noise levels at Barley Rise would be highest for a relatively short period during initial site stripping/levelling and concurrent works. With 5m acoustic screening provided on the LEEIE boundary as primary mitigation in the form of a 3m earth bund and 2m acoustic screen, a low magnitude and minor effect is predicted, therefore below the threshold of a significant noise impact. After this, and for the remainder of the Sizewell C project, daytime construction noise levels would drop off substantially and remain relatively low, with a very low magnitude, representing a negligible effect and no significant impact from noise is predicted. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would be below the threshold of a significant impact. Noise levels though increased for a short period when restoration works are at their closest point to the receptor, would remain just below the threshold of a significant impact. Predicted average (dB $L_{Aeq,T}$), and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.7 Common Cottages

Baseline Sound Levels

2.7.1 Measurements carried out during October 2014 on the grass verge between Sandy Lane and the entrance to the LEEIE (approximately 425m south-west of Common Cottages) indicated typical ambient sound levels of 50dB $L_{Aeq,T}$ during the day and 45dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic, including tractors, occasional aircraft, barking dogs and property maintenance related activities. Typical ambient sound levels at the driveway entrance to Common Cottages would be similar, although sound levels at the receptor itself would be slightly lower due to the increased distance from Lovers Lane.

Main Development Site Construction Noise Assessment

2.7.2 Main development site construction noise levels were predicted and assessed at Common Cottages, situated off Lovers Lane to the north-east of Leiston, approximately 230m from the nearest main development site boundary, and 450m from the LEEIE in particular.

2.7.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Common Cottages are presented below.

2.7.4 The results are shown without any screening mitigation. While a 3m earth bund would be constructed as embedded mitigation on the north-east LEEIE corner boundary of the LEEIE (and would therefore definitely be in place should the DCO be granted), this would not appreciably reduce construction noise levels at Common Cottages.

2.7.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Common Cottages are presented in **Annex 11B/E.6**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) daytime noise levels at Common Cottages would generally be between 42-56dB $L_{Aeq,T}$. These noise levels are likely to be experienced as a mixture of construction noise sources from different directions. Predicted noise levels represent a low magnitude, a minor effect and therefore below the threshold for a significant noise impact. Phase 1a works would take place for a relatively short duration at the start of Phase 1 and predictions are based on a typical day during a busy month of activity.

- During site infrastructure and earth moving construction (the rest of Phases 1 and 2), also encompassing the three stages of usage on the LEEIE, noise levels at Common Cottages would remain relatively consistent at between 42-56dB $L_{Aeq,T}$. As for Phase 1a, predicted noise levels represent a low magnitude and therefore below the threshold for a significant noise impact. This period may span more than three years and the predicted levels represent levels on a typical day in this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime construction noise levels around Common Cottages would be slightly lower than Phases 1 and 2, and therefore no significant noise impact is predicted. Phases 3 and 4 may span a period covering more than eight years. The predictions therefore represent levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 49dB $L_{Aeq,T}$, and no significant noise impact is predicted. The highest noise levels during Phase 5 are currently expected to be similar to during Phase 1a and therefore for a short duration during the busiest month could be up to 56dB $L_{Aeq,T}$. This level represents a low magnitude of impact, a minor effect and therefore no significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.7.6 Predicted average night-time construction noise levels would be around 43dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), and increasing slightly to around 44dB $L_{Aeq,T}$ during the period of around fifteen months when continuous tunnelling and excavation would be underway. This does not include any screening, because 3m screens are unlikely to appreciably reduce construction noise levels at first floor level. These predicted levels represent a low magnitude of impact, a minor effect and therefore no significant impact from noise. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and no significant noise impact.

Summary

2.7.7 In summary, daytime main development site construction noise levels at Common Cottages are predicted to be highest during Phases 1 and 2, when noise levels would generally be between 42-56dB $L_{Aeq,T}$, however no significant impact from noise is predicted. Daytime construction noise levels during Phases 3 and 4 (approximately eight years) would be slightly lower and therefore again, no significant noise impact is predicted. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5, and short-term higher sound levels during the busiest month would be below the threshold of a significant noise impact. Predicted night-time construction noise levels represent a low magnitude of impact, a minor effect and therefore no significant impact from noise. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and no significant noise impact.

2.8 Crown Lodge

Baseline Sound Levels

2.8.1 Measurements carried out during October 2014 and July 2019 in the south-east of the LEEIE, around 30m from the boundary with Crown Lodge and 14m from King George's Avenue, indicated typical ambient sound levels of 60dB $L_{Aeq,T}$ during the day and 45dB $L_{Aeq,T}$ at night. The sound climate was comprised of near and distant road traffic, birdsong from various species, occasional aircraft and distant industrial activity.

Main Development Site Construction Noise Assessment

2.8.2 Main development site construction noise levels were predicted and assessed at Crown Lodge, situated at the eastern end of King George's Avenue in Leiston and adjacent to the south-eastern boundary of the LEEIE.

2.8.3 Main Development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Crown Lodge are presented below.

2.8.4 Noise levels were predicted with and without the benefits of a 5m acoustic screen on the boundary separating Crown Lodge from the LEEIE. Construction activity in the south-east of the LEEIE and immediately adjacent to Crown Lodge would be relatively intensive, particularly early on, so acoustic screening is to be provided as a combination of a 3m earth bund with a 2m acoustic screen installed on the ridge. This primary mitigation is shown on the construction proposals so would definitely be in place should the DCO be granted.

2.8.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Crown Lodge are presented in **Annex 11B/E.7**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities at the start of Phase 1, daytime main development site construction noise levels at Crown Lodge would generally be 56-70dB $L_{Aeq,T}$ with no screening at all on the boundary of the LEEIE. Predicted noise levels would represent a moderate effect and therefore be below the threshold of an significant noise impact. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction (nine months during Phases 1 and 2) daytime construction noise levels at Crown Lodge would generally be between 47-52dB $L_{Aeq,T}$ with 5m screening in place. No significant impact from noise is predicted during these phases. These works may take nine months to complete and the predicted levels represent a typical average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, noise levels would generally be below 50dB $L_{Aeq,T.}$ with 5m screening in place. Predicted noise levels represent a very low magnitude, a negligible effect and therefore no significant noise impact. This period would span approximately nine months and the predictions represent a daytime average level over this period.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, daytime noise levels at Crown Lodge would be between 45-50dB

$L_{Aeq,T}$ with 5m screening in place and no significant impact from noise is predicted. This may be a period of approximately 8.5 years, starting during Phase 2 and continuing through Phases 3 and 4. The predictions represent a daytime average level over this time.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 47dB $L_{Aeq,T,}$ including the benefits of the 5m noise screening. The highest noise levels at Crown Lodge during Phase 5 are currently expected to be similar to those during Phase 1a and therefore for a short duration during the busiest month could be up to 60dB $L_{Aeq,T}$. Throughout this phase, a low to very low magnitude is predicted, a minor or negligible effect and therefore no significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.8.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.8.7 In summary, daytime main development site construction noise levels at Crown Lodge would be highest for a relatively short period during initial site stripping/levelling and concurrent works, when the combination of a 3m earth bund and 2m acoustic screen are in place (both of which are primary mitigation), noise levels would remain below the threshold of a significant impact from noise. For the remainder of the initial nine months when the green rail route and rail spur on the LEEIE are being constructed, daytime construction noise would also remain below a significant impact. After this initial period (for the remainder of Phases 2, 3 and 4), daytime construction noise levels would remain at a very low magnitude, a negligible effect and therefore no significant impact from noise is predicted. Initial modelling predictions indicate no significant impact from average noise levels on a typical day during Phase 5. Predicted noise levels would be higher for a short period when restoration works are at their closest point to the receptor, but would represent a minor effect, and not a significant noise impact. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.9 Eastbridge

Baseline Sound Levels

2.9.1 Measurements carried out during August 2014 indicated typical ambient sound levels in the south of Eastbridge of approximately 50dB $L_{Aeq,T}$ during the day and 38dB $L_{Aeq,T}$ at night. The sound climate during the attended part of survey was comprised of vehicles on local and distant roads, occasional aircraft, tractors, barking dogs, birdsong from various species and general farm activities.

Main Development Site Construction Noise Assessment

2.9.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Eastbridge are presented below.

2.9.3 Daytime (0700-2300 hours) main development site construction noise modelling contours for Eastbridge are presented in **Annex 11B/E.8**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) two properties would be exposed to noise levels up to around 54dB $L_{Aeq,T}$ and all other properties in the south-east of Eastbridge would be exposed to construction noise levels below this. These levels represent a low magnitude, a minor effect and therefore noise levels are not predicted to have a significant noise impact. Noise levels at properties in Eastbridge which are further from the site and less exposed to noise from the main development site would be at least 2-4dB lower. These works are likely to place for a relatively short duration towards the start of Phase 1 and the predicted levels are based on a typical day during the a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) main development site daytime construction noise levels across Eastbridge would be substantially lower, with average construction noise levels of 44-46dB $L_{Aeq,T}$ predicted at properties in the south-east and not exceeding 44dB $L_{Aeq,T}$ across the rest of Eastbridge. Noise levels are not predicted to result in a significant impact to any receptors. These works may span more than three years and the predicted levels represent a phase average.

- During construction of above ground power station buildings (Phases 3 and 4) daytime main development site construction noise levels at Eastbridge would again drop off substantially, with predicted average construction noise not exceeding 42dB $L_{Aeq,T}$ across Eastbridge. Noise levels are not predicted to result in a significant impact to any receptors. These works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels thus represent a phase average.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would still not exceed 42dB $L_{Aeq,T}$ across Eastbridge and would not represent a significant impact from noise. The highest noise levels around Eastbridge during Phase 5 in are currently expected to be similar to those during Phase 1a and therefore for a short duration during the busiest month could be up to 54dB $L_{Aeq,T}$. These levels however represent a low magnitude, a minor effect and below the threshold of a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.9.4 The results are shown without the benefits of any localised acoustic screening around the main development site, which contractors would need to provide for as long as necessary and where required to mitigate any significant noise effects at other receptors. Any screens installed for this reason around the northern part of the main development site may reduce construction noise levels at Eastbridge, although the benefits of any localised screening are likely to be inherently restricted by the intervening distance and topography.

2.9.5 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a 'low' or 'very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.9.6 Predicted noise levels represent a low or very low magnitude, a negligible to minor effect and therefore no significant impact from noise is expected during any phase. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a 'low or very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.10 Grimseys Lane

Baseline Sound Levels

2.10.1 Measurements carried out at the eastern end of Heath View (350m north of Grimseys Lane) during October 2015 indicated typical ambient sound levels of 46dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. The sound climate comprised local road traffic noise and occasional aircraft. Sound from agricultural machinery was audible at times as was birdsong.

2.10.2 Measurements were also carried out during the same period at the south-western end of Heath View (approximately 270m north of Grimseys Lane) over the same period, which indicated typical ambient sound levels of 42dB $L_{Aeq,T}$ during the day and 30dB $L_{Aeq,T}$ at night. The sound climate included road traffic and occasional aircraft with agricultural machinery in the distance. More locally children were playing football and school activity audible.

2.10.3 Typical ambient sound levels on Grimseys Lane are expected to be slightly lower than those measured on Heath View due to the increased distance from significant sources of noise, particularly from local road traffic on King George's Avenue and Sizewell Gap Road.

Main Development Site Construction Noise Assessment

2.10.4 Main development site construction noise levels were predicted and assessed at Crown Land Cottage, situated on Grimseys Lane on the eastern outskirts of Leiston, and approximately 50m from the south-east boundary of the LEEIE.

2.10.5 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Grimseys Lane are presented below.

2.10.6 Noise levels were predicted with and without a 5m acoustic screen on the boundary separating Crown Lodge from the LEEIE. Construction activity in the south-east of the LEEIE and immediately adjacent to Crown Lodge would be relatively intensive, particularly early on, so acoustic screening is to be provided as a combination of a 3m earth bund with a 2m acoustic screen on the ridge. This primary mitigation is shown on construction proposals so would definitely be in place should the DCO be granted.

2.10.7 Daytime (0700-2300 hours) main development site construction noise modelling contours for Grimseys Lane are presented in **Annex 11B/E.9**. The contours indicate that:

- During site stripping/levelling and concurrent noisy activities at the start of Phase 1, Crown Land Cottage would experience noise levels between 47-54dB $L_{Aeq,T}$ regardless of any screening. These predicted levels represent a low magnitude, a minor effect and would be below the threshold of a significant noise impact. These works would occur for a relatively short period at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction, daytime noise levels at Crown Land Cottage would not exceed 46dB $L_{Aeq,T}$ regardless of any boundary screening. Noise levels during this phase would not represent a significant noise impact. These works may take nine months to complete during Phases 1 and 2 and the predicted levels represent a typical average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, daytime construction noise levels at Crown Land Cottage would be slightly lower, not exceeding 42dB $L_{Aeq,T}$ regardless of any boundary screening and again, no significant impact from noise is predicted. This period would span approximately nine months and the predictions represent a daytime average level over this period.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, daytime construction noise levels at Crown Land Cottage would remain no higher than 42dB $L_{Aeq,T}$. These noise levels represent a low magnitude, a minor effect and therefore no significant impact from noise. These works represent the longest portion of the overall construction and may span most of Phases 2, 3 and 4, a period of approximately 8.5 years. The predictions represent a daytime average level over this time.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 47dB $L_{Aeq,T}$ at Crown Land Cottage and no significant impact from noise. The highest noise levels during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 54dB $L_{Aeq,T}$. These noise levels represent a low magnitude, a minor effect and therefore below the threshold of a significant noise impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.10.8 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.10.9 In summary, daytime main development site construction noise levels at Crown Land Cottage would be highest for a relatively short period during initial site stripping/levelling and concurrent works. Levels during this phase however represent a low magnitude, a minor effect and therefore not a significant noise impact. Following this and for the remainder of the Sizewell C project, daytime construction noise levels would be reduced. Initial modelling predictions indicate that average noise levels on a typical day, and the busiest month during Phase 5 would represent a low magnitude and therefore no significant impact from noise. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.11 Heath View

Baseline Sound Levels

2.11.1 Measurements carried out at the eastern end of Heath View during October 2015 indicated typical ambient sound levels of 46dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. The sound climate comprised local road traffic noise including vehicles in parking area and occasional aircraft. Sound from agricultural machinery was audible at times as was birdsong.

2.11.2 Measurements were also carried out during the same period at the south-western end of Heath View (the end furthest from the LEEIE) over the same period, which indicated typical ambient sound levels of 42dB $L_{Aeq,T}$ during the day and 30dB $L_{Aeq,T}$ at night. The sound climate included road traffic and occasional aircraft with agricultural machinery in the distance. More locally children were playing football and school activity audible.

Main Development Site Construction Noise Assessment

2.11.3 Main development site construction noise levels were predicted and assessed at dwellings on Heath View, on the eastern outskirts of Leiston. The far eastern end of Heath View is approximately 75m from the south-west boundary of the LEEIE.

2.11.4 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Heath View are presented below.

2.11.5 Noise levels were predicted with and without the benefits of a 3m high acoustic screen extending for approximately 200m along the main development site boundary in the south-west corner of the LIEEIE. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. Assessment at this receptor has assumed screening to be in place for all construction phases at this time. This would be secured through the **CoCP**.

2.11.6 Daytime (0700-2300 hours) main development site construction noise modelling contours for Heath View are presented in **Annex 11B/E.10**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities at the start of Phase 1 (Phase 1a), daytime main development site construction noise levels at Heath View would range from around 40dB $L_{Aeq,T}$ at the south-western end up to 62dB $L_{Aeq,T}$ at the eastern end closest to the LEEIE. The 3m screen in the south-west corner of the LEEIE would reduce noise levels I nthis area. For the closest receptors predicted noise levels would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Phase 1a works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction (nine months during Phases 1 and 2) daytime construction noise would drop off slightly but remain relatively high with no screening in place. With a 3m screen in place noise levels would still be as high as 54dB $L_{Aeq,T}$ at up to two receptors. These predicted noise levels however represent a low magnitude, a minor effect and therefore below the threshold of a significant

impact from noise. These works may take nine months to complete and the predicted levels represent a typical average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, main development site construction noise levels at most receptors on Heath View would drop off substantially. Receptors at the eastern end may be exposed to levels up to 50dB $L_{Aeq,T}$ regardless of screening. Daytime construction noise at most receptors at least 200m from the boundary of the LEEIE would not exceed 42dB $L_{Aeq,T}$. Throughout this phase no significant impact from noise is predicted. This period would span approximately nine months and the predictions represent a daytime average level over this period.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, daytime construction noise levels on Heath View would remain relatively consistent and would generally not exceed 48dB $L_{Aeq,T}$ anywhere, regardless of screening. These levels remain a low magnitude and therefore no significant noise impact is predicted. This may span a period of approximately 8.5 years, starting around halfway through Phase 2 and continuing through Phases 3 and 4. The predictions represent a daytime average level over this time.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day around Heath View would not exceed 47dB $L_{Aeq,T}$ regardless of screening. The highest noise levels at receptors on Heath View during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 62dB $L_{Aeq,T}$, representing a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.11.7 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.11.8 In summary, daytime construction noise levels at noise-sensitive human receptors on Heath View are predicted to be highest for a relatively short duration during initial site stripping/levelling and concurrent noisy works, when noise levels could be reduced with a 3m screen on the south-western boundary of the LEEIE. For a short period of this phase noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Beyond Phase 1, daytime construction noise levels would drop off significantly for the rest of Phases 2, 3 and 4 and no significant impact from noise is predicted. Noise levels more than 200m from the LEEIE would not exceed 42dB $L_{Aeq,T}$ during this period. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not have a significant noise impact, but that noise levels would have a significant noise impact for a short period when restoration works are at their closest point to the receptor. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.12 Keepers Cottage

Baseline Sound Levels

2.12.1 Measurements undertaken on Sandy Lane during September and October 2014 and then subsequently during June and July 2019 indicated typical ambient sound levels of 42dB $L_{Aeq,T}$ during the day and 30dB $L_{Aeq,T}$ at night. Measurements were carried out approximately 130m south-west of and adjacent to the driveway entrance for Keepers Cottage. The sound climate was comprised of occasional dog barking, birdsong of various species, crickets and other insect calls, distant reversing and excavator noises, and light DIY activity at a nearby dwelling. A low humming sound was also detectable from the operational Sizewell B Station.

Main Development Site Construction Noise Assessment

2.12.2 Main development site construction noise levels were predicted and assessed at Keepers Cottage, located on Sandy Lane to the east of Leiston, approximately 200m from the nearest main development site boundary, and 500m from the LEEIE in particular.

2.12.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Keepers Cottage are presented below.

2.12.4 Noise levels were predicted without any screening mitigation. A 3m earth bund would be constructed as embedded mitigation on the north-east LEEIE corner boundary of the LEEIE (and would therefore definitely be in place should the DCO be granted), this would not appreciably reduce construction noise at Keepers Cottage.

2.12.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Keepers Cottage are presented in **Annex 11B/E.11**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities, including creation of the water detention area (Phase 1a), daytime noise levels at Keepers Cottage would generally be between 50-70dB $L_{Aeq,T}$, as a result of noise from haul route vehicles. Noise levels during this phase would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Phase 1a works would take place for a relatively short duration at the start of Phase 1 and predictions are based on a typical day during a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2), also encompassing the three stages of LEEIE usage, noise levels at Keepers Cottage would generally be 47-54dB $L_{Aeq,T}$, with most construction noise now coming from the west/north-west). During these phases, noise levels would represent a low magnitude, a minor effect and therefore below the threshold of a significant noise impact. This period may span more than three years and the predicted levels represent levels on a typical day in this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime noise levels around Keepers Cottage would generally be 42-52dB $L_{Aeq,T}$ and therefore would not represent a significant impact from noise. Phases 3 and 4 may span a period covering more than eight years. The predictions therefore represent levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) our initial modelling predictions indicate that the highest noise levels during Phase 5 would be similar to those during Phase 1a, but for the remainder would be lower. Current estimates are that Phase 5 would be ongoing for a period of around two years.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 50dB $L_{Aeq,T}$. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 70dB $L_{Aeq,T}$. These noise levels would be a medium magnitude, a moderate effect and therefore represent a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.12.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low' or 'very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.12.7 In summary, daytime main development site construction noise levels at Keepers Cottage are predicted to be highest at the start of Phase 1, when residents would experience noise levels between 50 and 70dB $L_{Aeq,T}$, representing a significant impact from noise. For the rest of Phases 1 and 2 (approximately three years) daytime construction noise would generally be 47-54dB $L_{Aeq,T}$ and these levels are predicted to be below the threshold of a significant noise impact. During Phases 3 and 4 (approximately eight years) daytime noise levels at Keepers Cottage would also remain below a significant impact from noise. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not be significant, but that levels would be higher for a short period when restoration works are at their closest point to the receptor, and during these periods a significant impact from noise is predicted. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low' or 'very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.13 King George's Avenue

Baseline Sound Levels

2.13.1 Measurements carried out during October 2014 and then subsequently during July 2019 indicated typical ambient sound levels at a location representative of receptors at the eastern end of King George's Avenue of 65dB $L_{Aeq,T}$ during the day and 50dB $L_{Aeq,T}$ at night. The sound climate was comprised of near and distant road traffic, including heavy goods vehicles, birdsong from various species, occasional aircraft and general grounds maintenance of the sports and social club. Measurements were carried out 4.5m from the kerb at the eastern end of King George's Avenue, around 30m south-west of the LEEIE.

Main Development Site Construction Noise Assessment

2.13.2 Main development site construction noise levels were predicted and assessed at King George's Avenue on the eastern outskirts of Leiston. The far eastern end of King George's Avenue runs parallel with the southern boundary of the LEEIE.

2.13.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for King George's Avenue are presented below.

2.13.4 Noise levels were predicted with and without the benefits of a 3m high acoustic screen extending for approximately 200m along the main development site boundary in the south-west corner of the LIEEIE. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. For this assessment it is assumed this screen is installed and remains in place throughout the construction phases. This would be secured through the CoCP.

2.13.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for King George's Avenue are presented in **Annex 11B/E.12**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities at the start of Phase 1, daytime main development site construction noise levels on King George's Avenue would range from 42dB $L_{Aeq,T}$ at the western end to 67dB $L_{Aeq,T}$ at the eastern end. Without any screen on the main development site boundary, noise levels at the eastern end of King George's Avenue (closest to the south-west corner of the LEEIE) woud be significant. A 3m screen in the south-west corner of the LEEIE would reduce sound levels in this area. Noise levels during this phase would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction (nine months during Phases 1 and 2) daytime construction noise would remain relatively high, with noise levels at the receptor closest to the LEEIE with no boundary screening at a medium magnitude and therefore a significant impact. The 3m screen along the main development site boundary would reduce levels in this area. West of the junction with Eastlands Road, noise levels would not exceed 50dB $L_{Aeq,T}$ with the 3m screen in place. With screening in place, the magnitude of impact would be reduced from medium to very low, and therefore the effect reduced from moderate to negligible in this phase, and below

the threshold of a significant noise impact. These works may take nine months to complete and the predicted levels show an average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, main development site construction noise levels at most human receptors on King George's Avenue would drop off substantially, excluding the four properties closest to the LEEIE. Main development site construction noise levels west of the junction with Eastlands Road would not exceed 42dB $L_{Aeq,T}$. With the 3m screen in place during this period, noise levels at the closest receptors would not exceed 50dB $L_{Aeq,T}$ and therefore representing a low magnitude, and levels below the threshold of a significant impact. This period would span approximately nine months and the predictions represent average daytime noise levels over the nine months.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, noise levels around the south-west corner of the LEEIE would remain relatively consistent, due to continued activity in this area. With the 3m screen in place during this period, noise levels at any noise-sensitive human receptor would not exceed 50dB $L_{Aeq,T}$ and therefore no significant impact from noise would result. This may span a period of approximately 8.5 years, starting around halfway through Phase 2 and continuing through Phases 3 and 4. The predictions show a typical daytime level during this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 54dB $L_{Aeq,T}$ with no screening, reduced to 50dB $L_{Aeq,T}$ with the embedded screening mitigation. These levels would not represent a significant impact from noise. The highest noise levels during Phase 5 are however currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 70dB $L_{Aeq,T}$,. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.13.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.13.7 In summary, daytime construction noise levels at noise-sensitive human receptors on King George's Avenue in Leiston are predicted to be highest for a relatively short duration during site stripping/levelling and concurrent noisy works. Installing a 3m acoustic screen along the main development site boundary in the south-west corner of LEEIE would reduce noise levels along King George's Avenue but a residual significant effect from noise is predicted. During site preparation and rail spur construction (nine months during Phases 1 and 2) a 3m screen would redcuce levels at receptors on King George's Avenue so that they are not significant during this period. Once the rail branch line extension and rail spur are operational (a further nine months), construction noise levels on King George's Avenue would drop-off substantially. The 3m acoustic screen in the south-western corner of the LEEIE would ensure there are no significant effects at any receptor on King George's Avenue during this period. Similar noise levels can be expected once the green rail route into LEEIE is no longer in use (a period which may span around 8.5 years

from the end of Phase 2 through Phases 3 and 4), as construction-related support activities in the south-west of the LEEIE would be ongoing. During these phases, predicted noise levels represent a low magnitude, and therefore no significant noise impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not result in a significant noise impact, but that levels when restoration works are at their closest point to the receptor, a significant impact from noise would occur. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.14 Leiston Abbey

Baseline Sound Levels

2.14.1 Measurements carried out during September 2014 and subsequently during November 2015 indicated typical ambient sound levels at Leiston Abbey of between 42-45dB $L_{Aeq,T}$ during the day and 30-35dB $L_{Aeq,T}$ at night. The sound climate was primarily comprised of distant road traffic noise (from the B1112 in particular), occasional aircraft, occasional agricultural and ground maintenance activity and birdsong from various species.

Main Development Site Construction Noise Assessment

2.14.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Leiston Abbey are presented below.

2.14.3 Noise levels were predicted without acoustic screening on the main development site boundary. The model indicates that boundary screening would not appreciably reduce construction noise levels at Leiston Abbey due to the intervening distance and topography, so no screens were included in the predictions. 3m screens may be installed along the western main development site boundary to mitigate noise levels at other receptors, but these would not reduce levels here.

2.14.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Leiston Abbey are presented in **Annex 11B/E.13**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) daytime construction noise levels around the Leiston Abbey complex would vary depending on location with noise levels as high as 58-60dB $L_{Aeq,T}$ predicted on the east-facing façades of some buildings. Conversely, daytime construction noise levels between 44-50dB $L_{Aeq,T}$ are predicted in some west-facing areas which would be partially screened from construction noise. Phase 1a would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) daytime main development site construction noise levels at Leiston Abbey would drop off significantly to 42-48dB $L_{Aeq,T}$ in some west-facing, acoustically screened areas and 49-54dB $L_{Aeq,T}$ in the more exposed areas in the eastern part of the site. These works may span more than three years and the predicted levels represent the average during this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime noise levels at Leiston Abbey would be no higher than 46dB $L_{Aeq,T}$. Phases 3 and 4 represent the largest portion of the overall construction period and may span more than eight years. The predictions are an average over this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day in the eastern part of the site would be approximately 52dB $L_{Aeq,T}$. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 60dB $L_{Aeq,T.}$ Current estimates are that Phase 5 restoration would be ongoing for a period of around two years

Predicted average night-time construction noise levels would be around 40dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), and increasing slightly to around 41dB $L_{Aeq,T}$ during the period of around fifteen months when continuous tunnelling and excavation would be underway.

Summary

2.14.5 In summary, daytime construction noise levels at Leiston Abbey are predicted to be highest at the start of Phase 1 during site stripping/levelling and concurrent noisy activities. For the rest of Phases 1 and 2 predicted noise levels would represent a low magnitude. Noise levels during Phases 3 and 4 (which is the longest proportion of the overall construction at approximately eight years) would again be reduced. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 be low or very low in magnitude. Predicted night-time construction noise levels represent a low magnitude of impact. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude.

2.14.6 Very low and low magnitude of impacts are predicted at the residential elements of Leiston Abbey. SZC Co. will liaise further with the occupants, who include Pro Corda, to take account of the potentially more sensitive activities that include, amongst other things, indoor and outdoor music performance and tuition. As a high sensitivity receptor, a higher category of effect is possible, depending on the timing of the works relative to the activities at Leiston Abbey.

2.15 Lovers Lane/Sandy Lane junction

Baseline Sound Levels

Measurements carried out during October 2014 on the grass verge between Sandy Lane and the entrance to the LEEIE indicated typical ambient sound levels of 50dB $L_{Aeq,T}$ during the day and 45dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic, including tractors, occasional aircraft, occasional barking dogs and property maintenance related activities.

Main Development Site Construction Noise Assessment

2.15.1 Main development site construction noise levels were predicted and assessed at human receptors situated at the junction of Lovers Lane and Sandy Lane, on the eastern outskirts of Leiston. Receptors at this location are immediately adjacent to the main development site boundary, and to the boundary with the LEEIE in particular.

2.15.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**. Details of the assessment for the Lovers Lane/Sandy Lane junction are presented below.

2.15.3 Noise levels were predicted including the benefits of 3m acoustic screening along the main development site boundary in the north-east corner of the LEEIE, adjacent to the Lovers Lane/Sandy Lane junction. Construction activity in the LEEIE would be relatively intensive, particularly during the early years, so screening would be provided as a 3m earth bund for the duration of all works on the LEEIE. This primary mitigation is shown on the construction proposals so would definitely be in place should the DCO be granted.

2.15.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Lovers Lane/Sandy Lane Junction are presented in **Annex 11B/E.14**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities, including creation of the water detention area (Phase 1a), noise levels at Lovers Lane/Sandy Lane receptors (excluding any screening) would be up to 70dB $L_{Aeq,}$ at the most exposed receptor, and generally between 60-70dB $L_{Aeq,T}$ at Common Farm Cottages, further from the LEEIE boundary. The 3m earth bund on the LEEIE boundary would reduce noise levels at the most exposed receptor to no higher than 63dB $L_{Aeq,T}$. Noise levels are likely to significant during creation of the water detention area when haul route vehicles are moving past these dwellings. Overall, noise levels in this area would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site infrastructure and earth moving construction (the rest of Phases 1 and 2), which would also encompass the three stages of usage on the LEEIE, and creation of the water detention area, noise levels at Lovers Lane/Sandy Lane receptors would generally be 51-54dB $L_{Aeq,T}$ without any screening. The 3m earth bund on the LEEIE boundary would reduce noise levels by 1-2dB in some areas around the receptors, but other areas would still be exposed to daytime noise levels up to 54dB $L_{Aeq,T}$, regardless of screening. Noise levels during this phase would represent a low magnitude, a minor effect and therefore below the threshold of a significant noise

impact. This period may span more than three years and the predicted levels represent levels on a typical day in this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime construction noise levels around receptors at the Lovers Lane/Sandy Lane junction would drop off substantially and would generally not exceed 50dB $L_{Aeq,T}$ regardless of any boundary screening. No significant impact from noise is predicted during these phases. Phases 3 and 4 works cover a relatively long period and may span more than eight years. The predictions therefore represent levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day at receptors on the Lovers Lane/Sandy Lane junction would be up to approximately 53dB $L_{Aeq,T}$ and no significant impact from noise. Noise levels at Common Farm Cottages would be lower than this. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 70dB $L_{Aeq,T}$. Noise levels for a relatively short period would represent a medium magnitude, a moderate effect and therefore a significant noise impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.15.5 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works. This does not include any screening, because a 3m earth bund is unlikely to significantly reduce construction noise levels at first floor level (where bedrooms are typically located).

2.15.6 Summary

2.15.7 In summary, daytime main development site construction noise levels at the Lovers Lane/Sandy Lane junction are predicted to be highest at the start of Phase 1, when the receptor nearest to the LEEIE would experience significant adverse noise levels. For the rest of Phases 1 and 2 (approximately three years) daytime construction noise would be at a low magnitude and therefore there would be no significant noise impact. During Phases 3 and 4 (more than eight years) predicted daytime noise levels would generally be negligible. No significant noise impact is predicted during these phases. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not result in a significant impact from noise. However, when restoration works are at their closest point to the receptor, noise levels would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.16 Old Abbey Farm/Care Home

Baseline Sound Levels

2.16.1 Measurements carried out during January 2016 indicated typical ambient sound levels at Old Abbey Farm/Care Home of around 47dB $L_{Aeq,T}$ during the day and 34dB $L_{Aeq,T}$ at night. The sound climate was comprised of distant road traffic and construction noise. Other noted sounds were birdsong, aircraft and local farming traffic.

Main Development Site Construction Noise Assessment

2.16.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Old Abbey Farm/Care Home are presented below.

2.16.3 Old Abbey Farm/Care Home would be close to some relatively intense construction activity, particularly during Phases 1 and 2. Main development site daytime construction noise levels at Old Abbey Farm/Care Home were therefore predicted both with and without the benefits of a 5m acoustic screen on the main development site boundary, wrapping around the north and east of the property. This is expected to be the maximum practicable height for effective acoustic screening. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. This assessment assumes that the screens would be installed and retained for the entire duration of the construction phases. This would be secured through the **CoCP**.

2.16.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Old Abbey Farm/ Care Home are presented in **Annex 11B/E.15**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) Old Abbey Farm and Care Home would be exposed to noise levels up to 70dB $L_{Aeq,T}$. Predicted noise levels would represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Phase 1a would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity. Screening would benefit some ground floor areas.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2), daytime main development site construction noise levels to the north and east of Old Abbey Farm and Care Home would be significant with no screening. With a 3m screen along the main development site boundary, ground floor levels would be significant in most areas except to the south-east of Old Abbey Care Home, but first floor noise levels would remain signficcant. Increasing the screen to 5m would ensure that the levels would not be significant across most ground floor areas but at first floor level levels would remain signficant. Overall, predicted noise levels during this phase represent a medium magnitude, a moderate effect and therefore a significant noise impact. These works may span more than three years and the predicted levels represent an average during that period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime construction noise would be substantially reduced. 3m screens would reduce ground floor noise levels by 2-3dB but a 5m screen would be required to reduce levels around Old Abbey Farm and Care Home during Phases 3 and 4. Overall, predicted noise levels during these phases represent a low magnitude, a minor effect and therefore below the threshold of a significant impact from noise. Phase 3 and 4 works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels represent an average during that period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 60dB $L_{Aeq,T}$ with no screening, reduced to 56dB $L_{Aeq,T}$ with a 3m screen on the main development site boundary. This would result in noise levels below the threshold of a significant noise impact. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 69dB $L_{Aeq,T}$. During this relatively short period, a significant noise impact is predicted. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.16.5 Predicted average night-time construction noise levels would be around 47dB $L_{Aeq,T}$ when the green rail route is operational (potentially a period of up to 8.5 years), including approximately fifteen months when night-time construction noise would also be generated by continuous tunnelling and transportation of excavated materials. These levels represent a medium magnitude, a moderate effect and therefore a significant noise impact. 5m acoustic screens would be more effective than 3m screens at reducing construction noise at least to first floor level, but would be unlikely to reduce the significant noise impact at second floor or above. Predicted maximum (dB L_{Amax}) night-time noise levels represent a very low magnitude and therefore no significant impact.

Summary

2.16.6 In summary, daytime main development site construction noise levels at Old Abbey Farm and Care Home are predicted to be highest at the start of Phase 1 and screening is likely to be required. A significant impact from noise is predicted during this phase. For the rest of Phases 1 and 2 (approximately three years) a 3m screen would reduce ground floor levels and a 5m screen would reduce levels to first floor. Noise levels would however still represent a medium magnitude, representing a moderate effect and therefore a significant impact from noise. Daytime construction noise levels during Phases 3 and 4 (estimated to be around 8 years) with screens in place would represent a low magnitude and therefore noise levels would be below the threshold of a significant impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 and levels for a short period when restoration works are at their closest point to the receptor would represent a significant impact from noise. Night-time average construction noise levels are predicted to result in a significant impact from noise from first floor and above with or without 5m high screens in place. These screens may reduce the significant impact at first floor, but not to floors above this. Predicted maximum (dB L_{Amax}) night-time noise levels represent a very low magnitude and therefore no significant impact.

2.16.7

2.17 Plantation Cottages

Baseline Sound Levels

2.17.1 Measurements carried out during August 2014 and then subsequently during May and July 2019 indicated typical ambient sound levels at a location approximately 300m west of Plantation Cottages (at the entrance to the access road) of around 55dB $L_{Aeq,T}$ during the day and 38dB $L_{Aeq,T}$ at night. The sound climate during the attended part of survey was comprised of vehicles on local and distant roads, aircraft, birdsong from various species, shotguns, cows, general farm activity, barking dogs and tractors.

Main Development Site Construction Noise Assessment

2.17.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Plantation Cottages are presented below.

2.17.3 Noise levels were predicted with and without a 3m acoustic screen along the northern main development site boundary. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. This assessment assumes screens in place for Phases 1a and 5 as a minimum. This would be secured through the **CoCP.**

2.17.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Plantation Cottages are presented in **Annex 11B/E.16**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) Plantation Cottages would be exposed to construction noise levels up to 64dB $L_{Aeq,T}$ with no screening in place. With the 3m screen along the northern main development site boundary providing screening against noise generated by works to create the water management zone and water resource storage area, noise levels during Phase 1a would not exceed 60dB $L_{Aeq,T}$. Overall the predicted noise levels represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Phase 1a would to take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during the busiest month of activity.

- Once the required water management zone and water resource storage area have been created during Phase 1a, noise levels at Plantation Cottages would drop off considerably. During the construction of site infrastructure and earth moving (the rest of Phases 1 and 2) average noise levels at Plantation Cottages would be between 40-48dB $L_{Aeq,T}$ with no screening. This represents a low magnitude, a minor effect and no significant noise impact. These works may span more than three years and the predicted levels represent an average for this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime main development site construction noise at Plantation Cottages would again be 40-48dB $L_{Aeq,T}$, and therefore no significant noise impact is predicted. Phase 3 and 4 works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels therefore represent an average for these phases.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day at Plantation Cottages would be approximately 56dB $L_{Aeq,T}$ with no screening, which would not indicate a significant noise impact. The 3m screen on the main development site boundary would reduce this level. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 64dB $L_{Aeq,T}$. For a relatively short period of this phase therefore noise levels would represent a medium magnitude, a moderate effect and a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.17.5 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low' or 'very low' magnitude throughout the construction phase. While this does not include any screening, 3m acoustic screens are unlikely to significantly reduce construction noise levels at first floor level (where bedrooms are typically located) so are therefore unlikely to reduce night-time average construction noise levels. No significant impact from night-time noise is predicted to this receptor at any time during the works.

Summary

2.17.6 In summary, the daytime main development site construction noise levels at Plantation Cottages are predicted to be highest during Phase 1, with no screening in place, reducing to around 58dB $L_{Aeq,T}$ with the benefit of a 3m screen along the northern main development site boundary. Predicted levels during the early part of Phase 1 would result in a moderate effect and a significant impact from noise. Predicted daytime construction noise levels for the rest of Phases 1 and 2 (and indeed for most of the Sizewell C project during Phases 3 and 4) would be considerably lower, and no significant impact is predicted. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not result in a significant impact with a 3m screen in place. For a relatively short period therefore of Phase 5 noise levels would result in a moderate effect and a significant impact. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a 'low or very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.18 Potters Farm

Baseline Sound Levels

2.18.1 Measurements carried out during September 2016 indicated typical ambient sound levels at Potters Farm (situated approximately 260m east of Potters Road) of around 43dB $L_{Aeq,T}$ during the day and below 30dB $L_{Aeq,T}$ at night. The sound climate was comprised of distant road traffic, aircraft, agricultural activity and birdsong from various species.

Main Development Site Construction Noise Assessment

2.18.2 Main development site construction noise levels were predicted and assessed at Potters Farm, approximately 150m west of the main development site to the south of Eastbridge and south-east of Theberton.

2.18.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Potters Farm are presented below.

2.18.4 Noise levels were predicted both with and without the benefits of a 3m acoustic screen along the western boundary of the MDS. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. For this assessment it has been assumed that screens would be installed and in place as minimum during phases 1a, 1b/2 and 5. This would be secured through the **CoCP.**

2.18.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Potters Farm are presented in **Annex 11B/E.17**. The contours indicate that:

- During site stripping/levelling and other concurrent activities (Phase 1a) Potters Farm would be exposed to noise levels up to 61dB $L_{Aeq,T}$ with no screen in place. This would reduce to between 50-57dB $L_{Aeq,T}$ with a 3m screen along the western main development site boundary. Predicted noise levels in this phase represent a medium magnitude, a moderate effect and therefore a significant impact from noise. Site stripping / levelling and other concurrent activities is likely to take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during the a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) daytime noise levels at Potters Farm would be reduced compared wit Phase 1a. During these phases with a 3m screen in place, noise levels would represent a low magnitude, a minor effect and therefore below the threshold of a significant noise impact. These works may span more than three years and the predicted levels represent typical levels over this period.

- During construction of above ground power station buildings (Phase 3 and 4) daytime noise levels at Potters Farm would generally be 40-48dB $L_{Aeq,T}$ and are predicted to be no higher than 49dB $L_{Aeq,T}$, and again no significant noise impact is predicted. These works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels thus represent average levels for the phase.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day at Potters Farm would be approximately 54dB $L_{Aeq,T}$ with no screening, and reduced to 48dB $L_{Aeq,T}$ with a 3m screen on the main development site boundary. These levels would not result in a significant impact from noise. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a, and therefore for a short duration during the busiest month could be up to 61dB $L_{Aeq,T}$, a moderate effect and a significant impact from noise. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.18.6 Predicted average night-time construction noise levels would be around 44dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years). This level represents a low magnitude, a minor effect and is therefore below the threshold of a significant noise impact. Predicted levels including the period of around fifteen months when continuous tunnelling and excavation would be underway would increase slightly to around 45dB $L_{Aeq,T}$. For this 15 month period therefore predicted noise levels would represent a low magnitude, a minor effect and therefore just below the threshold of a significant noise impact. While this does not include acoustic screening, 3m screens on the western boundary are unlikely to significantly reduce first floor (bedroom) façade noise levels due to the height of construction noise sources and the intervening distance and topography. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and therefore no significant impact.

Summary

2.18.7 In summary, the highest daytime noise levels are predicted to occur for a relatively short period at the start of Phase 1 during site stripping/levelling and concurrent activities (Phase 1a) with predictions based on a typical day in the busiest month. With a 3m screen in place along the main development site boundary, a medium magnitude is predicted, a moderate effect and therefore a significant impact fronm noise. Predicted daytime construction noise levels for the rest of Phases 1 and 2 are slightly lower, and therefore below the threshold of a significant noise impact. Daytime construction noise levels at Potters Farm are predicted to drop off substantially during Phases 3 and 4 to between 40-48dB $L_{Aeq,T}$ and no higher than 49dB $L_{Aeq,T}$ for what would be the largest portion of the overall construction period which may span more than eight years. No significant impact is predicted during these phases. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 with 3m screening maintained would not result in a significant noise impact. However, when restoration works are at their closest point to the receptor a moderate effect and therefore significant noise impact is predicted. Typical worst-case night-time construction noise levels are predicted to be at or just below the threshold of a significant impact during the period of up to 8.5 years when the green rail route would operate at night (regardless of 3m screens on the main development site boundary). For the fifteen months when continuous tunnelling and excavation would be underway, night-time noise levels would increase slightly but remain just below the threshold of a significant noise impact. Predicted maximum night-time noise levels would not result in a significant impact.

2.19 Potters Street

Baseline Sound Levels

2.19.1 Measurements carried out during September 2016 indicated typical ambient sound levels at Potters Farm (situated approximately 260m east of Potters Road) of around 43dB $L_{Aeq,T}$ during the day and below 30dB $L_{Aeq,T}$ at night. The sound climate was comprised of distant road traffic, aircraft, agricultural activity and birdsong from various species.

2.19.2 Potters Farm is less exposed to road traffic noise than dwellings on Potters Street itself. Typical ambient sound levels closer to Potters Street may be higher due to increased proximity and exposure to the road, and the measured levels are subsequently considered to be the lowest that might typically be experienced by residents on Potters Street.

Main Development Site Construction Noise Assessment

2.19.3 Main development site construction noise levels were predicted and assessed at dwellings on Potters Street, situated to the south-west of Eastbridge, south-east of Theberton and north of Leiston.

2.19.4 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Potters Street are presented below.

2.19.5 Noise levels were predicted both with and without the benefits of a 3m acoustic screen along the western boundary of the main development site. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. This would be secured through the **CoCP.**

2.19.6 Daytime (0700-2300 hours) main development site construction noise modelling contours for Potters Street are presented in **Annex 11B/E.18**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) properties on Potters Street would be exposed to construction noise levels between 44-58dB $L_{Aeq,T}$ with no screening in place, with east-facing façades generally exposed to noise levels between 50-56dB $L_{Aeq,T}$. 3m screens along the western main development site boundary are predicted to reduce Phase 1a noise levels on Potters Street by between 2-4dB. Overall, predicted noise levels represent a low magnitude, minor effect and therefore no significant impact from noise. These works are likely to take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during the a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) main development site daytime construction noise levels at properties on Potters Street would generally be between 40-50dB $L_{Aeq,T}$ with no screen in place, and reduced with the screen. No significant impact from noise is predicted during these phases. These works may span more than three years and the predicted levels represent average levels over this time.

- During construction of above ground power station buildings (Phases 3 and 4) daytime main development site construction noise levels at properties on Potters

Street would be slightly lower, although east-facing façades may still be exposed to noise levels of 46-50dB $L_{Aeq,T}$. Again a low magnitude is predicted and no significant impact from noise. These works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels thus represent average levels over this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day at Potters Street would be approximately 45dB $L_{Aeq,T}$ regardless of any screening. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 58dB $L_{Aeq,T}$ but not resulting in a significant noise impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.19.7 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low', or 'very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.19.8 In summary, predicted daytime main development site construction noise levels at properties on Potters Street with 3m screens in place along the western main development site boundary,would not result in any significant noise impact. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a 'low' or 'very low' magnitude throughout the construction phase. No significant adverse effect from night-time noise is therefore predicted to this receptor at any time during the works.

2.20 Rosery Cottages

Baseline Sound Levels

2.20.1 Measurements carried out during September 2015 and subsequently during June and July 2019 between 2013 and 2019 indicated typical ambient sound levels at a location representative of Rosery Cottages (approximately 200m to the south on Sandy Lane) of 47dB $L_{Aeq,T}$ during the day and 47dB $L_{Aeq,T}$ at night. The sound climate was comprised of operational sound and sources at the operating SZB station, sound from the neighbouring electrical substation site, and birdsong from various species.

Main Development Site Construction Noise Assessment

2.20.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Rosery Cottages, Sizewell are presented below.

2.20.3 Daytime (0700-2300 hours) main development site construction noise modelling contours for Rosery Cottages are presented in **Annex 11B/E.19**. The contours indicate that:

- During site stripping/levelling and concurrent noisy activities (Phase 1a) noise levels at Rosery Cottages predicted sound levels would be low magnitude, and a minor effect, therefore not significant. These works would take place for a relatively short duration at the start of Phase 1 and the predictions are based on a typical day during a busy month.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) main development site daytime construction noise levels at Rosery Cottages would generally be between 47-50dB $L_{Aeq,T}$. Predicted levels represent a low magnitude, a minor effect and therefore no significant noise impact. These works may span more than three years and the predicted levels represent levels on a typical day in this period.

- During construction of above ground power station buildings (Phases 3 and 4) noise levels at Rosery Cottages would be between 42-50dB $L_{Aeq,T}$. Again, predicted levels represent a low magnitude and therefore no significant noise impact. These works represent the largest portion of the overall construction and may span more than eight years. The predicted levels thus represent levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) initial modelling predictions indicate that average noise levels during Phase 5 on a typical day would be approximately 36dB $L_{Aeq,T}$. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and predicted levels during the busiest month would also be below the threshold of a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.20.4 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.20.5 In summary, the predicted main development site construction noise levels at Rosery Cottages are relatively low through all construction phases and no significant impact is therefore expected. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.21 Roundhouse

Baseline Sound Levels

2.21.1 Measurements carried out during September 2014 indicated typical ambient sound levels at Roundhouse of around 41dB $L_{Aeq,T}$ during the day and 31dB $L_{Aeq,T}$ at night. The sound climate was comprised of birdsong from various species, buzzing insects, and distant road traffic. Occasional aircraft and distant traffic were also noted. Measurements were carried out on a track adjacent to Roundhouse and otherwise surrounded by fields with the nearest (minor) road located 100m to the west.

Main Development Site Construction Noise Assessment

2.21.2 Main Development Site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Roundhouse are presented below.

2.21.3 Noise levels were predicted with and without the benefits of three separate 3m acoustic screens wrapping around the property, some or all of which may be required at various times during construction to mitigate significant noise effects. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that the screens are necessary to mitigate significant effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. For this assessment screening to various elevations of Roundhouse have been assumed throughout the contruction phases. This would be secured through the **CoCP.**

2.21.4 Daytime (0700-2300 hours) main development site construction noise modelling contours for Roundhouse are presented in **Annex 11B/E.20**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities (Phase 1a) Roundhouse would be exposed to construction noise levels as high as 69dB $L_{Aeq,T}$ with no screening, which would be reduced by between 1 and 5dB (immediately north and south of the property respectively) with all three 3m screens in place. The predicted noise levels in this phase represent a medium magnitude, a moderate effect and therefore a significant noise impact. Phase 1a would, however, take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) construction noise levels would reduce substantially but would remain relatively high. With no screening in place average noise levels would be between 52-60dB $L_{Aeq,T}$, which would reduce to between 50-58dB $L_{Aeq,T}$ with two of the 3m screens in place along the south-eastern and northern boundaries of the property. Predicted levels would represent a low maginitude, a minor effect and just below the threshold of a significant noise impact. These works may span more than three years and the predicted levels represent average levels for this period.

- There would be a further substantial reduction in main development site construction noise at Roundhouse during construction of above ground power station buildings (Phases 3 and 4), particularly on the northern side of the property, where the building itself would provide some screening from construction noise primarily emanating from the south. With no acoustic screens in place noise levels

would generally range from 40-58dB $L_{Aeq,T}$ and would be as high as 59-60dB immediately south of the property. With a 3m screen on the south-eastern boundary noise levels would be reduced to 40-54dB $L_{Aeq,T}$. Predicted noise levels represent a low magnitude, therefore a minor effect and below the threshold of a significant impact from noise. These works represent the largest portion of the overall construction period and may span more than eight years. The predicted levels thus represent average levels during this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be approximately 60dB $L_{Aeq,T}$ with no screening, reduced to 54dB $L_{Aeq,T}$ with all three 3m screens around the property. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 69dB $L_{Aeq,T}$. Noise levels during this phase represent a medium magnitude and therefore a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.21.5 Predicted average night-time construction noise levels would be around 52dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), including the period of around fifteen months when continuous tunnelling and excavation would be underway. These predicted noise levels represent a medium magnitude at this receptor, a moderate effect and therefore a significant impact from noise. While this does not include any screening, 3m screens are unlikely to significantly reduce construction noise levels at first floor level (where bedrooms are typically located) and so any screening benefits are unlikely to be enough to reduce night-time main development site construction noise levels. Predicted night-time maximum noise levels could be as high as 67dB L_{Amax} when the green rail route materials unloading and stockpiling is underway, a level also representing a medium magnitude and a significant impact from noise.

Summary

2.21.6 In summary, main development site construction noise levels would remain relatively high at Roundhouse throughout the construction phases, with the partial exception of Phases 3 and 4 where construction noise levels would be substantially lower in some areas north of the property. Regardless of any additional acoustic screening, noise levels would be significant at times during Phase 1a activities at the very start of the construction, and again in Phase 5. Phases 3 and 4 would produce similar noise levels, although most construction noise would be coming from the south during this period and as a result noise levels immediately north of the building would be screened from main development site construction noise by the building itself, reducing noise levels in these areas. Noise levels predicted for Phases 1a and 5 (short-term busiest month) represent a medium magnitude, a moderate effect at Roundhouse, and therefore a significant impact from noise. Typical average and maximum night-time construction noise levels are predicted to result in significant noise impacts which could not be practicably reduced through the use of screening due to the expected visual impact of surrounding the property with 3m screens.

2.22 Sizewell Sports and Social Club

Baseline Sound Levels

2.22.1 Measurements carried out on land adjacent to Sizewell Sports and Social Club during October 2015 indicated typical ambient sound levels of 46dB $L_{Aeq,T}$ during the day and 40dB $L_{Aeq,T}$ at night. The sound climate comprised local road traffic noise including vehicles in parking area and occasional aircraft. Sound from agricultural machinery was audible at times as was birdsong.

Main Development Site Construction Noise Assessment

2.22.2 Main development site construction noise levels were predicted and assessed at Sizewell Sports and Social Club, situated on the eastern outskirts of Leiston and approximately 100m from the southern boundary of the LEEIE.

2.22.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Sizewell Sports and Social Club are presented below.

2.22.4 Noise levels were predicted with and without the benefits of a 3m high acoustic screen extending for approximately 200m along the main development site boundary in the south-west corner of the LIEEIE. Should the DCO be granted and it is identified post-DCO, once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. For this assessment it has been assumed that screens would be in place near this receptor for all construction phases. This would be secured through the **CoCP.**

2.22.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Sizewell Sports and Social Club are presented in **Annex 11B/E.21**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities at the start of Phase 1 (Phase 1a), daytime main development site construction noise levels at Sizewell Sports and Social Club would be significant with no screening, but could be reduced with a 3m screen on the LEEIE boundary. The predicted noise levels represent a medium magnitude, a moderate effect and therefore a significant impact. Phase 1a works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction (nine months during Phases 1 and 2) daytime construction noise levels at Sizewell Sports and Social Club would drop off slightly but would remain relatively high, with north-facing areas exposed to levels between 55-58dB $L_{Aeq,T}$ regardless of screening on the LEEIE boundary. The pitches to the south of the club would be partially screened from noise by the building itself, and would be exposed to construction noise levels between 40-50dB $L_{Aeq,T}$ regardless of any screening. For these phases the predicted noise levels represent a low magnitude, a minor effect and therefore below the threshold of a significant impact. These works may take nine months to complete and the predicted levels represent a typical average day over this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, main development site construction noise at Sizewell Sports and Social Club would drop off substantially. Noise levels of up to 52dB $L_{Aeq,T}$ may be experienced in and around the car park area. Predicted noise levels would not represent a significant impact. This period would span approximately nine months and the predictions represent a daytime average level over this period.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, daytime construction noise levels at Sizewell Sports and Social Club would generally be low in magnitude around the site and therefore no significant impact is predicted. This may span a period of approximately 8.5 years, starting midway through Phase 2 and continuing through Phases 3 and 4. The predictions represent a daytime average level over this time.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day would be no higher than 49dB $L_{Aeq,T}$ regardless of screening, which would have a minor adverse effect and therefore not be signifiant. The highest noise levels during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 64dB $L_{Aeq,T}$. The predicted noise levels in this phase represent a medium magnitude and therefore a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.22.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.22.7 In summary, daytime main development site construction noise levels at Sizewell Sports and Social Club would be highest for a relatively short duration during initial site stripping/levelling and concurrent noisy works; these levels could be reduced with a 3m screen in the south-west corner of the LEEIE. Construction noise levels during this phase represent a moderate effect and therefore a significant impact. For the remainder of Phases 2, 3 and 4, the predicted sound levels represent a low magnitude, and therefore below the threshold of a significant impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would not represent a significant impact, but that levels would be significant for a short period when restoration works are at their closest point to the receptor, and a significant impact from noise is predicted. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.23 Sizewell Village

Baseline Sound Levels

2.23.1 Measurements carried out between 2013 and 2019 indicated typical ambient sound levels at Sizewell Village of 48dB $L_{Aeq,T}$ during the day and 43dB $L_{Aeq,T}$ at night. The measurements were carried out at the western end of Sizewell beach car park and the sound climate was comprised of birdsong from various species, distant construction noise, occasional aircraft, vehicles and activity in the car, and vehicles on the Sizewell access road. The sound of the sea was also significant during quieter periods, particularly at night.

Main Development Site Construction Noise Assessment

2.23.2 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Sizewell Village are presented below.

2.23.3 Daytime (0700-2300 hours) main development site construction noise modelling contours for Sizewell Village are presented in **Annex 11B/E.22**. The contours indicate that:

- During site stripping/levelling and concurrent noisy activities (Phase 1a) noise levels would generally be 42-46dB $L_{Aeq,T}$. Predicted noise levels represent a very low magnitude, a negligible effect and therefore no significant impact. These works would take place for a relatively short duration at the start of Phase 1 and the predictions are based on a typical day during a busy month.
- During site infrastructure construction and earth moving (the rest of Phases 1 and 2) noise levels at Sizewell Village would result in a negligible effect. Again therefore, no significant impact from noise is predicted. These works may span more than three years and the predicted levels represent levels on a typical day in this period.
- During Phases 3 and 4 predicted noise levels are the same as those for Phases 1 and 2. Predicted noise levels would result in a negligible effect and there would be no significant impact.
- During restoration and removal of temporary facilities (Phase 5) initial modelling predictions indicate that average noise levels during Phase 5 on a typical day would be no higher than 36dB $L_{Aeq,T}$. The highest noise levels during Phase 5 in are currently expected to be similar to those predicted during Phase 1a and predicted levels during the busiest month would also be very low. As with all other construction phases at this receptor, no significant impact from noise is predicted. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.23.4 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.23.5 In summary, predicted daytime main development site construction noise at Sizewell Village would result in a very low magnitude of impact, a negligible effect and therefore no significant impact. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time

construction noise levels would represent a very low magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

2.24 The Studio

Baseline Sound Levels

2.24.1 Measurements carried out on Sandy Lane during September and October 2014 and then subsequently during June and July 2019 indicated typical ambient sound levels of 42dB $L_{Aeq,T}$ during the day and 30dB $L_{Aeq,T}$ at night. Measurements were carried out approximately 200m east of The Studio. The sound climate was comprised of dog barking, birdsong of various species, cricket and other insect calls, distant reversing and excavator noises, and light DIY activity at a nearby dwelling. A low humming sound was also detectable from the operational Sizewell B Station.

Main Development Site Construction Noise Assessment

2.24.2 Main development site construction noise levels were predicted and assessed at multiple human receptors on Sandy Lane, to the east of Leiston. The property known as The Studio was chosen as the single point receptor for assessment purposes but the conclusions of this section apply to all receptors on the section of Sandy Lane between the junction with Lovers Lane and the point where Sandy Lane splits around 200m east of this junction. This includes The Studio, Reckham Lodge and any other dwellings along this section of Sandy Lane, all of which are closely adjacent to the MDS boundary, and between approximately 200-500m from the boundary with the LEEIE in particular. Keepers Cottage is also in this area, but this receptor is addressed specifically in **section 2.12**.

2.24.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for The Studio are presented below.

2.24.4 Noise levels were predicted without any screening mitigation. While a 3m earth bund would be constructed as embedded mitigation on the north-east LEEIE boundary of the LEEIE (and would therefore definitely be in place should the DCO be granted), this would not appreciably reduce construction noise levels at The Studio or the dwellings close by.

2.24.5 Daytime (0700-2300 hours) main development street construction noise modelling contours for The Studio are presented in **Annex 11B/E.23**. The contours indicate that:

- During site stripping levelling and other concurrent noisy activities, including the creation of a water detention area (Phase 1a), daytime noise levels at The Studio would be 56-66dB $L_{Aeq,T.}$ Highest noise level would occur when vehicles use the haul route during creation of the water detention area. Predicted noise levels during this phase represent a medium magnitude, a moderate effect and therefore a significant impact. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site infrastructure and earth moving construction (the rest of Phases 1 and 2), also encompassing the three stages of usage on the LEEIE, noise levels at The Studio would generally be 49-54dB $L_{Aeq,T}$. This would, at times, be dictated by groundworks and construction activities associated with cable trench excavation to the south of Sandy Lane. Predicted noise levels during this phase represent a low magnitude, a minor effect and therefore below the threshold of a significant noise impact. Phase 1b/2 may span more than three years and the predicted levels represent levels on a typical day in this period.

- During construction of above ground power station buildings (Phases 3 and 4) daytime construction noise levels around The Studio would drop off substantially to between 42-50dB $L_{Aeq,T}$ (with most construction noise now coming from the north). Again, no significant noise impact is therefore predicted. Phases 3 and 4 works cover a relatively long period and may span more than eight years. The predictions therefore represent levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would be approximately 56dB $L_{Aeq,T}$. The highest noise levels during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 66dB $L_{Aeq,T}$. Predicted noise levels in this final phase would represent a moderate effect and therefore a significant impact. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.24.6 Predicted average night-time construction noise levels would be around 43dB $L_{Aeq,T}$ during the period when the green rail route is operational (potentially for up to 8.5 years), and increasing slightly to around 44dB $L_{Aeq,T}$ during the period of around fifteen months when continuous tunnelling and excavation would be underway. Acoustic screens on the main development site boundary would be unlikely to appreciably reduce night-time noise levels at The Studio and surrounding receptors, primarily because of the distance and intervening topography from source(s) to receiver, and also because some of the assessed night-time noise sources are transient in nature. These predicted levels represent a low magnitude of impact, a minor effect and therefore no significant impact from noise. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and no significant noise impact.

Summary

2.24.7 In summary, daytime main development site construction noise levels at The Studio are predicted to be highest at the start of Phase 1, when noise levels would be as high as 66dB $L_{Aeq,T}$, during the creation of the water detention area, and representing a significant noise impact. For the rest of Phases 1 and 2 (approximately three years) daytime construction noise would generally be 49-54dB $L_{Aeq,T}$ and below the threshold of significant impact. During Phases 3 and 4 (currently estimated to span a period of approximately eight years) predicted daytime noise levels at The Studio would not result in a significant impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would be below the threshold of a significant impact. During this relatively short period, a significant noise impact is predicted. Predicted night-time construction noise levels represent a low magnitude of impact, a minor effect and therefore no significant impact from noise. Predicted maximum (dB L_{Amax}) night-time construction noise levels represent a very low magnitude, and no significant noise impact.

2.25 Valley Road, Leiston

Baseline Sound Levels

2.25.1 Measurements carried out during October 2014 and then again during July 2019 indicated typical ambient sound levels at a location representative of receptors at the northern end of Valley Road of 45dB $L_{Aeq,T}$ during the day and 35dB $L_{Aeq,T}$ at night. The sound climate was comprised of road traffic including tractors, occasional aircraft, birdsong from various species, general activity on a nearby industrial estate, people walking by on footpath and barking dogs. Measurements were carried out approximately 90m east of Valley Road on the LEEIE and it is likely that ambient sound levels closer to the road (at the location of noise-sensitive human receptors) would be slightly higher due to the increased noise from local road traffic, including on Valley Road.

Main Development Site Construction Noise Assessment

2.25.2 Main development site construction noise levels were predicted and assessed at noise-sensitive human receptors around Valley Road on the north-eastern outskirts of Leiston. Valley Road runs adjacent to the LEEIE. The predicted noise levels also include receptors on Carr Avenue, the eastern end of which terminates at Valley Road. Some receptors here are within 30m of the main development site boundary around the LEEIE.

2.25.3 Main development site construction noise levels are reported in **Volume 2, Chapter 11** of the Sizewell C Project **ES**, and details of the assessment for Valley Road, Leiston are presented below.

2.25.4 Noise levels were predicted with and without a 3m screen north to south across the western end of the LEEIE. Should the DCO be granted and it is identified once contractors are appointed and detailed construction methodology is confirmed, that this screen (or others) is necessary to mitigate significant noise effects, then contractors would need to provide appropriate screening for as long as required to mitigate those effects. For this assessment, screening has been assumed in place as a minimum throughout Phases 1a, 1b/2 and 5. This would be secured through the **CoCP.**

2.25.5 Daytime (0700-2300 hours) main development site construction noise modelling contours for Valley Road, Leiston are presented in **Annex 11B/E.24**. The contours indicate that:

- During site stripping/levelling and other concurrent noisy activities at the start of Phase 1, daytime main development site construction noise on the north-eastern outskirts of Leiston (close to the LEEIE) be likely to affect approximately ten of the nearest/receptors on Valley Road and the eastern end of Carr Avenue. Predicted levels to the most exposed dwellings would represent a medium magnitude of impact, a moderate effect and therefore a significant impact. With the 3m screen in place these noise levels would be reduced such that the magnitude would be low, with a minor effect and below the threshold of a significant impact. These works would take place for a relatively short duration at the start of Phase 1 and the predicted levels are based on a typical day during a busy month of activity.

- During site preparation and railhead construction (nine months during Phases 1 and 2) daytime main development site construction noise would drop off substantially. A 3m screen on the LEEIE would reduce noise levels. During this phase predicted noise levels represent a low magnitude, a minor effect and therefore below the threshold of a significant impact. These works may take nine months to complete and the predicted levels represent a typical average day during this period.

- Once the rail branch line extension and rail spur are operational and LEEIE is operating as a terminal for incoming freight, construction noise levels at most receptors around Valley Road and north-east Leiston would drop off substantially and no receptor in the area would be exposed to daytime main development site construction noise exceeding 44dB $L_{Aeq,T}$. Predicted noise levels would represent a very low magnitude, a negligible effect and therefore no significant impact. This period would span approximately nine months and the predictions show average daytime noise levels over the nine months.

- When the green rail route is operational and the branch line extension into the LEEIE is no longer in use, noise levels around Valley Road and north-east Leiston would remain low. Again, no significant noise impact is predicted. This may span a period of approximately 8.5 years, starting around halfway through Phase 2 and continuing through Phases 3 and 4. The predictions show noise levels on a typical day in this period.

- During restoration and removal of temporary facilities (Phase 5) average noise levels on a typical day around Valley Road and north-east Leiston would be between 51-54dB $L_{Aeq,T}$ with no screening, and with the 3m boundary screen in place this would reduce to 45-46dB $L_{Aeq,T}$. The highest noise levels during Phase 5 are currently expected to be similar to those predicted during Phase 1a and therefore for a short duration during the busiest month could be up to 62dB $L_{Aeq,T}$ (depending on screens) and a significant impact. Maintaining the screening would result in a minor effect and the impact would be below the threshold of significance. Current estimates are that Phase 5 restoration would be ongoing for a period of around two years.

2.25.6 Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low', or 'very low' magnitude throughout the construction phase. No significant impact from night-time noise is therefore predicted to this receptor at any time during the works.

Summary

2.25.7 In summary, daytime construction noise levels at noise-sensitive human receptors on and around Valley Road on the north-eastern outskirts of Leiston are predicted to be highest for a relatively short duration during site stripping/levelling and concurrent noisy works, with no screening in place on the LEEIE. A 3m acoustic screen on the LEEIE would reduce the predicted magnitude from medium to low, and so the effect would redecued from moderate to minor, ensuring no significant impact from noise. Noise levels would drop off substantially after this initial period, and during site preparation and rail spur construction (approximately nine months) no significant noise impact is predicted. Once the branch line extension is operational construction noise levels would drop off and would remain relatively low while the LEEIE is in use as a construction support area, i.e. for the rest of Phases 2, 3 and 4 (approximately 8.5 years). Predicted noise levels during Phases 2, 3 and 4 represent a 'low or very low' magnitude, and therefore no significant impact. Initial modelling predictions indicate that average noise levels on a typical day during Phase 5 would be not be significant with 3m boundary screening in place. If the screening is maintained till completion of Phase 5, a low magnitude would result representing a minor effect and therefore no significant noise impact. Predicted average (dB $L_{Aeq,T}$) and maximum (dB L_{Amax}) night-time construction noise levels would representa 'low or very low' magnitude throughout the construction phase. No significant impact

from night-time noise is therefore predicted to this receptor at any time during the works.

Annex 11B/A

Construction Source Noise Levels

No.	Element name	Unit	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Sum
62	C1.10 Tracked excavator (loading dump truck)	dB(A)/ LW/unit		83.0	90.0	101.0	107.0	109.0	107.0	98.0	89.0	**113.0**
147	C1.14 Tracked crusher	dB(A)/ LW/unit		94.8	97.9	98.4	105.8	103.0	100.2	95.0	85.9	**109.4**
76	C1.18 Gas cutter	dB(A)/ LW/unit		73.0	83.0	88.0	96.0	101.0	101.0	100.0	98.0	**106.7**
55	C10.20 Conveyor	dB(A)/ LW/unit		73.0	81.0	88.0	97.0	102.0	98.0	93.0	89.0	**104.9**
138	C10.22 Feed hopper conveyor drive unit	dB(A)/ Lw/unit		72.8	79.9	81.4	87.8	94.0	91.2	87.0	77.9	**97.2**
130	C10.23 Field conveyor (rollers)	dB(A)/ Lw/unit		59.8	63.9	71.4	67.8	71.0	71.2	76.0	73.9	**80.5**
20	C11.4 Lorry	dB(A)/ Lw/unit		84.0	92.0	97.0	100.0	104.0	107.0	106.0	96.0	**111.3**
131	C2.30 Dump truck (tipping fill)	dB(A)/ Lw/unit		86.8	85.9	97.4	97.8	101.0	103.2	96.0	89.9	**107.1**
78	C2.37 Roller (rolling fill) *)	dB(A)/ LW/unit		73.8	86.8	100.3	102.8	102.0	99.2	92.0	89.9	**107.5**
51	C2.44 Directional drill	dB(A)/ LW/unit		69.0	92.0	94.0	98.0	101.0	102.0	98.0	89.0	**106.6**
46	C2.45 Water pump	dB(A)/ LW/unit		75.0	80.0	81.0	86.0	89.0	85.0	84.0	68.0	**93.1**
91	C3.11 Piling	dB(A)/ LW/unit		78.0	79.0	85.0	88.0	86.0	86.0	91.0	78.0	**95.1**
45	C3.17 Mini piling rig	dB(A)/ LW/unit		89.0	89.0	91.0	98.0	99.0	98.0	94.0	84.0	**104.2**
28	C3.19 Compressor for mini piling	dB(A)/ Lw/unit		77.0	83.0	84.0	95.0	99.0	98.0	91.0	84.0	**102.9**
30	C3.21 Crawler mounted Piling Rig	dB(A)/ Lw/unit		83.0	93.0	97.0	101.0	102.0	101.0	100.0	100.0	**108.3**
87	C3.7 Power pack	dB(A)/ LW/unit		89.0	100.0	102.0	101.0	101.0	96.0	89.0	79.0	**107.5**
27	C3.8 Vibratory piling rig	dB(A)/ Lw/unit		94.0	91.0	107.0	115.0	123.0	122.0	115.0	103.0	**126.3**
35	C4.15 Fuel tanker lorry	dB(A)/ Lw/unit		79.0	83.0	90.0	100.0	100.0	96.0	88.0	77.0	**104.1**
43	C4.21 Large lorry concrete mixer	dB(A)/ LW/unit		82.0	83.0	84.0	97.0	99.0	101.0	99.0	82.0	**105.3**

No.	Element name	Unit	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	**Sum**
31	C4.29 Truck mounted concrete pump + boom arm	dB(A)/ Lw/unit		95.0	89.0	94.0	100.0	102.0	104.0	96.0	90.0	**108.0**
68	C4.33 Poker vibrator	dB(A)/ LW/unit		84.0	92.0	99.0	98.0	97.0	101.0	99.0	92.0	**106.4**
77	C4.33 Poker vibrator	dB/ LW/unit		82.0	80.0	80.0	73.0	69.0	72.0	70.0	65.0	**86.2**
66	C4.37 Concrete placing boom	dB(A)/ LW/unit		65.0	80.0	84.0	87.0	87.0	82.0	82.0	76.0	**92.3**
65	C4.48 Tower crane	dB(A)/LW/unit		84.0	89.0	99.0	101.0	94.0	95.0	85.0	77.0	**104.4**
42	C4.50 Rough Terrain Crane	dB(A)/ Lw/unit		72.0	85.0	89.0	89.0	96.0	97.0	85.0	75.0	**100.5**
32	C4.50 Tracked mobile crane	dB(A)/ Lw/unit		72.0	85.0	89.0	89.0	96.0	97.0	86.0	75.0	**100.5**
41	C4.50 Tracked mobile crane	dB/ Lw/unit		68.0	71.0	68.0	62.0	66.0	66.0	55.0	46.0	**75.5**
72	C4.54 Telescopic handler	dB(A)/ Lw/unit		90.0	85.0	85.0	90.0	106.0	95.0	83.0	78.0	**106.6**
15	C4.56 Wheeled excavator	dB(A)/ Lw/unit		89.0	96.0	99.0	106.0	106.0	104.0	98.0	94.0	**111.0**
143	C4.7 contractors compounds sum source per m2	dB(A)/ Lw/m, m²		29.0	56.0	55.0	60.0	63.0	66.0	70.0	67.0	**73.6**
57	C4.70 Petrol hand-held circular saw	dB(A)/ LW/unit		74.0	100.0	100.0	106.0	109.0	111.0	115.0	113.0	**118.9**
142	C4.71 Circular bench saw (petrol-cutting concrete blocks)	dB/ LW/unit		85.0	74.0	72.0	70.0	72.0	76.0	82.0	77.0	**88.0**
141	C4.72 Hand-held circular saw (petrol-cutting concrete blocks)	dB(A)/ LW/unit		71.0	86.9	96.4	98.8	99.0	99.2	103.0	95.9	**107.2**
14	C4.74 Tractor	dB(A)/ Lw/unit		81.6	83.6	97.6	100.6	106.6	99.6	90.6	82.0	**108.7**
29	C4.76 Diesel generator	dB(A)/ Lw/unit		95.0	90.0	82.0	84.0	87.0	83.0	80.0	70.0	**97.3**
26	C4.86 Diesel generator Mobile Light Towers	dB(A)/ Lw/unit		80.0	83.0	85.0	87.0	87.0	84.0	84.0	76.0	**93.3**
58	C4.88 Water pump (diesel)	dB(A)/ LW/unit		72.0	77.0	85.0	89.0	92.0	92.0	85.0	73.0	**96.7**

No.	Element name	Unit	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	**Sum**
56	C4.93 Angle grinder (grinding steel)	dB(A)/ LW/unit		59.0	63.0	71.0	85.0	98.0	106.0	102.0	100.0	**108.6**
36	C5.1 Backhoe mounted hydraulic breaker	dB(A)/ Lw/unit		88.0	91.0	97.0	102.0	109.0	111.0	110.0	108.0	**115.9**
22	C5.14 Bulldozer	dB(A)/ Lw/unit		79.0	98.0	88.0	100.0	110.0	109.0	102.0	94.0	**113.3**
24	C5.17 Articulated dump truck	dB(A)/ Lw/unit		84.0	87.0	93.0	97.0	102.0	100.0	95.0	87.0	**105.7**
81	C5.17 Articulated dump truck 100%	dB(A)/ Lw/unit		87.0	90.0	96.0	100.0	105.0	103.0	98.0	90.0	**108.7**
23	C5.18 Tracked excavator	dB(A)/ Lw/unit		78.0	91.0	94.0	100.0	104.0	102.0	99.0	86.0	**108.0**
25	C5.21 Vibratory roller	dB(A)/ Lw/unit		94.0	98.0	98.0	108.0	103.0	99.0	96.0	90.0	**110.5**
33	C5.29 Vibratory compacter	dB(A)/ Lw/unit		78.0	89.0	85.0	102.0	105.0	106.0	102.0	99.0	**110.5**
37	C5.30 Asphalt paver (+ tipper lorry)	dB(A)/ Lw/unit		81.0	80.0	82.0	98.0	100.0	99.0	92.0	83.0	**104.2**
140	C5.36 Hand-held circular saw (petrol)	dB(A)/ LW/unit		86.0	98.0	97.0	103.0	105.0	107.0	111.0	107.0	**114.6**
69	C5.37 Wheeled mobile crane	dB(A)/ LW/unit		95.0	85.0	86.0	96.0	100.0	98.0	92.0	83.0	**104.1**
49	C6.10 20T Tracked excavator	dB(A)/ LW/unit		85.0	91.0	97.0	101.0	102.0	100.0	92.0	89.0	**106.8**
84	C6.3 Tracked excavator	dB(A)/ LW/unit		100.0	103.0	102.0	106.0	110.0	109.0	102.0	92.0	**114.5**
34	C6.31 Grader	dB(A)/ Lw/unit		90.0	98.0	102.0	104.0	112.0	107.0	103.0	96.0	**114.5**
136	C6.32 Wheeled loader (loading hopper)	dB/LW/unit		83.0	77.0	70.0	70.0	70.0	68.0	64.0	58.0	**84.6**
139	C6.32 Wheeled loader (loading hopper) Lw	dB(A)/ Lw/unit		84.8	88.9	89.4	94.8	98.0	97.2	93.0	84.9	**102.7**
52	C6.38 Tractor (towing water bowser)	dB(A)/ LW/unit		80.0	99.0	103.0	104.0	107.0	97.0	98.0	97.0	**110.8**
48	C6.5 60T Tracked excavator	dB(A)/ LW/unit		90.0	100.0	100.0	106.0	105.0	104.0	103.0	93.0	**111.4**

No.	Element name	Unit	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	**Sum**
88	C8.20 Tipper lorry	dB(A)/ LW/unit		90.0	94.0	93.0	98.0	102.0	102.0	99.0	94.0	**107.3**
44	C8.20 Tipper lorry	dB(A)/ LW/unit		90.0	94.0	93.0	98.0	102.0	102.0	99.0	94.0	**107.3**
64	C9.1 Tracked mobile drilling rig	dB(A)/ LW/unit		98.0	104.0	104.0	113.0	112.0	112.0	109.0	104.0	**118.3**
50	C9.16 Rigid dump truck	dB(A)/ LW/unit		84.0	97.0	103.0	107.0	109.0	108.0	101.0	96.0	**113.7**
1	CAT 777 Rigid Dump Truck	dB(A)/ Lw/unit	75.1	91.8	102.8	100.3	107.8	109.0	108.2	102.0		**114.0**
10	container bumping LWAeq(1hour)	dB(A)/ Lw/unit		72.0	81.0	85.0	88.0	88.0	85.0	83.0	72.0	**93.5**
7	HGVs at loading lanes	dB(A)/ Lw/unit		82.0	93.0	95.0	101.0	99.0	98.0	94.0	87.0	**105.5**
3	hitching PGR LWAeq(1hour)	dB(A)/ Lw/unit		67.0	73.0	79.0	81.0	83.0	80.0	78.0	73.0	**87.9**
133	Lkw - (idling engine)	dB(A)/ Lw/unit		72.0	75.0	79.0	84.0	87.0	84.0	78.0	69.0	**90.8**
132	Lkw, slowly accelerating 10-20km/h	dB(A)/ Lw/unit		81.0	84.0	90.0	93.0	97.0	94.0	88.0	80.0	**100.7**
144	Lkw,slowly accelerating 40km/h	dB(A)/ Lw/unit		86.0	89.0	95.0	98.0	102.0	99.0	93.0	85.0	**105.7**
8	Loco idling	dB(A)/ Lw/unit		85.0	90.0	95.0	95.0	95.0	95.0	95.0	95.0	**103.1**
38	Metal Shop (Sanding, Hammering)	dB(A)/ LW/unit		50.0	63.0	76.0	91.0	95.0	96.0	91.0	79.0	**99.9**
40	Metal Shop (Sanding, Hammering)	dB(A)/ LW/unit		53.8	68.9	81.4	96.8	100.0	101.2	96.0	83.9	**105.1**
146	Container Bumping Lamax	dB(A)/ Lw/unit		103.0	112.0	116.0	119.0	119.0	116.0	114.0	102.0	**124.5**
61	Diesel Locomotive Full Power	dB(A)/ Lw/unit	72.0	93.0	108.0	105.0	109.0	108.0	110.0	110.0	108.0	**117.0**
16	PGR Wheeled Payloader	dB(A)/ Lw/unit		87.0	94.0	97.0	104.0	104.0	102.0	96.0	92.0	**109.0**
9	Rail Mounted Gantry Crane Motor	dB(A)/ Lw/unit		85.0	88.0	95.0	98.0	96.0	94.0	88.0	77.0	**102.5**
11	Stacker Truck engine	dB(A)/ Lw/unit		85.0	96.0	100.0	102.0	105.0	106.0	99.0	88.0	**110.4**

No.	Element name	Unit	31 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	**Sum**
128	Rail Upgrade Works All	dB(A)/ LW/unit		88.8	105.9	100.4	107.8	109.0	108.2	92.0	93.9	**114.1**
17	Wood shredder diesel ca 200 kW Leq	dB(A)/ Lw/unit		81.0	91.0	98.0	104.0	107.0	108.0	108.0	106.0	**114.0**
74	Wood shredder diesel LAmax	dB(A)/ Lw/unit		86.0	96.0	103.0	109.0	112.0	113.0	113.0	111.0	**119.0**
21	Boxscraper	dB(A)/ Lw/unit		80.0	99.0	100.0	101.0	111.0	109.0	106.0	97.0	**114.5**
19	Chainsaw SR	dB(A)/ Lw/unit		71.0	98.0	97.0	101.0	105.0	108.0	112.0	99.0	**114.5**
70	Contractors compounds area sources per M2	dB(A)/ Lw/m, m^2		63.0	61.0	61.0	68.0	71.0	70.0	66.0	57.0	**75.8**
13	D10 Dozer	dB(A)/ Lw/unit	76.0	87.0	97.0	100.0	109.0	109.0	108.0	102.0	95.0	**114.1**
75	D4 Percussive piling	dB(A)/ Lw/unit		95.8	110.8	110.3	117.8	117.0	112.2	107.0	103.9	**122.0**
79	Hydrofraise rig	dB(A)/ Lw/unit		81.0	91.0	95.0	99.0	100.0	99.0	98.0	98.0	**106.3**

Annex 11B/B

Construction Source Schedule

Construction Source Schedule - Phase 1

Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
P1-1a	Felling	Chainsaw	40%	6
		HGV	60%	1
		Tractor	60%	2
		Wheeled Excavator	50%	2
		Wheeled Payloader	60%	1
		Woodchipper	70%	1
P1-1b	Stripping/ site levelling	Articulated Dump Truck	20%	4
		Box Scraper	80%	4
		Bulldozer	80%	4
		Excavator	80%	4
		Lighting Tower	50%	4
		Vibrator	60%	2
P1-1c	Water Management Zone	Articulated Dump Truck	20%	3
		Excavator	80%	1
		Lighting Tower	50%	2
P1-2a-ii	Borrow Pit - Excavation - Areas 2 & 3 (Zones C7 and C6)	ADTS HAUL TO SP	100%	3
		ADTS	30%	4
		EXCAVATORS	70%	1
		LIGHTING TOWERS	100%	4
P1-2a-iii	Borrow Pit - Excavation - Areas 3 Only (Zone C6)	Articulated Dump Truck	20%	4
		Excavator	80%	1
Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
		Haul to 9A (Zone C10) ADT	100%	1
		Lighting Tower	100%	4

P1-2a-iv	Borrow Pit - Excavation - Areas 3 & 4 (Zones C6 and C5)	Articulated Dump Truck	20%	4
		Excavator	80%	1
		Haul to 9A (Zone C10) ADT	100%	1
		Lighting Tower	100%	4
P1-2b	Borrow Pit - Stockpiling	Articulated Dump Truck	20%	2
		Bulldozer	80%	2
		Lighting Tower	50%	4
		Vibratory Roller	50%	2
P1-3a-b	Contractor's Compounds	Articulated Dump Truck	20%	2
		Bulldozer	80%	1
		Crane	20%	1
		Excavator	80%	1
		Vibrator	20%	1
P1-4a	Piling Platform	Articulated Dump Truck	20%	2
		Bulldozer	80%	1
		Vibrator	20%	1
P1-4b	Piling	Compressor	100%	4
		Cutting Welding	20%	2
		Excavator	80%	2
		Generator Set	100%	4
		Lighting Tower	50%	4
		Reactive Piling	60%	2
		Wrench	10%	2
P1-5c	Culvert & Embankment construction	Articulated Dump Truck	20%	8
		Bulldozer	80%	2
Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
		Excavator	80%	2

		Lighting Tower	100%	4
		Vibrator	40%	2
		Crawler Lane	50%	1
P1-6a	Haul Road	Bulldozer	80%	2
		Excavator	80%	2
		Grader	80%	2
		HRd Vibrator	40%	2
		Lighting Tower	100%	8
P1-6b	Main Access Road	Articulated Dump Truck	80%	4
		Backhoe	20%	2
		Bulldozer	80%	2
		Compressor	30%	1
		Excavator	80%	2
		Grader	80%	2
		HBM Payloader	40%	1
		Lighting Tower	100%	8
		Paver	50%	1
		Tipper Truck	20%	4
		Vibrator	40%	4
P1-7a	Main Site Office - Piled Foundations	Articulated Dump Truck	20%	2
		Compressor	60%	1
		Concrete Delivery	100%	1
		Concrete Pump	40%	1
		Excavator	80%	2
		Lighting Tower	100%	6
		Mobile Crane	50%	2
Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
		Piling Rig	40%	1

		Rebar Yard	70%	1
		Vibrator Poker	20%	1
P1-7b	Entrance Plaza	Backhoe	20%	2
		Bulldozer	80%	2
		Compressor	30%	3
		Excavator	80%	2
		Grader	40%	2
		Lighting Tower	100%	8
		Paver	50%	1
		Tipper Truck	20%	4
		Vibrator	30%	4
P1-8a	Concrete Batching Plant Ground Prep	ARTICULATED DUMP TRUCKS	30%	2
		EXCAVATORS	70%	1
		PAVER	50%	1
		TIPPER LORRIES	40%	4
		VIBRATOR ROLLER COMPACTOR	30%	2
P1-8b	Concrete Batching Plant Ground Prep	COMPRESSORS	50%	3
		GENERATOR SETS	80%	4
		MOBILE CRANES	30%	2
		TELEHANDLERS	70%	2
P1-9a	Stockpiling 9A (Zone C10)	Articulated Dump Truck	20%	2
		Bulldozer	80%	2
		Excavator	80%	2
P1-10a	Sea Defences - Remove existing	Articulated Dump Truck	20%	8
		Bulldozer	80%	1
		Excavator	80%	2
Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
		Lighting Tower	100%	4

P1-10c-i	Sea Defences - Ground Improvement as 5a	Concrete Pump	40%	2
		Excavator	80%	2
		Lighting Tower	100%	4
		Piling	40%	2
P1-10c-ii	Sea Defences - Peat Treatment under	Compressor	50%	4
		Generator	50%	4
		Lighting Tower	100%	4
		Percussive Piling	40%	2
		wrench	40%	4
P1-10d	Sea Defences - Construction	Articulated Dump Truck	20%	8
		Bulldozer	80%	2
		Lighting Tower	100%	4
		Vibratory Roller	30%	2
P1-11B	Cut off Wall - Platform	Articulated Dump Truck	20%	8
		Bulldozer	80%	2
		Excavator	80%	2
		Lighting Tower	100%	4
		Vibrator	30%	2
P1-11b	Cut off Wall - Construction	Concrete Delivery	100%	1
		Crane Lorrie	20%	4
		Crawler Crane	50%	3
		Generator Set	100%	8
		Hydrofraise Rig	70%	3
		Lighting Tower	100%	12
		Tracked Compressor	30%	8
Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
		Tracked Crawler Crane	30%	5

P1-19	**Cable Trench Excavation**	**Excavator**	**70%**	**1**
P1-20	**Green rail route on site earthworks**	**Articulated Dump Truck**	**20%**	**4**
		Bulldozer	**80%**	**1**
		Excavator	**80%**	**2**
		Grader	**30%**	**2**
		Vibrator	**100%**	**1**
P1-HGV	**HGV Deliveries to TCA**	**120 per day**		

Construction Source Schedule - Phase 2

Sub-Phase ID	Activity	Source Name	T_{ON} %	Include N_{INC}
P2-2a-ii	**Borrow Pit - Excavation - Areas 2 & 3 (Zones C7 and C6)**	**Articulated Dump Truck**	**30%**	**2**
		Excavator	**70%**	**1**
		Lighting Tower	**100%**	**4**
P2-2a-iii	**Borrow Pit - Excavation - Areas 3 & 4 (Zones C6 and C5)**	**Articulated Dump Truck**	**30%**	**2**
		Excavator	**70%**	**1**
		Lighting Tower	**100%**	**4**
P2-2a-iv	**Borrow Pit - Excavation - Areas 3 Only (Zones C6)**	**Articulated Dump Truck**	**30%**	**2**
		Excavator	**70%**	**1**
		Lighting Tower	**100%**	**4**
P2-2b	**Borrow Pit - Stockpiling**	**Articulated Dump Truck**	**70%**	**1**
		Bulldozer	**70%**	**1**
		Lighting Tower	**100%**	**1**
Sub-Phase ID	**Activity**	**Source Name**	**T_{ON} %**	**Include N_{INC}**
P2-6b		**Main Access Road Compressor**	**50%**	**4**
		Main Access Road Bulldozer	**70%**	**2**
		Main Access Road ADT	**30%**	**4**

		Main Access Road Excavator	70%	2
		Main Access Road Grader	50%	2
		Main Access Road HBM Payloader	70%	2
		Main Access Road Mobile Diesel Gen Lighting Tower	100%	8
		Main Access Road Paver	50%	2
		Main Access Road Tipper Truck	40%	4
		Main Access Road Vibrator	50%	4
P2-7b	Entrance Plaza	Backhoe	20%	2
		Bulldozer	70%	2
		Compressor	50%	3
		Excavator	70%	2
		Grader	50%	1
		Lighting Tower	100%	8
		Paver	50%	1
		Tipper Truck	40%	4
		Vibratory Roller	50%	4
P2-7c	Main Site Office - Superstructure	Compressor	50%	8
		Generator Set	50%	4
		Lighting Tower	100%	6
		Mobile Crane	50%	2
		Tele Handler	70%	2
		Wrench	20%	8
P2-12b		Compressor	50%	2
		Concrete Pump	30%	2
Sub-Phase ID	Activity	Source Name	T_{ON} %	Include N_{INC}
		Generator	50%	2
		Lighting Tower	100%	4
		Mobile Crane	50%	2

		Vibrating Poker	30%	2
P2-13a	Contractor's Compounds - Hardstanding	Contractors Compounds Excavator	70%	2
		Contractors Compounds Vibratory Roller	50%	4
		Contractors Compounds Bulldozer	70%	2
		Contractors Compounds Grader	50%	2
		Contractors Compounds HBM	70%	2
		Contractors Compounds Mobile Lighting Tower	100%	8
P2-14a-i	Accom'd'n Campus - Grndworks	Accomodation Campus Vibrating Poker Set	50%	1
		Accomodation Campus Mobile Crane	50%	2
		Accomodation Campus Grinder	20%	4
		Accomodation Campus Mobile Lighting Tower	100%	8
		Accomodation Campus ADT	30%	2
		Accomodation Campus Compressor	50%	2
		Accomodation Campus Excavator	70%	2
P2-14b-i	Accom'd'n Campus - Car Parks - opt 1	Bulldozer	70%	1
		Compressor	50%	2
		Excavator	70%	1
		Grader	50%	1
		Lighting Tower	100%	8
		Paver	50%	1
		Tipper Truck	40%	4
		Vibratory Roller	50%	2
		Wheeled Excavator	70%	2
P2-14c-i	Accom'd'n Campus - Buildings - opt 1	Compressor	50%	8
Sub-Phase ID	Activity	Source Name	T_{ON} %	Include N_{INC}
		Generator	50%	4
		Lighting Tower	100%	6
		Mobile Crane	50%	2

		Telehandler	70%	2
		Wrench	20%	8
P2-15a	Within Cut-off Wall - Excavation	20ton Excavator	70%	2
		60ton Excavator	70%	2
		Bulldozer	70%	2
		Compressor	50%	6
		Generator	50%	6
		Horizontal Drilling Rig	50%	3
		Lighting Tower	100%	18
P2-15b	Haul Route	Haul Route CAT777	100%	3
P2-16	Railhead - Operation	Trains IN/Out	100%	6
		Loco Idling	50%	1
		Loco Shunting	100%	1
		HGVs's	100%	50/h
		Telehandler	80%	2
		loading Shovel	80%	2
P2-30	Main Works Yard	Compressor	50%	2
		Crawler Crane	50%	2
		Lighting Tower	100%	4
		Portal Crane	70%	1
		Telehandler	70%	2

Construction Source Schedule - Phases 3 and 4

Sub-Phase ID		Source Name	T_{ON} %	Include N_{INC}
P3-30	Main Works Yard	Telehandler	50%	4

		Crawler Crane	40%	2
		Lighting Tower	100%	12
		Portal Crane	40%	2
		Compressor	40%	12
P3-31	CRF Pipes	Pipes Crawler Crane	60%	2
		Bulldozer	70%	1
		Excavator	70%	2
		Lighting Tower	100%	14
		Compressor	50%	4
P3-32	Galleries	Lighting Tower	100%	14
		Bulldozer	70%	1
		Excavator	70%	1
		Concrete Pump	60%	1
		Compressor	30%	4
		Crawler Crane	60%	2
		Concrete Delivery	20%	1
P3-33	CRF Backfill	Concrete Poker	40%	2
		Concrete Pump	40%	2
		Lighting Tower	100%	6
		Compressor	40%	4
P3-34	CRF Secondary Backfill	Lighting Tower	100%	6
		Backfills Backhoe	40%	2
		Compressor	30%	4
		Tipper Lorry	20%	4
Sub-Phase ID		Source Name	T_{ON} %	Include N_{INC}
		Compactor	50%	2
		Vibratory Rollers2	50%	2
		Vibratory Roller	50%	1

		Bulldozer	70%	1
		Excavator	70%	1
P3-35	1.0 Base slab & substructure	Lighting Tower	100%	6
		Compressor	40%	6
		Vibrating Poker	40%	2
		Concrete Pump	60%	1
		ADTS	70%	2
		Excavator	70%	2
		Mobile Crane	60%	2
		Tower Crane	60%	2
P3-36	Nuclear Island 1	Concrete Delivery	20%	1
		Lighting Tower	100%	10
		Compressor	50%	10
		Concrete Vibrating Poker	50%	5
		Concrete Pump	100%	3
		ADTS	70%	4
		Tracked Excavator	70%	6
		Mobile Crane	40%	4
		Tower Crane	40%	10
P3-37	Nuclear Island 2	Lighting Tower	100%	6
		Compressor	50%	5
		Vibrating Poker	50%	3
		Concrete Pump	100%	2
		ADTS	70%	4
Sub-Phase ID		Source Name	T_{ON} %	Include N_{INC}
		Excavator	70%	3
		Mobile Crane	40%	1
		Tower Crane	40%	2

		Concrete Delivery	20%	1
P3-38	Nuclear Island 3	Lighting Tower	100%	6
		Compressor	50%	5
		Vibrating Poker	50%	3
		Concrete Pump	100%	2
		ADTS	70%	2
		Excavator	70%	2
		Mobile Crane	40%	1
		Tower Crane	40%	2
		Concrete Delivery	20%	1
P3-39	Nuclear Island 4 (Secondary backfill)	Lighting Tower	100%	18
		Backhoe	40%	6
		Compressor	40%	12
		ADTS	70%	12
		Vibratory Roller	40%	3
		Bulldozer	70%	3
		Excavator	70%	3
P3-40	Turbine Hall	Lighting Tower	100%	6
		Mixer Delivery	20%	1
		Hall Compressor	50%	5
		ADTS	70%	2
		Concrete Pump	100%	2
		Excavator	70%	2
		Mobile Crane	40%	2
Sub-Phase ID		Source Name	T_{ON} %	Include N_{INC}
		Tower Crane	40%	4
		Vibrating Poker	50%	3
P3-41	SWBP Walls	Lighting Tower	100%	6

		Compressor	50%	5
		Mixer Delivery	20%	1
		Vibrating Poker	50%	3
		Concrete Pump	100%	2
		Excavator	70%	1
		Mobile Crane	40%	2
		Tower Crane	40%	4
P3-42	Forebay Base	Lighting Tower	100%	6
		Mixer Delivery	20%	1
		Compressor	50%	5
		Vibrating Poker	50%	3
		Concrete Pump	100%	2
		Excavator	70%	1
P3-43	Outfall Excavation	Tractor Unit	40%	2
		Bulldozer	70%	2
		120T Excavator	60%	1
		20T Excavator	60%	2
P3-44	Haul Route CAT777's	Hall Route CAT 777	40%	6
P3-45	Stockpiling Main	Bulldozer	70%	4
		Lighting Tower	100%	1
		Vibratory Roller	70%	2
		Articulated Dump Truck	70%	1
P3-46	CI & BOP primary bulk excavation	Excavation Tractor Unit	40%	2
		Excavation Bulldozer	60%	2
Sub-Phase ID		Source Name	T_{ON} %	Include N_{INC}
		20T Excavator	70%	2
		120T Excavator	70%	2
P3-47	Stockpiling 9A (Zone C10)	Excavator	70%	2

		ADTS	70%	2
		Bulldozer	70%	2
P3-48	Compounds	Mobile Crane	50%	2
		Telehandler	60%	2
P3-49	Operational Railhead	Operational Railhead	70%	9

Construction Source Schedule - LEEIE Construction

Sub-Phase ID		Source Name	T_{ON} %	Number Assumed
P6-99a	Initial Site Strip & Level	BIG FIELD ADTS	50%	4
		BIG FIELD BULLDOZERS	80%	4
		BIG FIELD EXCAVATORS	80%	4
		BIG FIELD ROLLER	50%	2
		GRADERS BIG FIELD	50%	2
		MOBILE LIGHT TOWERS BIG FIELD	100%	8
P6-99b	Site Preparation	BIG FIELD COMPRESSORS	60%	2
		BIG FIELD GENERATOR SETS	60%	2
		BIG FIELD GRADERS	50%	2
		BIG FIELD PAVERS	70%	2
		BIG FIELD TIPPERS	20%	4
		BIG FIELD VIBRATOR	30%	2
P6-99C	Railhead Construction	BIG FIELD CONCRETE POKERS RH	50%	2
		BIG FIELD CONCRETE PUMPS RH	50%	2
Sub-Phase ID		Source Name	T_{ON} %	Number Assumed
		BIG FIELD EXCAVATORS RH	80%	2
		BIG FIELD GRADERS RH	50%	2
		BIG FIELD GRINDERS RH	20%	2

		BIG FIELD MIXERS RH	50%	4
		BIG FIELD PETROL SAWS RH	20%	2
P6-99D	Track Removal	Class 66 Loco idling	100%	1
		Rail saw	50%	1
		Rail mounted crane	75%	1
		Rail mounted backhoe	25%	1
		Nut runner	10%	1
		Sleeper screwdriver	20%	1
	Track Laying	Class 66 Loco idling	100%	1
		Rail mounted crane	75%	1
		Nut runner	10%	1
		Rail saw	5%	1
		Track grinder	20%	1
		Dropping ballast	20%	1
		Sleeper screwdriver	75%	4
		Rail treading machine	75%	1
		Tamper	30%	1
		Regulator	20%	1
		Stabiliser	10%	1

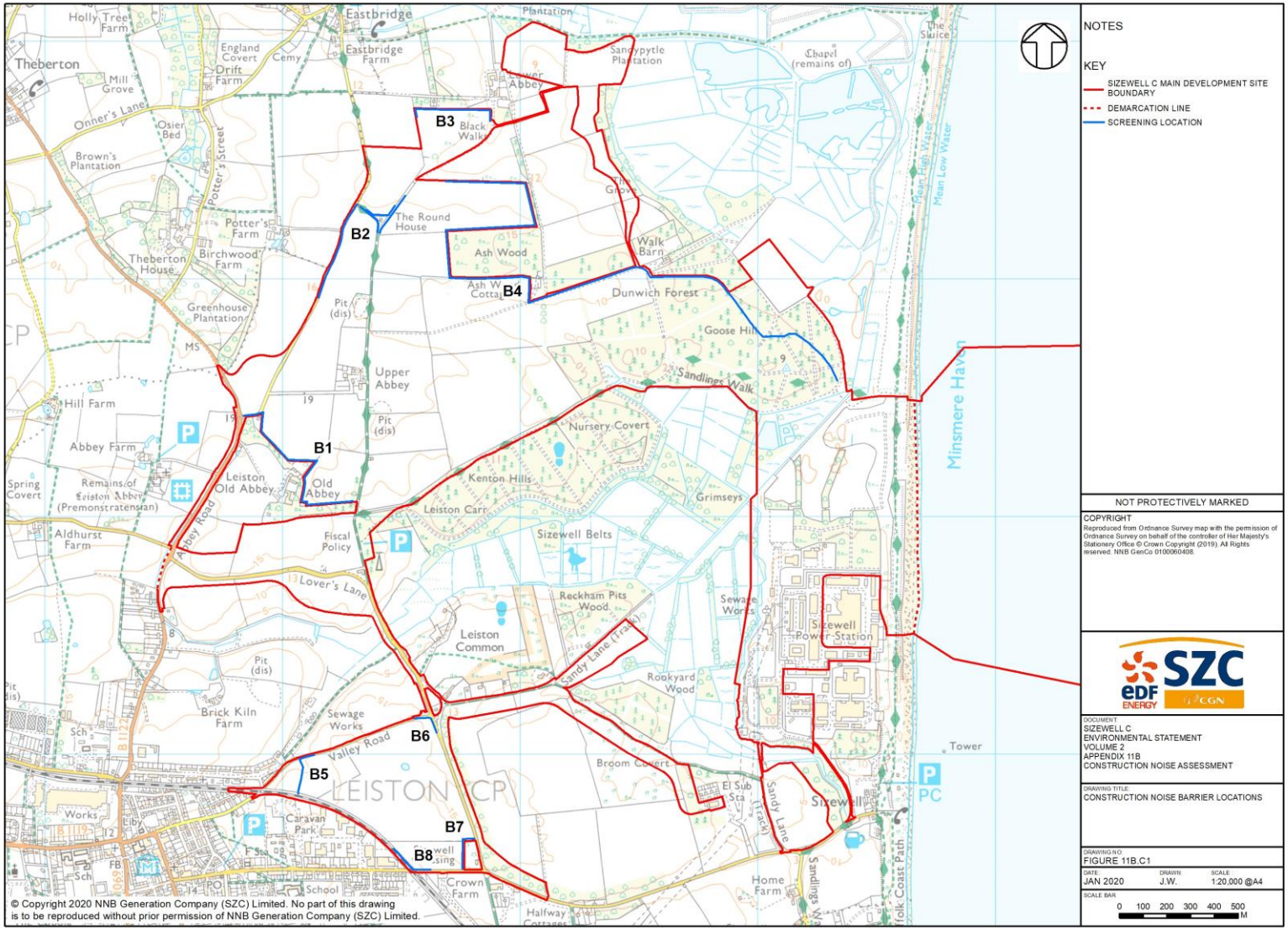
Construction Source Schedule - Phase 5

Sub-Phase ID	Activity	Source Name	T_{ON} %	Number Assumed
P5-1	Restoration	Articulated Dump Truck	30%	4

		Box Scraper	**80%**	**4**
		Bulldozer	**80%**	**4**
		Excavator	**80%**	**4**
		Lighting Tower	**50%**	**4**
		Vibrator compactor	**60%**	**2**
		Backhoe with Breaker	**60%**	**4**

Annex 11B/C1 and C2

Construction Noise Barrier Locations



NOTES

KEY

- SIZEWELL C MAIN DEVELOPMENT SITE BOUNDARY
- DEMARCATION LINE
- SCREENING LOCATION

NOT PROTECTIVELY MARKED

DOCUMENT:
SIZEWELL C
ENVIRONMENTAL STATEMENT
VOLUME 2
APPENDIX 11B
CONSTRUCTION NOISE ASSESSMENT

DRAWING TITLE:
CONSTRUCTION NOISE BARRIER LOCATIONS

DRAWING NO:
FIGURE 11B.C1

DATE:	DRAWN:	SCALE:
JAN 2020	J.W.	1:20,000 @A4

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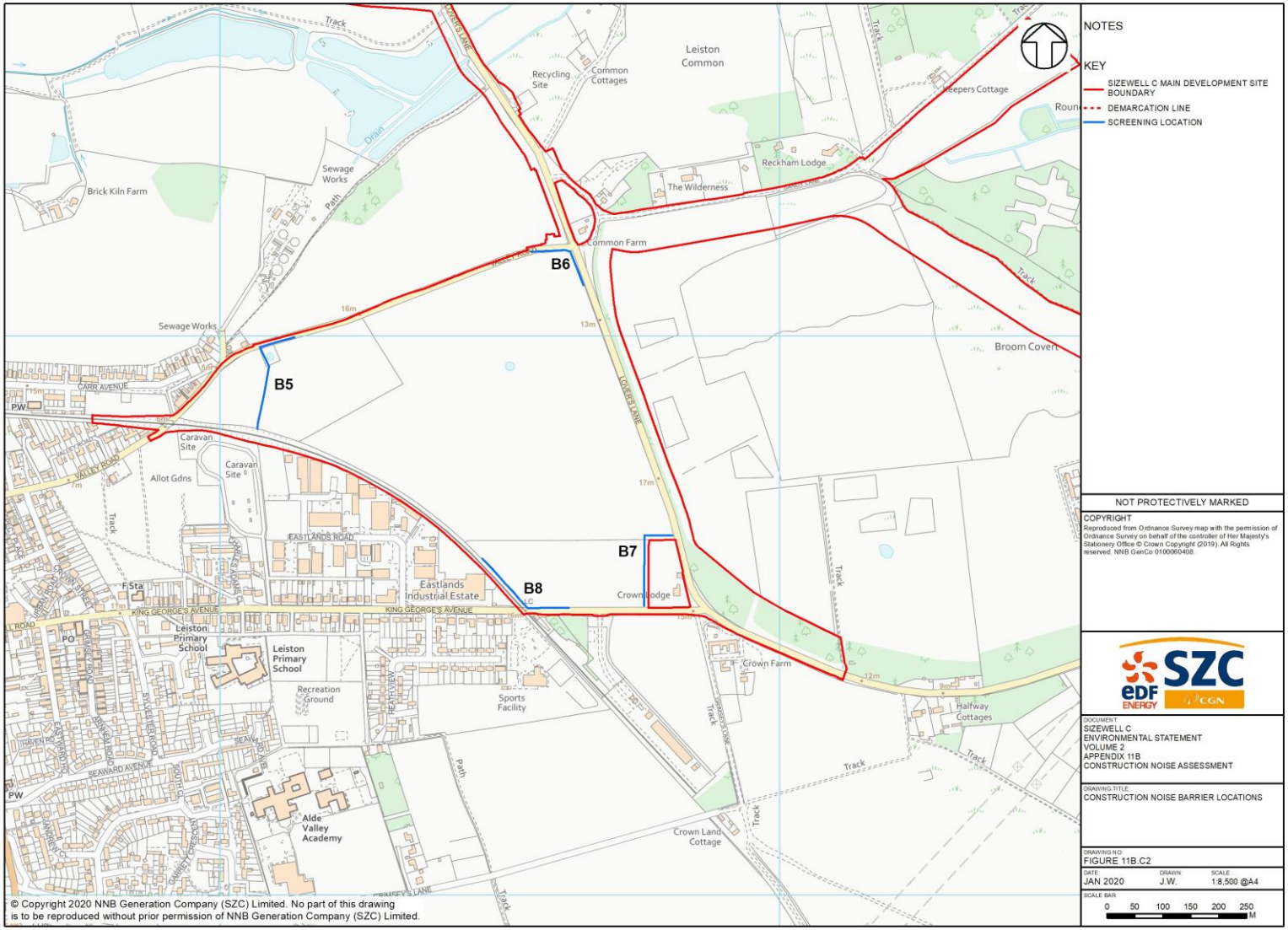

NOTES

KEY

- SIZEWELL C MAIN DEVELOPMENT SITE BOUNDARY
- DEMARCATION LINE
- SCREENING LOCATION

NOT PROTECTIVELY MARKED

DOCUMENT:
SIZEWELL C
ENVIRONMENTAL STATEMENT
VOLUME 2
APPENDIX 11B
CONSTRUCTION NOISE ASSESSMENT

DRAWING TITLE:
CONSTRUCTION NOISE BARRIER LOCATIONS

DRAWING NO:
FIGURE 11B.C2

DATE:	DRAWN:	SCALE:
JAN 2020	J.W.	1:8,500 @A4

SCALE BAR:
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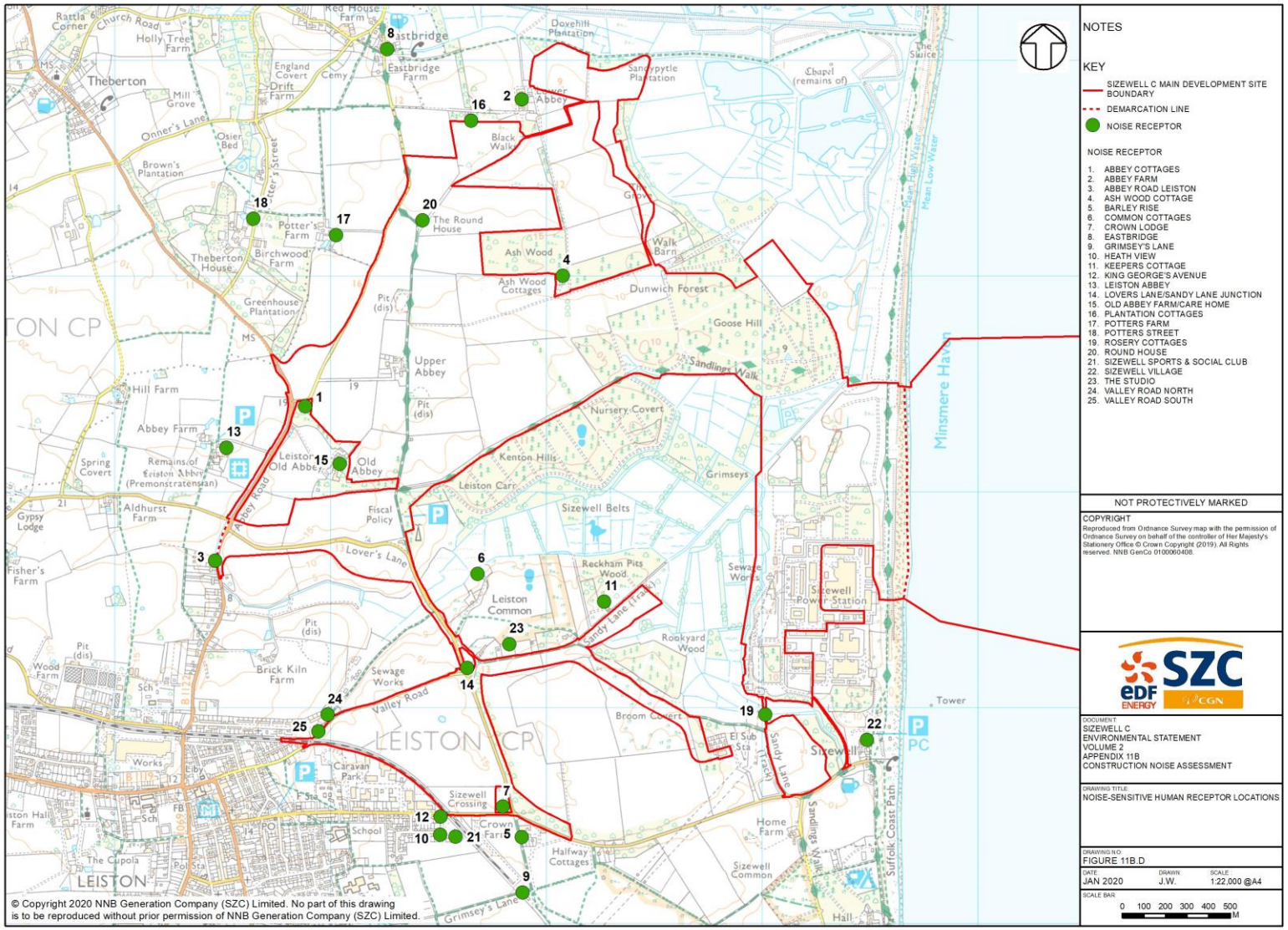
Annex 11B/D

Noise-Sensitive Human Receptor Locations


NOTES
KEY
SIZEWELL C MAIN DEVELOPMENT SITE BOUNDARY
DEMARCATION LINE
NOISE RECEPTOR
NOISE RECEPTOR
1. ABBEY COTTAGES
2. ABBEY FARM
3. ABBEY ROAD LEISTON
4. ASH WOOD COTTAGE
5. BARLEY RISE
6. COMMON COTTAGES
7. CROWN LODGE
8. EASTBRIDGE
9. GRIMSEY'S LANE
10. HEATH VIEW
11. KEEPERS COTTAGE
12. KING GEORGE'S AVENUE
13. LEISTON ABBEY
14. LOVERS LANE/SANDY LANE JUNCTION
15. OLD ABBEY FARM/CARE HOME
16. PLANTATION COTTAGES
17. POTTERS FARM
18. POTTERS STREET
19. ROSERY COTTAGES
20. ROUND HOUSE
21. SIZEWELL SPORTS & SOCIAL CLUB
22. SIZEWELL VILLAGE
23. THE STUDIO
24. VALLEY ROAD NORTH
25. VALLEY ROAD SOUTH
NOT PROTECTIVELY MARKED
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DOCUMENT:
SIZEWELL C
ENVIRONMENTAL STATEMENT
VOLUME 2
APPENDIX 11B
CONSTRUCTION NOISE ASSESSMENT
DRAWING TITLE:
NOISE-SENSITIVE HUMAN RECEPTOR LOCATIONS
DRAWING NO:
FIGURE 11B.D
DATE:
JAN 2020
DRAWN
J.W.
SCALE:
1:22,000 @A4
SCALE BAR:
0 100 200 300 400 500 M
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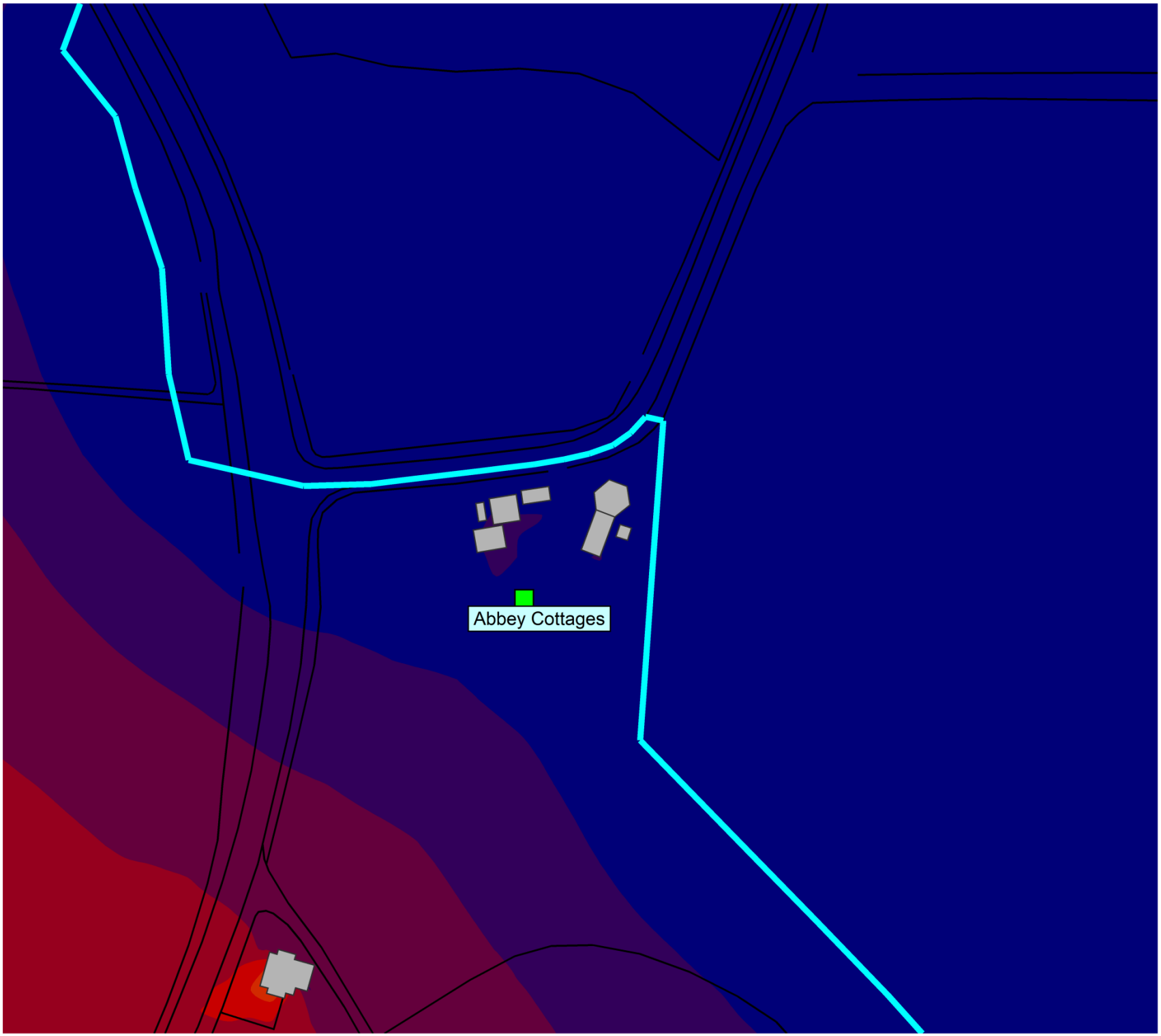
Annex 11B/E.1

Main Development Site Daytime Construction Noise Contours

Abbey Cottage



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

Abbey Cottages

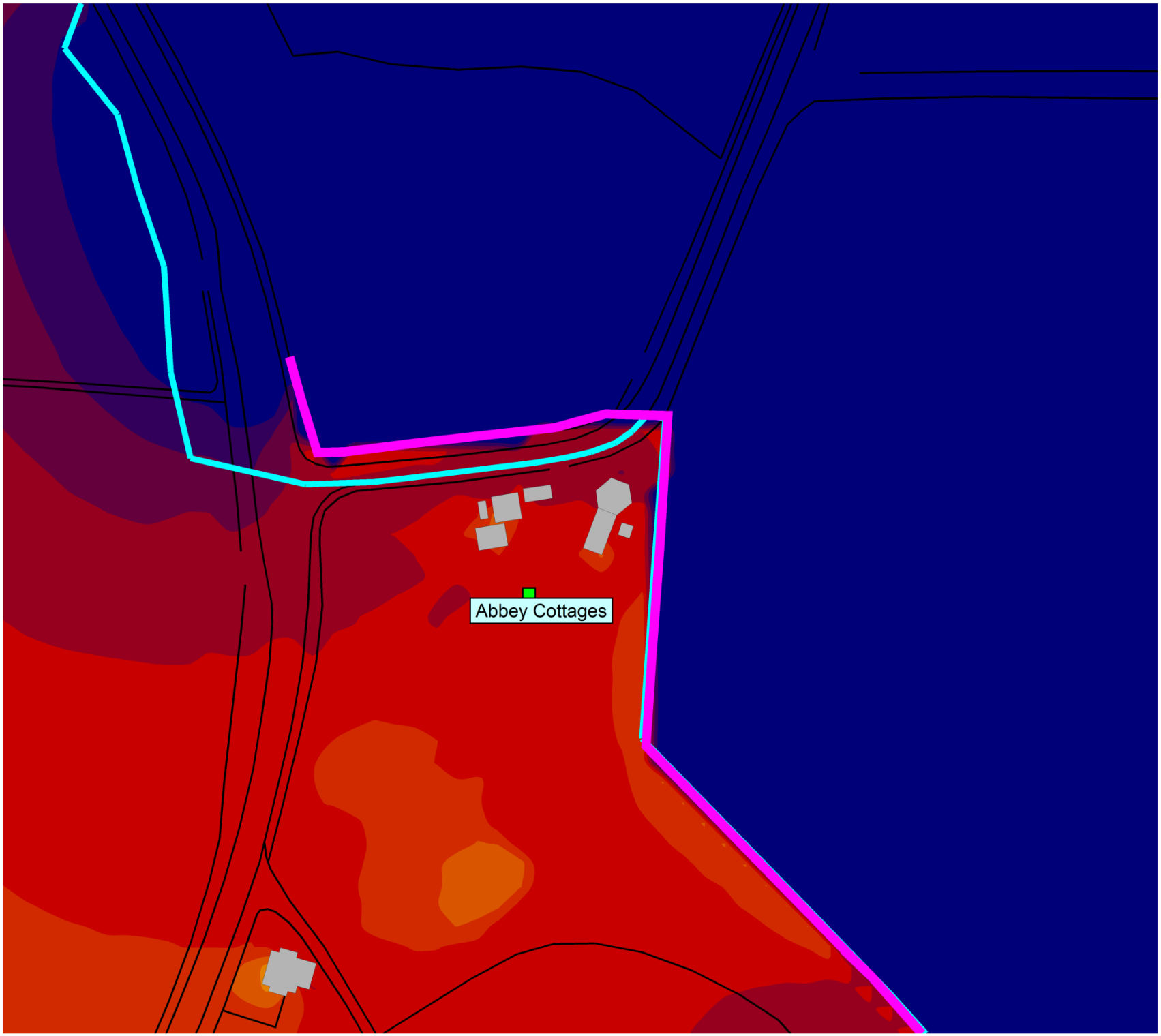
LAeq(T)

No Mitigation

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

Abbey Cottages

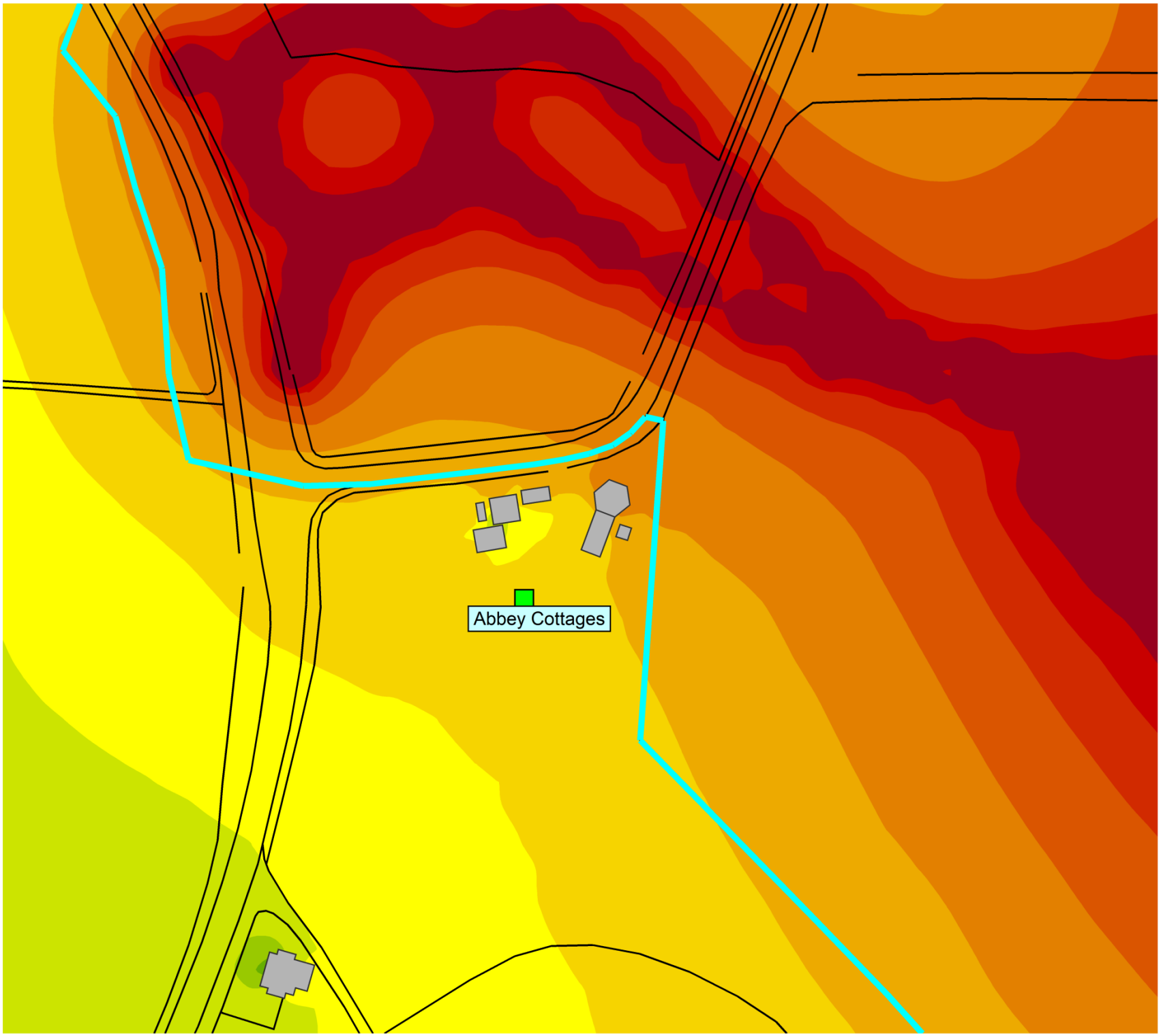
With 5m Barrier

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1B/2

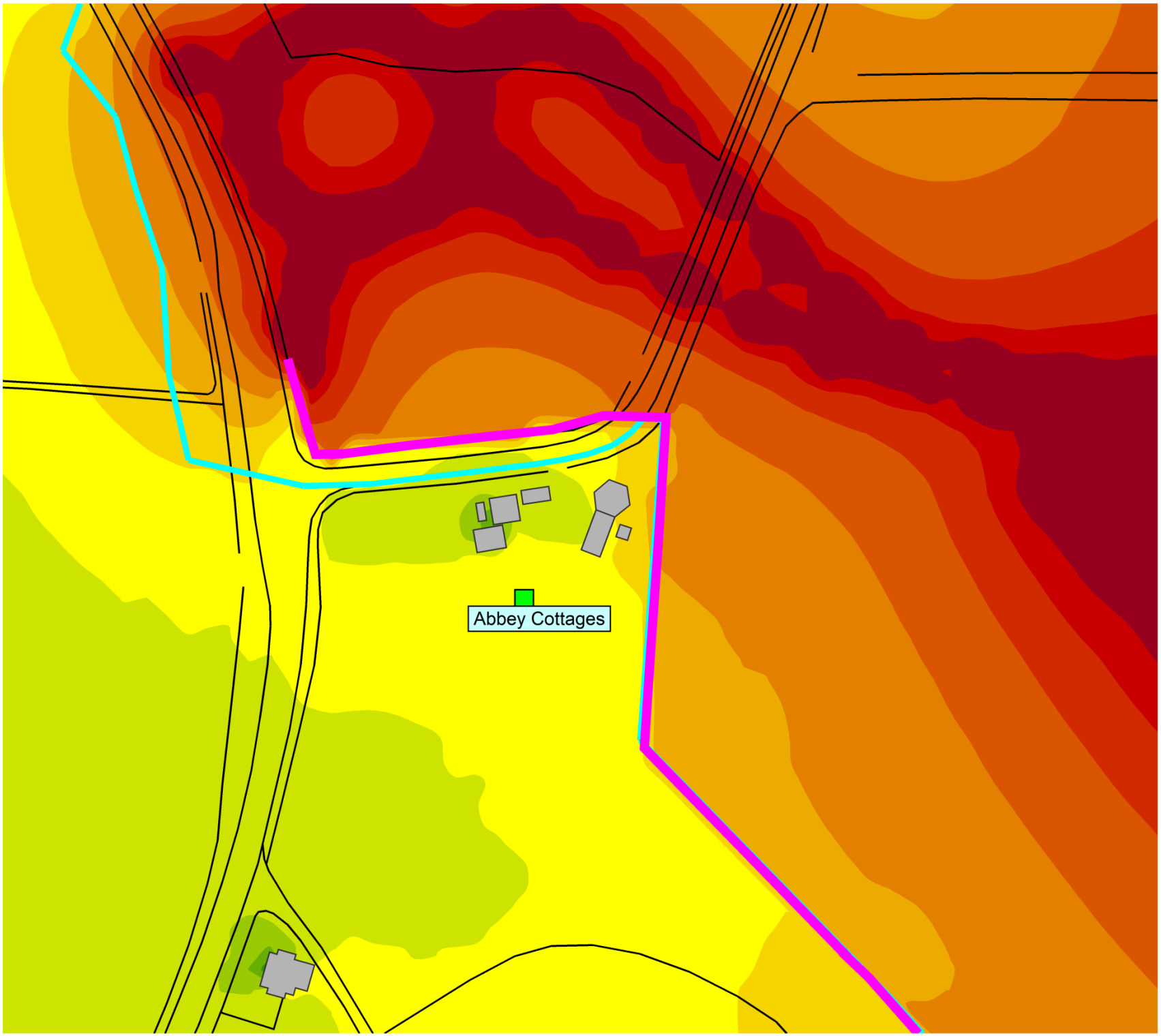
Abbey Cottages

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1B/2

Abbey Cottages

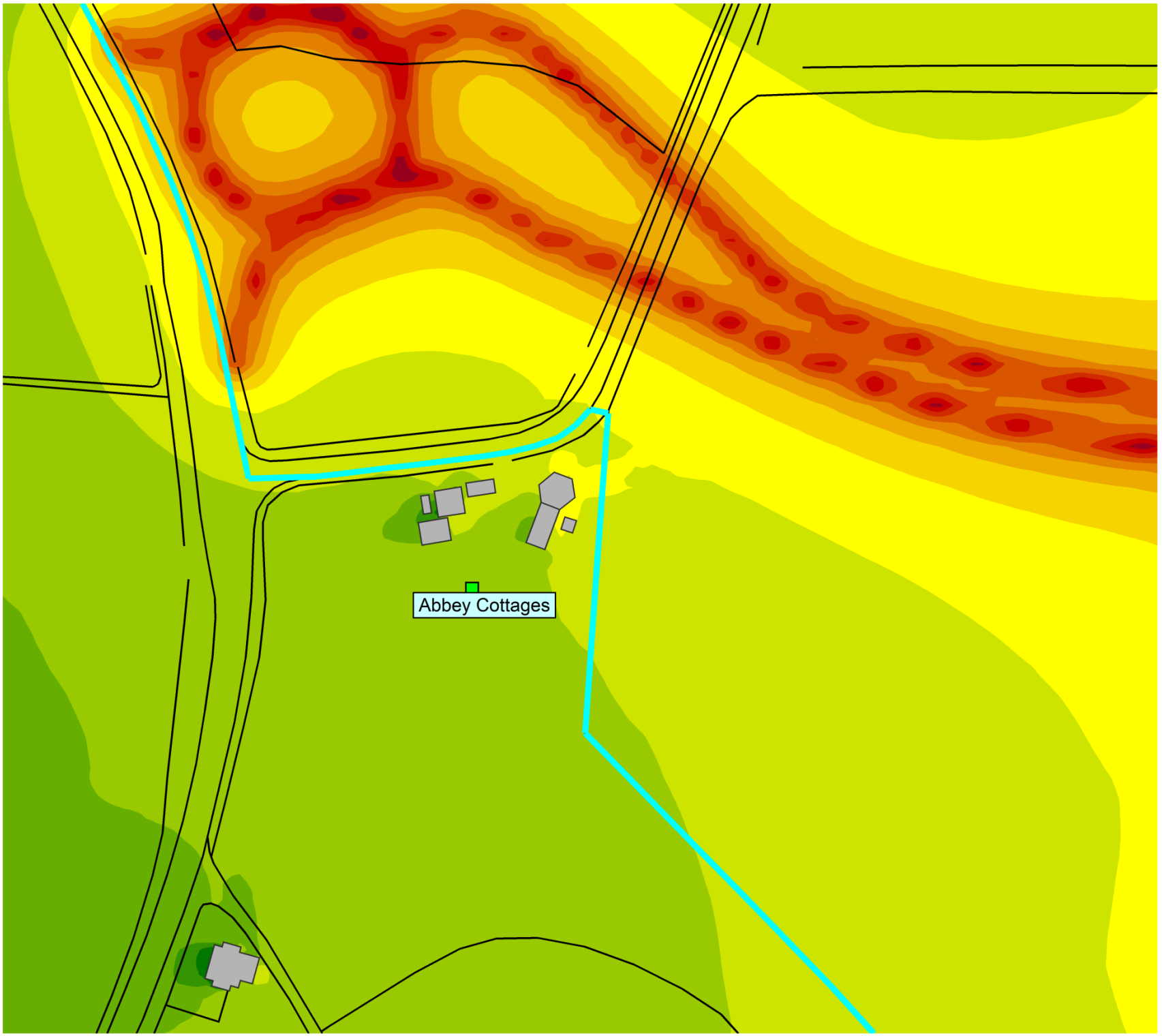
LAeq(T)

With 5m Barrier

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
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50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Abbey Cottages

Phases 3 & 4

LAeq(T)

Scale 1:1250

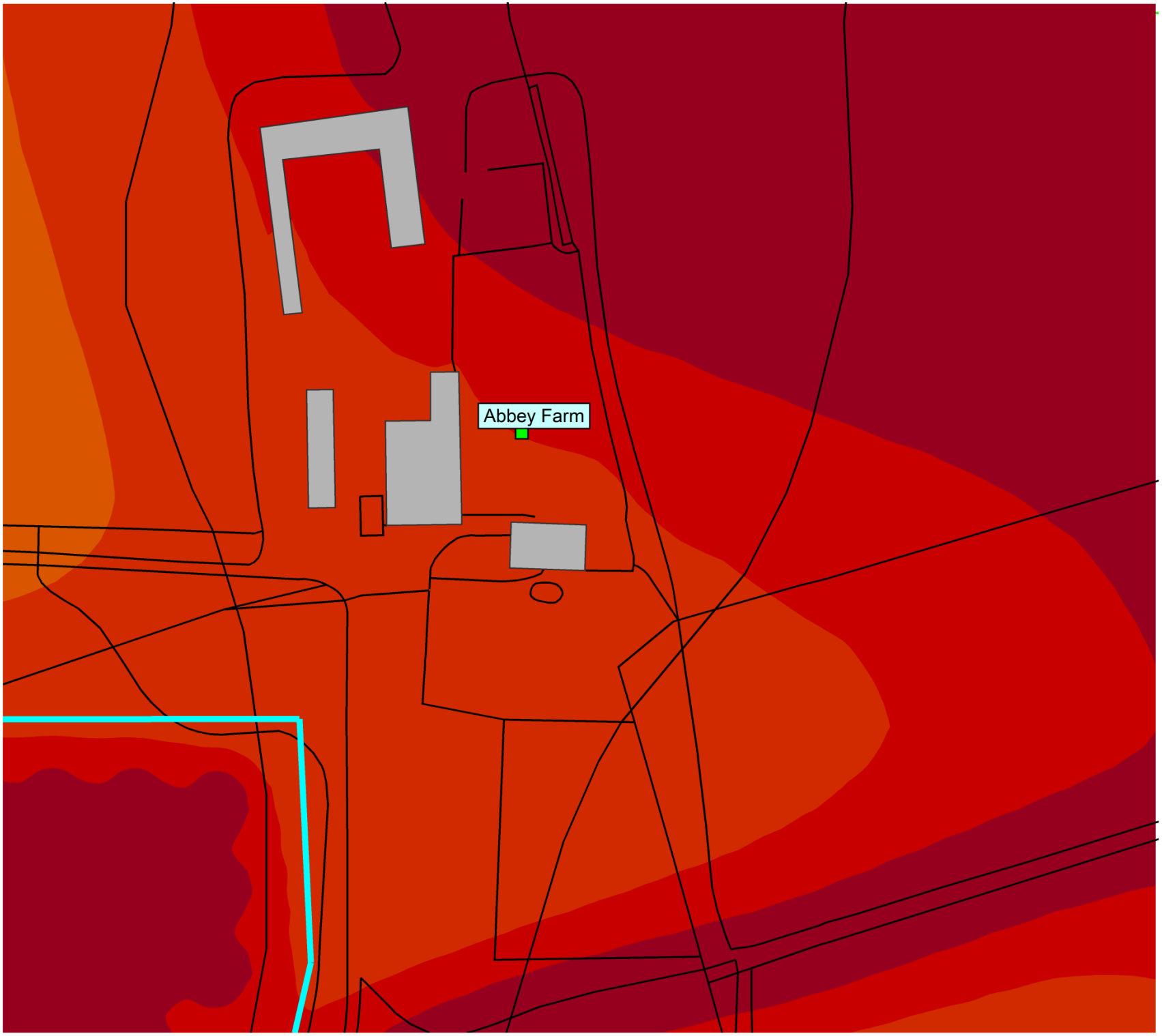
0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.2

Main Development Site Daytime Construction Noise Contours

Abbey Farm



Noise level
LAeq(T)
(dB)

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46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1A

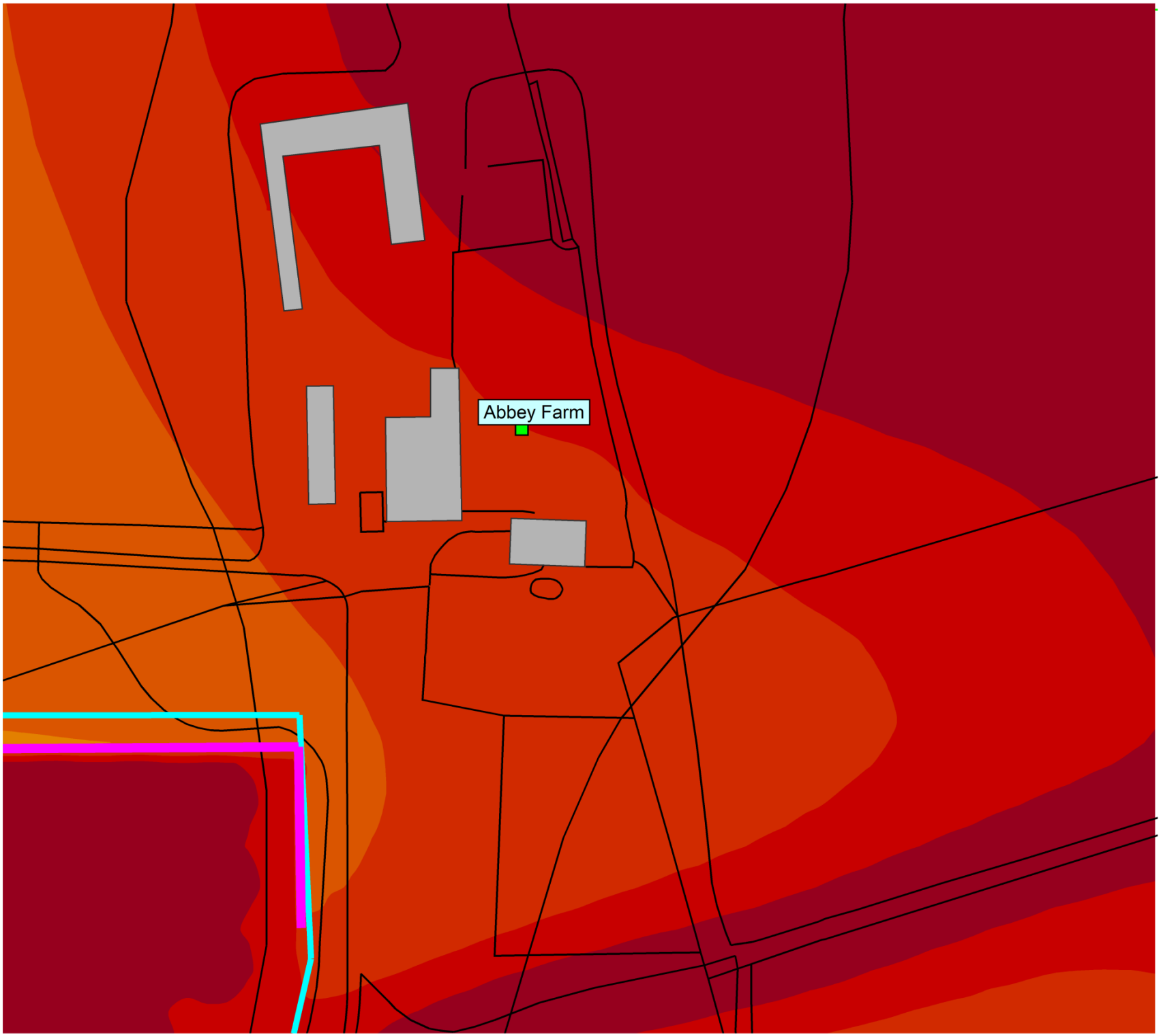
Abbey Farm

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1A

Abbey Farm

LAeq(T)

With 3m Barrier

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 1B/2

Abbey Farm

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 3/4

Abbey Farm

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.3

Main Development Site Daytime Construction Noise Contours

Abbey Road, Leiston

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

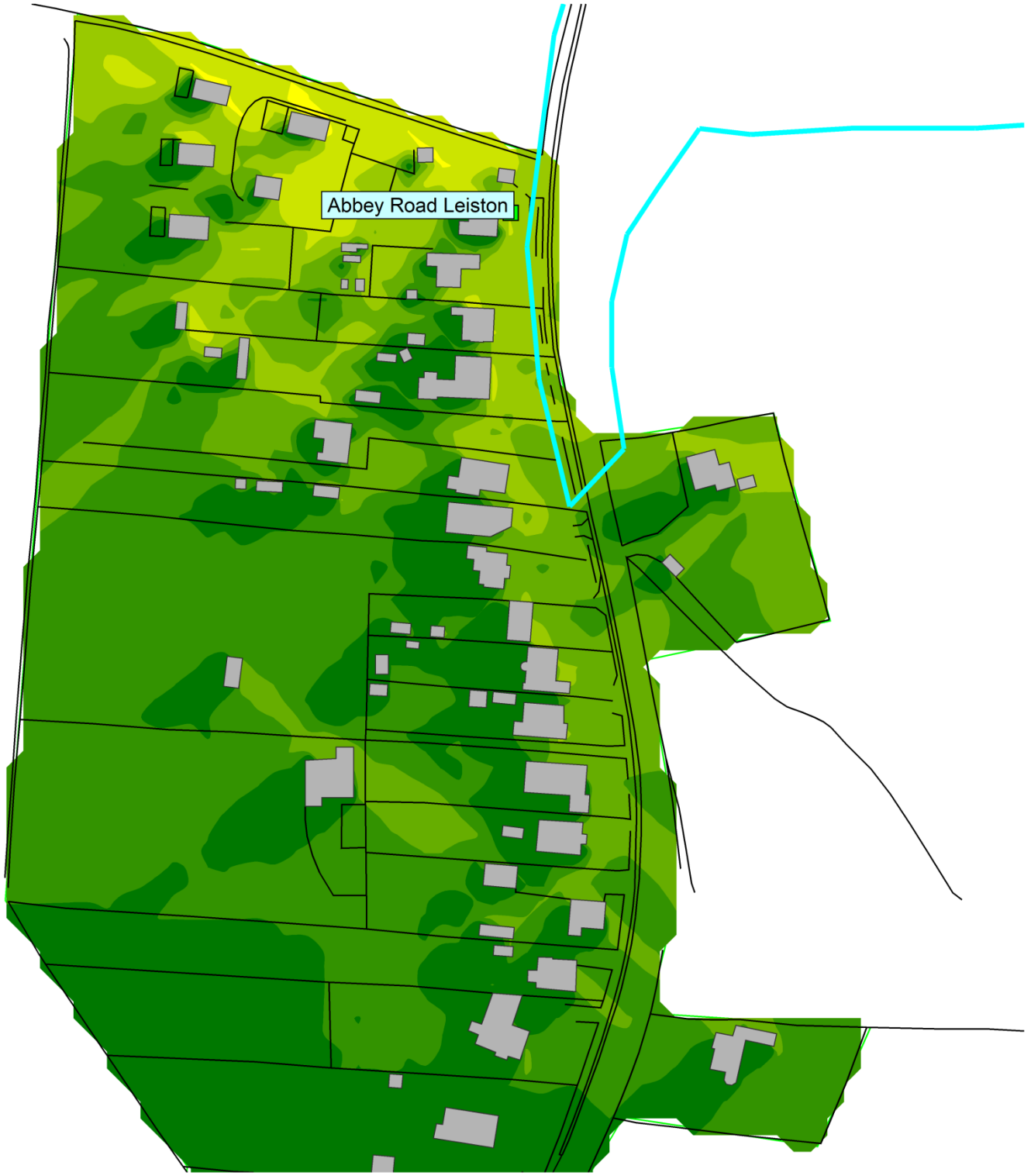
Abbey Road Leiston

LAeq(T)

Scale 1:3500

0 15 30 60 90 120 150 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

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42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2

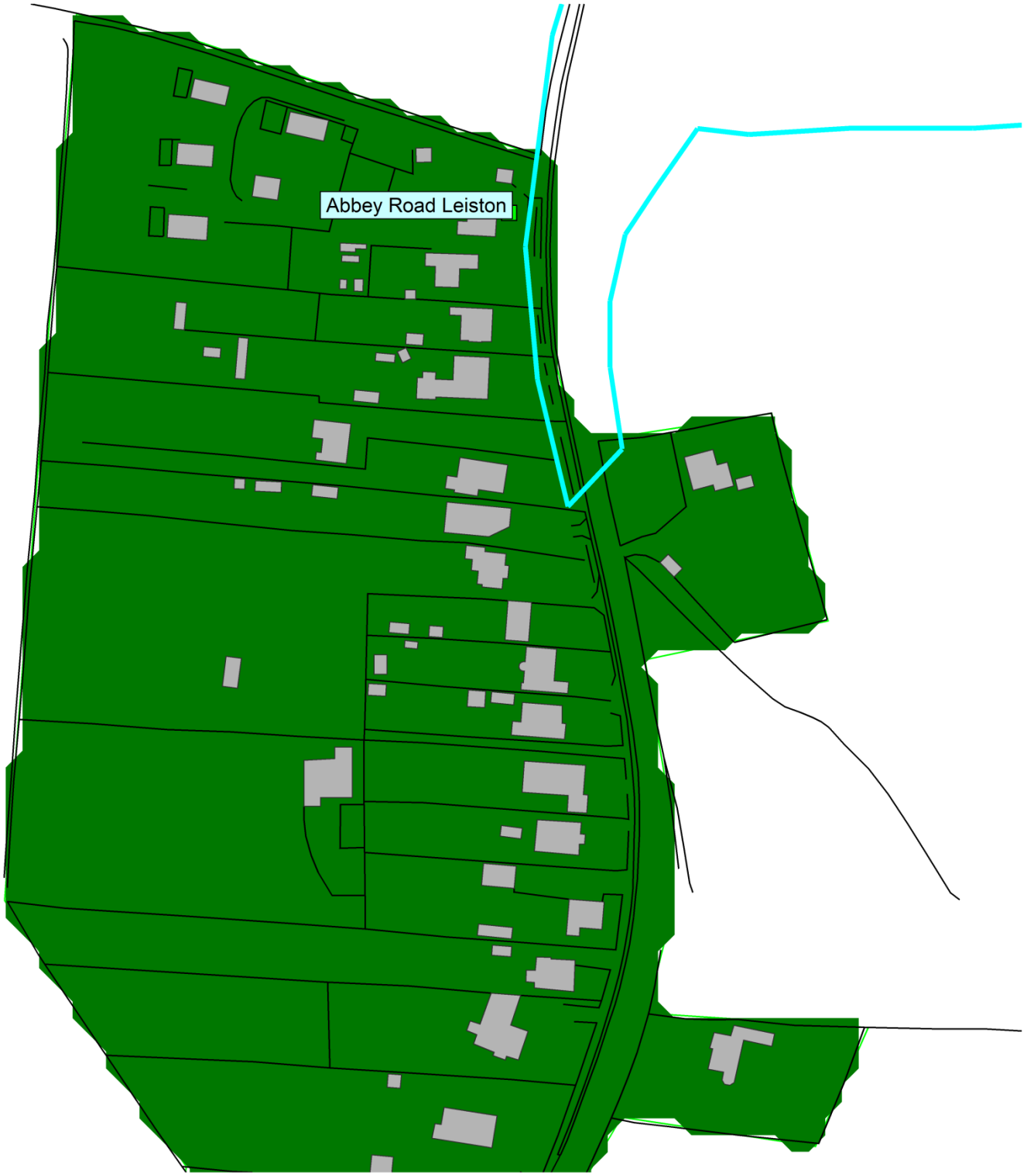
Abbey Road Leiston

LAeq(T)

Scale 1:1750

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3/4

Abbey Road Leiston

LAeq(T)

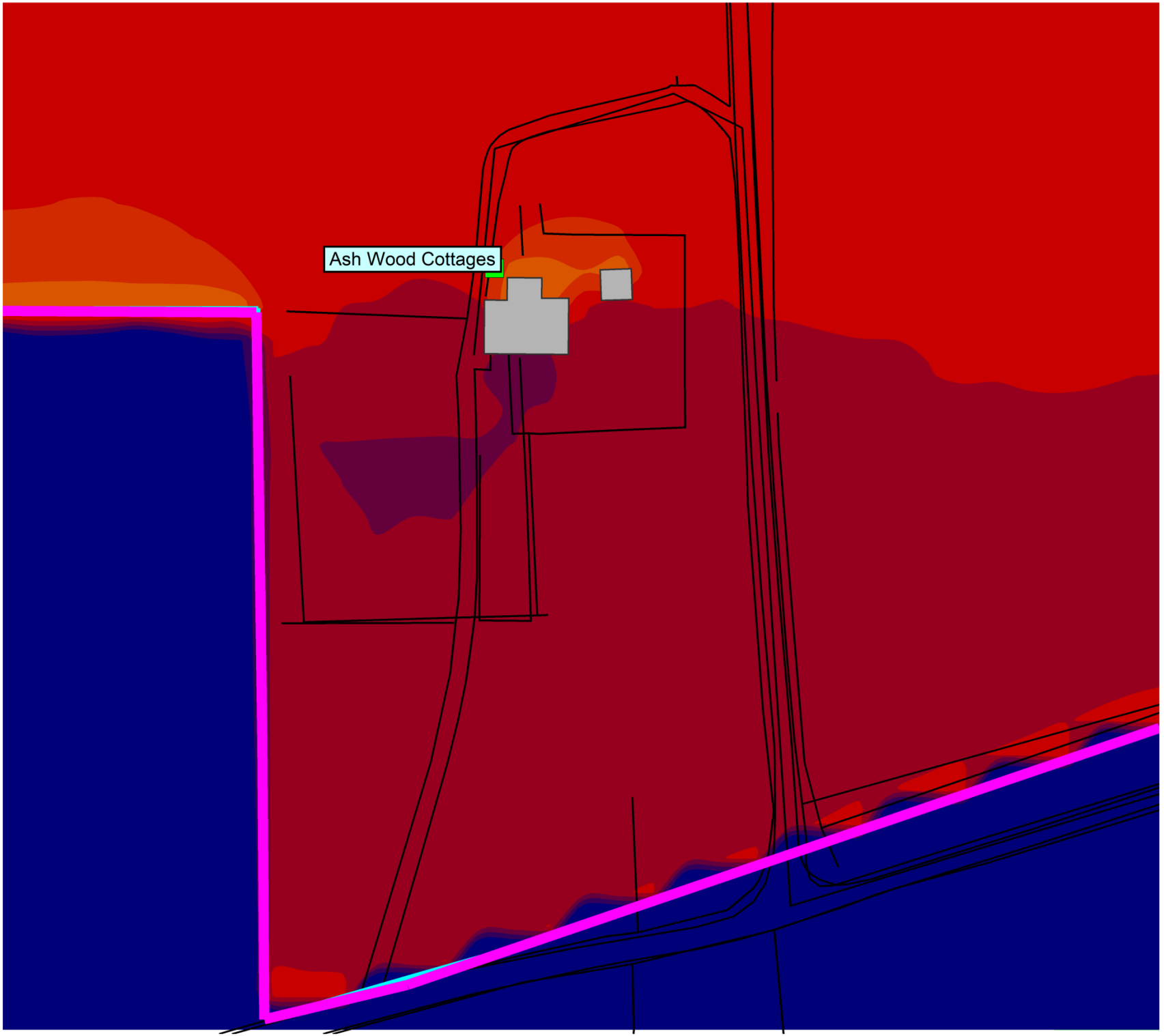
Scale 1:1750

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.4

Main Development Site Daytime Construction Noise Contours
Ash Wood Cottages



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

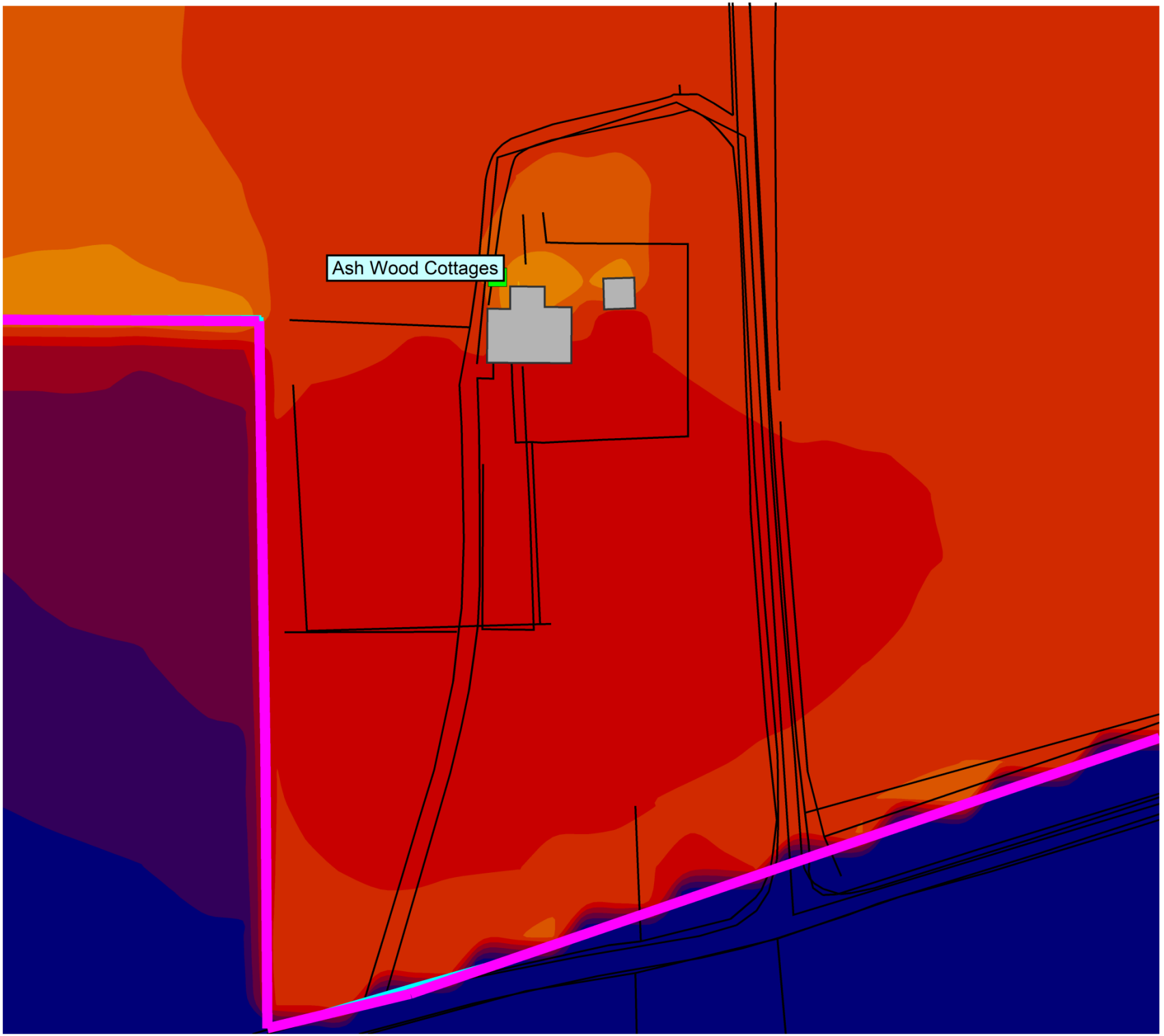
Ash Wood Cottage

LAeq(T)

Scale 1:750

0 4 8 16 24 32

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2

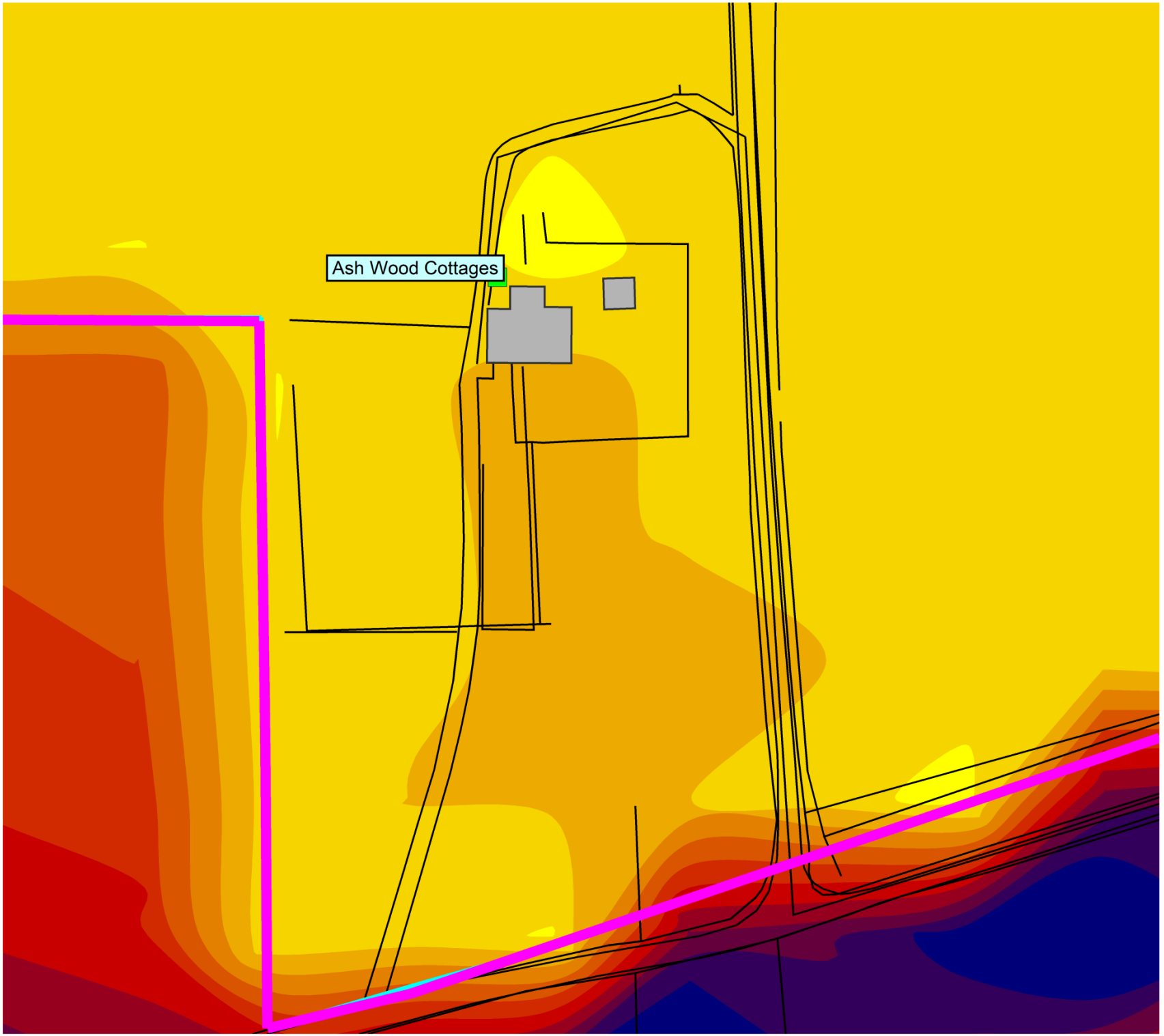
Ash Wood Cottage

LAeq(T)

Scale 1:750

0 4 8 16 24 32

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3/4

Ash Wood Cottage

LAeq(T)

Scale 1:750

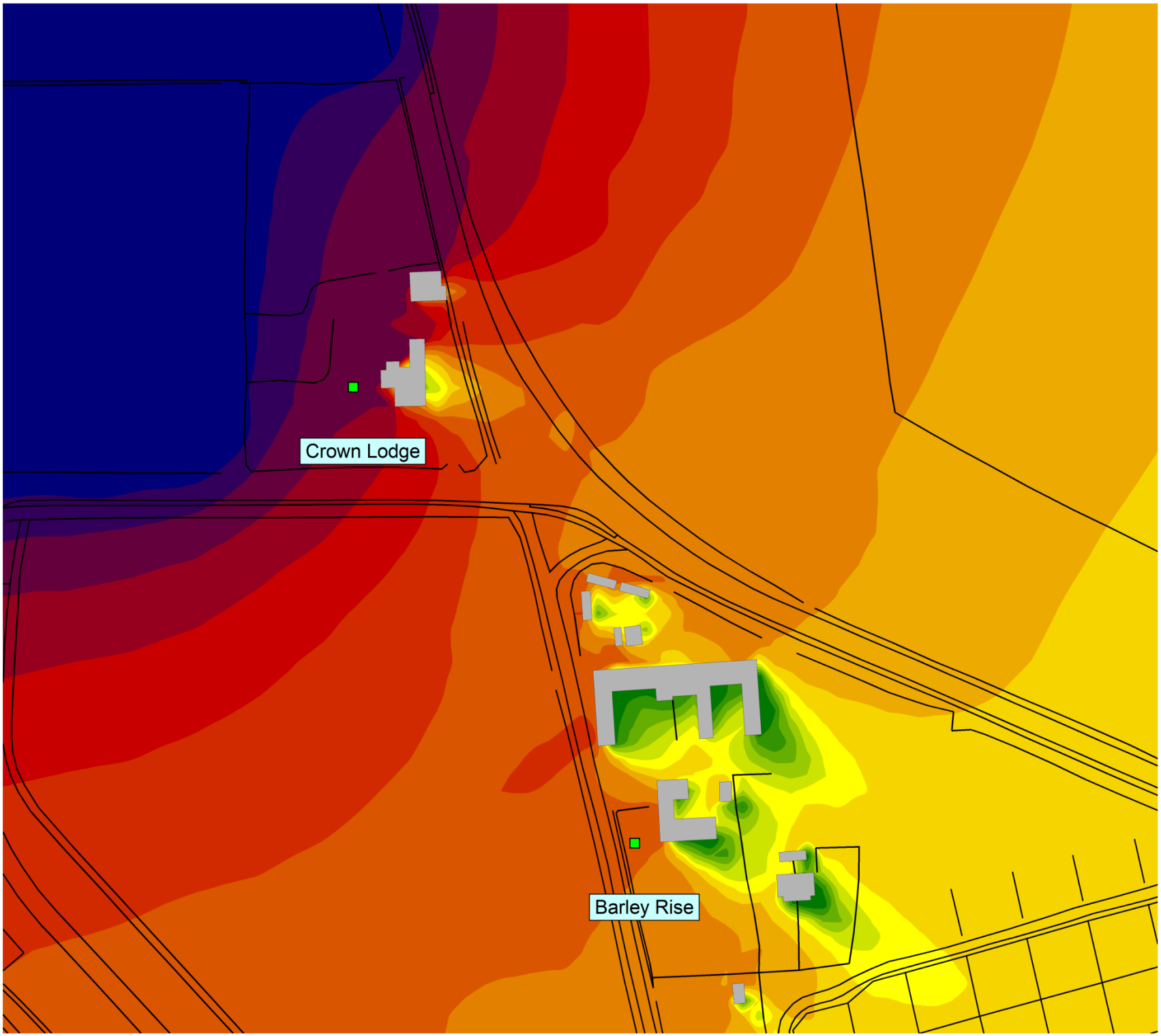
0 4 8 16 24 32

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.5

Main Development Site Daytime Construction Noise Contours

Barley Rise



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

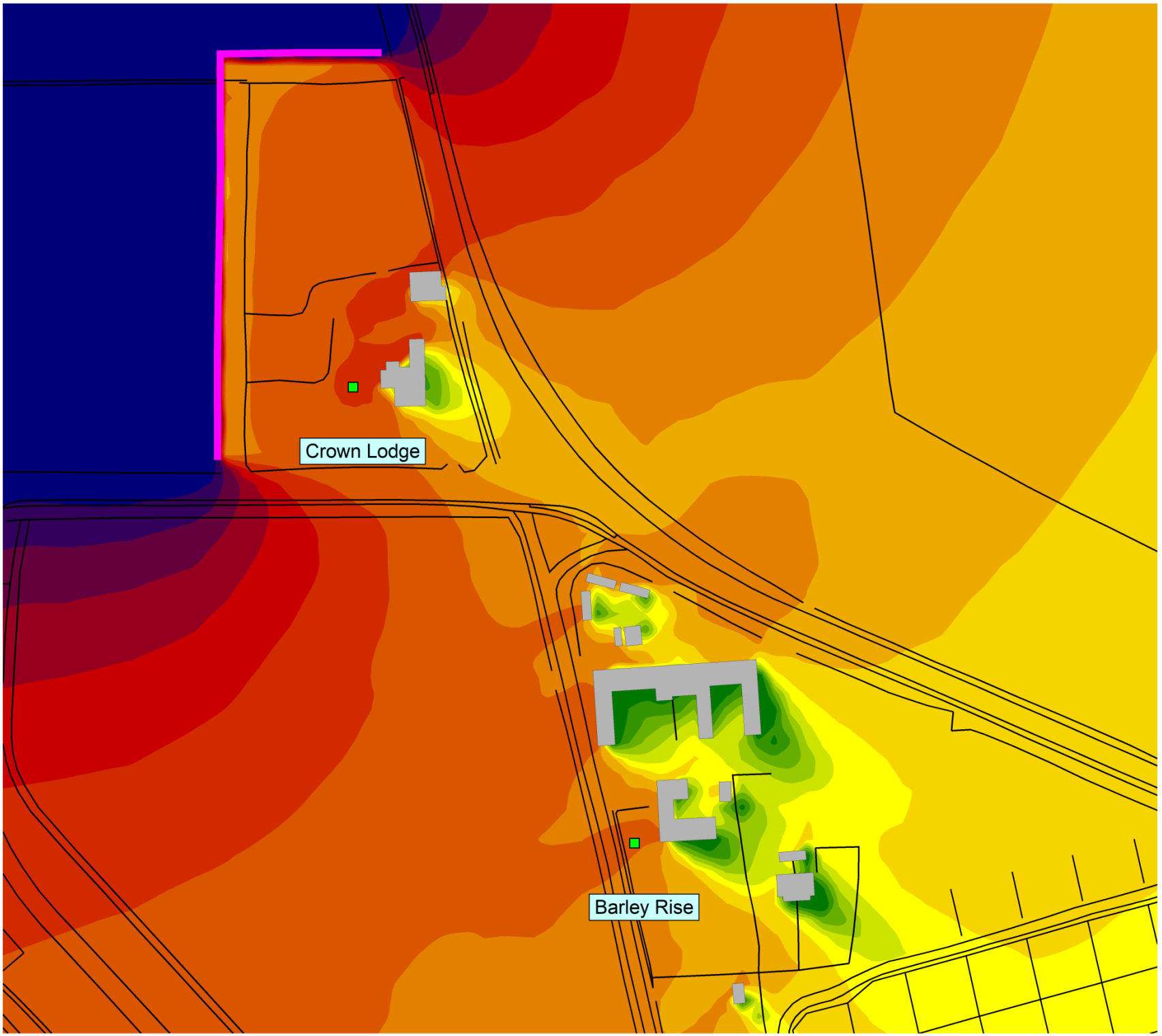
Initial site strip and level

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

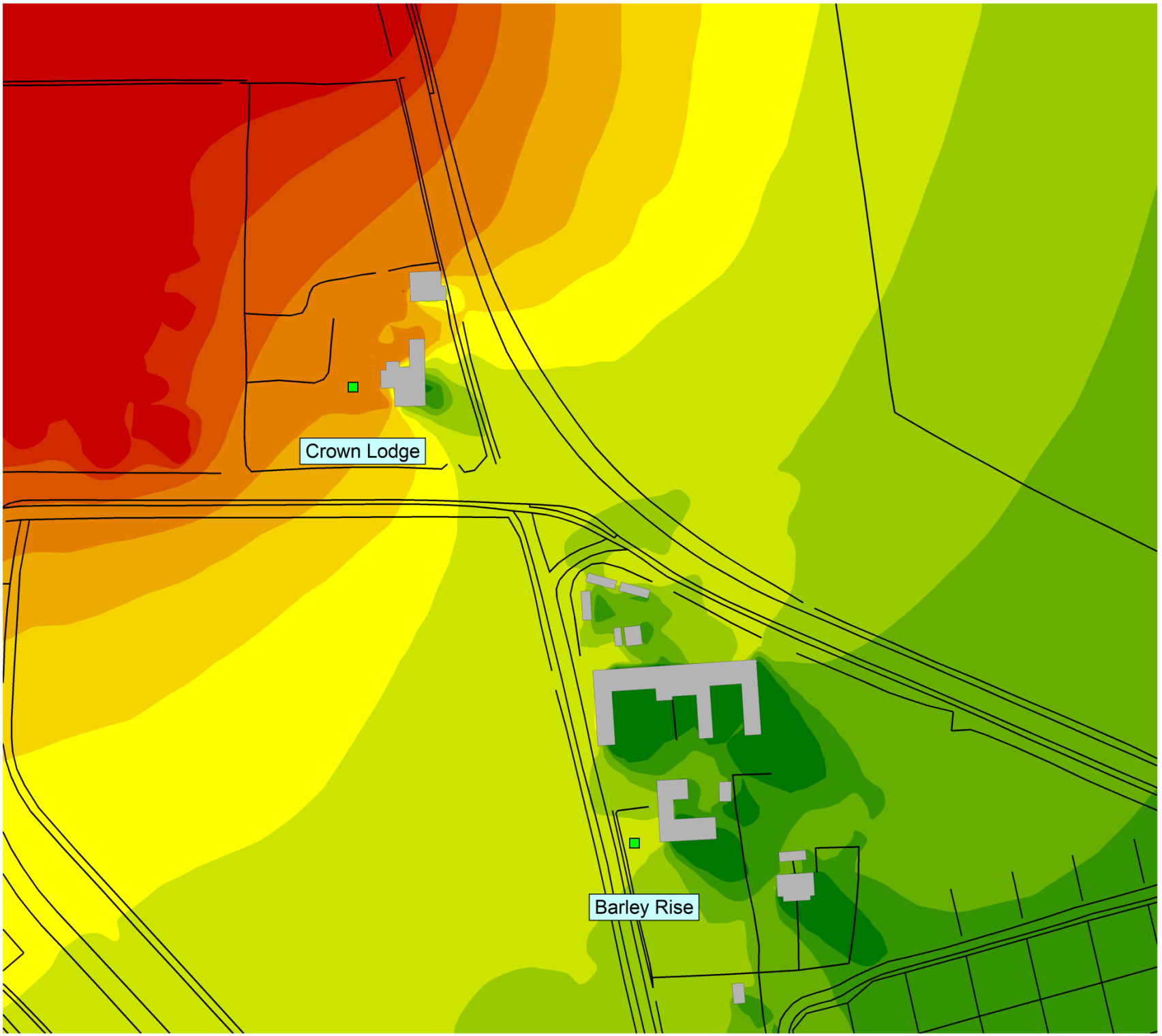
Initial site strip and level

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

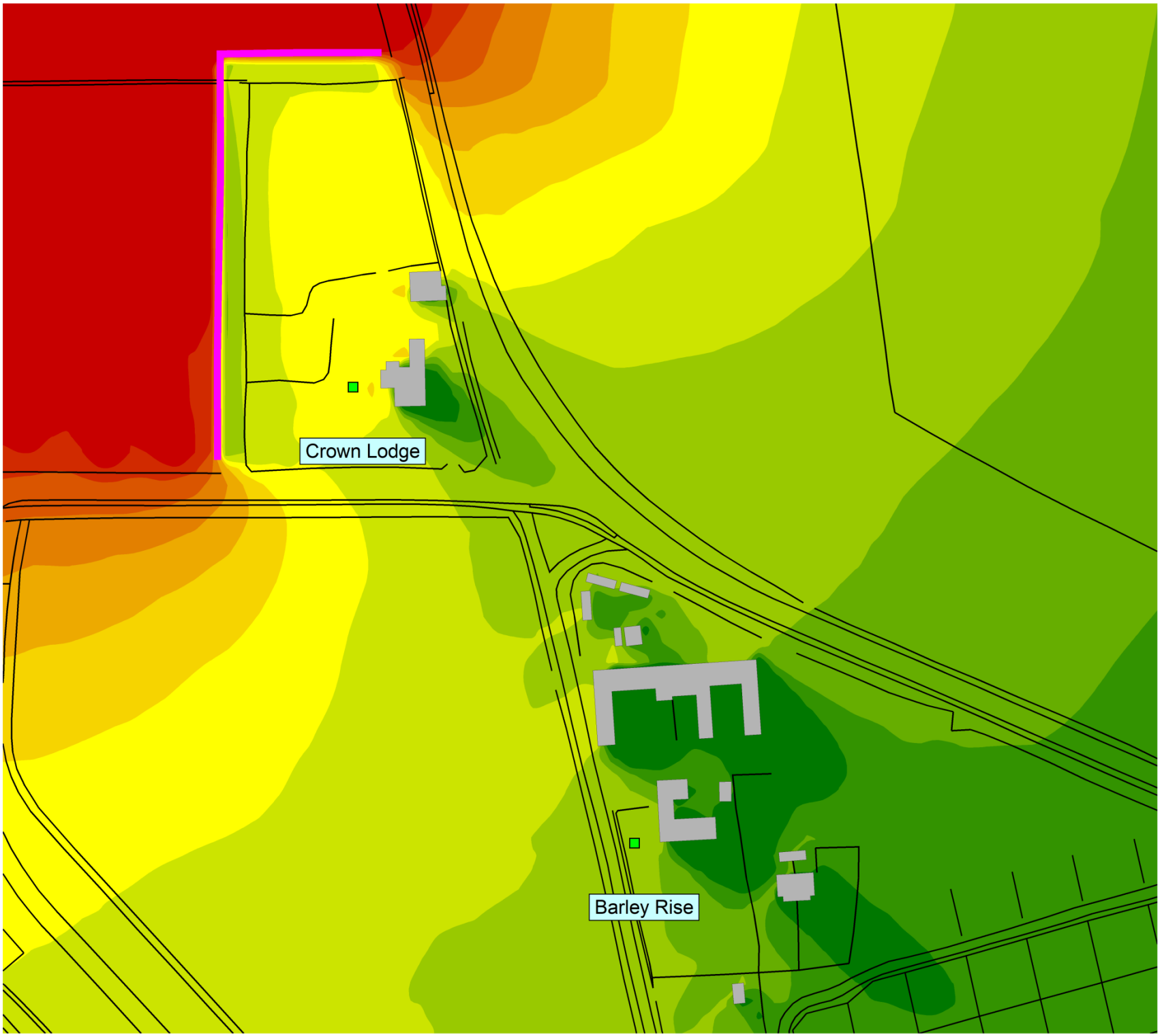
Site preparation
& Railhead construction

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

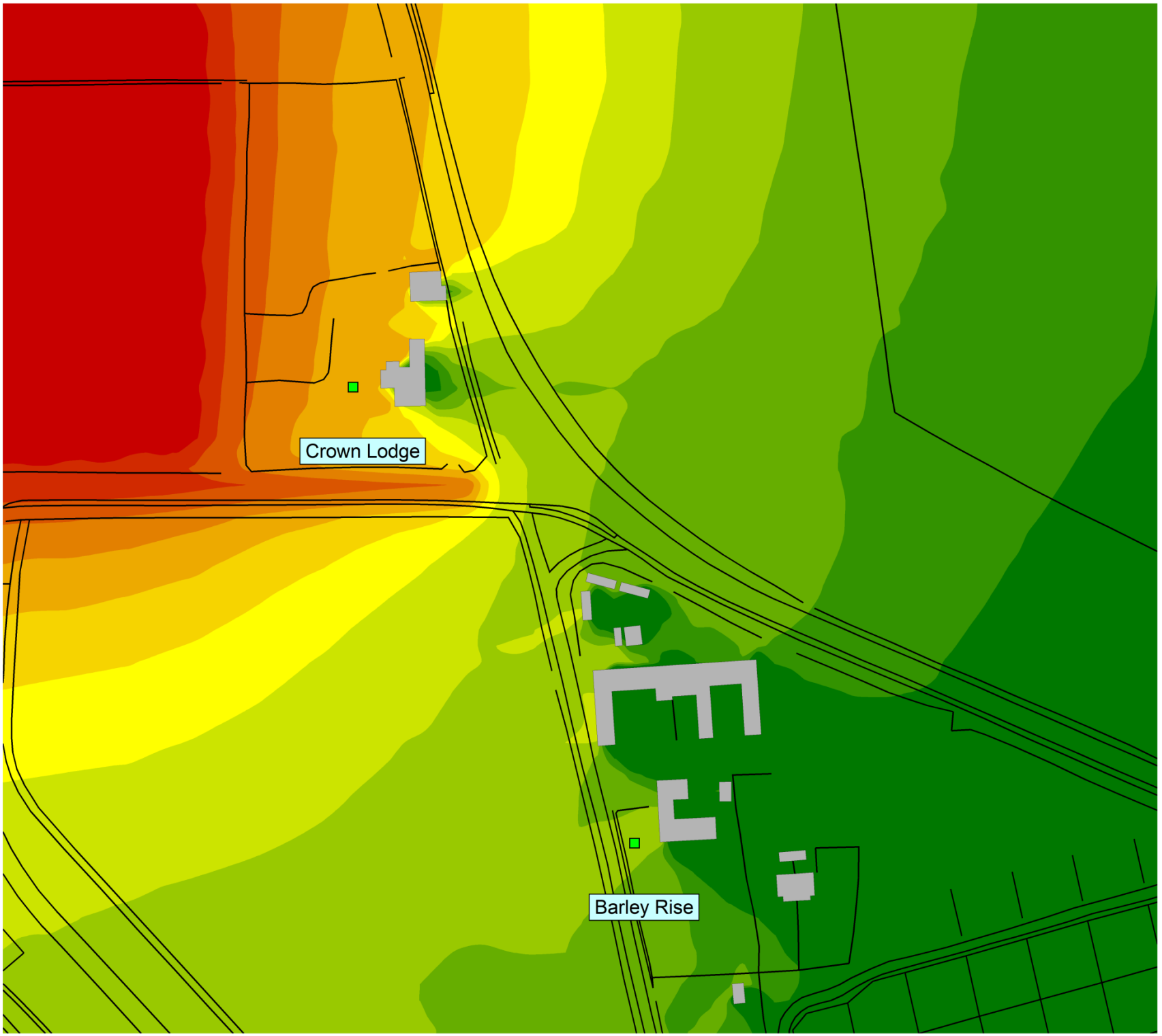
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

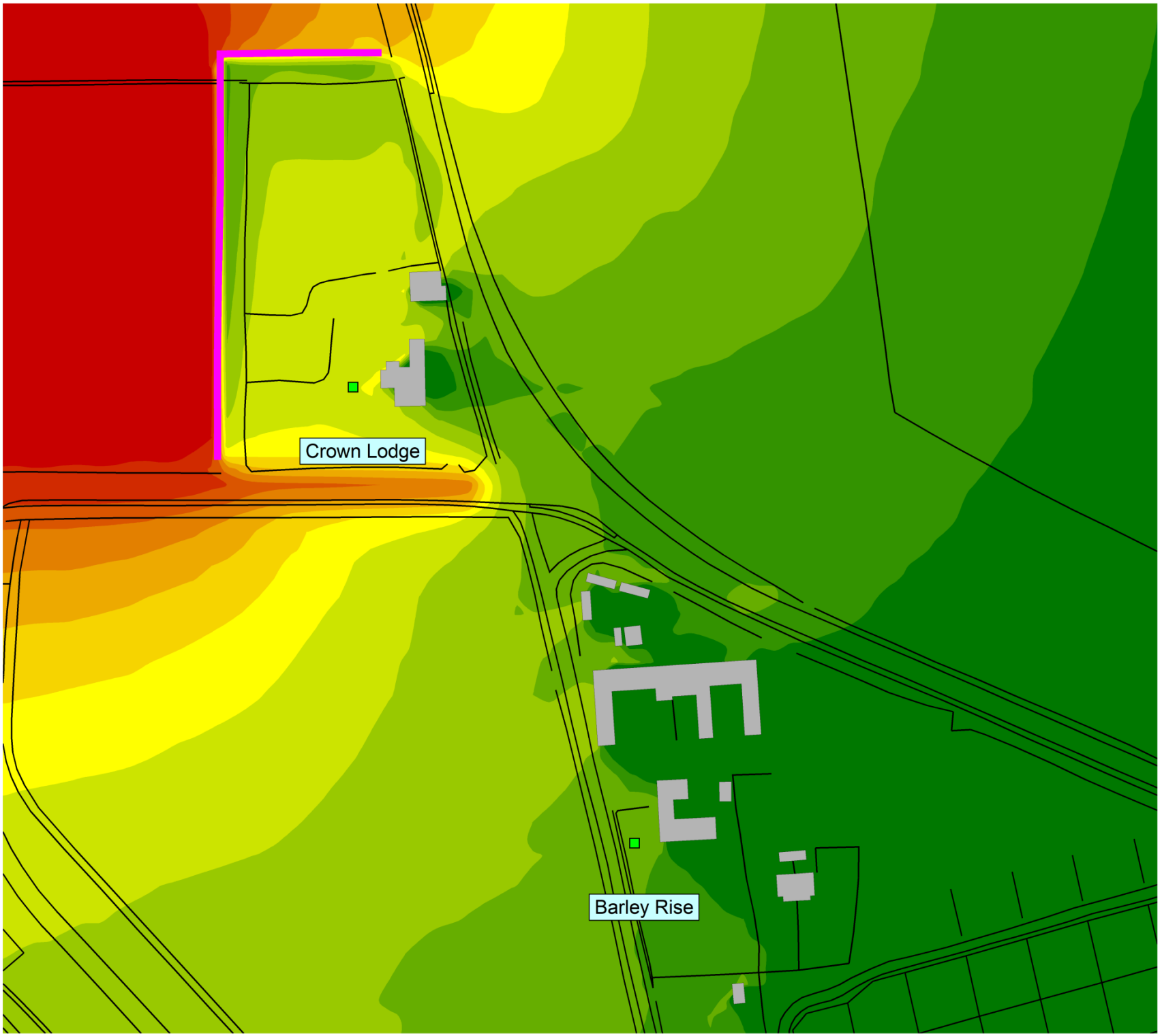
Operational Noise
(Early Years)

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Early Years)

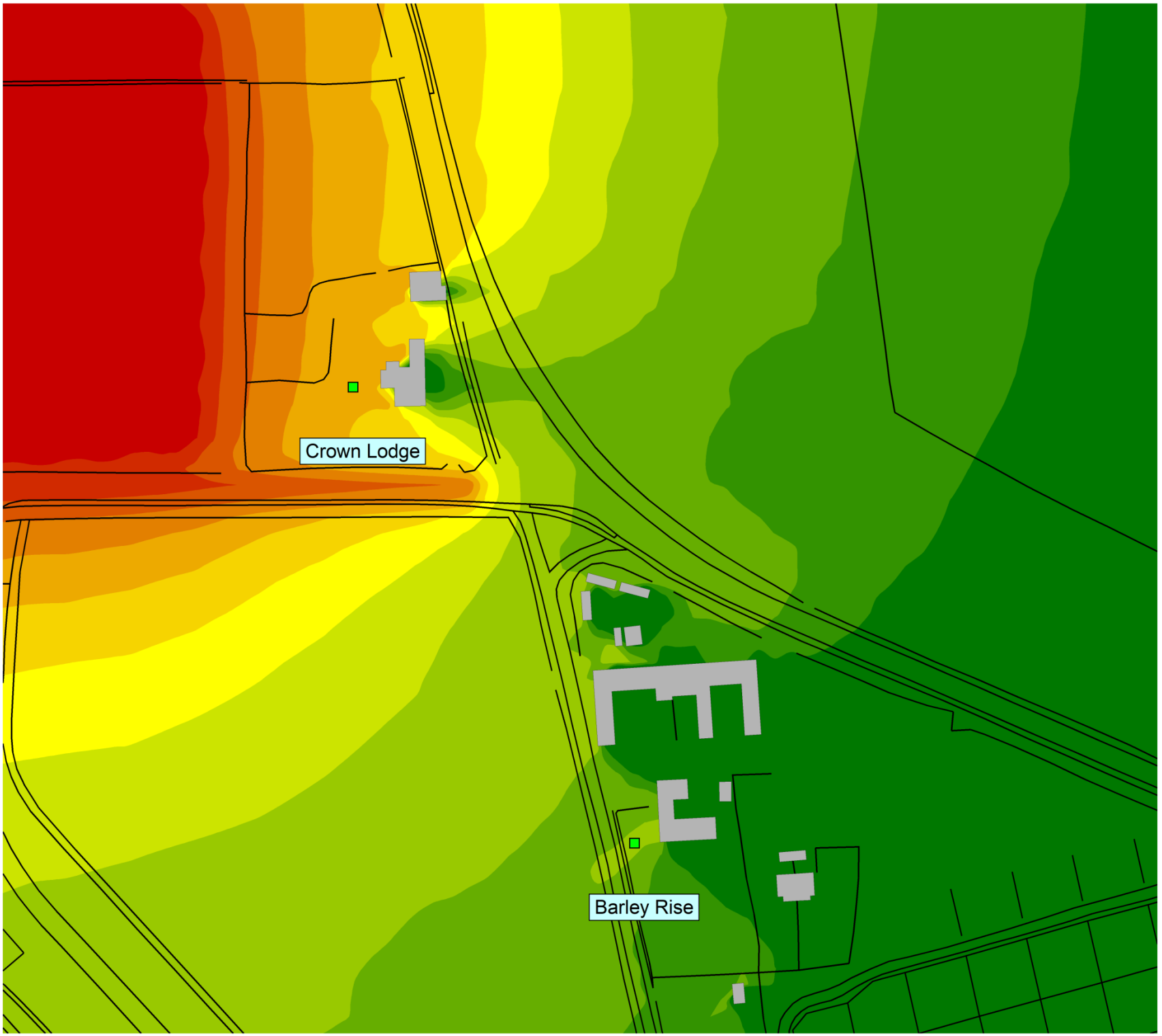
With Mitigation

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

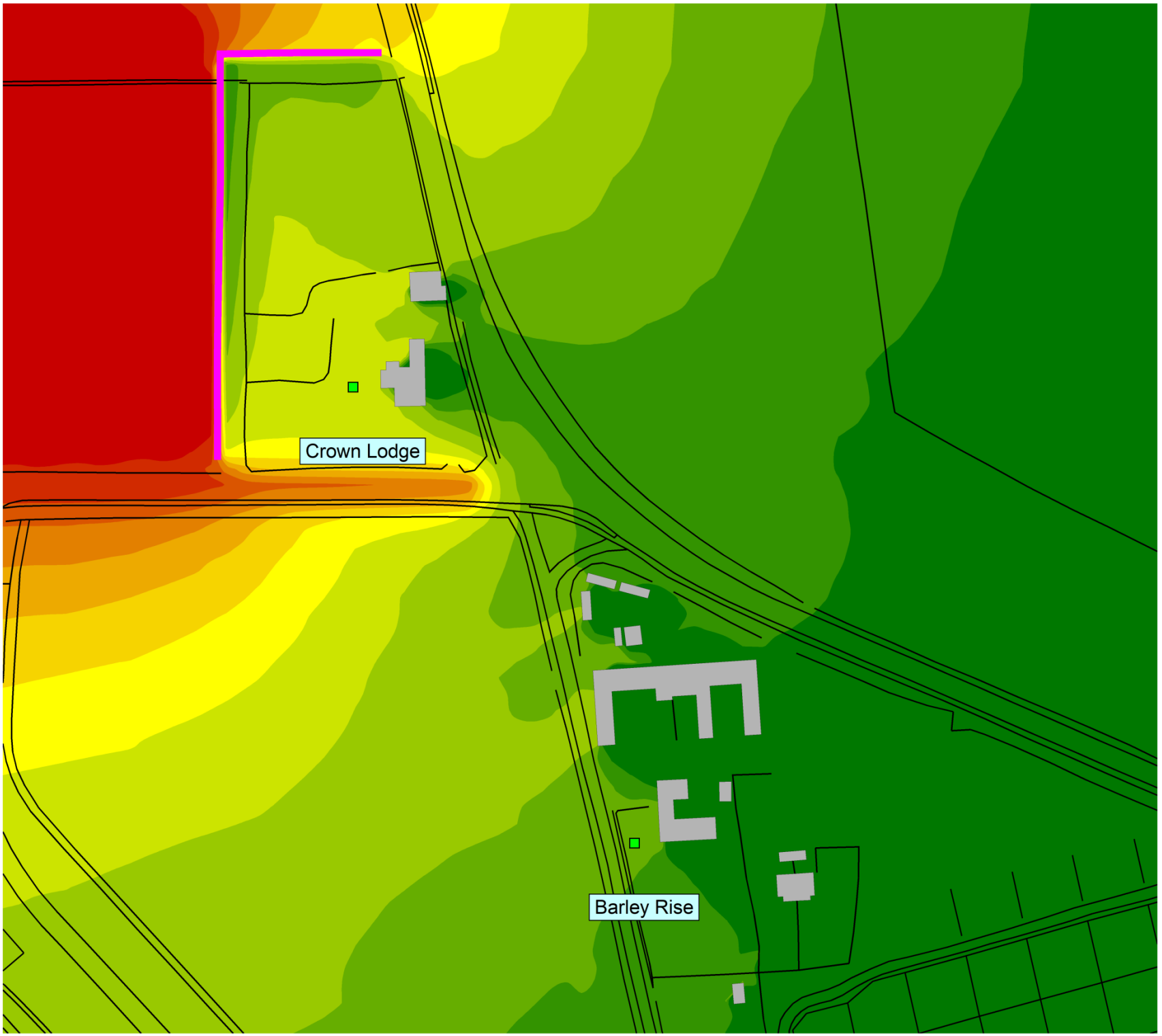
Operational Noise
(Later Years)

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Later Years)

With Mitigation

LAeq(T)

Scale 1:1600

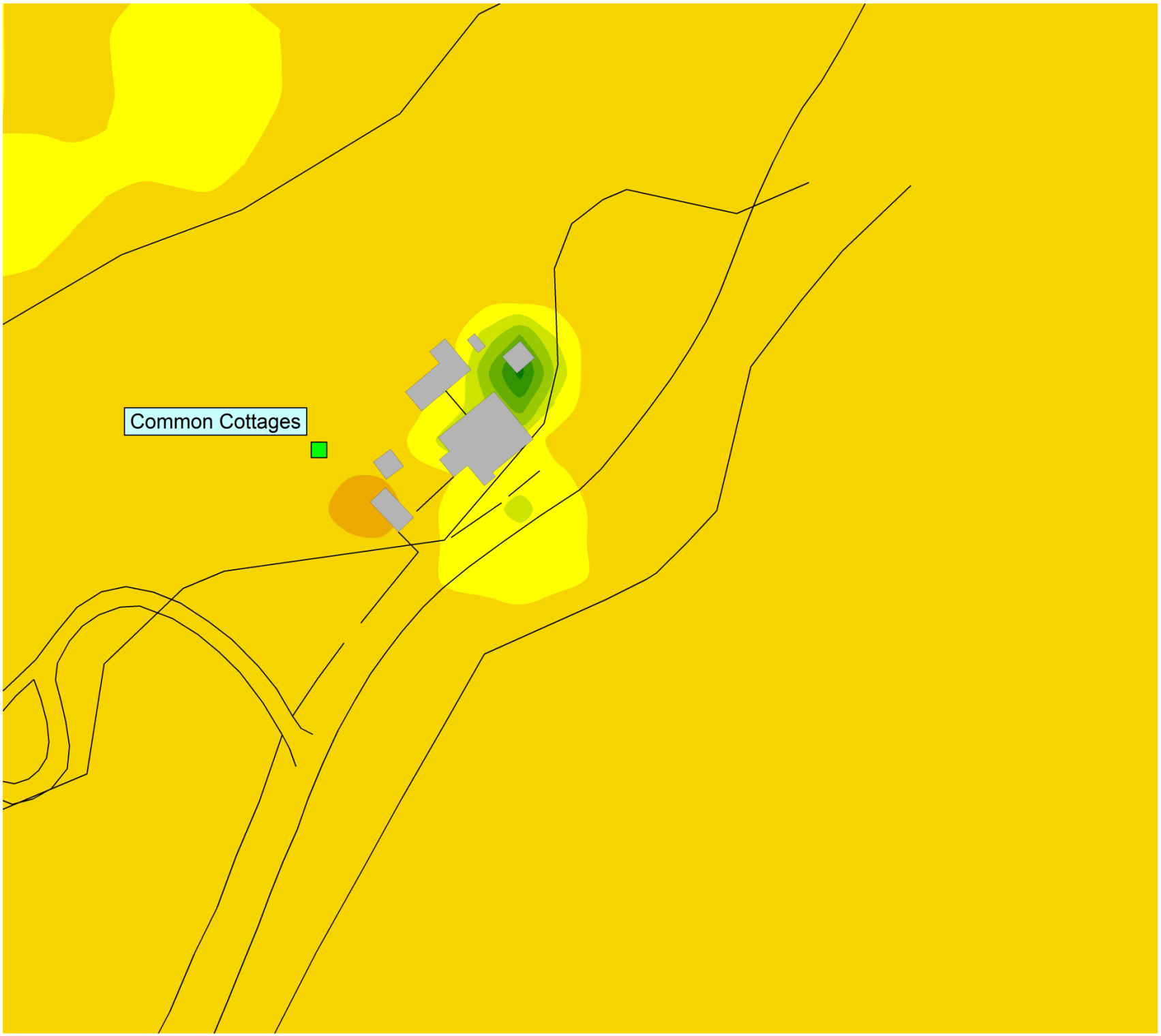
0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.6

Main Development Site Daytime Construction Noise Contours

Common Cottages



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

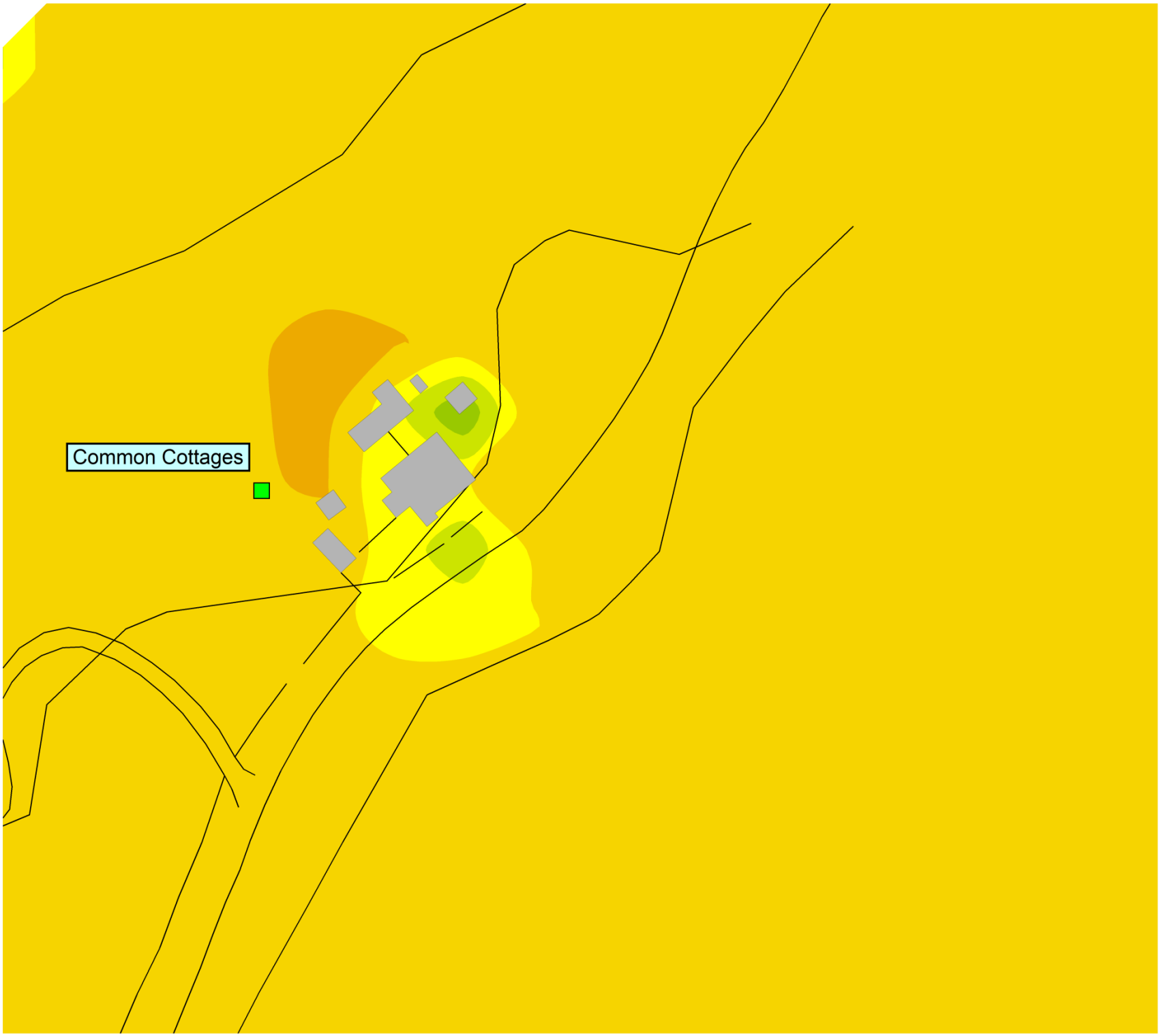
Initial site strip and level

LAeq(T)

Scale 1:750

0 3.5 7 14 21 28 35 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

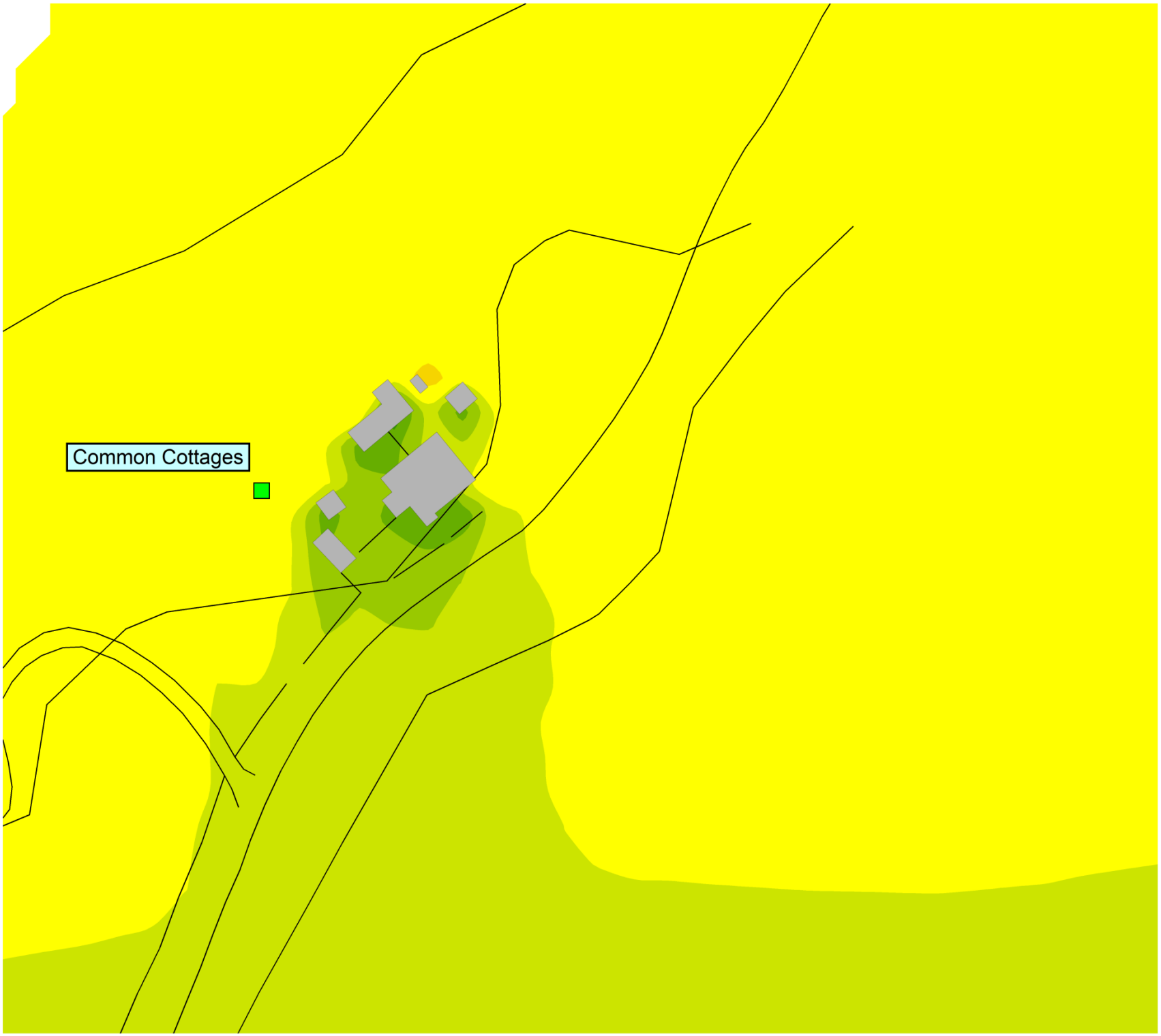
Phase 1B/2

LAeq(T)

Scale 1:750

0 3.5 7 14 21 28 35 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Phases 3 & 4

LAeq(T)

Scale 1:750

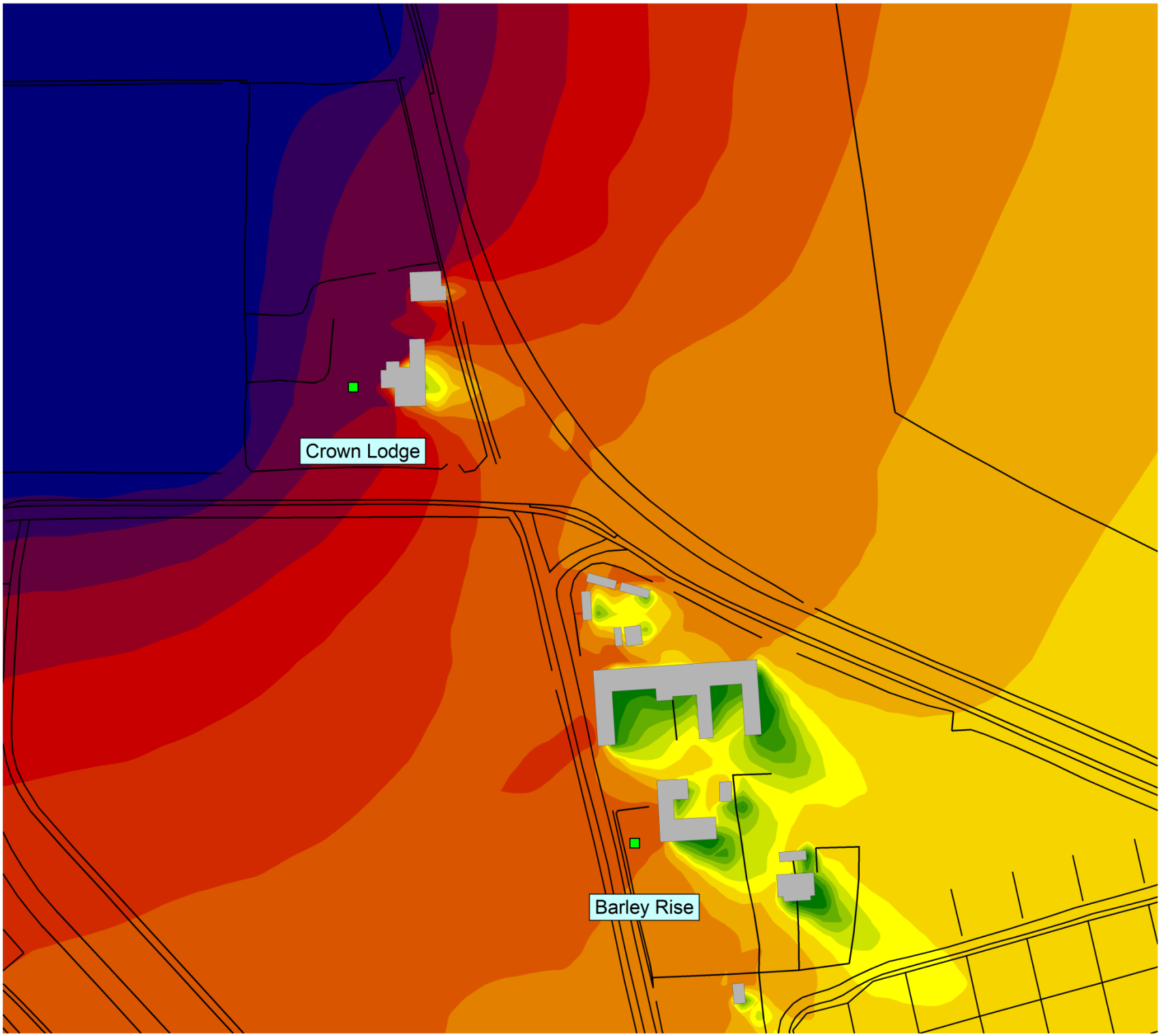
0 3.5 7 14 21 28 35 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.7

Main Development Site Daytime Construction Noise Contours

Crown Lodge



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

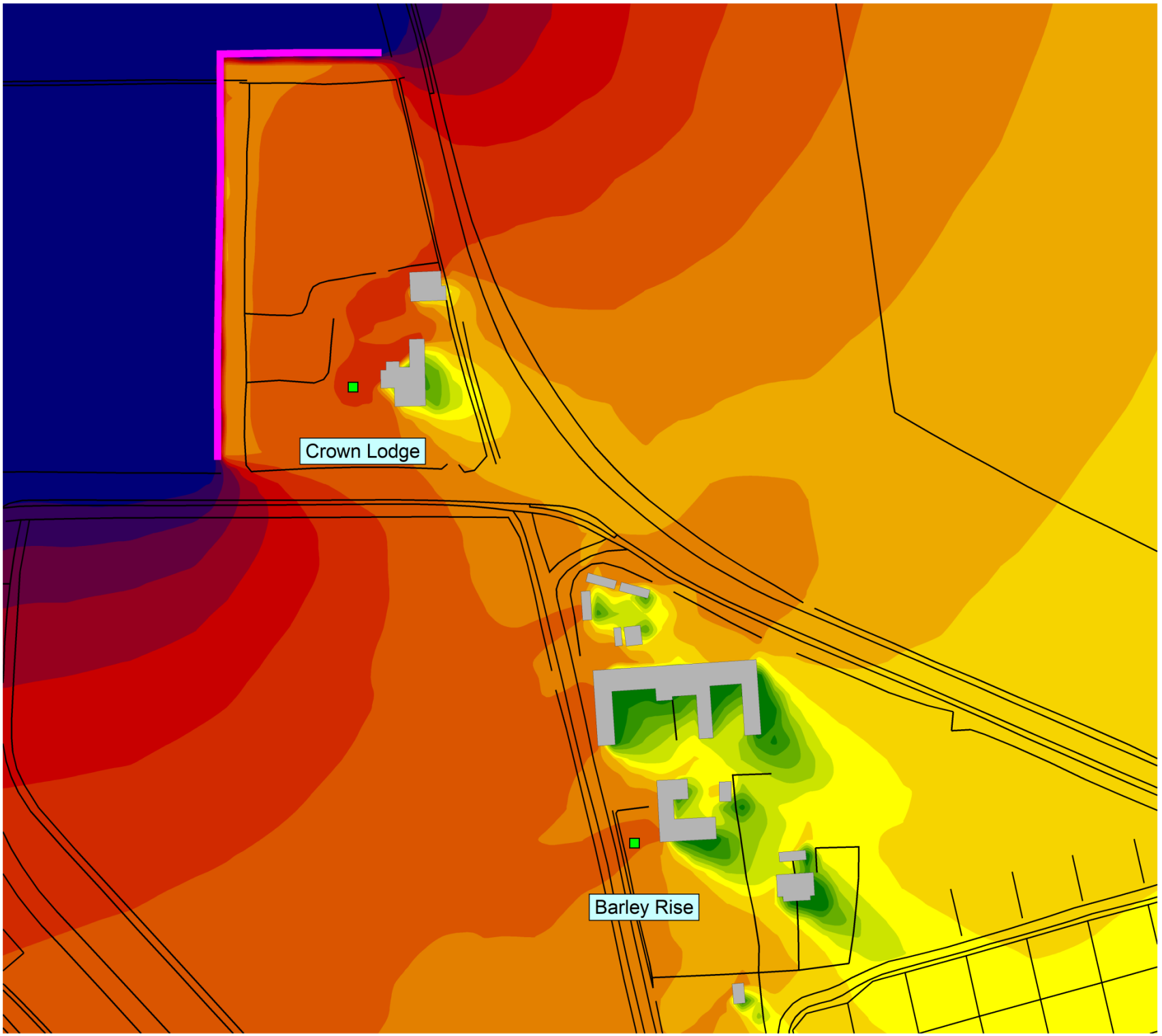
Initial site strip and level

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

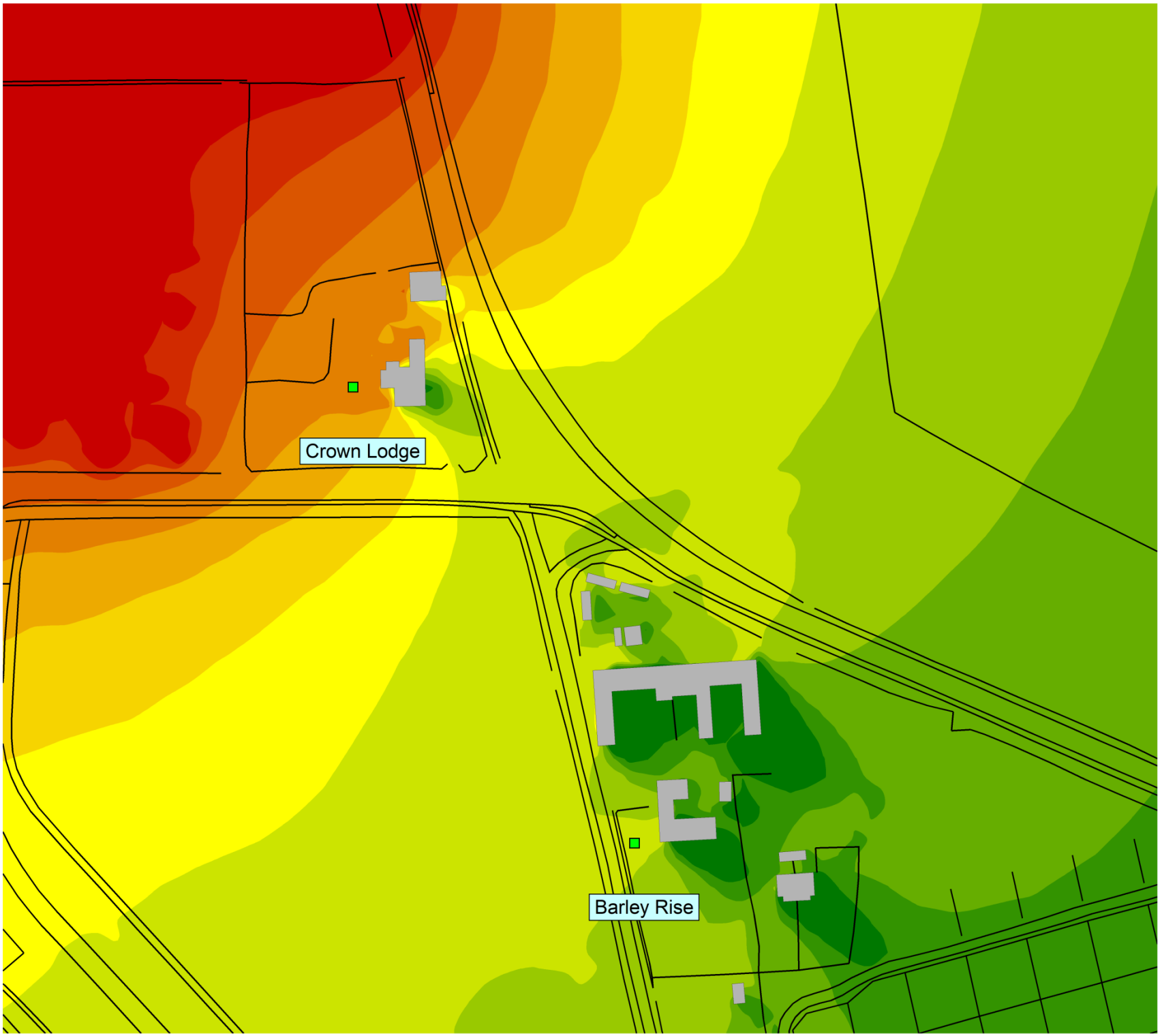
Initial site strip and level

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

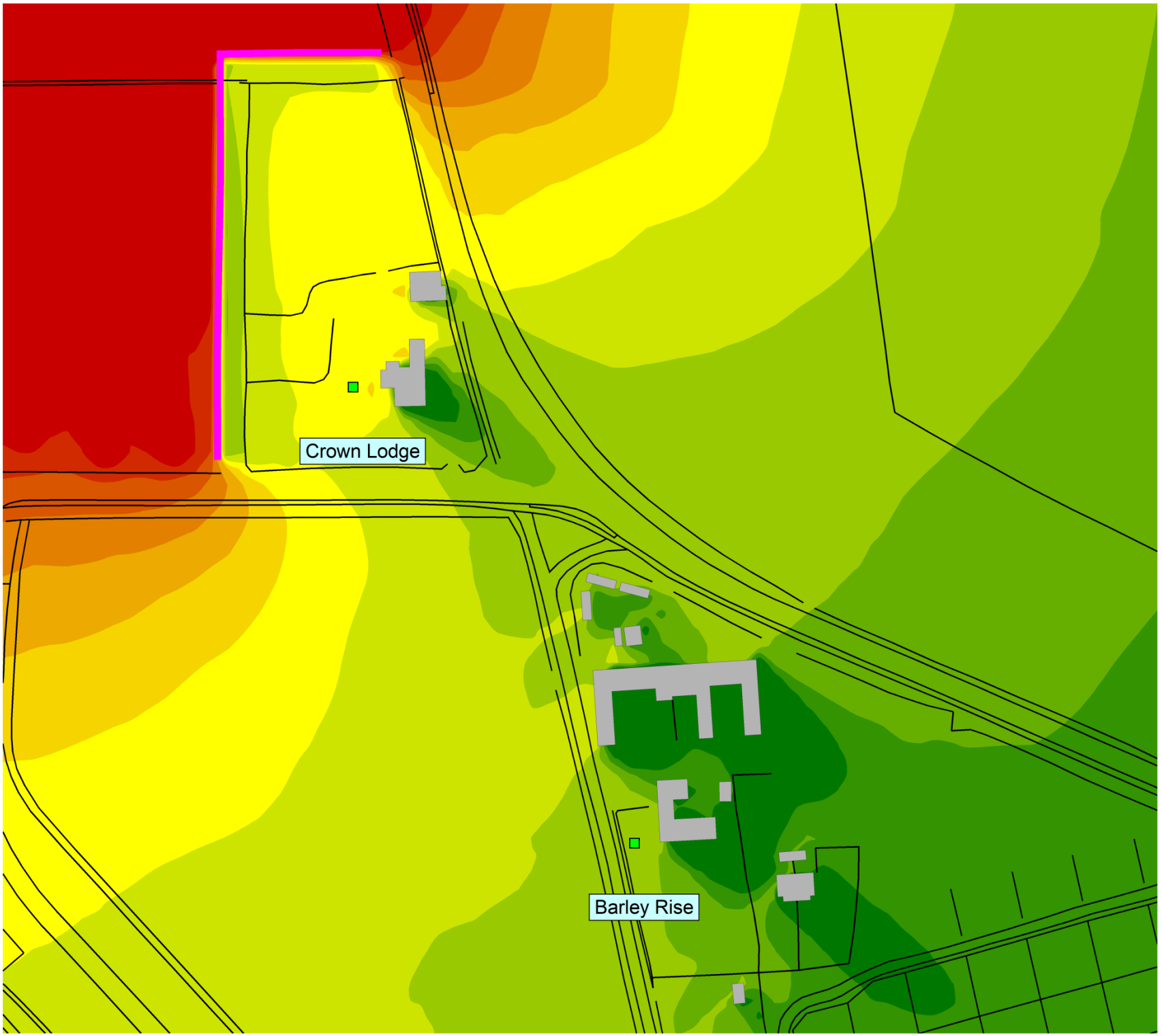
Site preparation
& Railhead construction

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

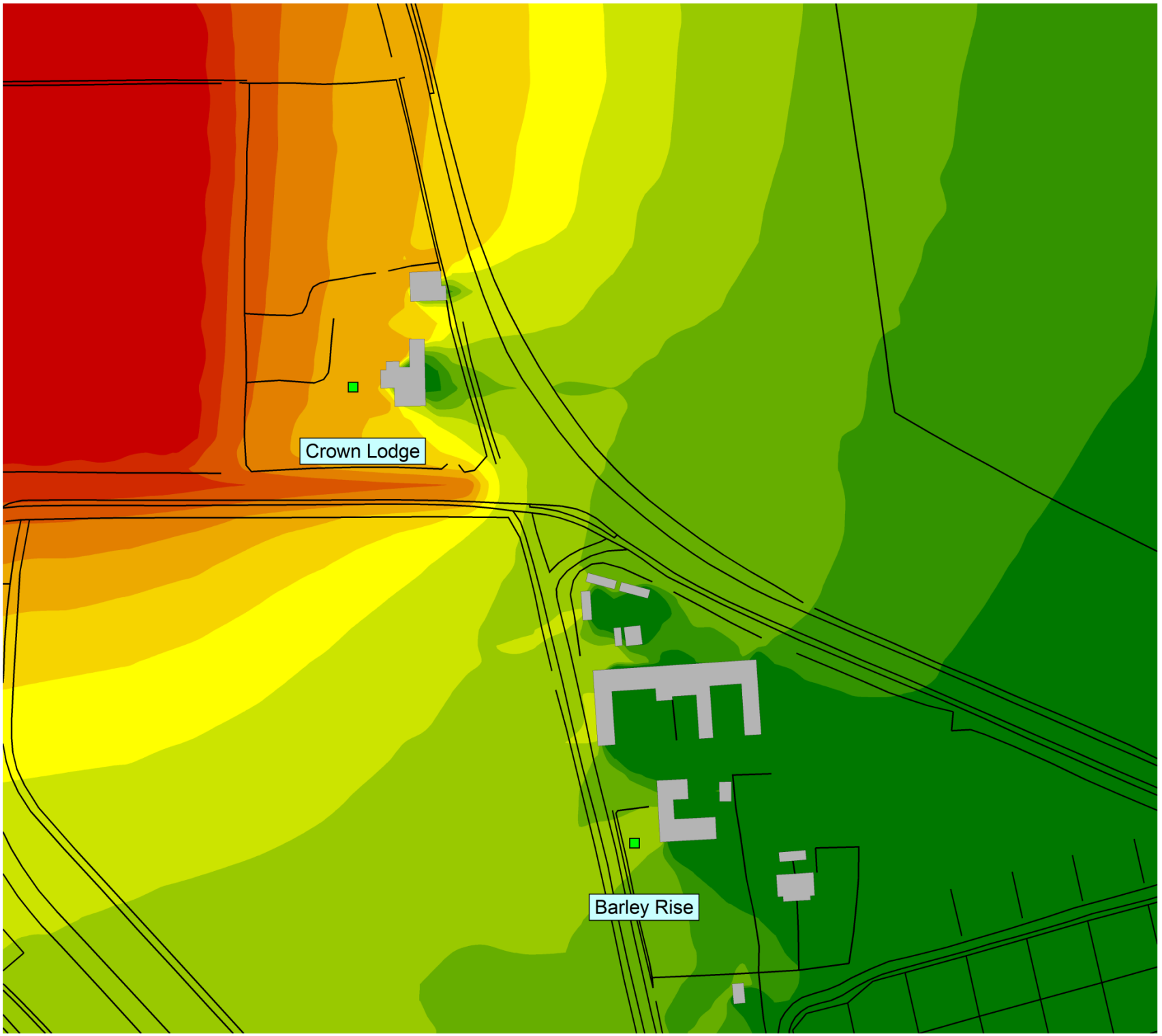
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

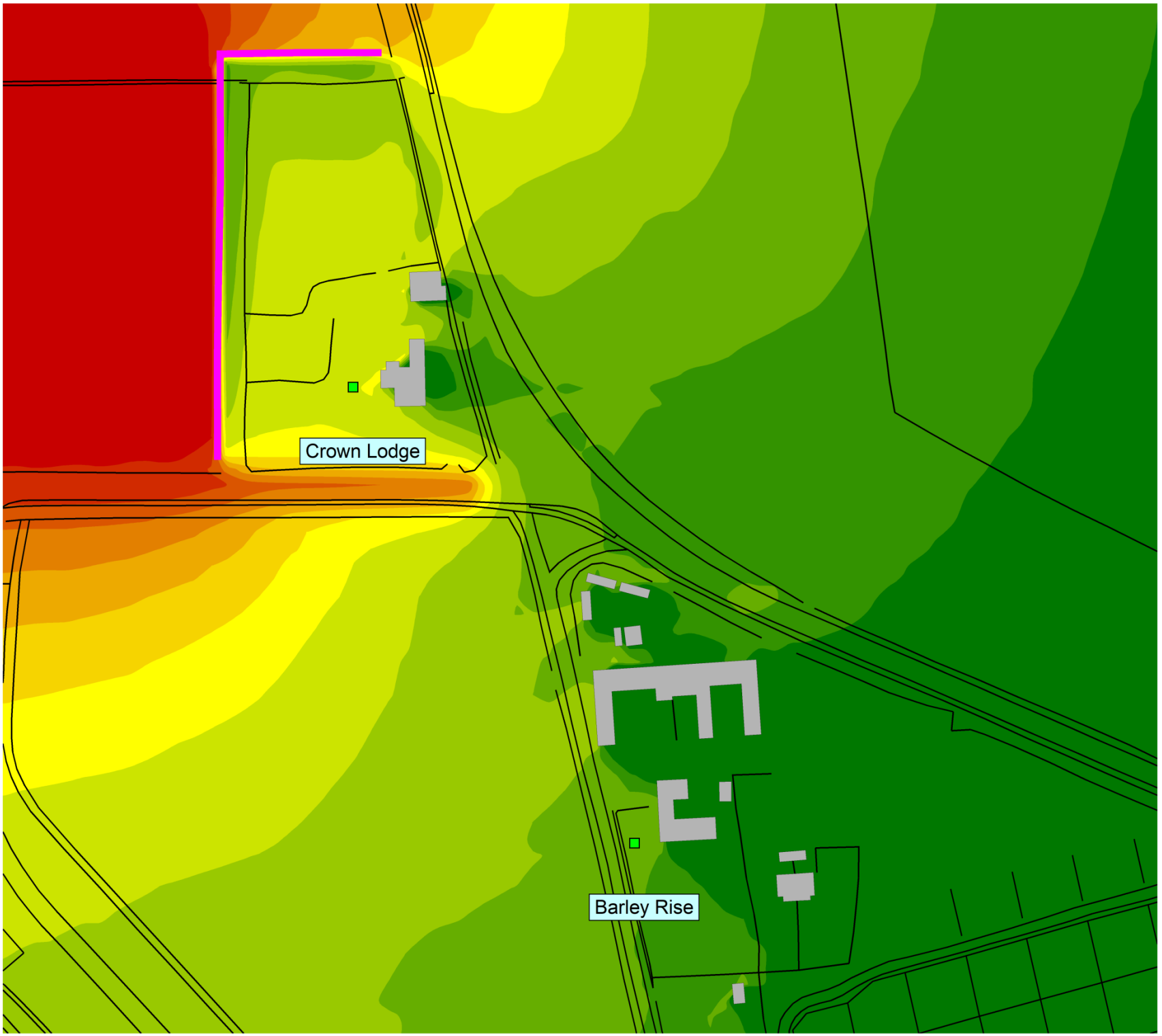
Operational Noise
(Early Years)

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Early Years)

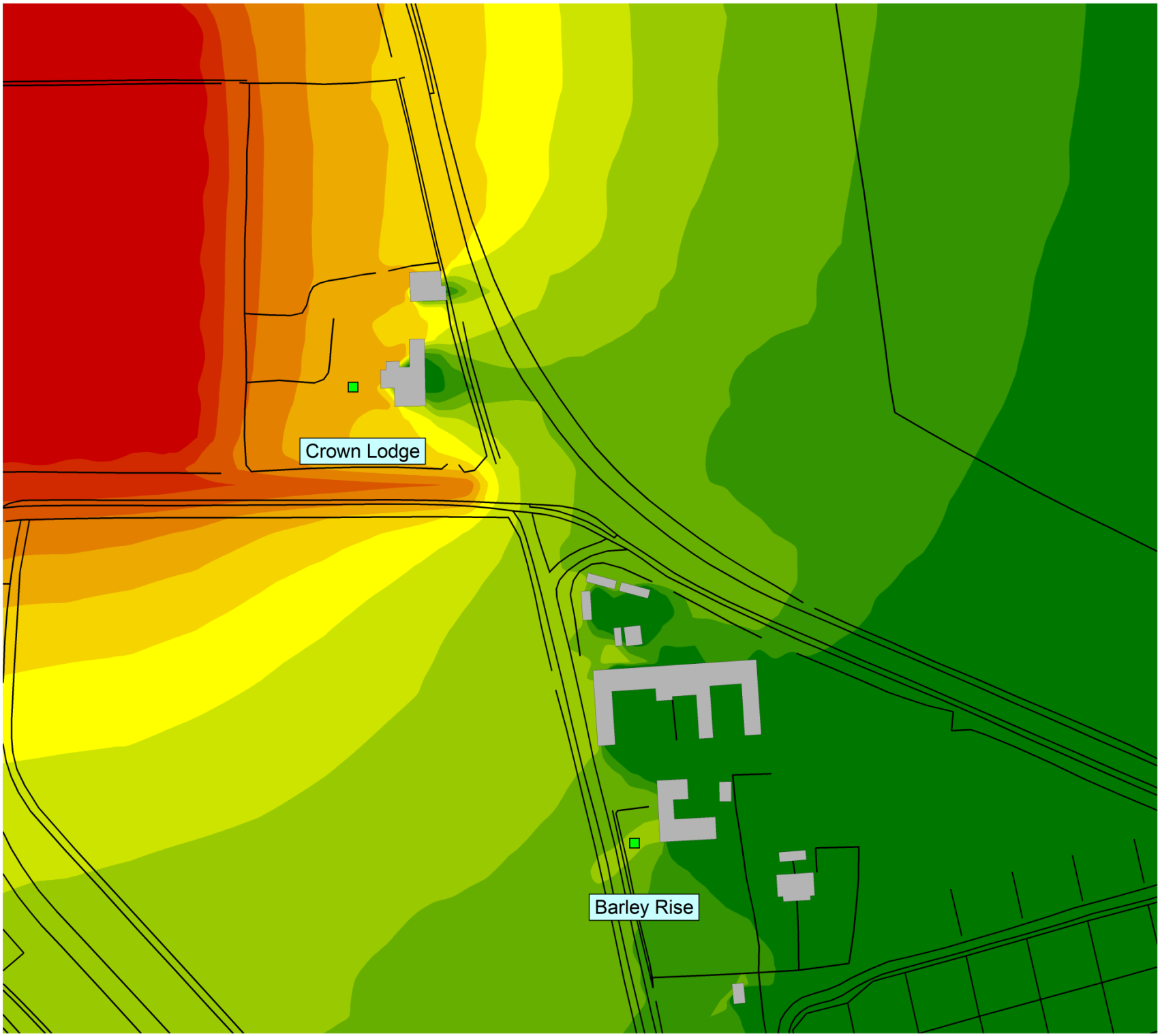
With Mitigation

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

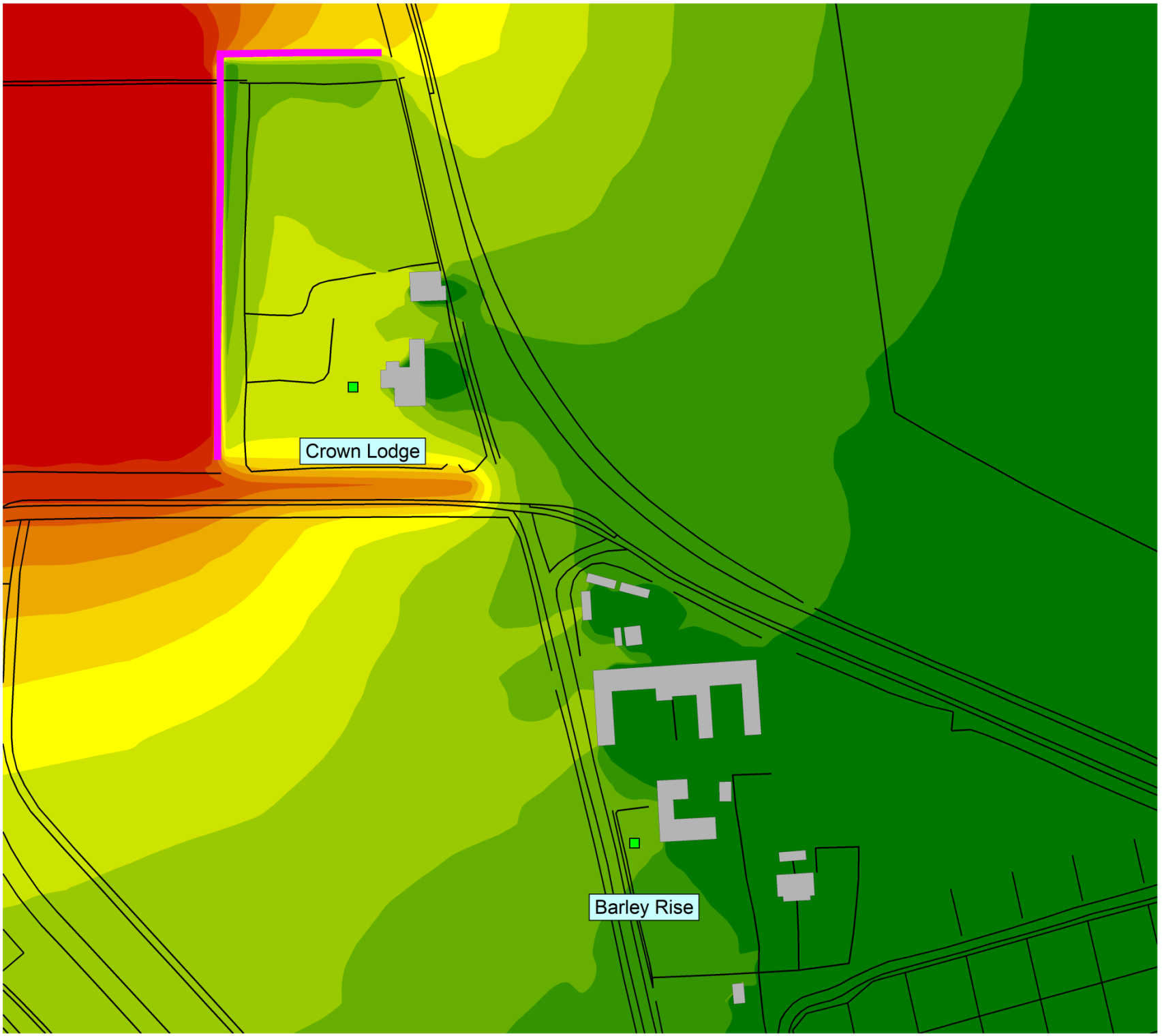
Operational Noise
(Later Years)

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Later Years)

With Mitigation

LAeq(T)

Scale 1:1600

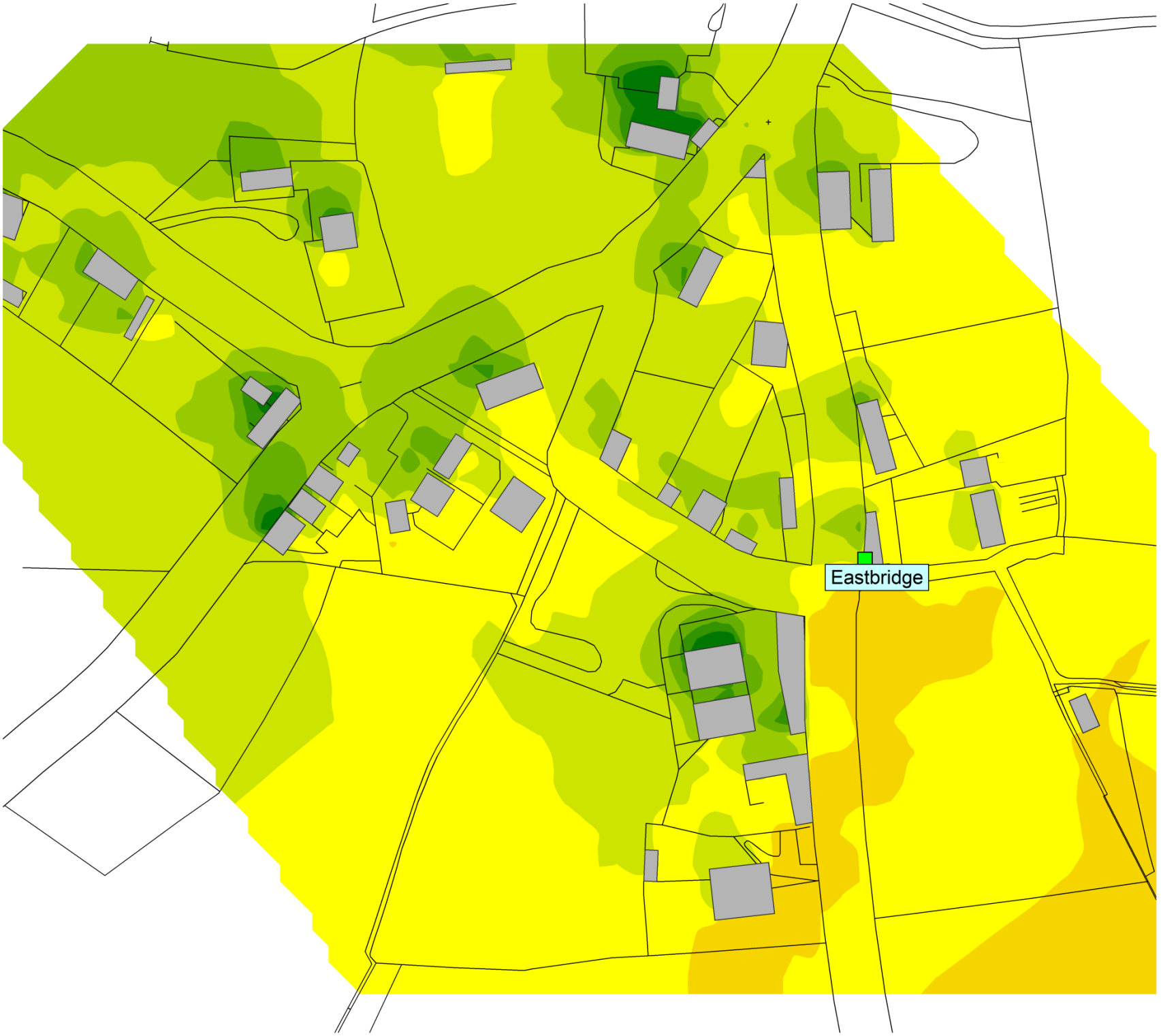
0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.8

Main Development Site Daytime Construction Noise Contours

Eastbridge



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 1A

Eastbridge

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 1B/2

Eastbridge

LAeq(T)

Scale 1:1600

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 3/4

Eastbridge

LAeq(T)

Scale 1:1600

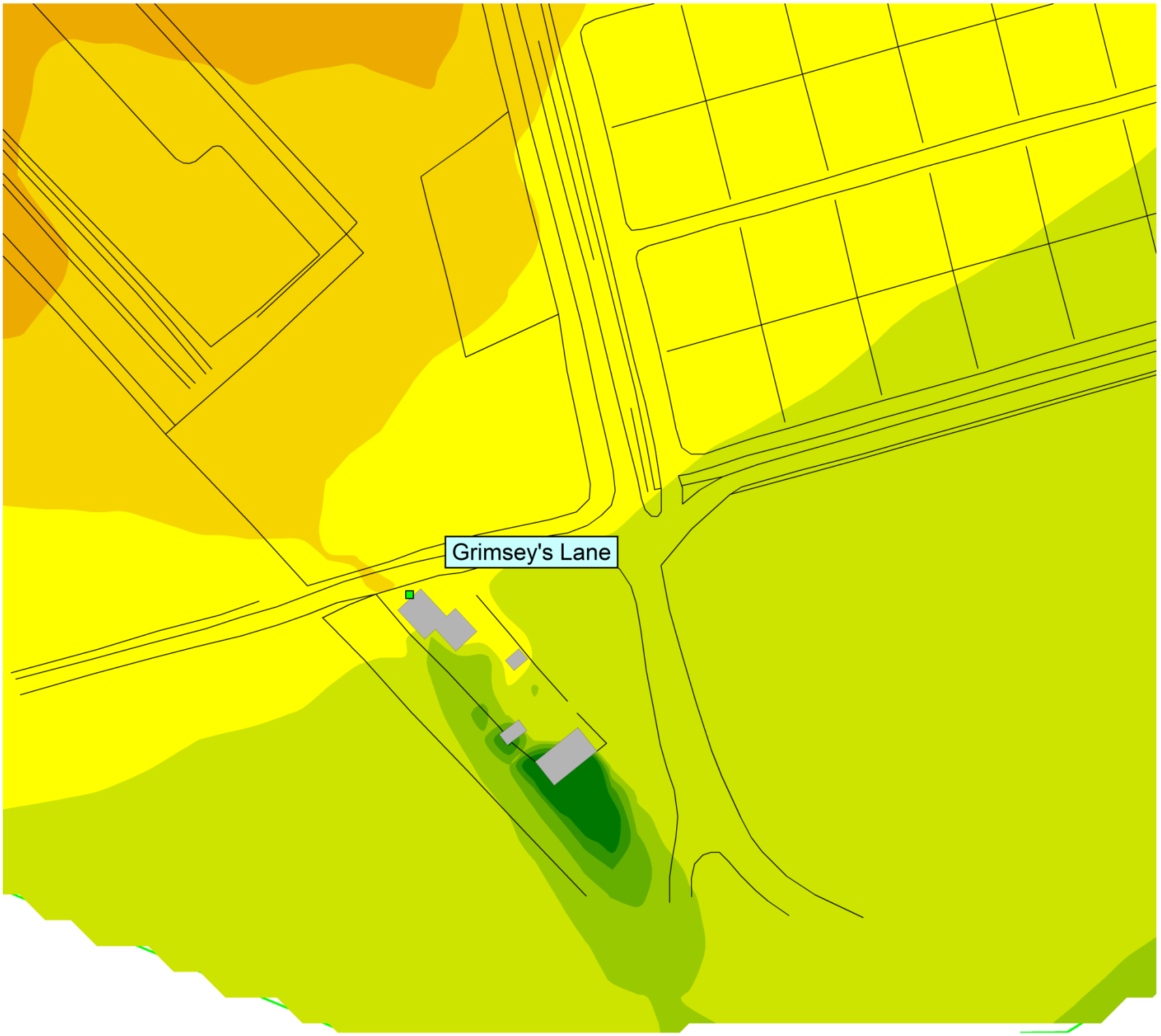
0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.9

Main Development Site Daytime Construction Noise Contours

Grimseys Lane



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

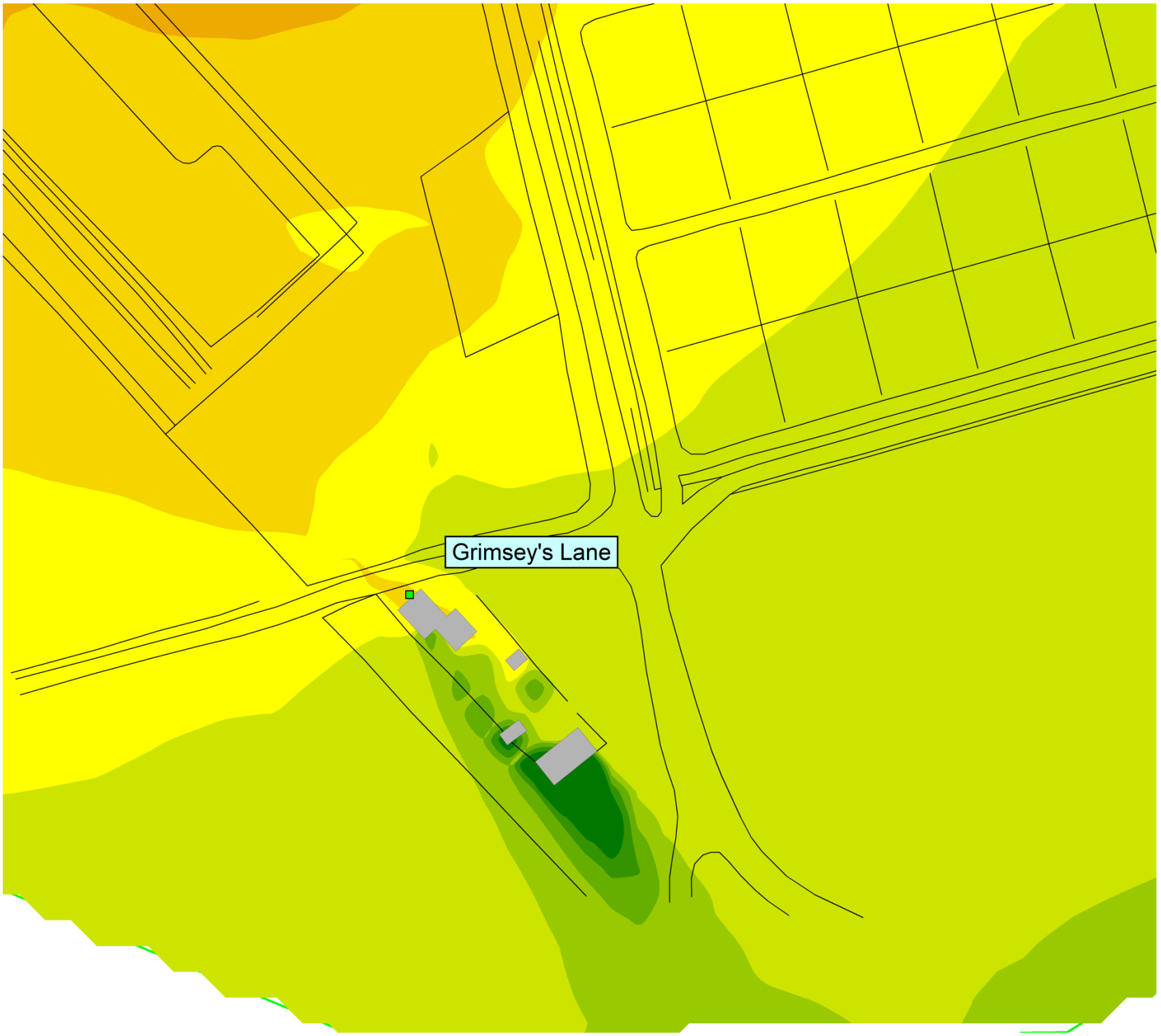
Initial site strip and level

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

With Mitigation

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Site Preparation
& Railhead construction

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Site Preparation
& Railhead construction

With Mitigation

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Operational Noise
(Early Years)

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Operational Noise
(Later Years)

LAeq(T)

Scale 1:1000

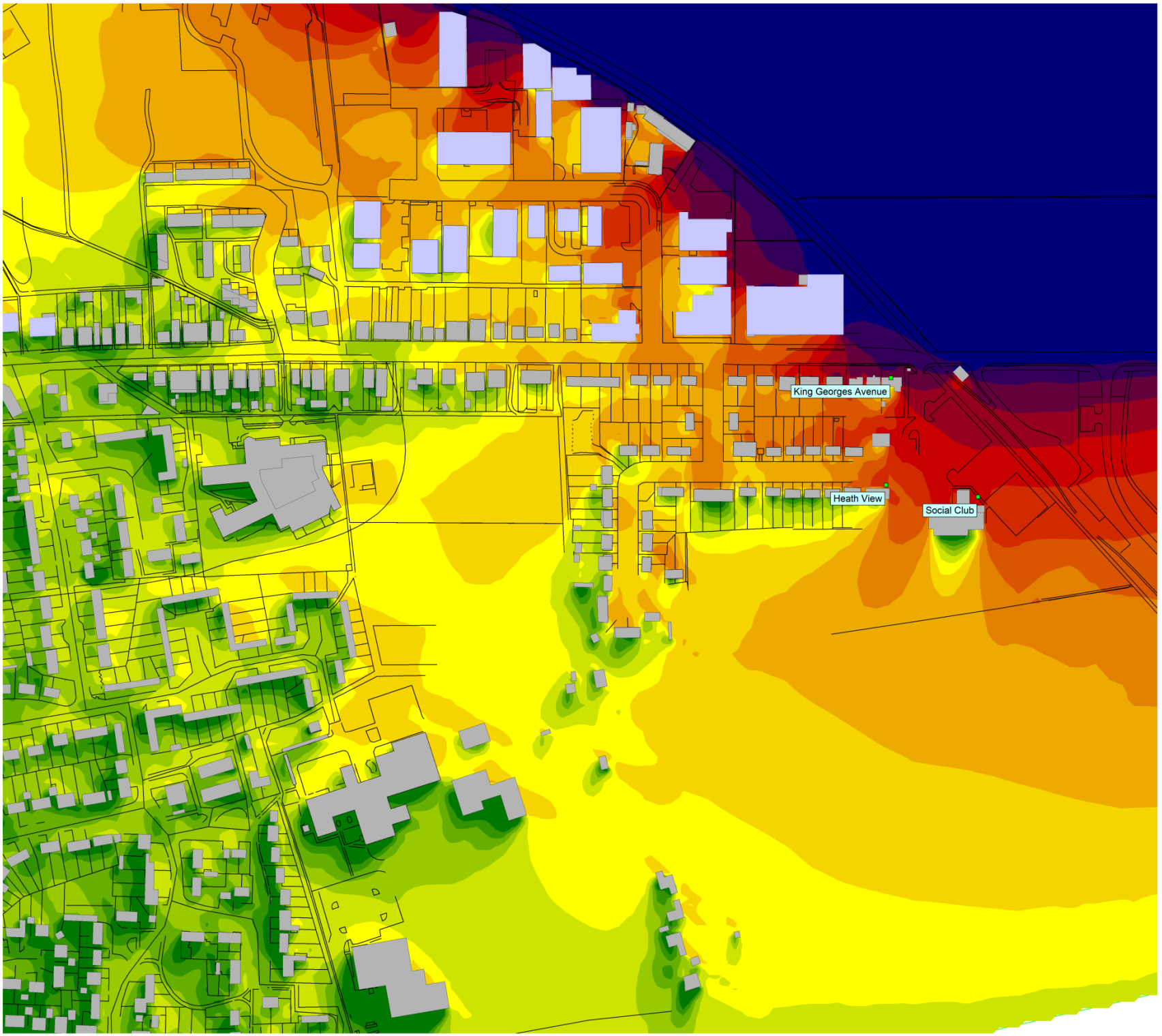
0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.10

Main Development Site Daytime Construction Noise Contours

Heath View



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

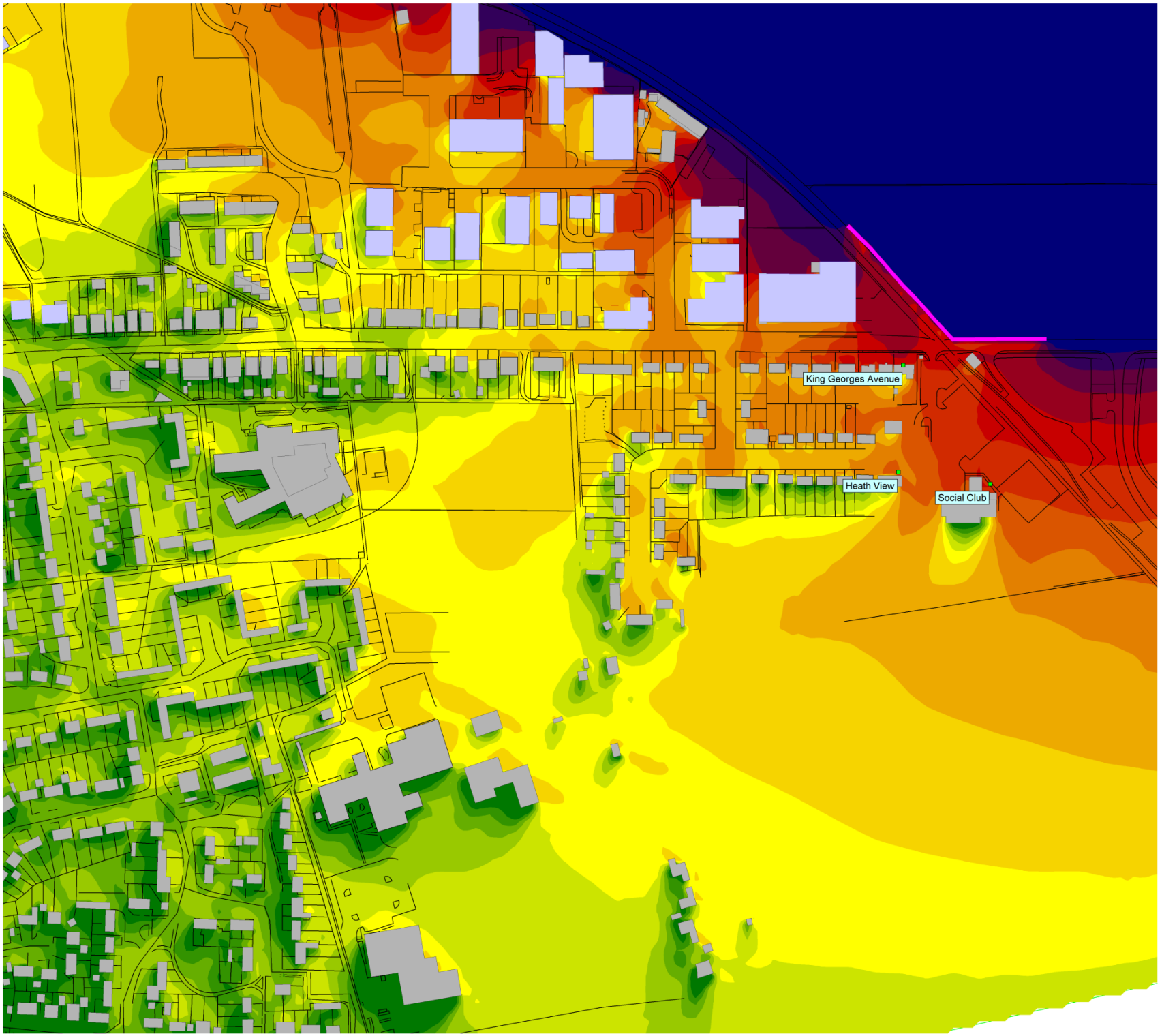
Initial site strip and level

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

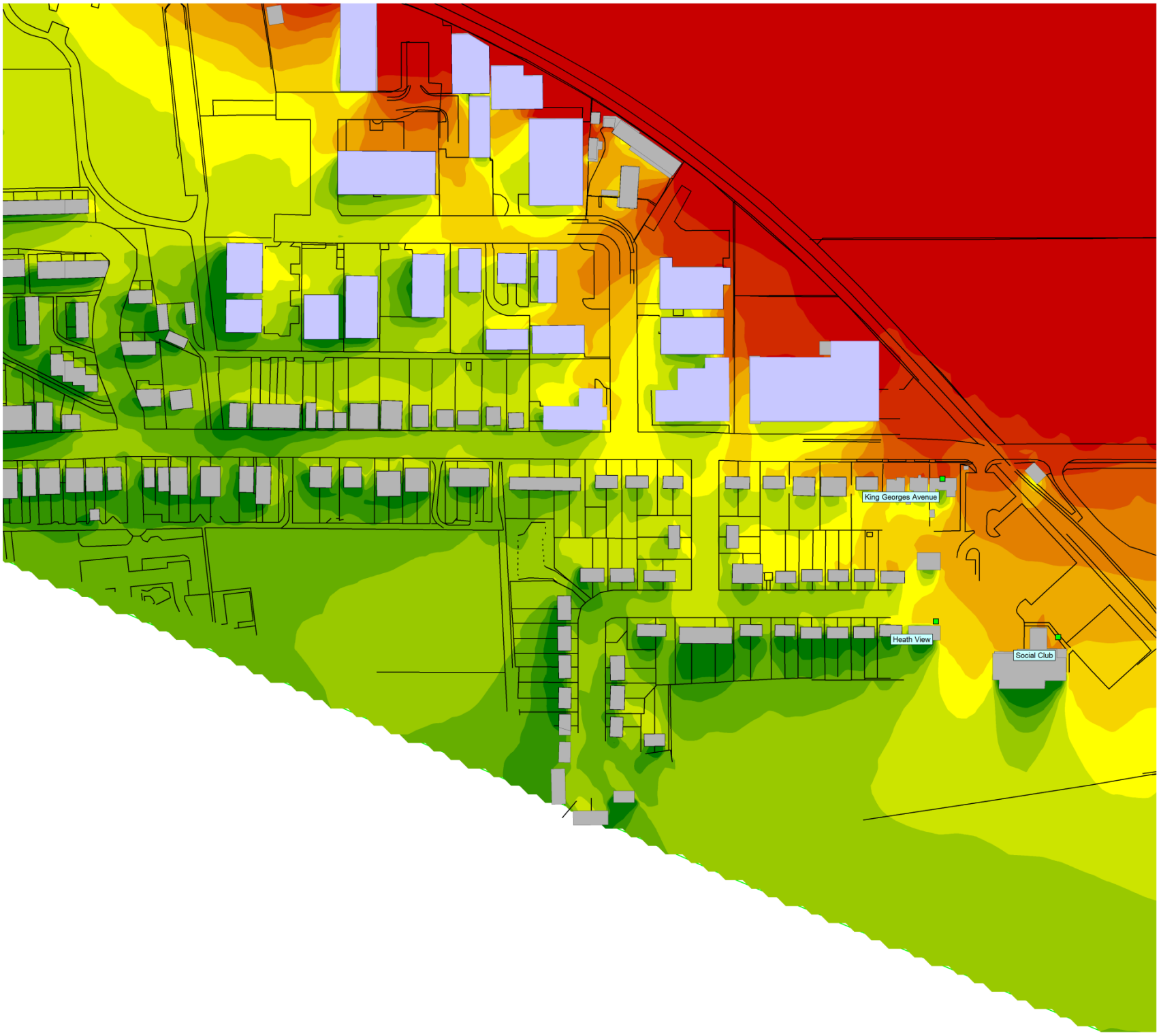
With Mitigation

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

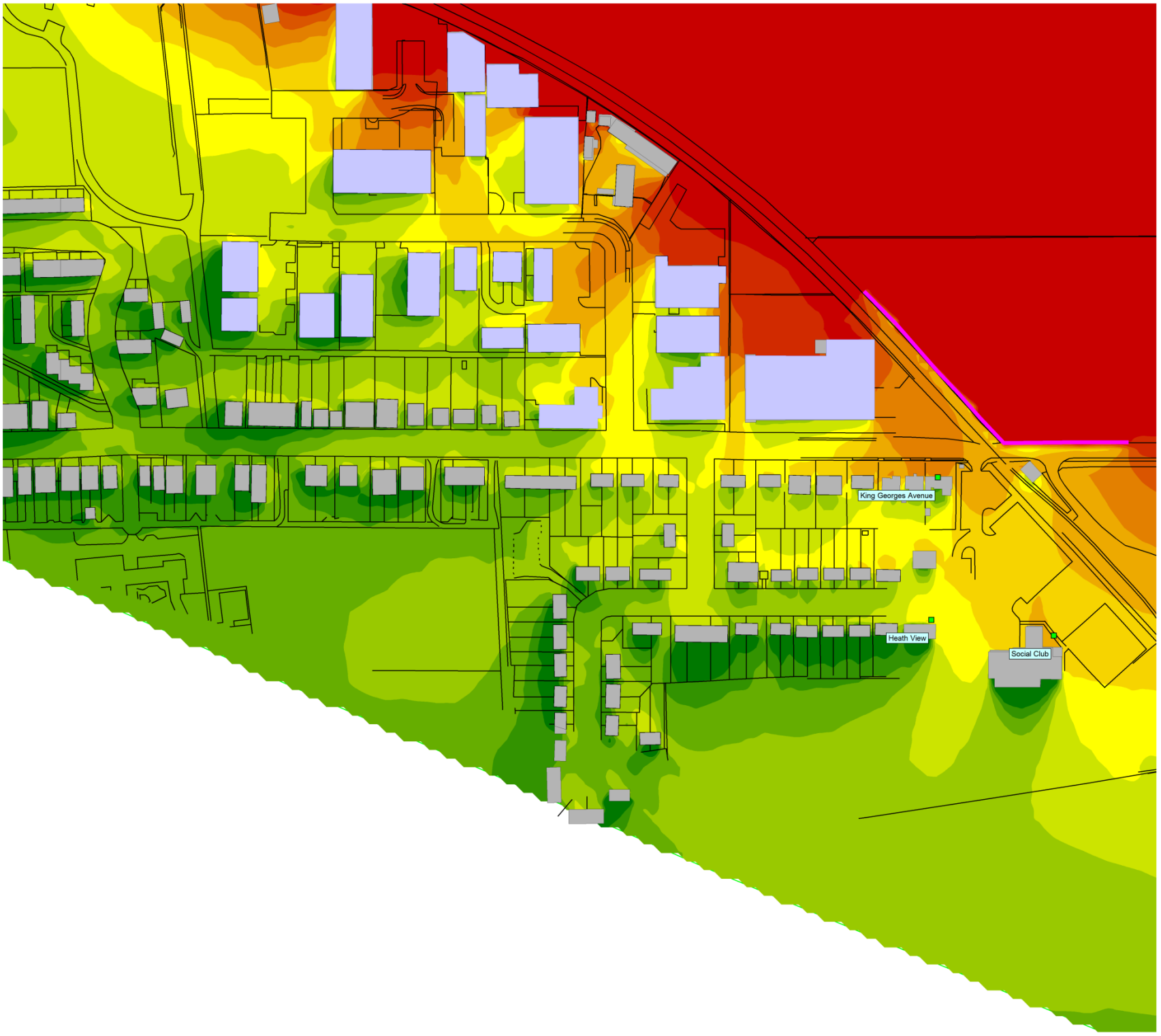
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

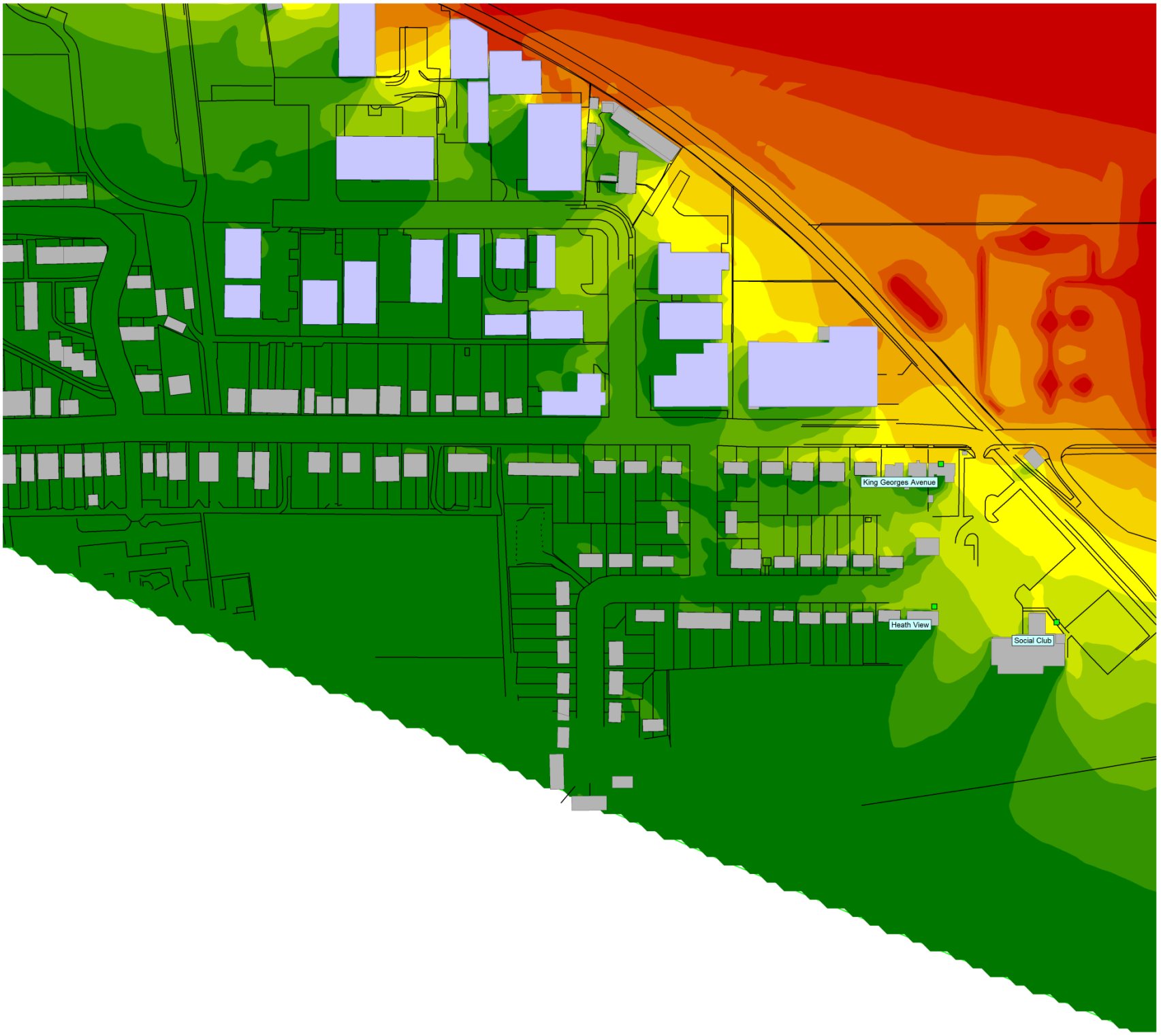
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

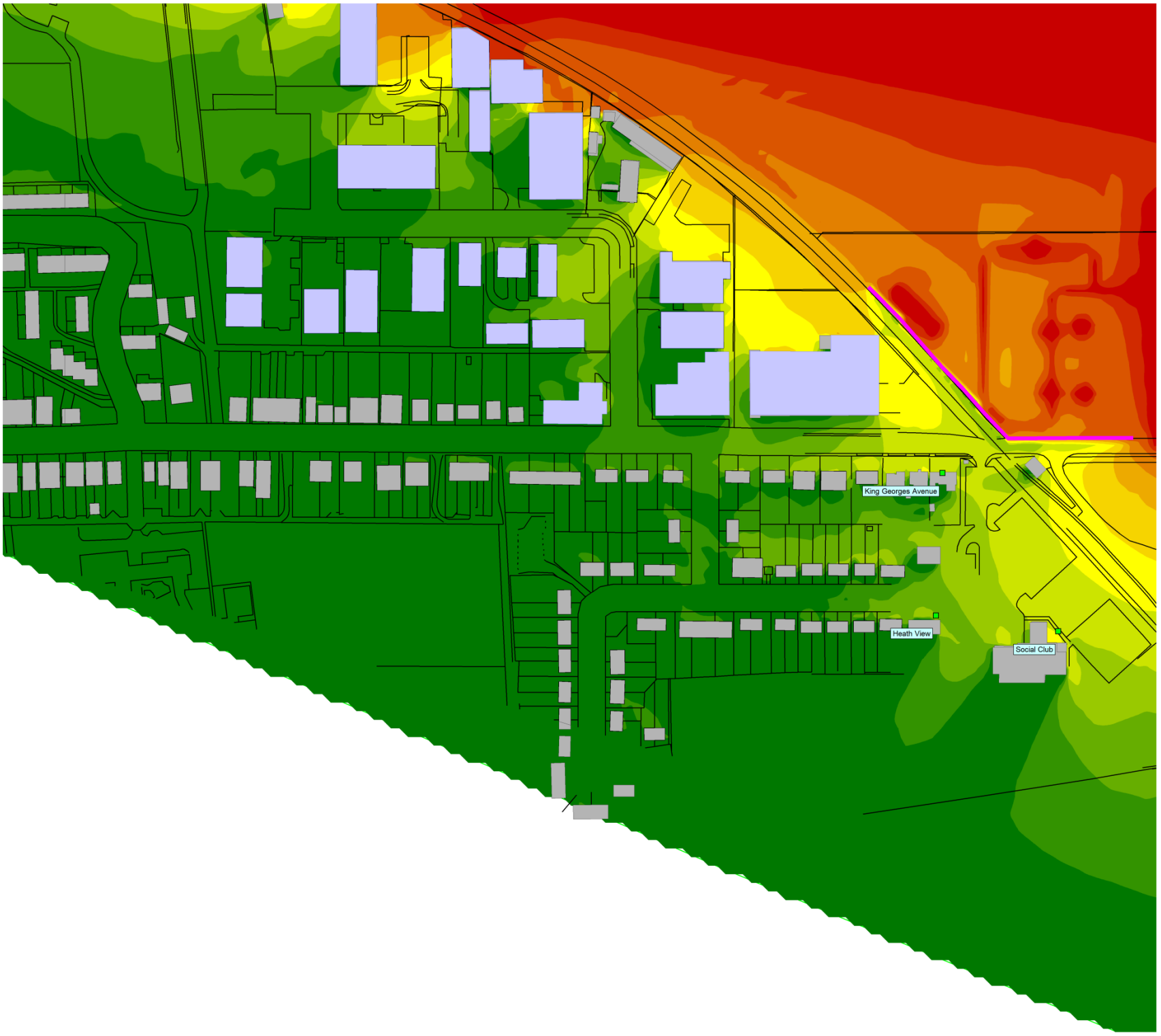
Operational Noise
(Early Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Early Years)

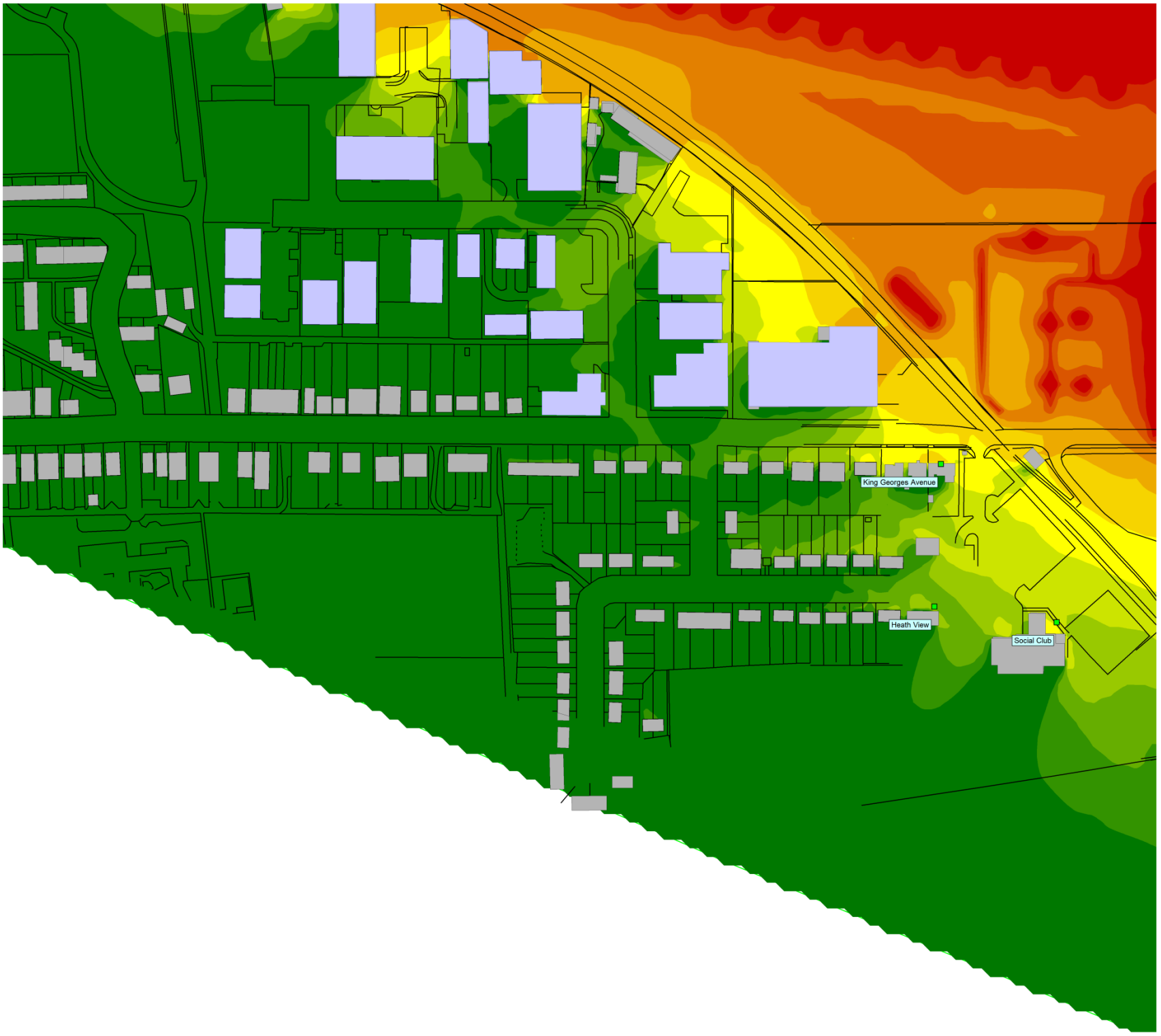
With Mitigation

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

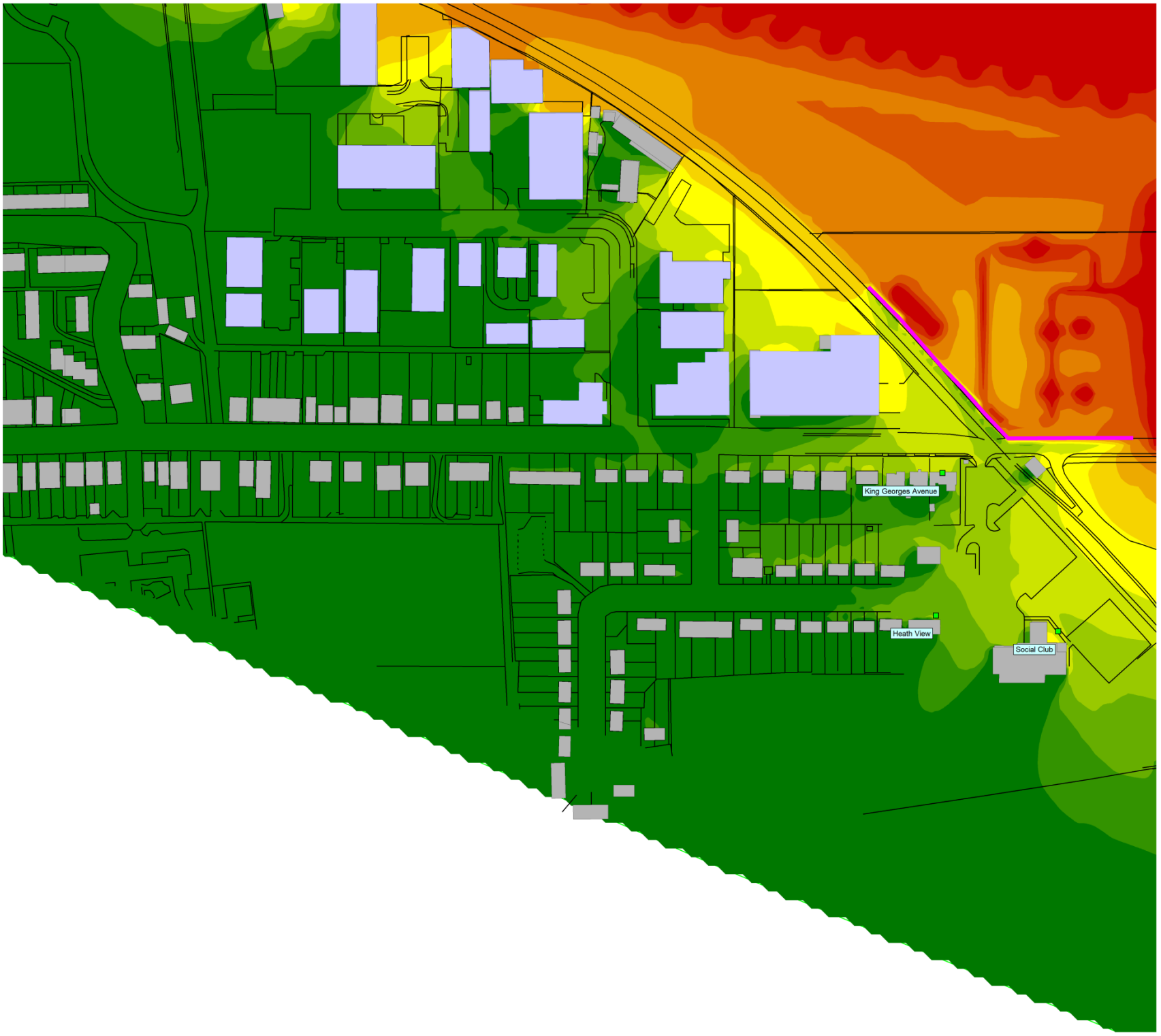
Operational Noise
(Later Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Later Years)

With Mitigation

LAeq(T)

Scale 1:3000

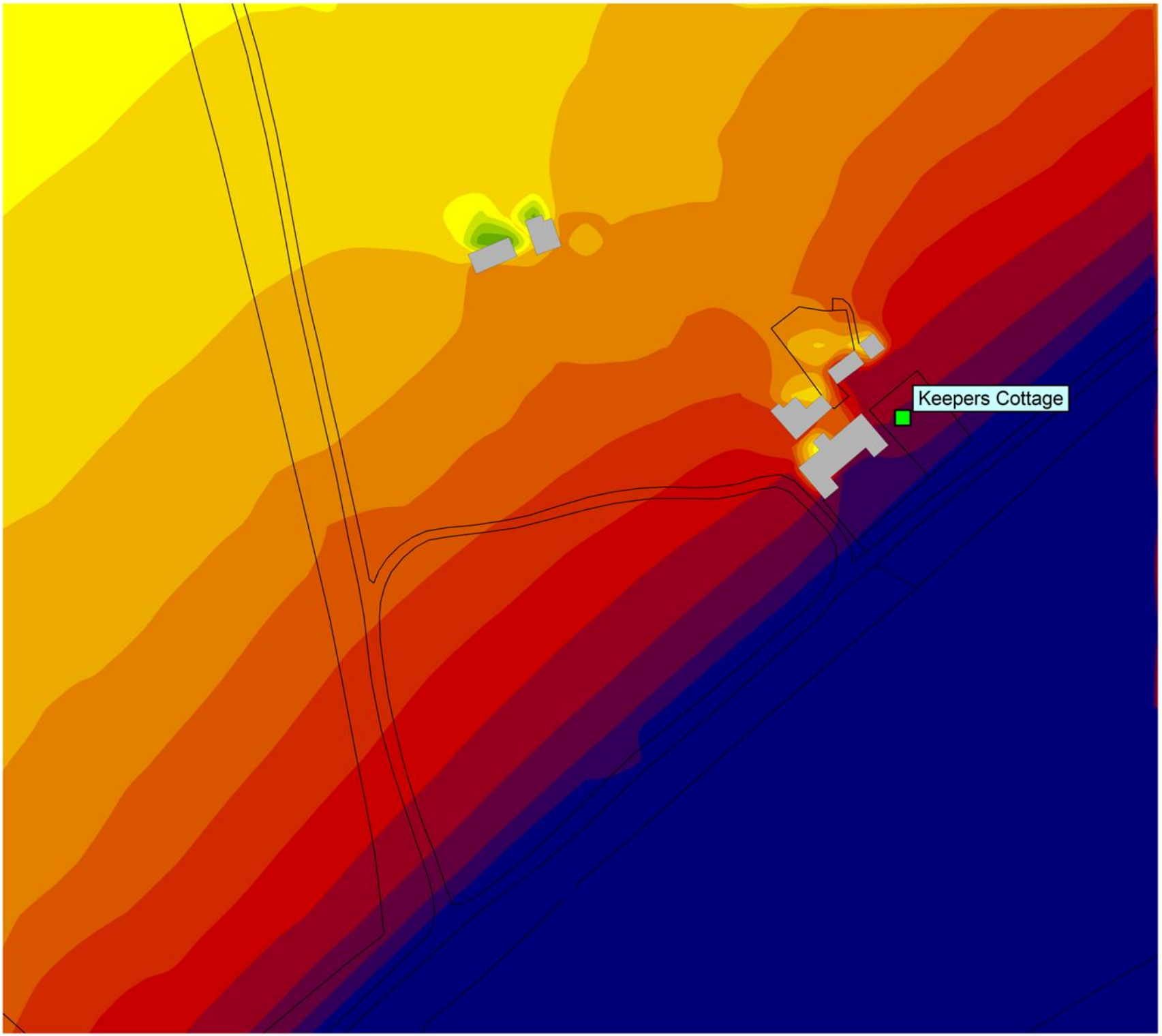
0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.11

Main Development Site Daytime Construction Noise Contours

Keepers Cottage



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

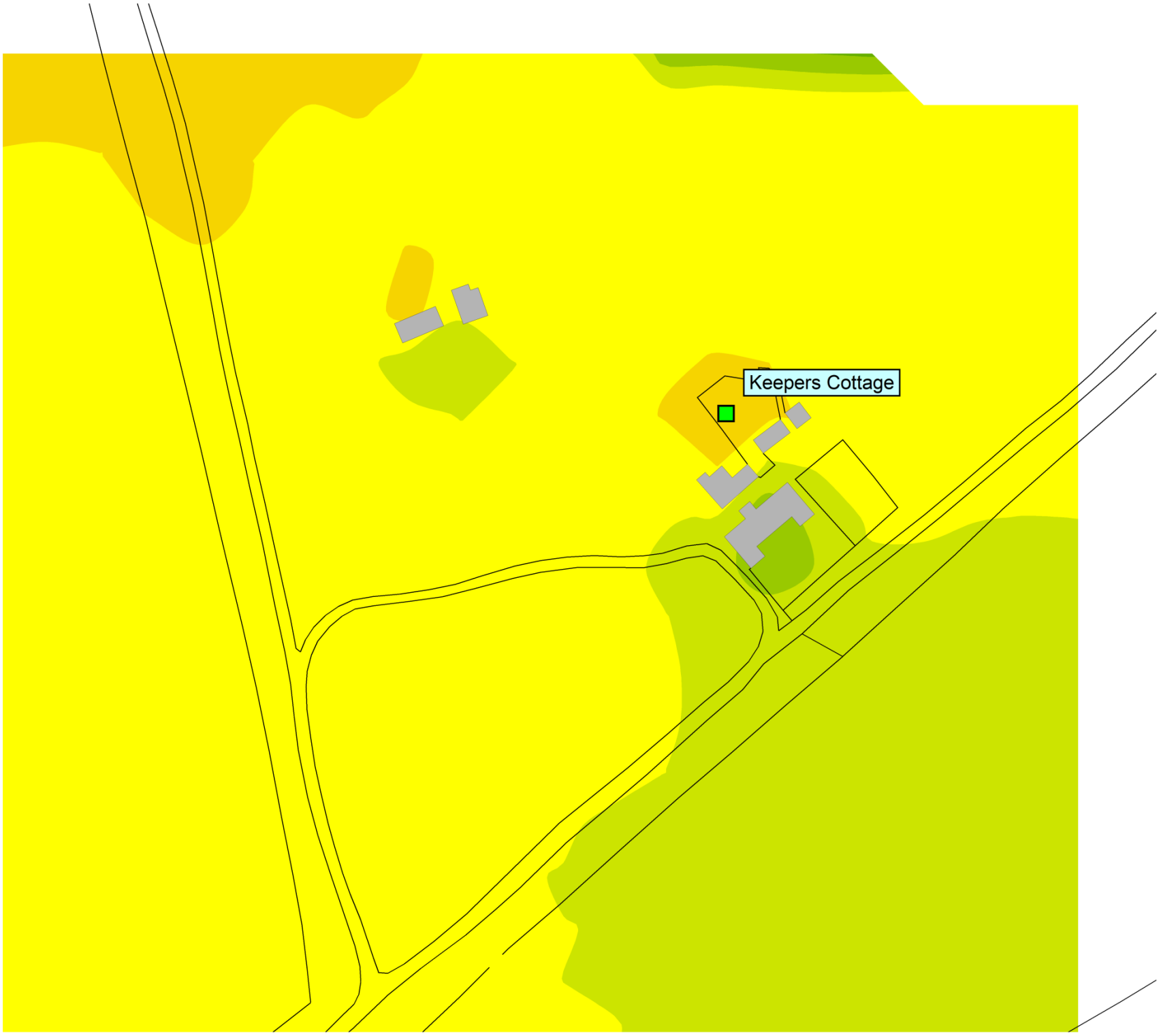
Initial site strip and level and water detention area creation

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction noise

Phase 1B/2

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Phases 3 & 4

LAeq(T)

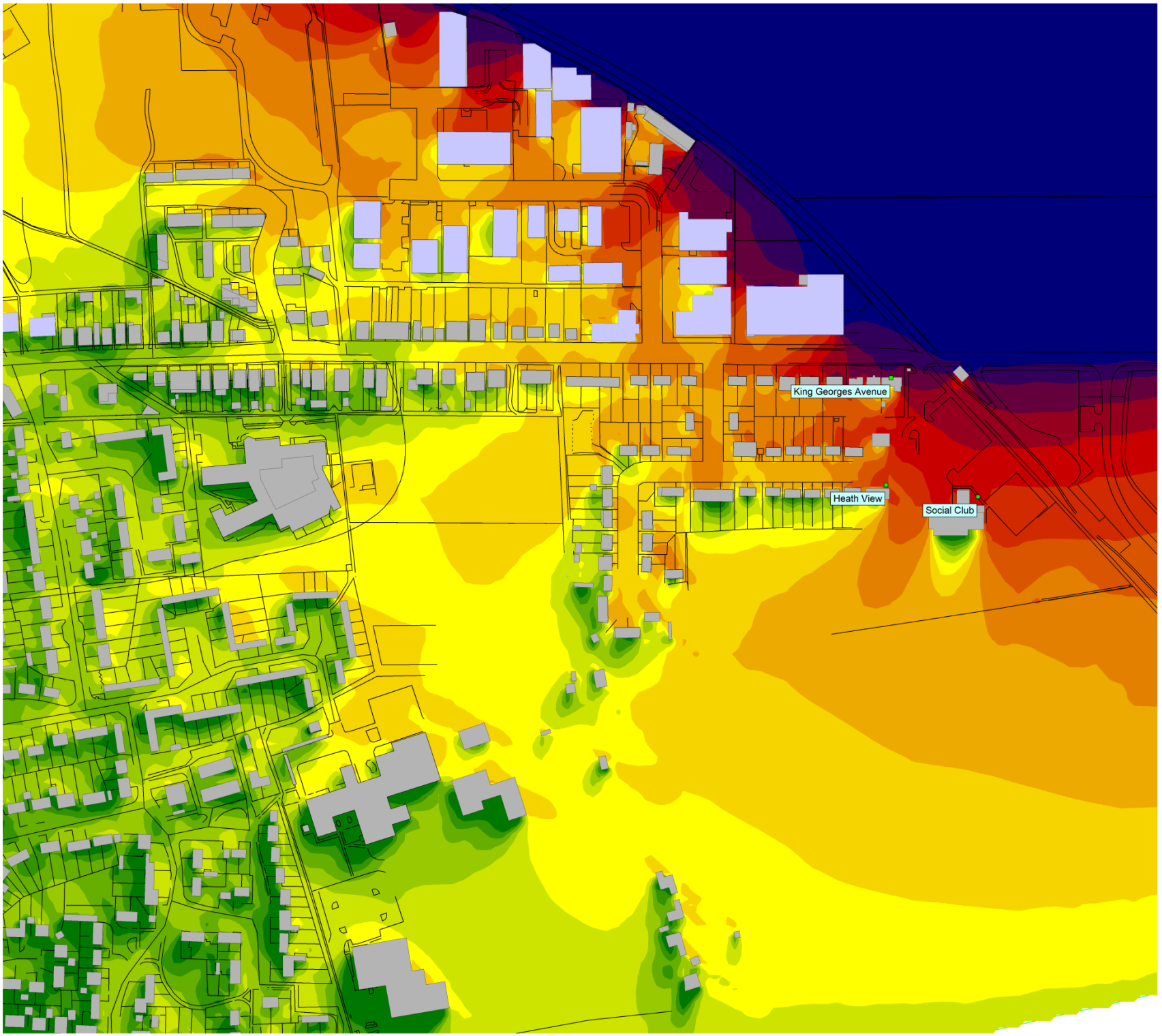
Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.12

Main Development Site Daytime Construction Noise Contours
King George's Avenue



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

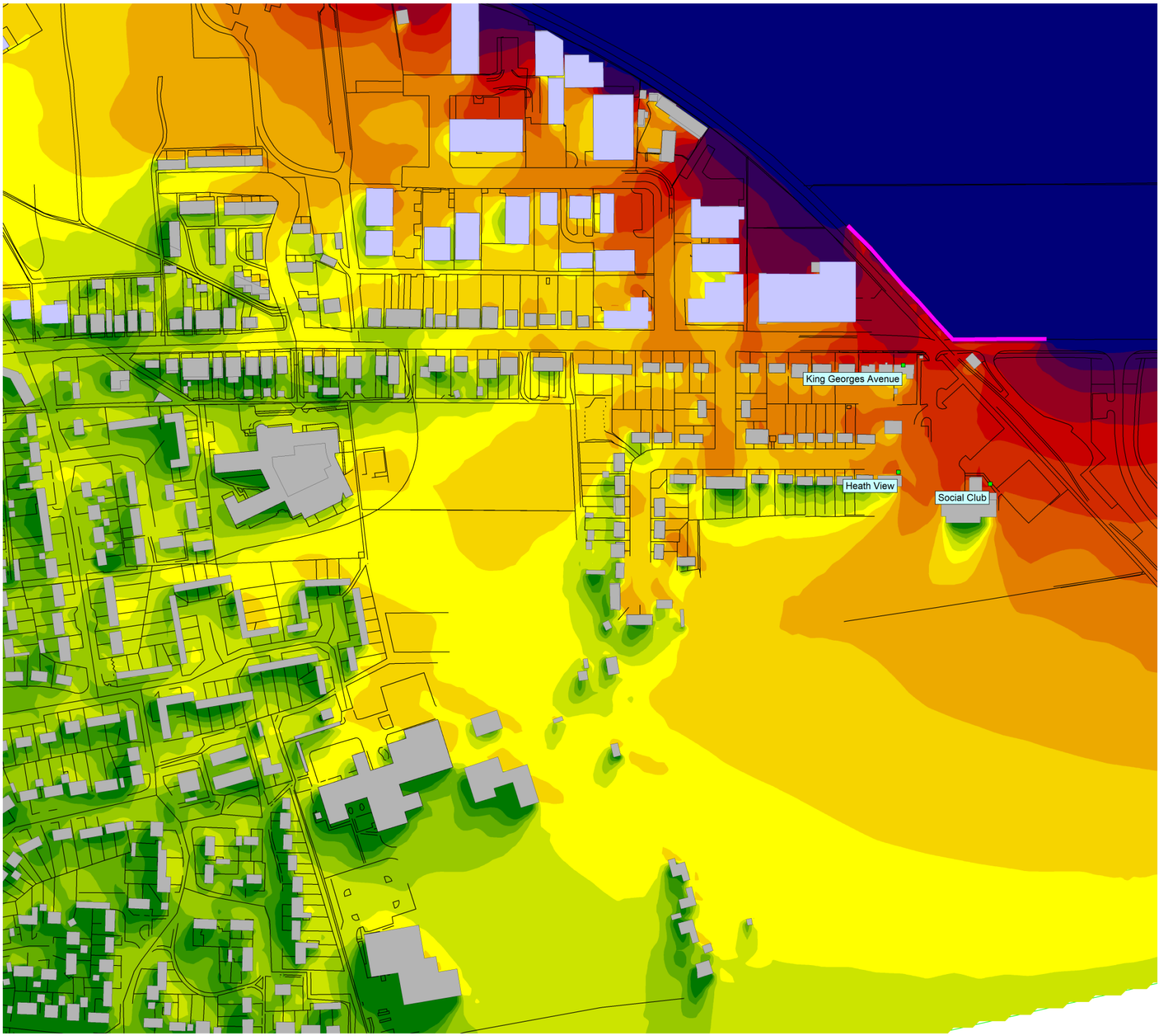
Initial site strip and level

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

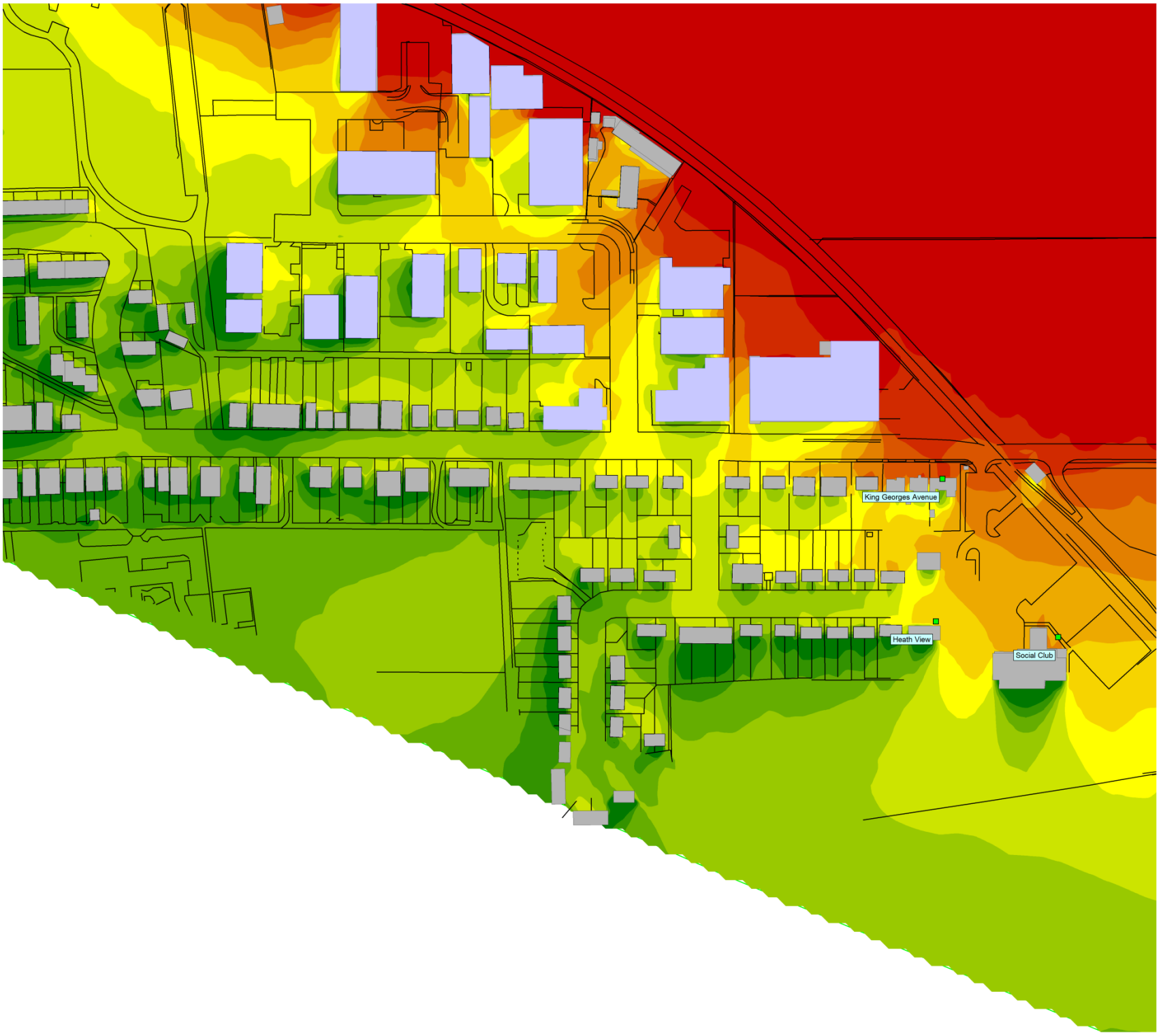
With Mitigation

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

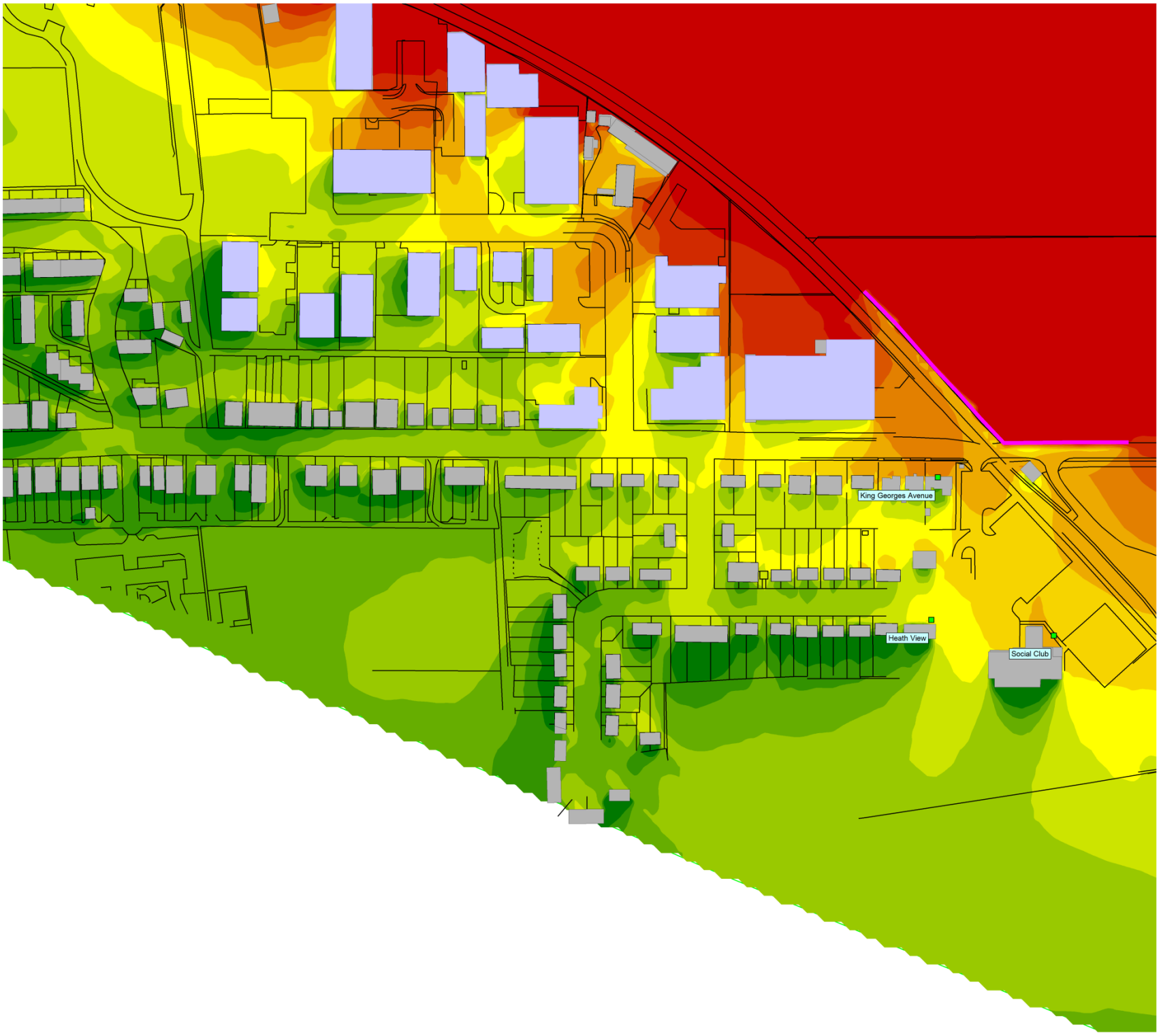
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

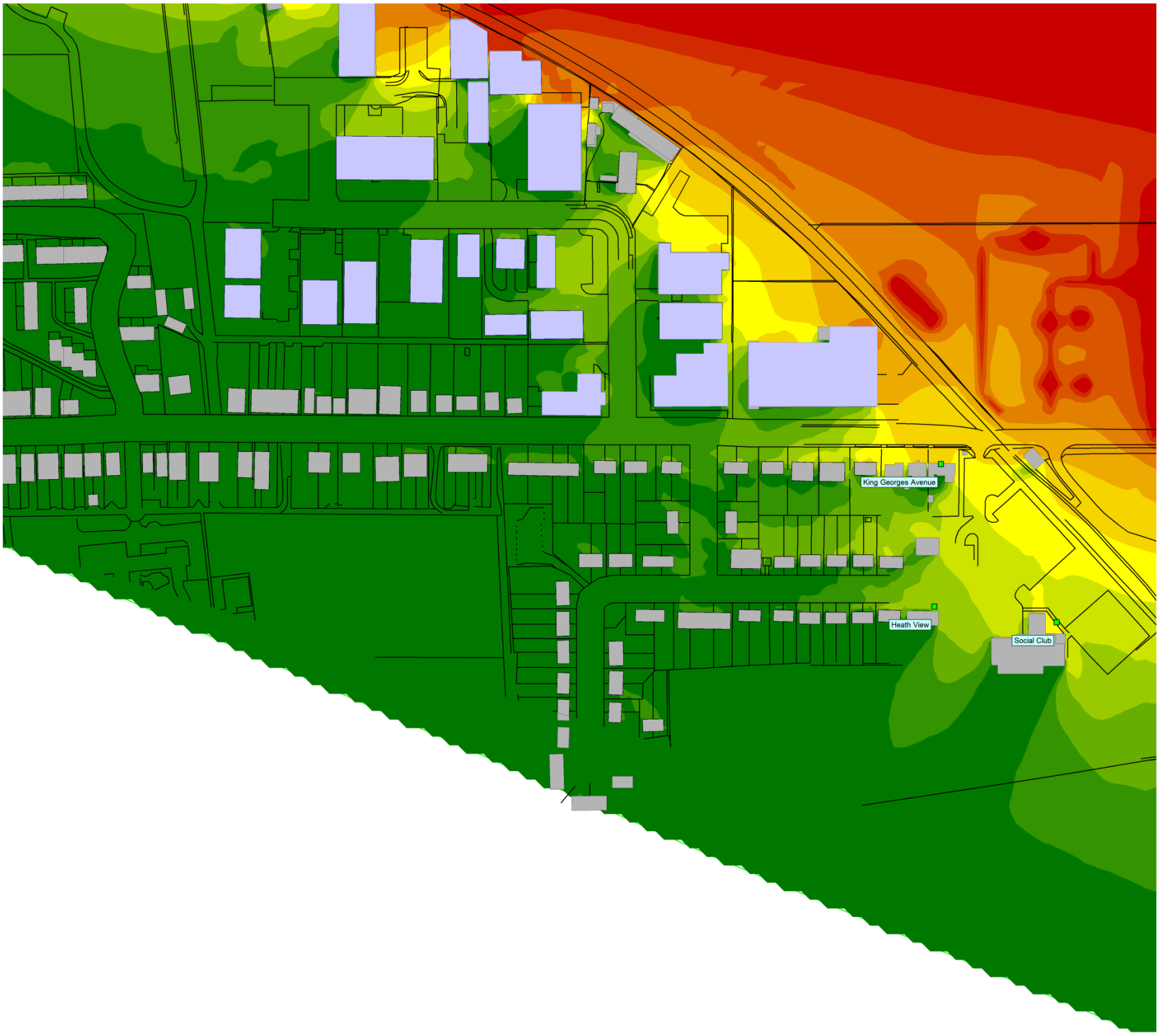
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

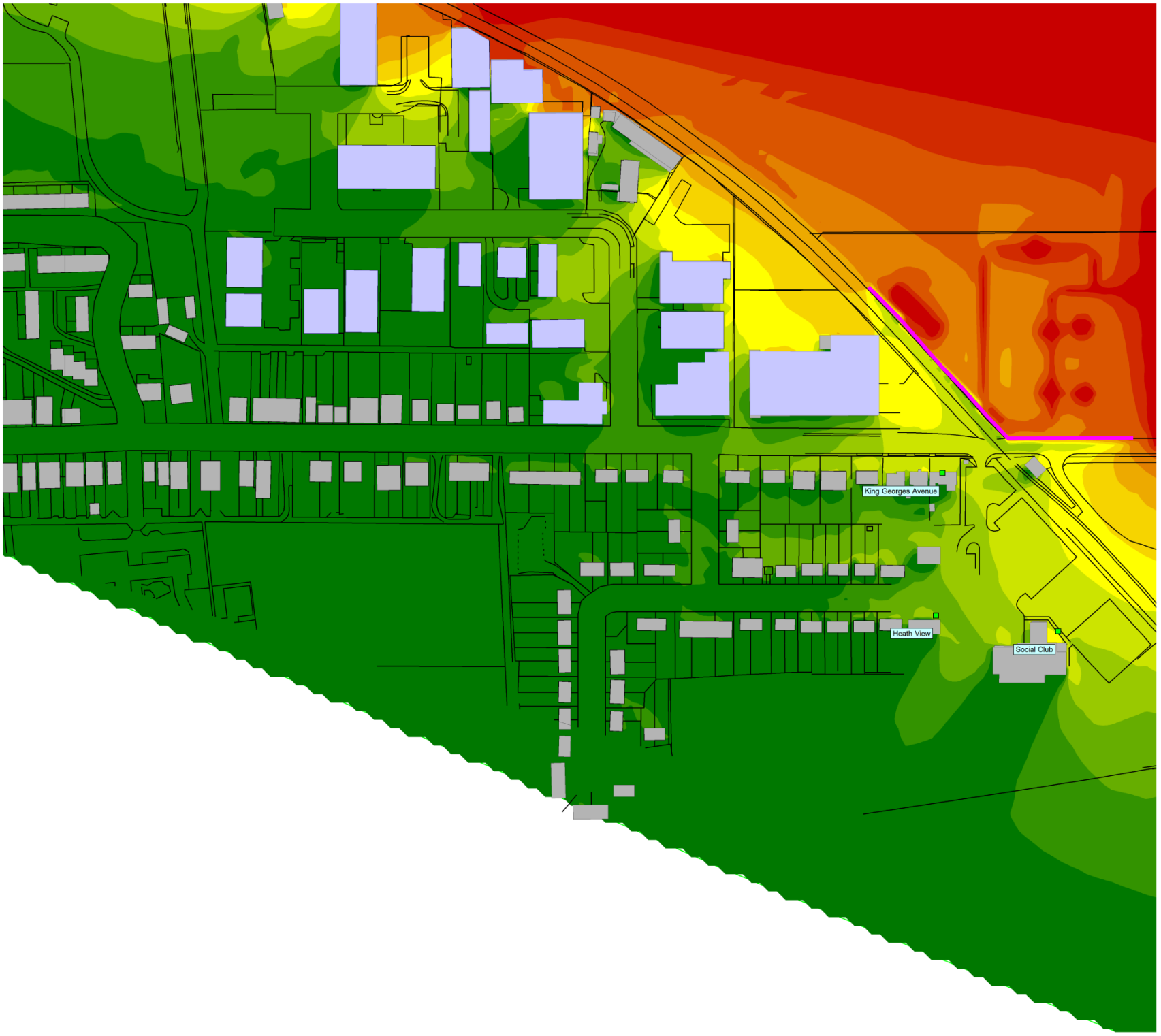
Operational Noise
(Early Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Early Years)

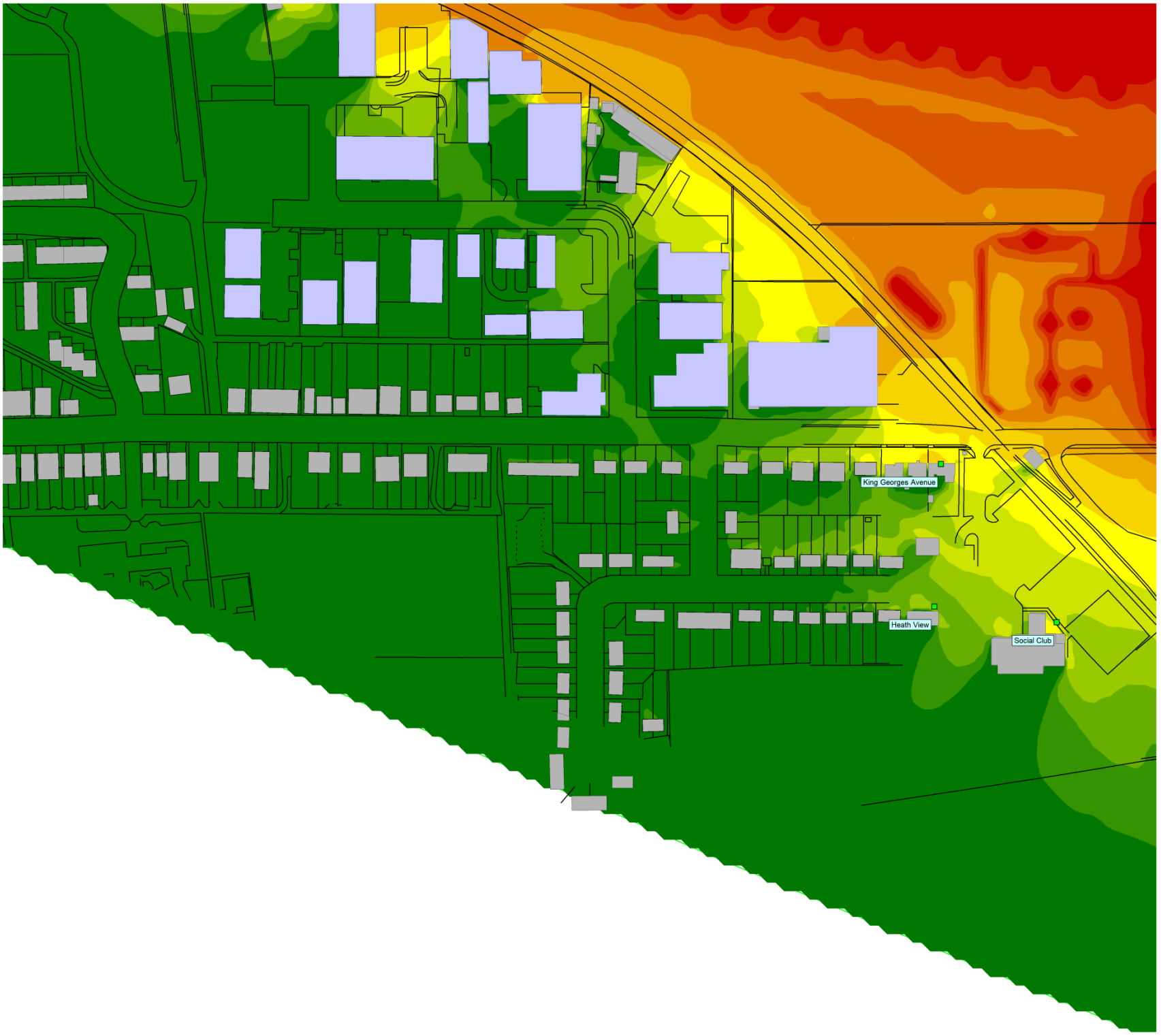
With Mitigation

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

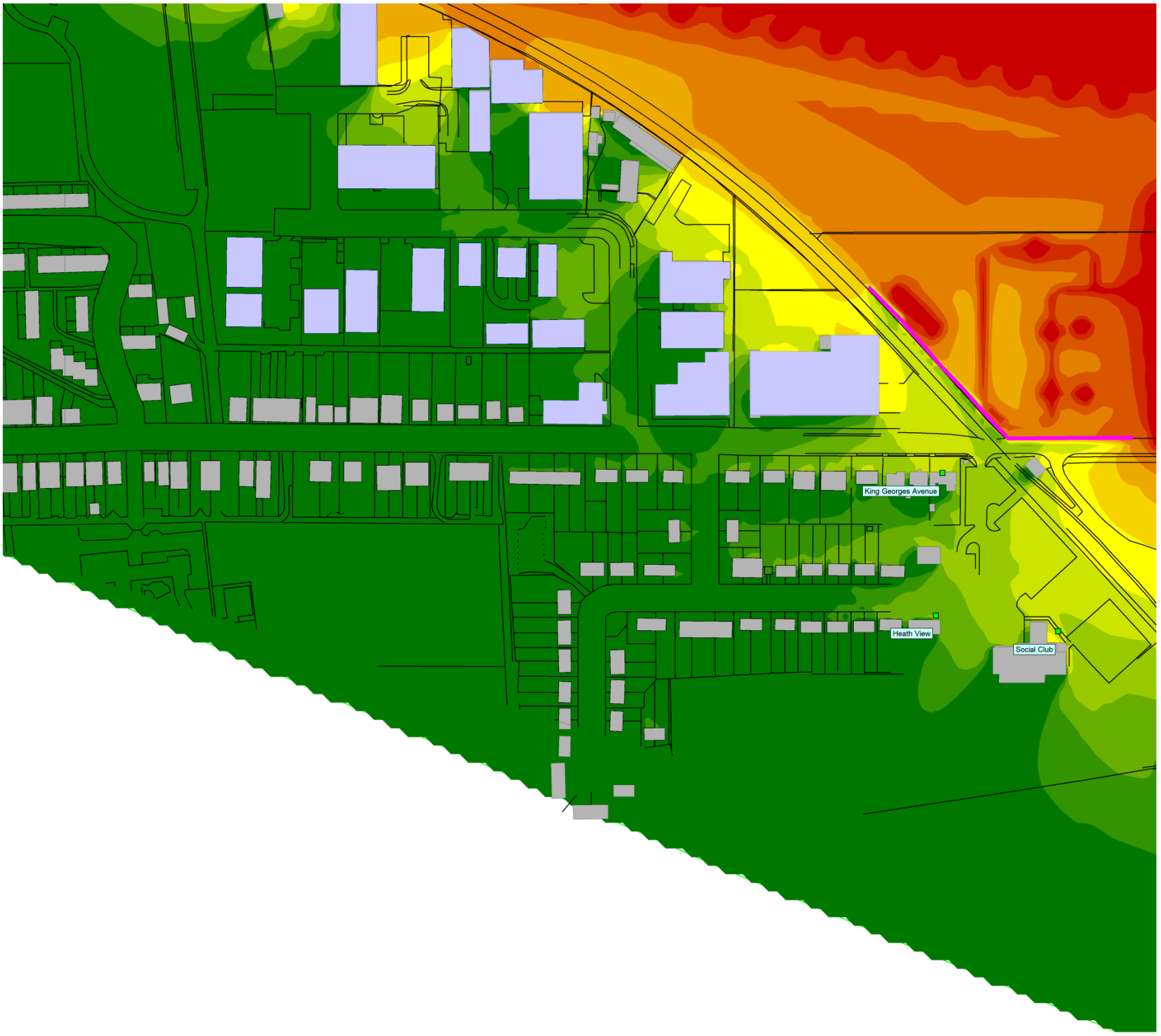
Operational Noise
(Later Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Later Years)

With Mitigation

LAeq(T)

Scale 1:3000

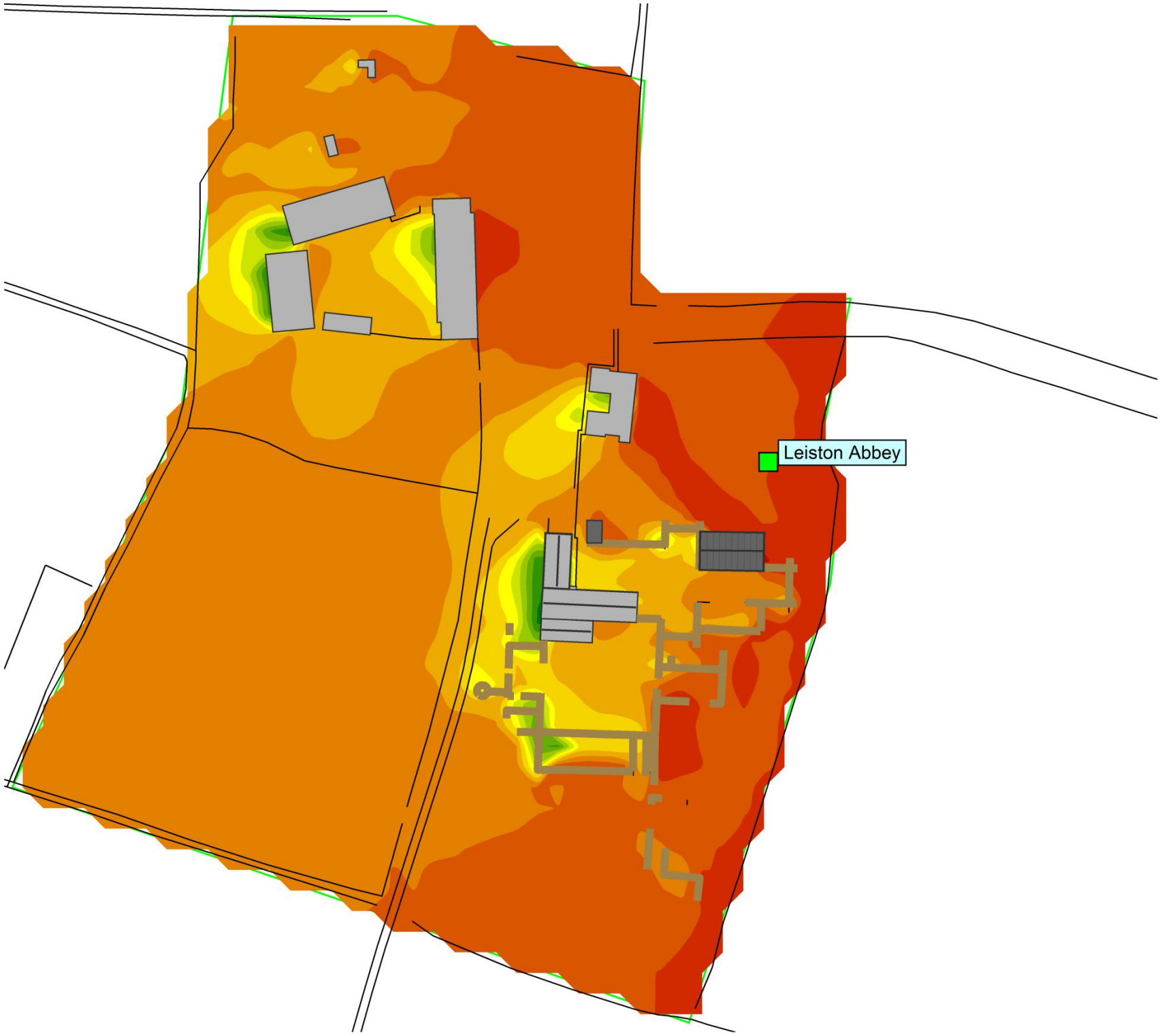
0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.13

Main Development Site Daytime Construction Noise Contours

Leiston Abbey



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

Leiston Abbey

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2

Leiston Abbey

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3/4

Leiston Abbey

LAeq(T)

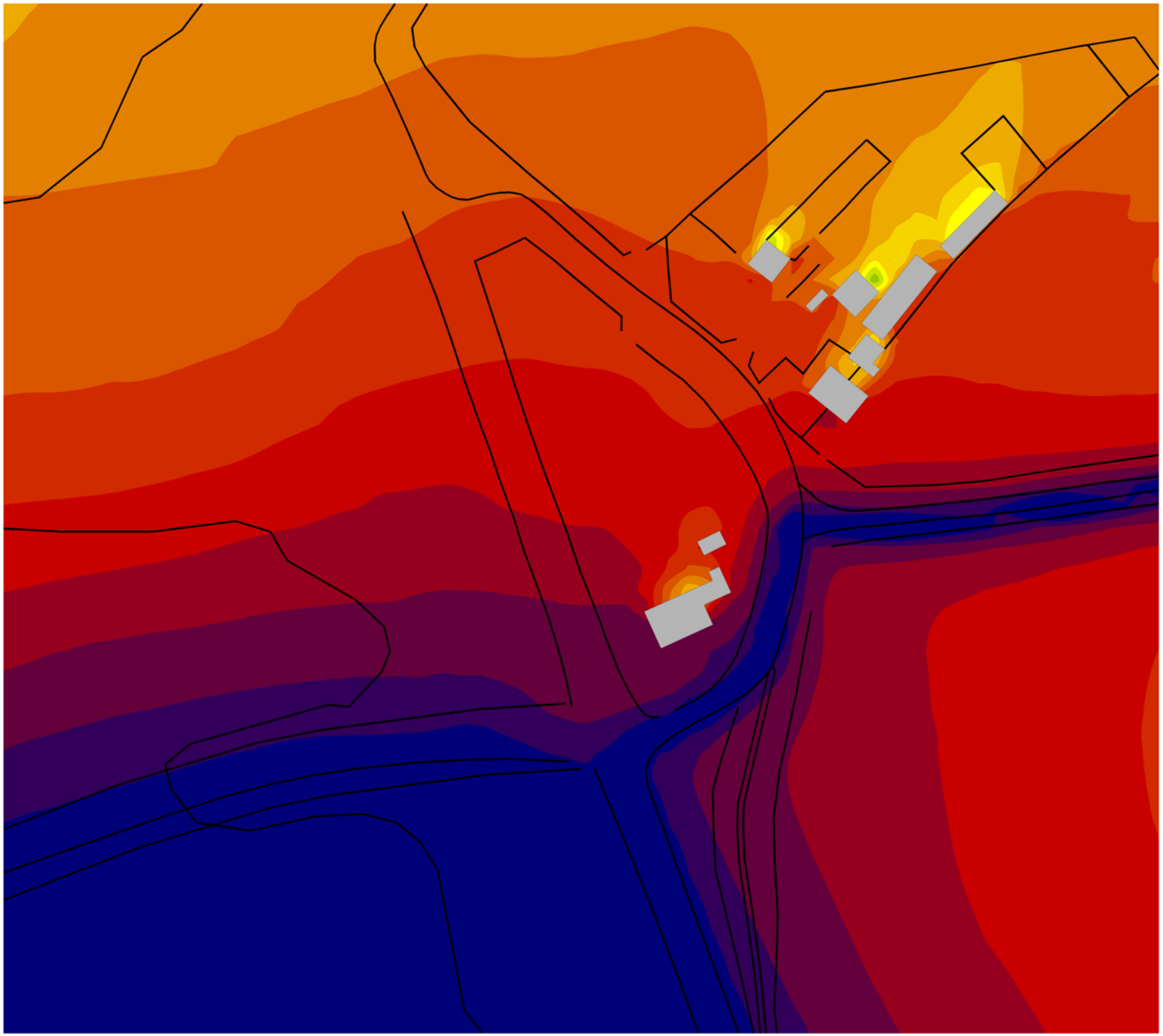
Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.14

MDS Daytime Construction Noise Contours
Lovers Lane/Sandy Lane Junction



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

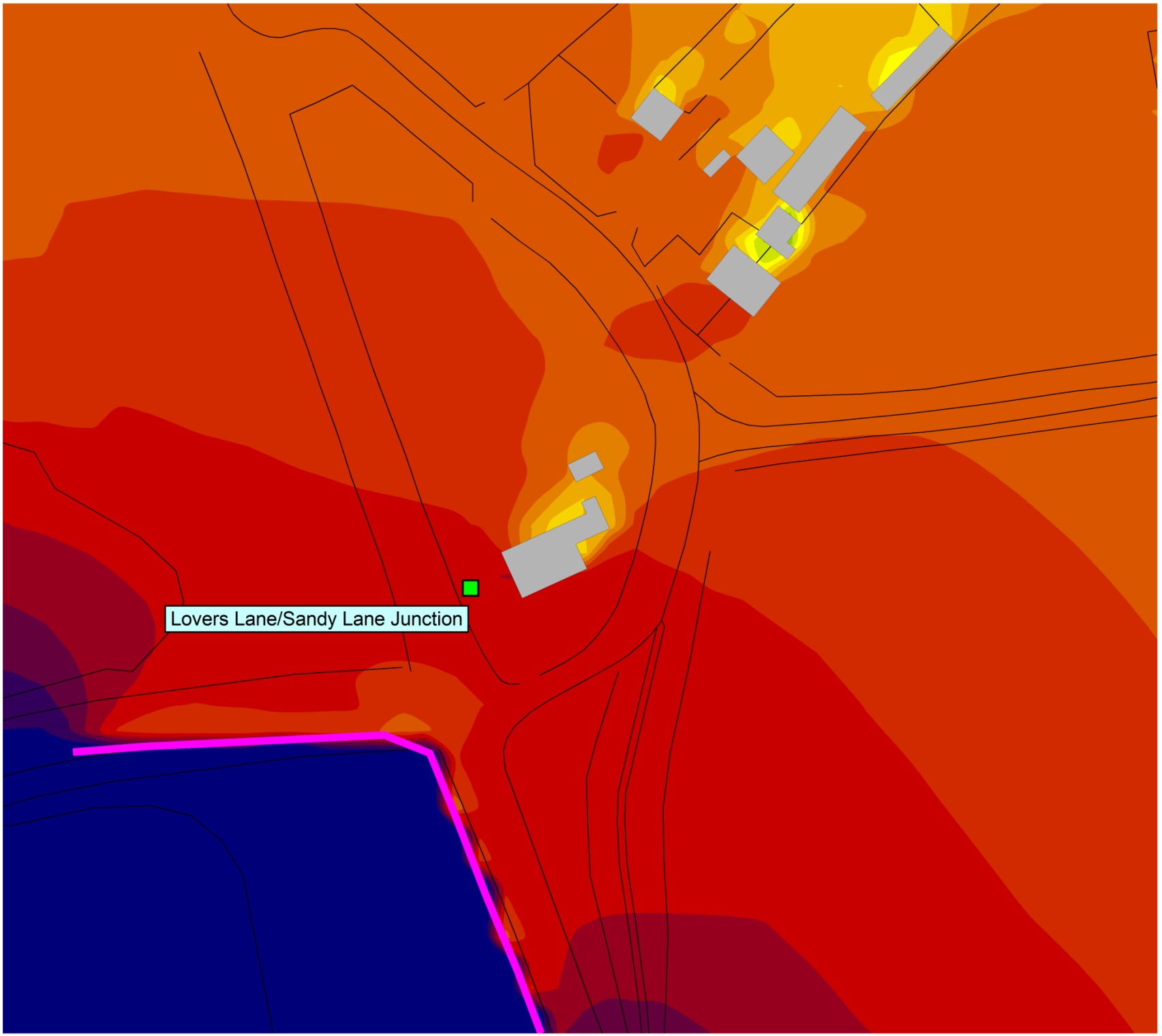
Initial site strip and level and water detention area creation

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Phase 1A

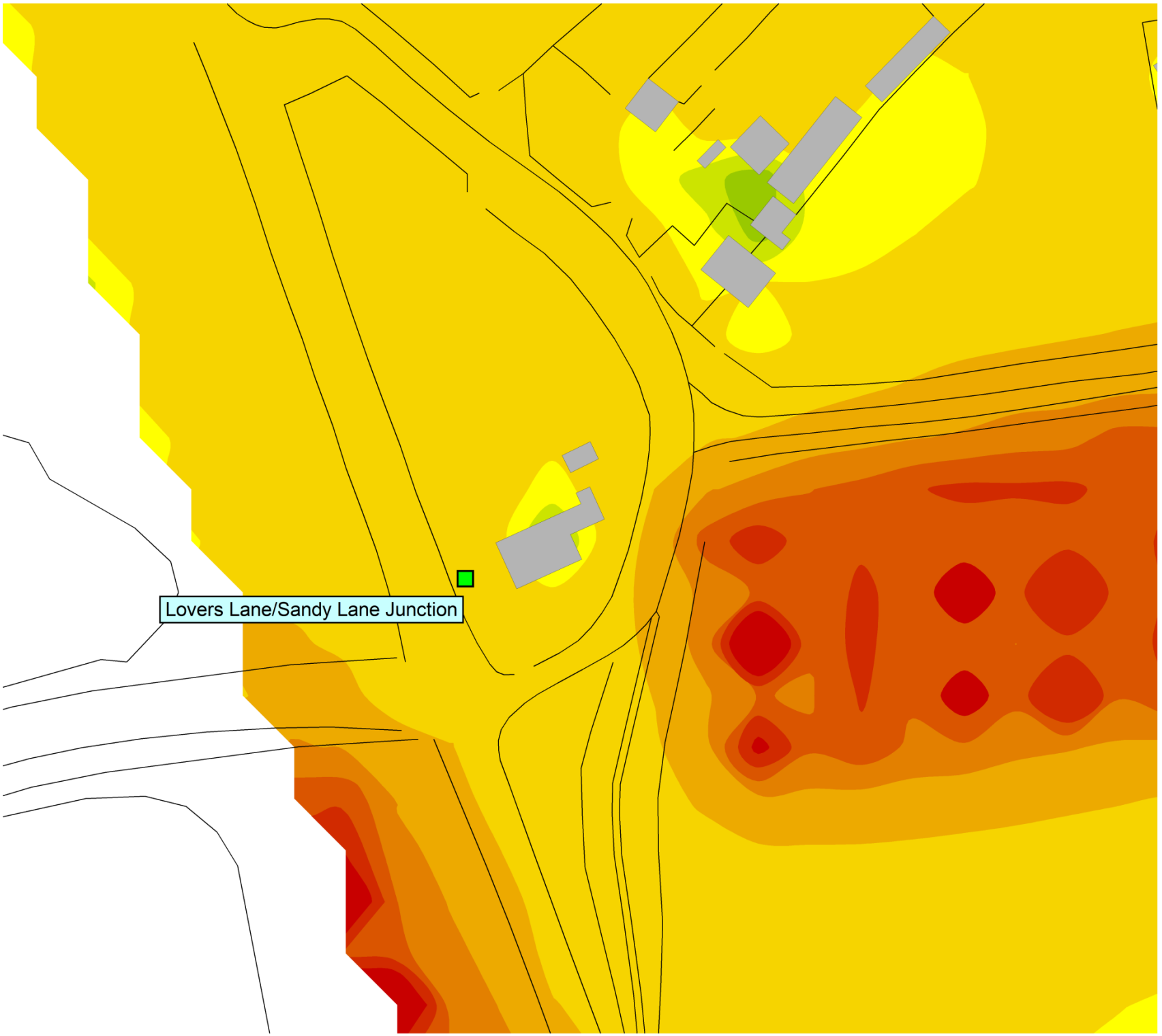
With Mitigation

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

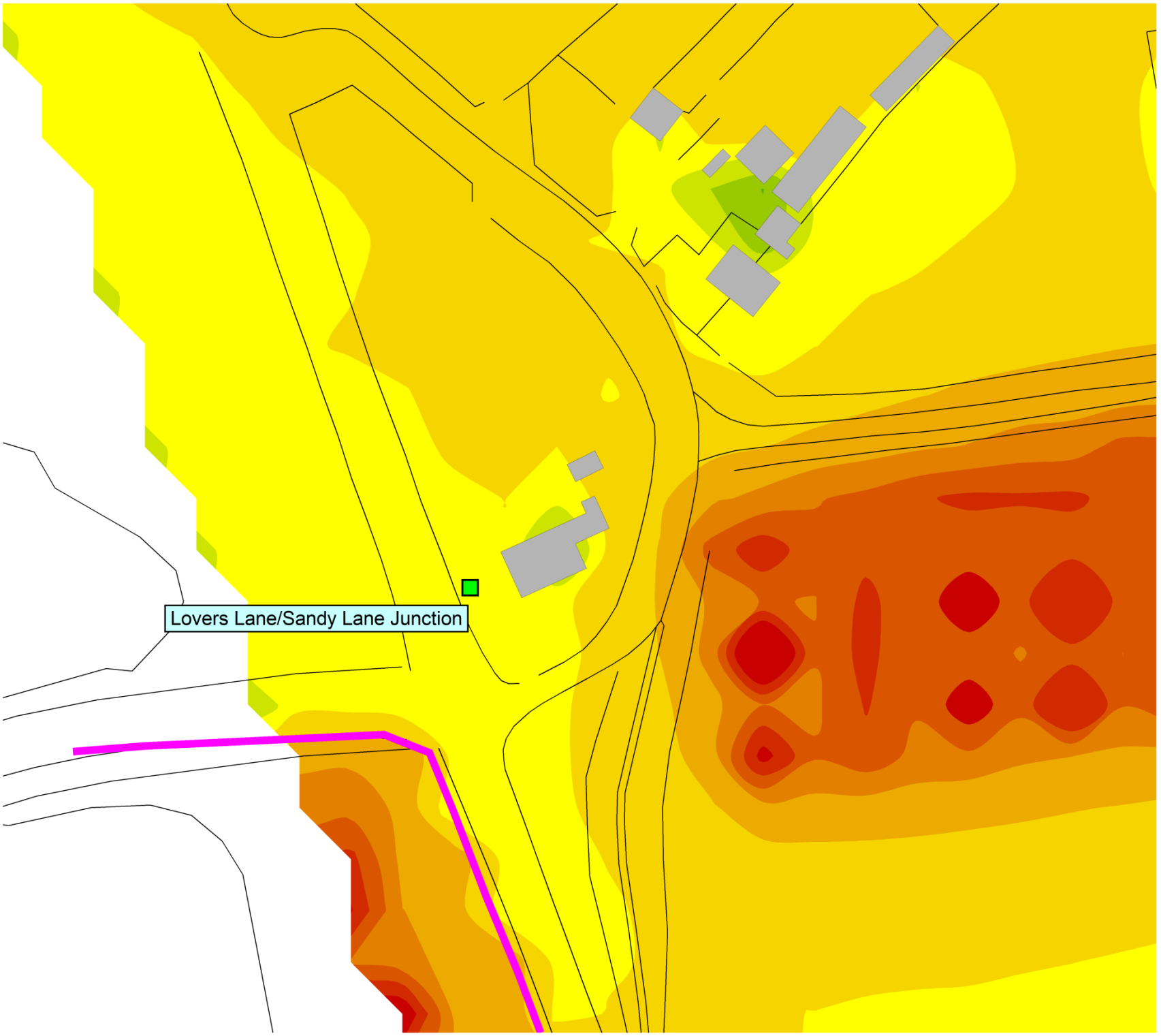
Phase 1B/2

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

Phase 1B/2

With Mitigation

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

Phases 3 & 4

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

Phases 3 & 4

With Mitigation

LAeq(T)

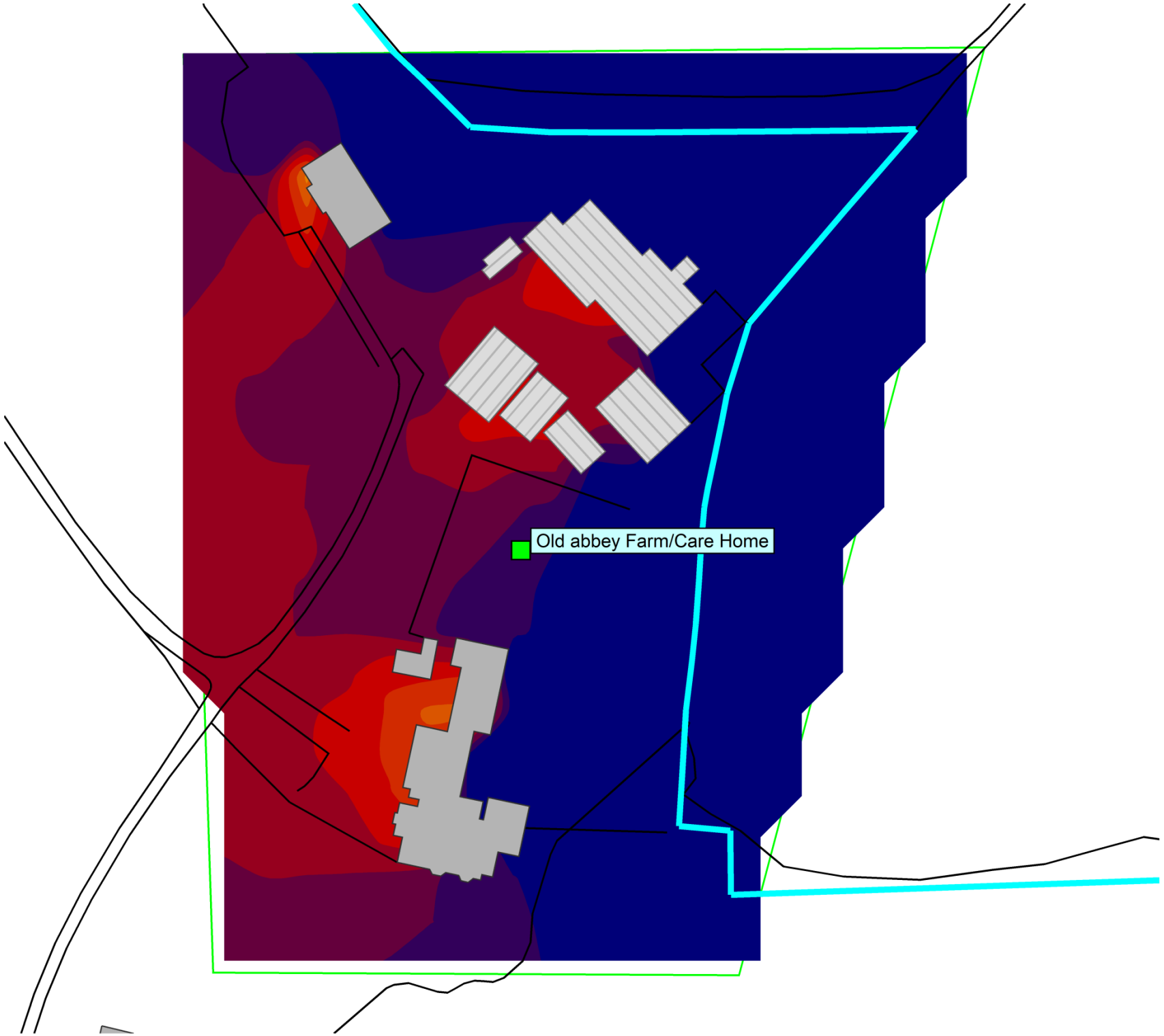
Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.15

Main Development Site Daytime Construction Noise Contours
Old Abbey Farm/Care Home



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1A

LAeq(T)

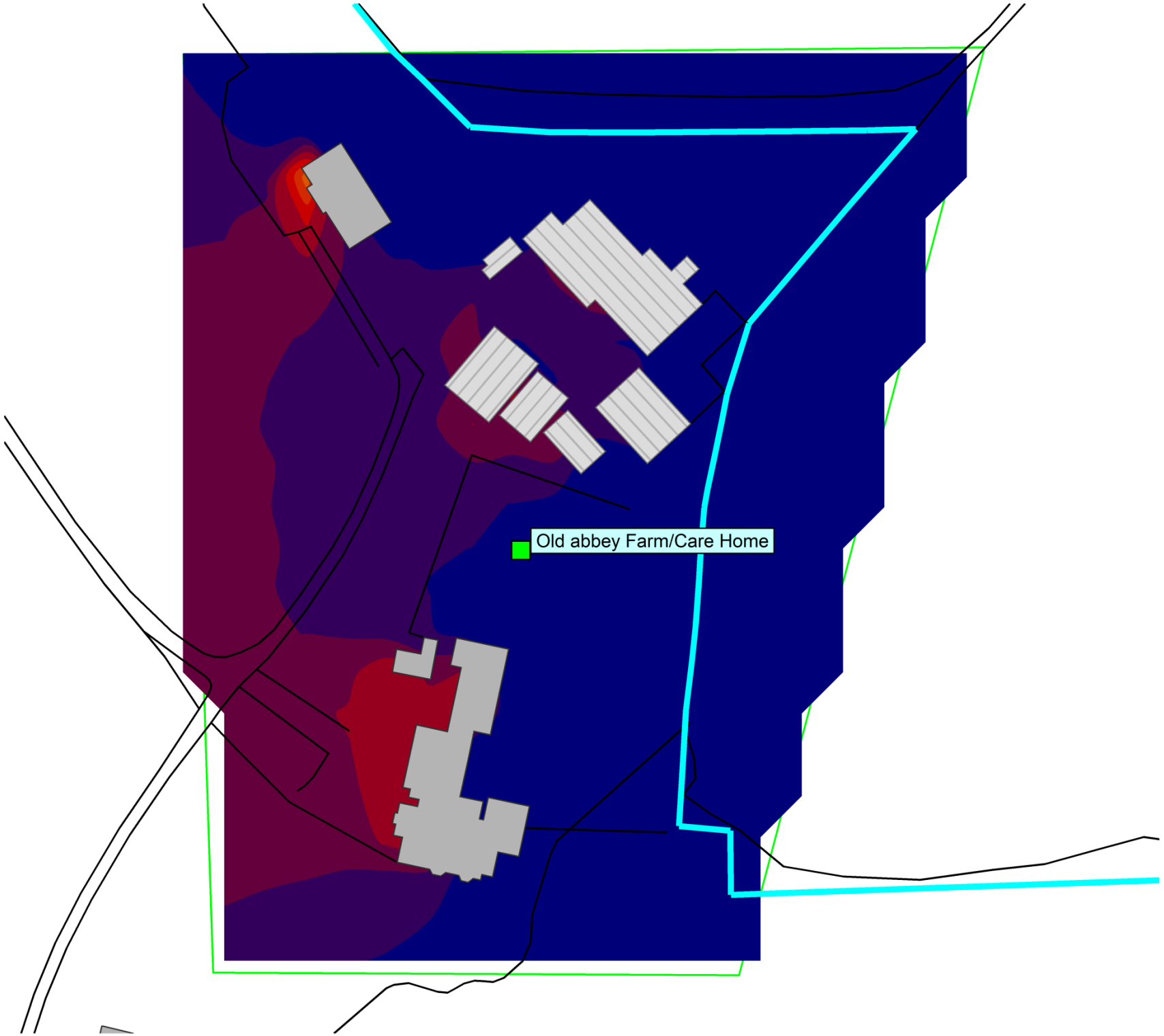
No Mitigation

Ground Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1A

LAeq(T)

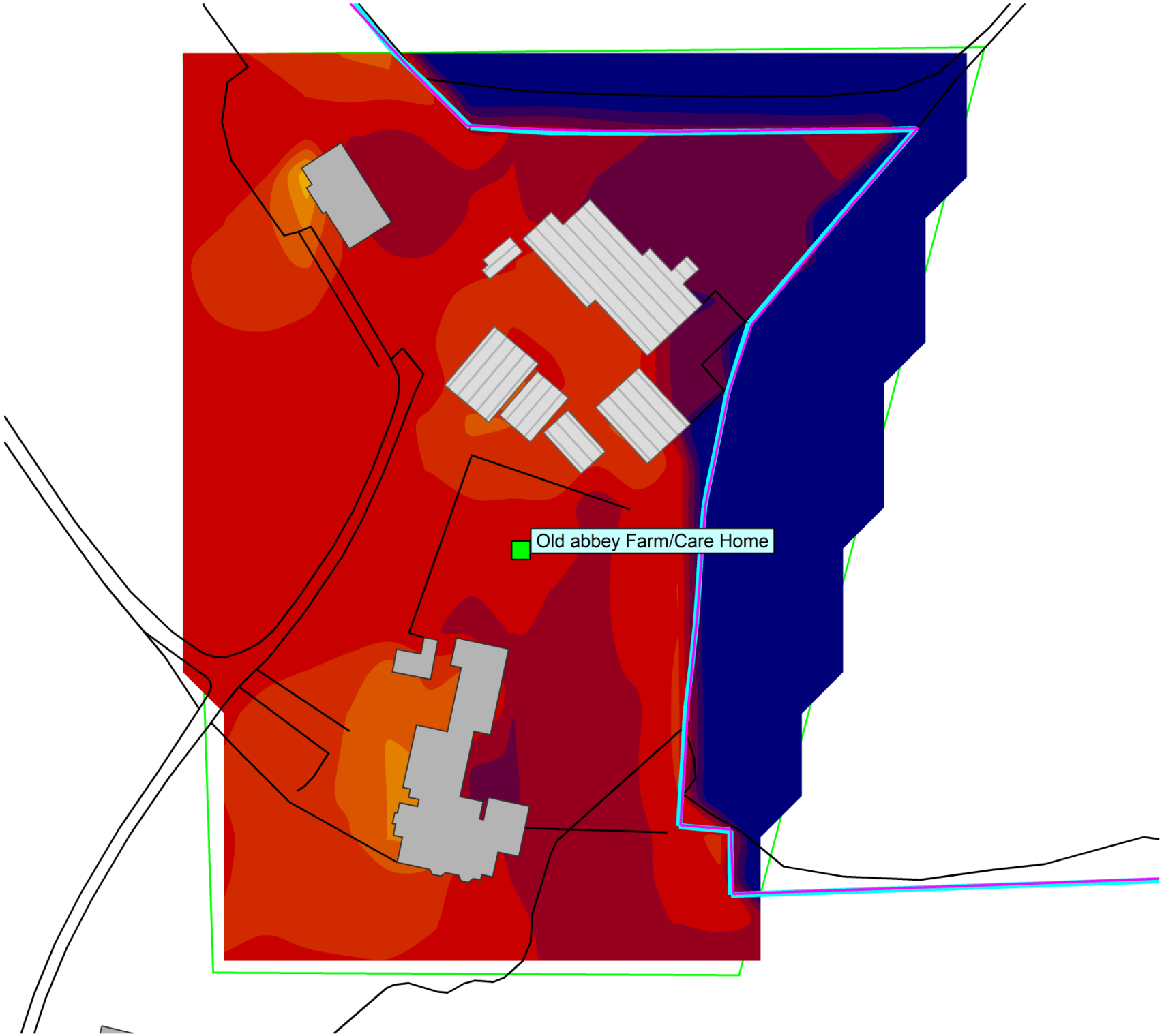
No Mitigation

First Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1A

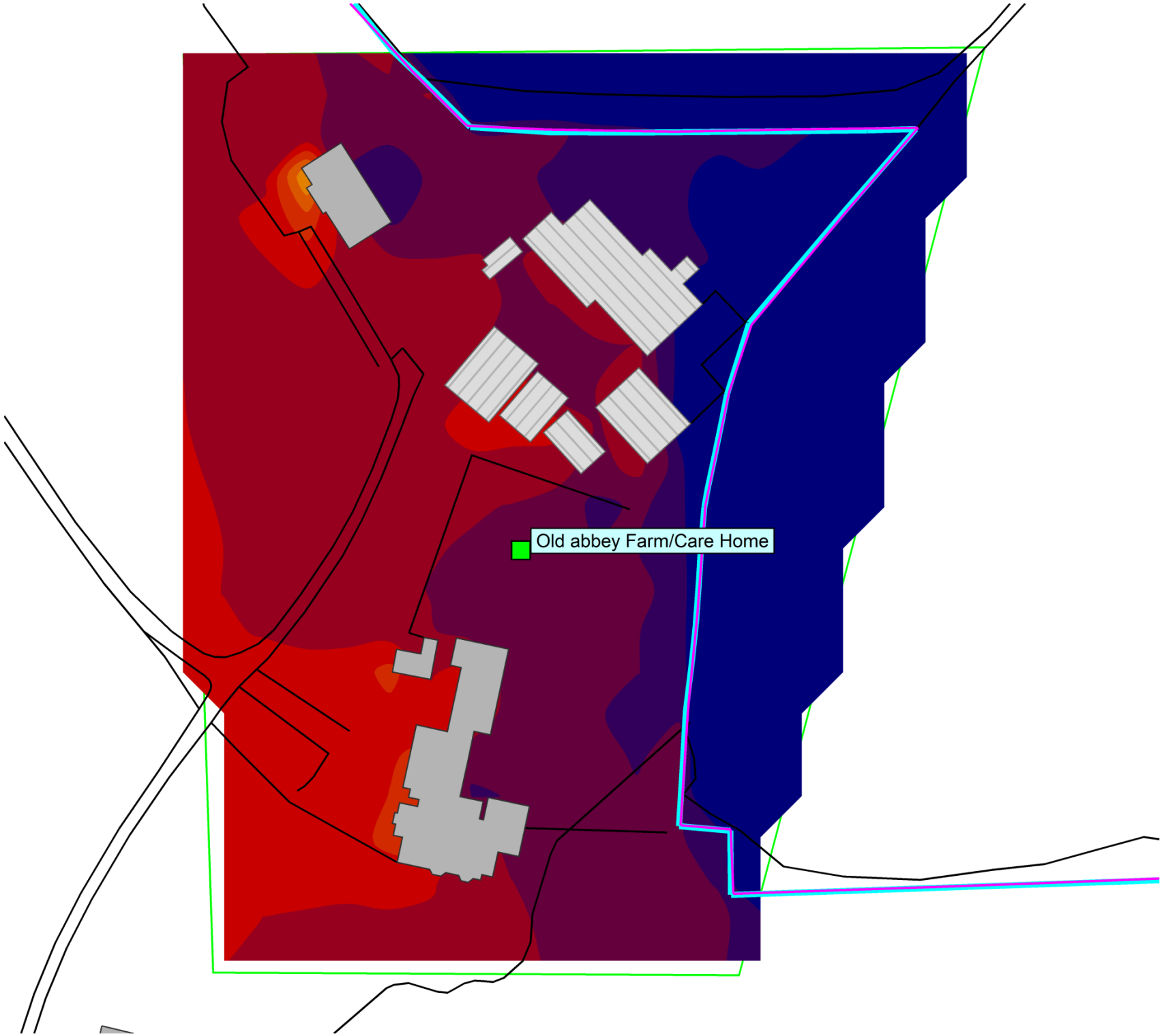
LAeq(T)

Ground floor with 5m Barriers

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1A

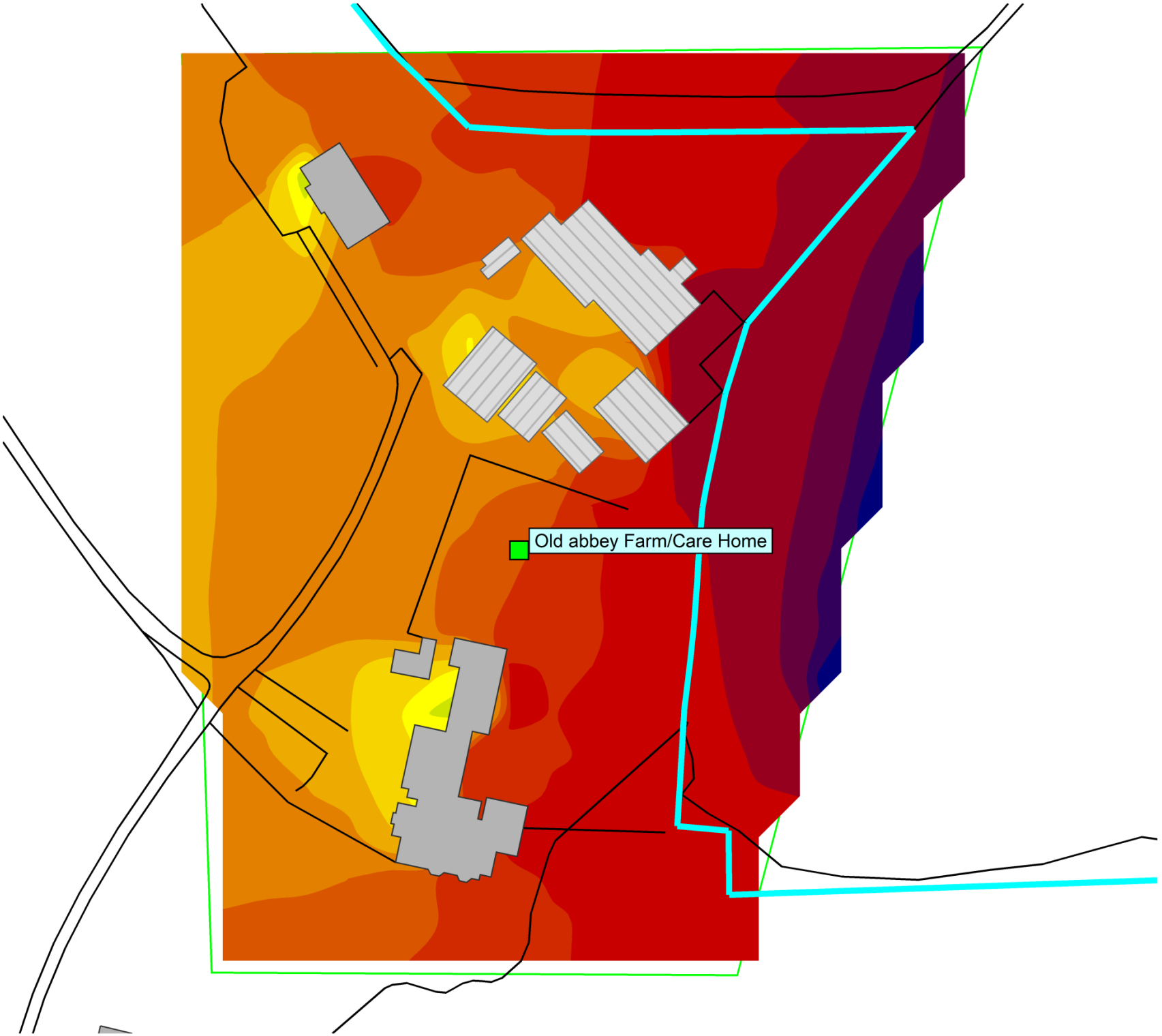
LAeq(T)

First floor with 5m Barriers

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1B/2

LAeq(T)

No Mitigation

Ground Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1B/2

LAeq(T)

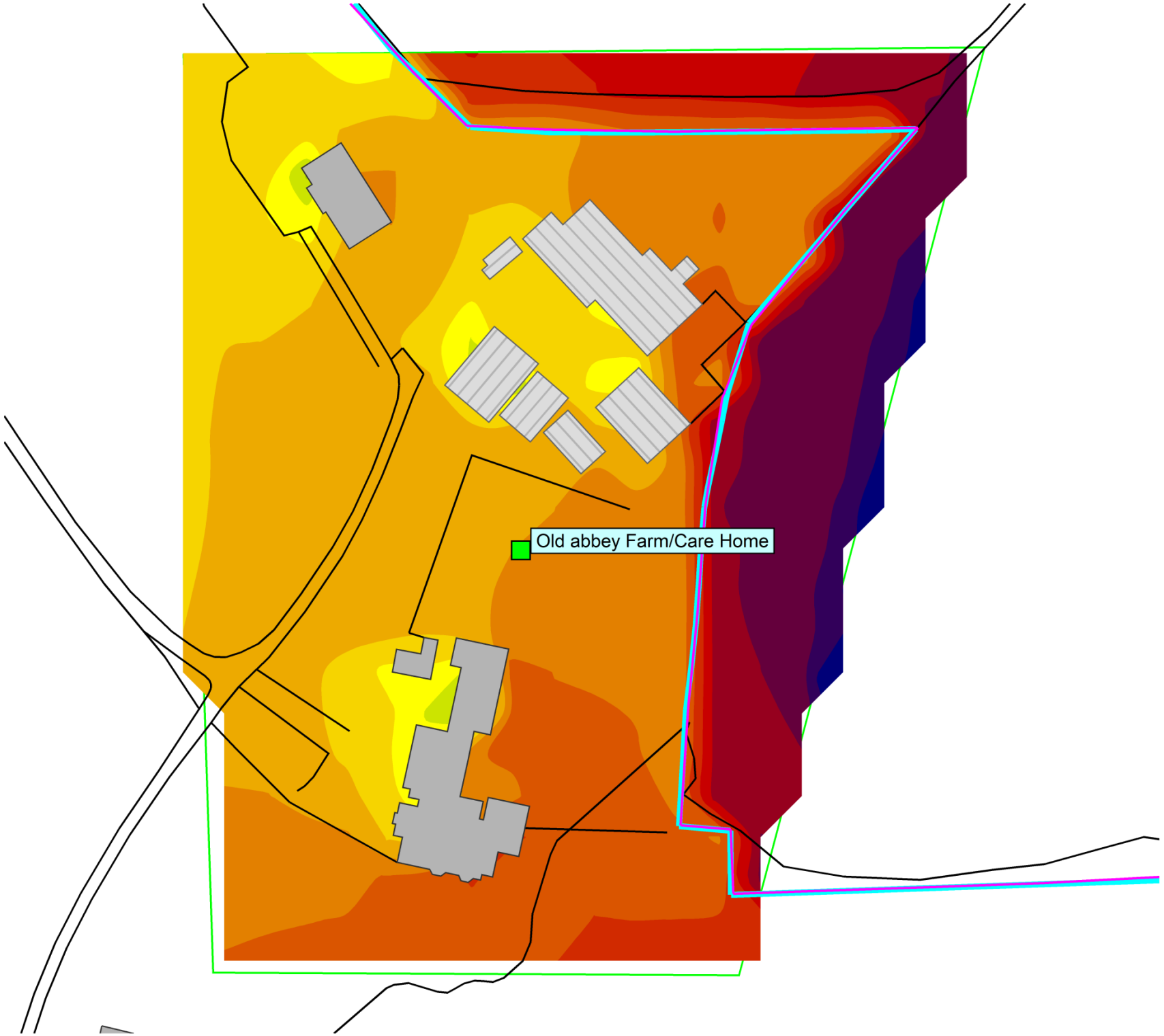
No Mitigation

First Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1B/2

LAeq(T)

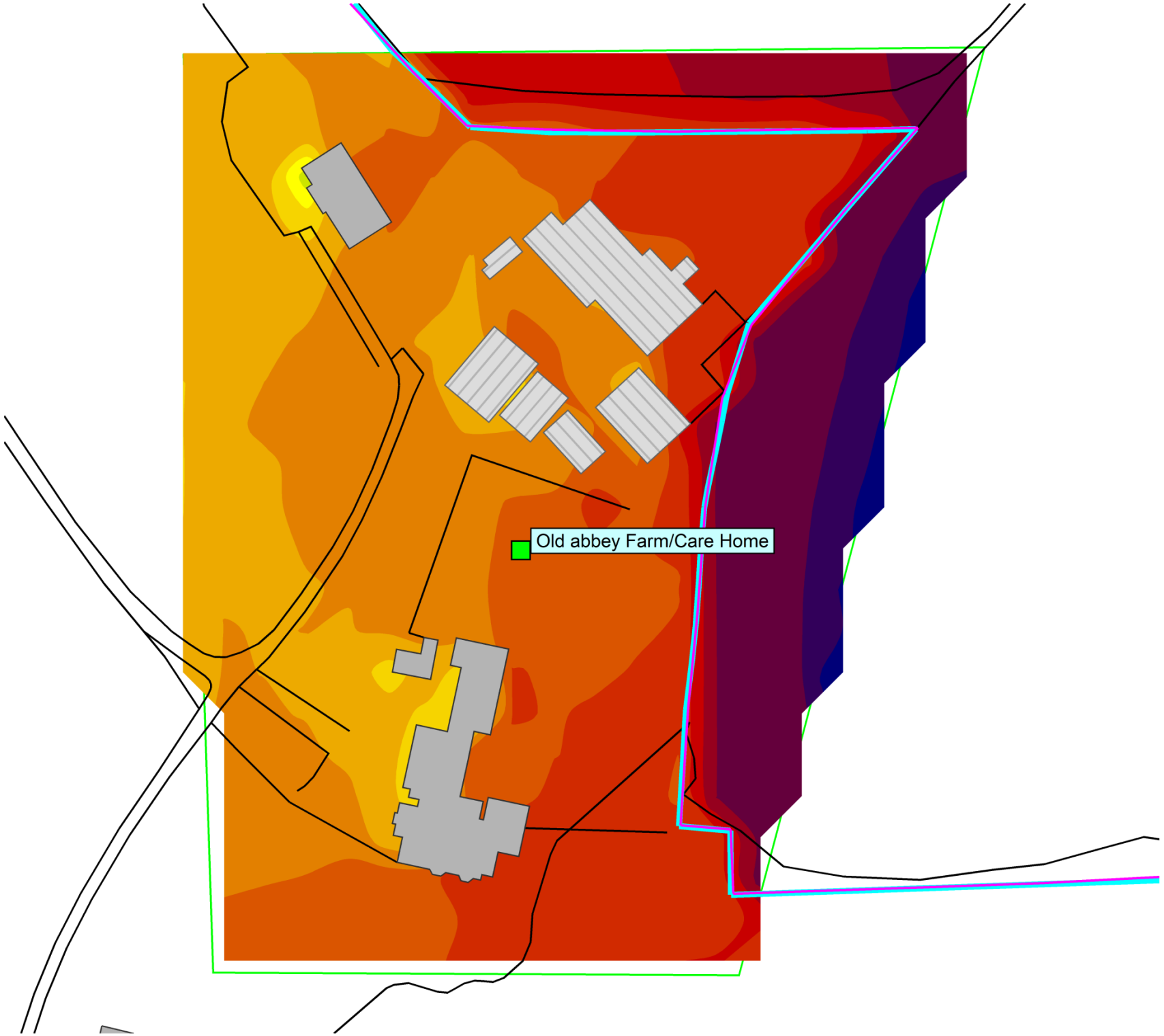
With 5m Barrier

Ground Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 1B/2

LAeq(T)

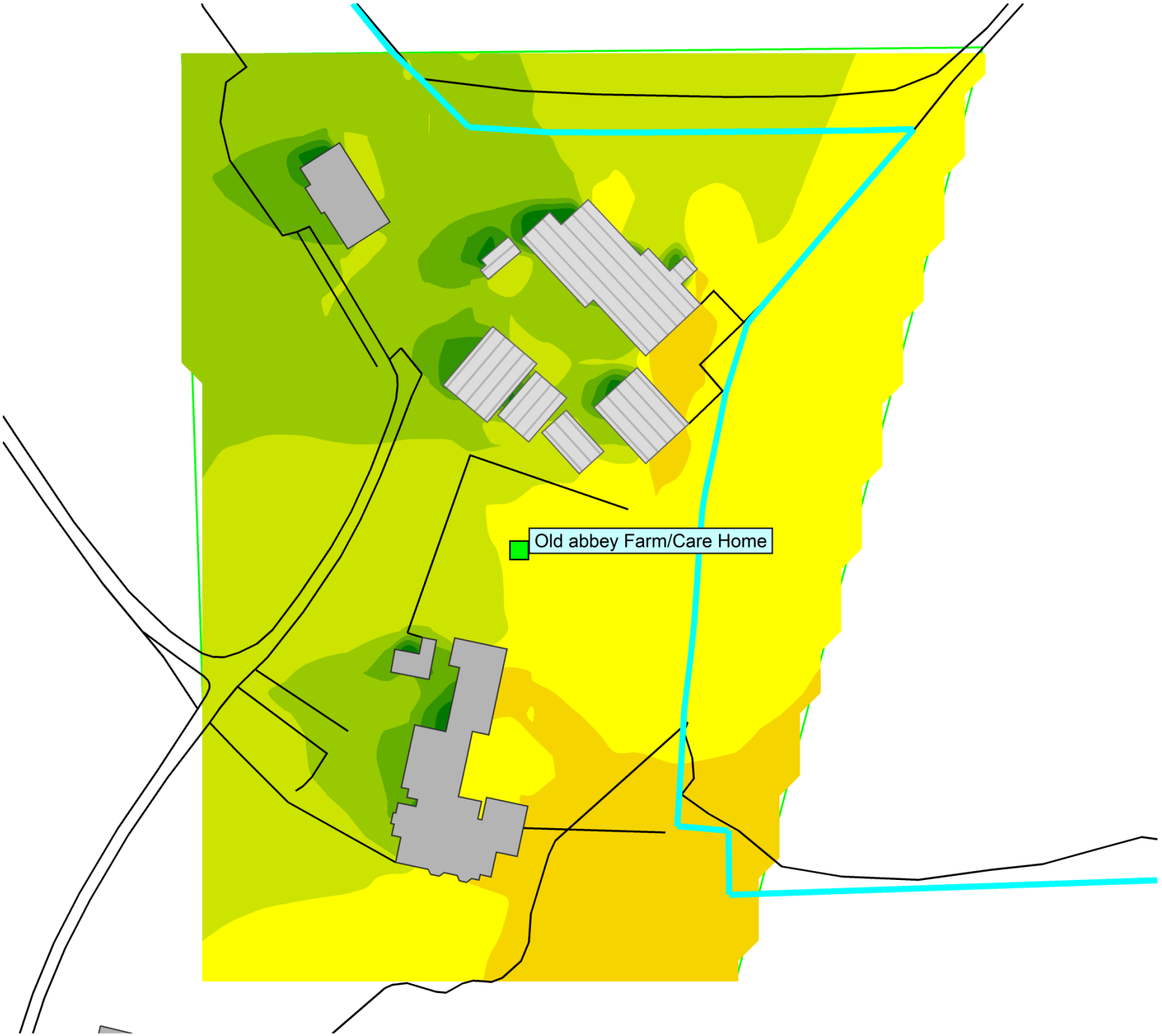
With 5m Barrier

First Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 3/4

LAeq(T)

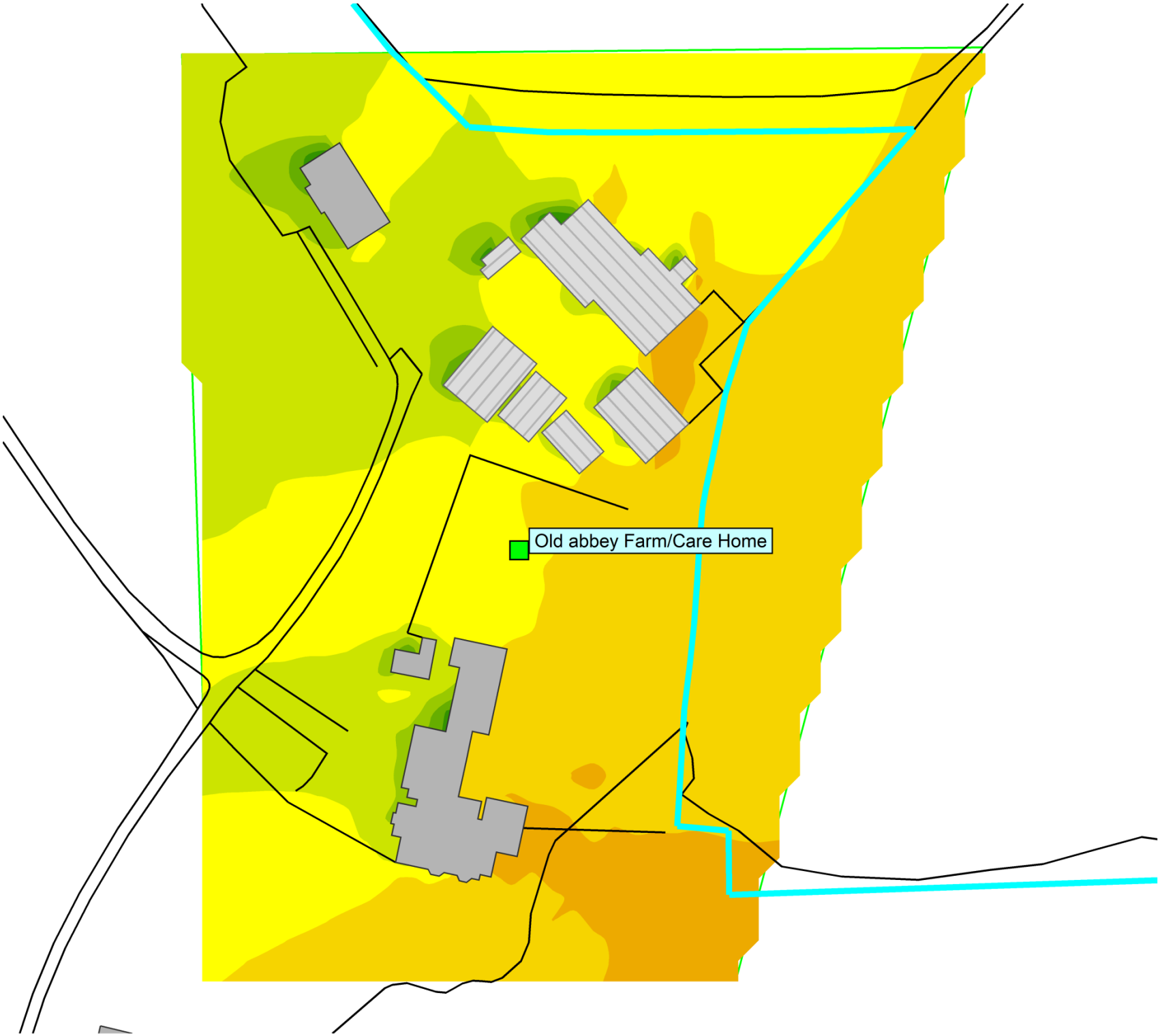
No Mitigation

Ground Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 3/4

LAeq(T)

No Mitigation

First Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 3/4

LAeq(T)

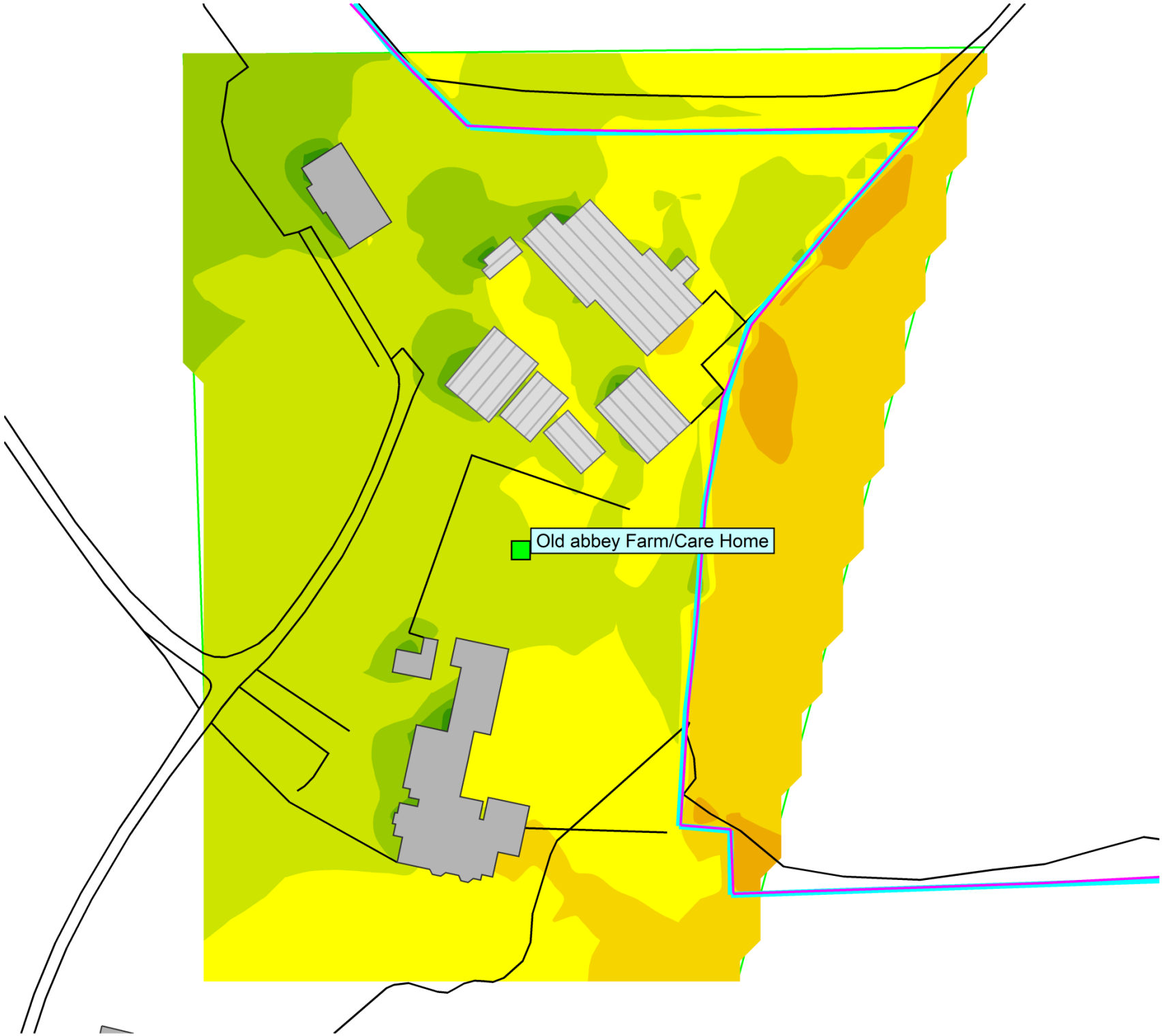
With 5m Barrier

Ground Floor

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Old Abbey Farm / Care Home

Phase 3/4

LAeq(T)

With 5m Barrier

First Floor

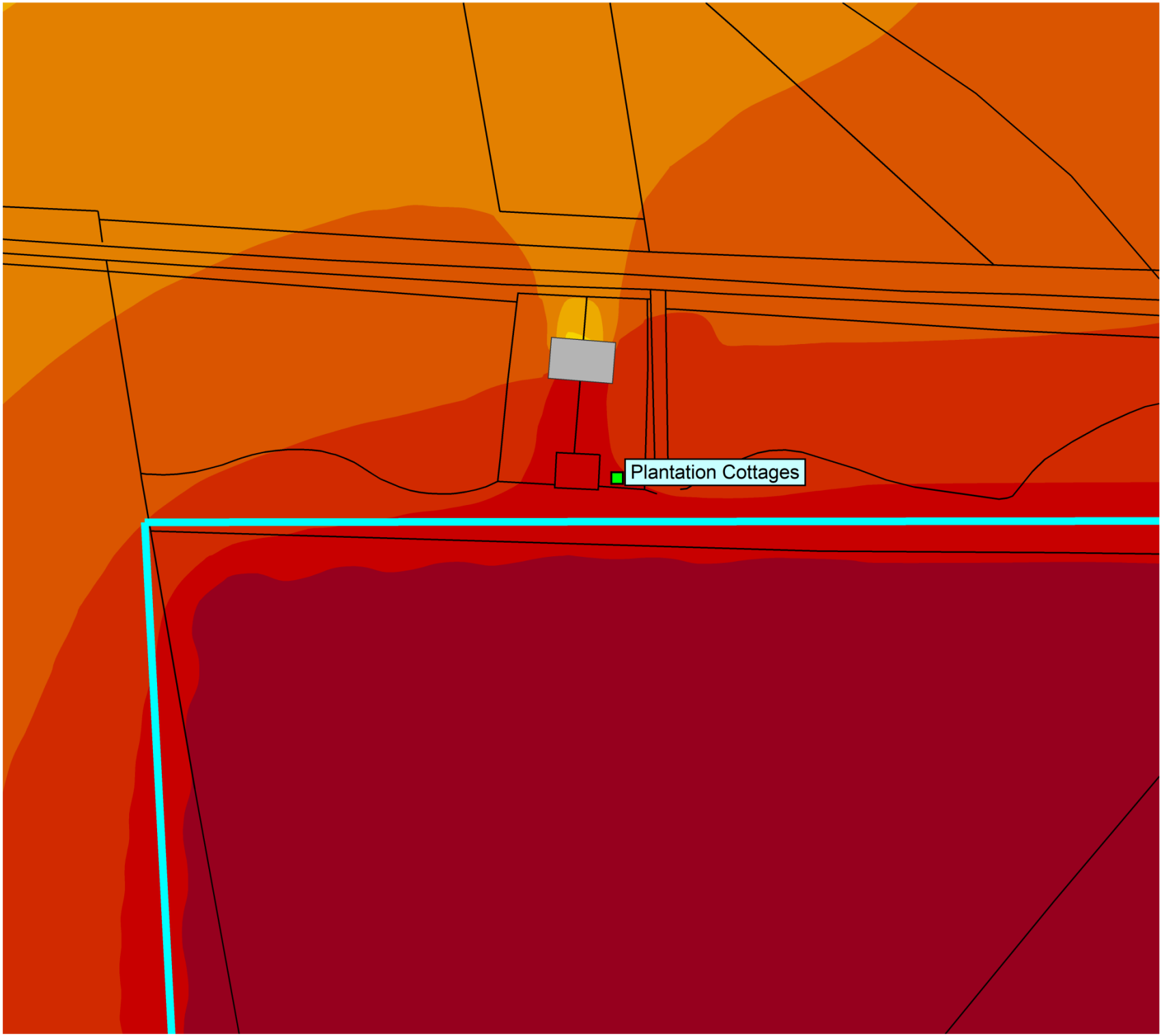
Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.16

Main Development Site Daytime Construction Noise Contours
Plantation Cottages



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1A

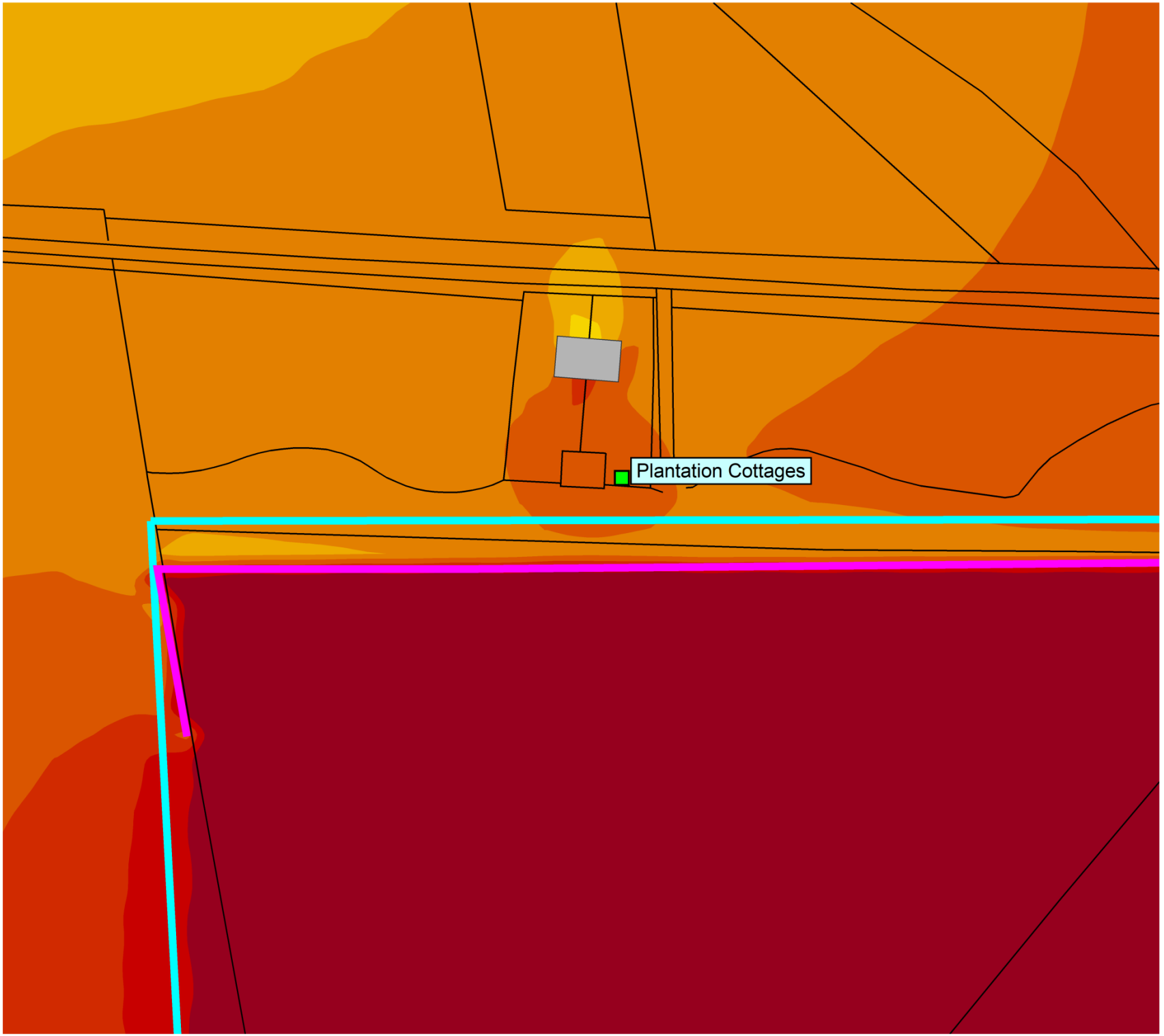
Plantation Cottages

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1A

Plantation Cottages

LAeq(T)

With 3m Barrier

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 1B/2

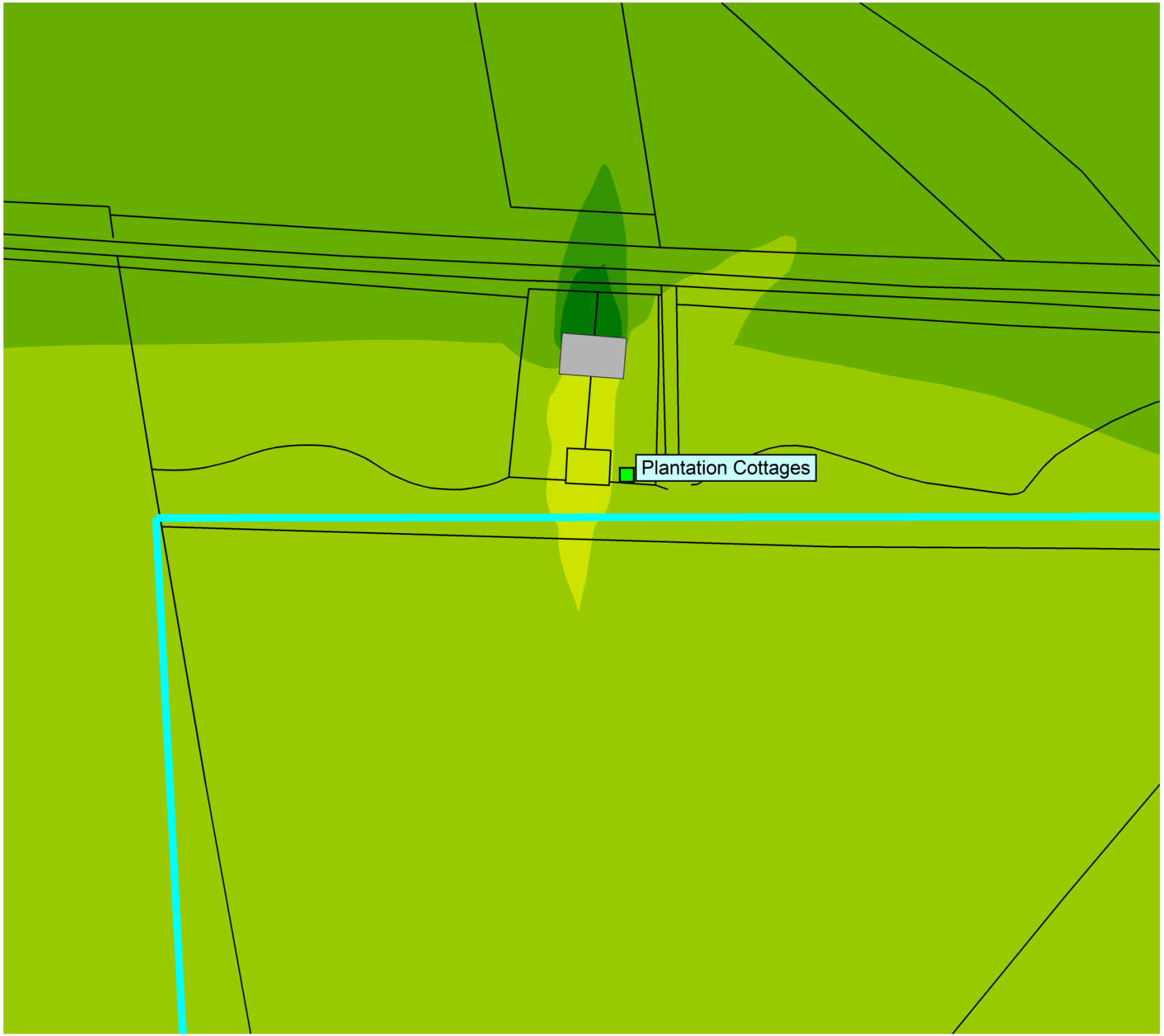
Plantation Cottages

LAeq(T)

Scale 1:1000

0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<		

Sizewell Construction Noise

Phase 3/4

Plantation Cottages

LAeq(T)

Scale 1:1000

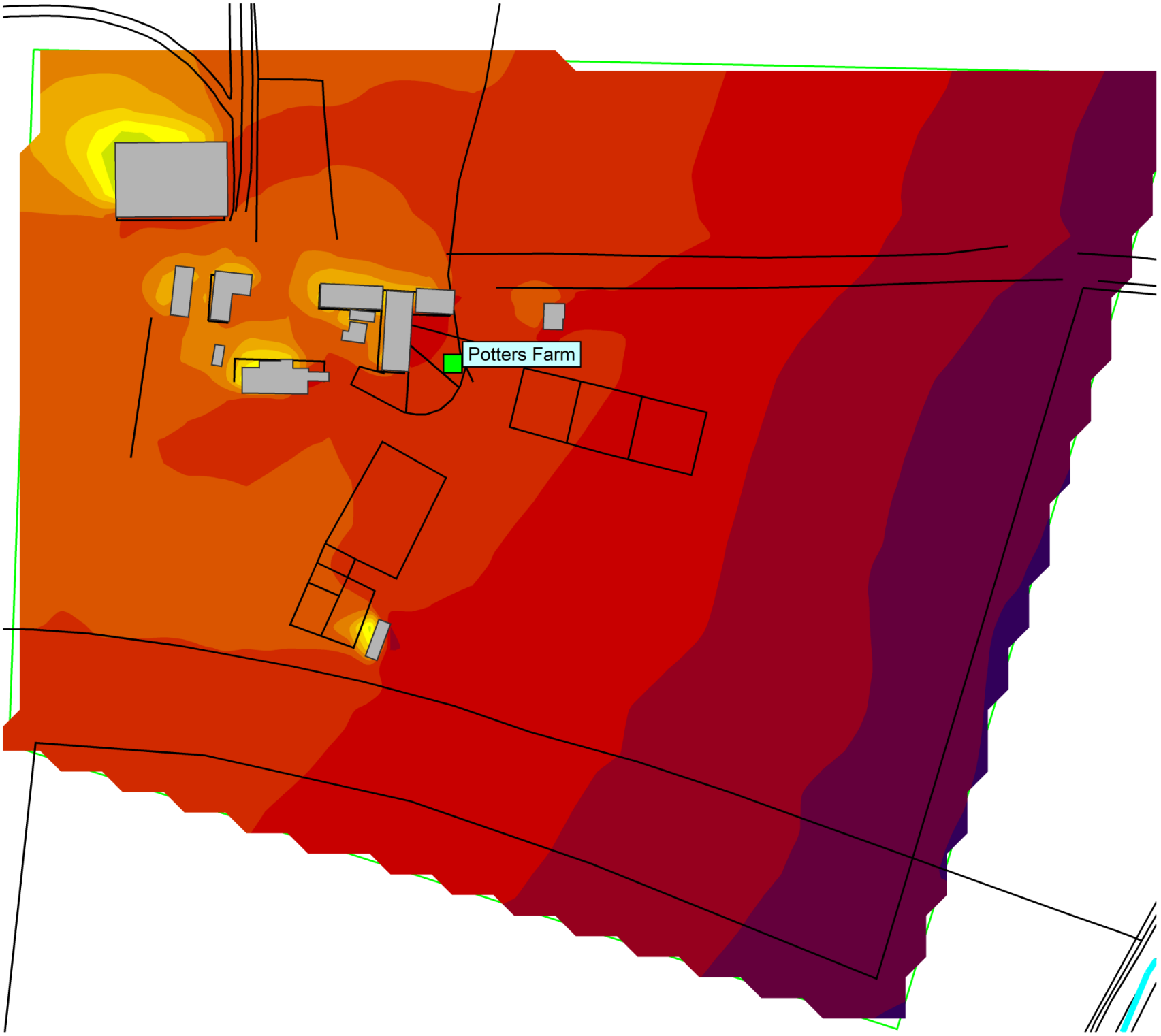
0 5 10 20 30 40 50

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.17

Main Development Site Daytime Construction Noise Contours

Potters Farm



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Potters Farm

Phase 1A

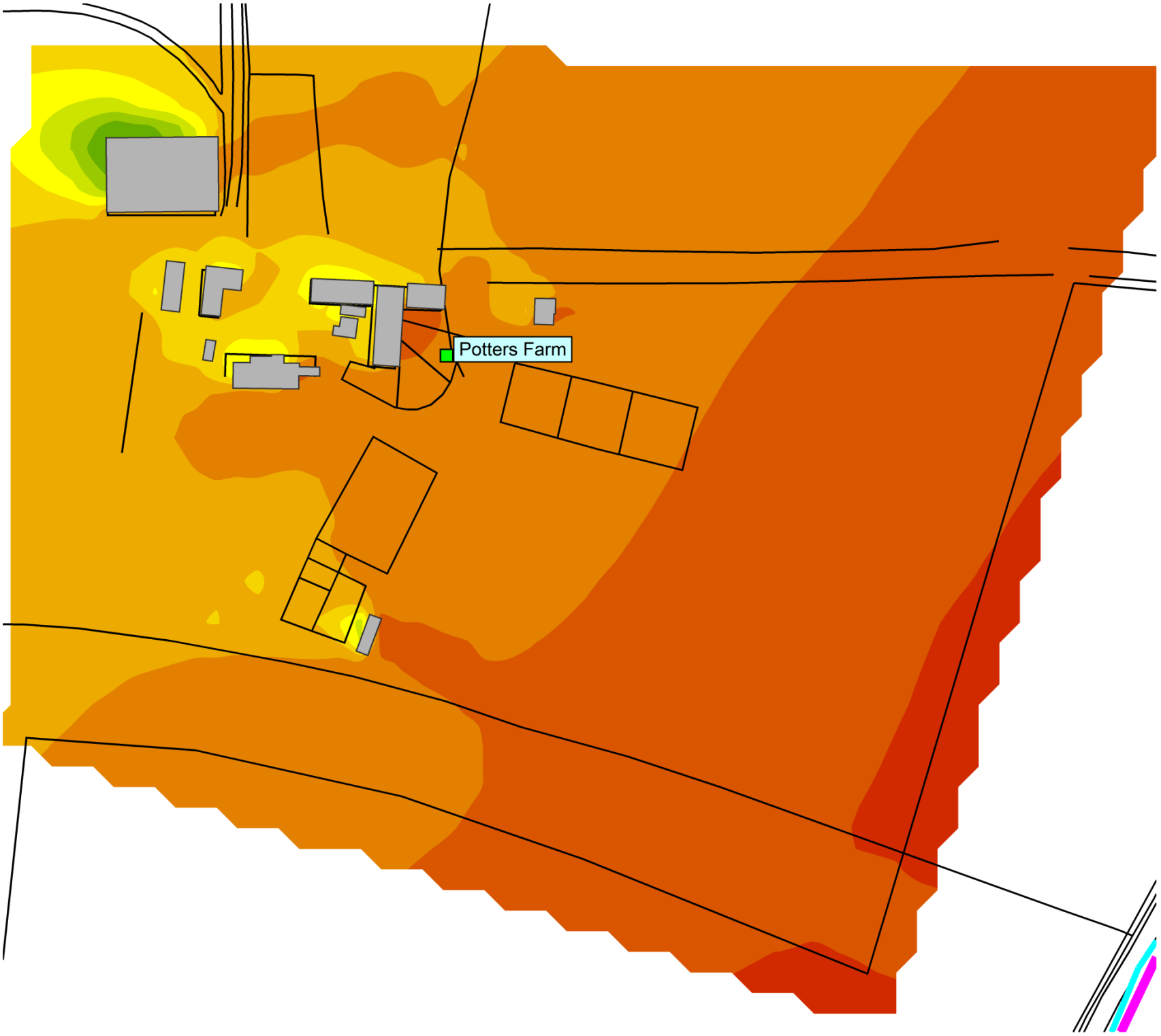
No Mitigation

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Potters Farm

Phase 1A

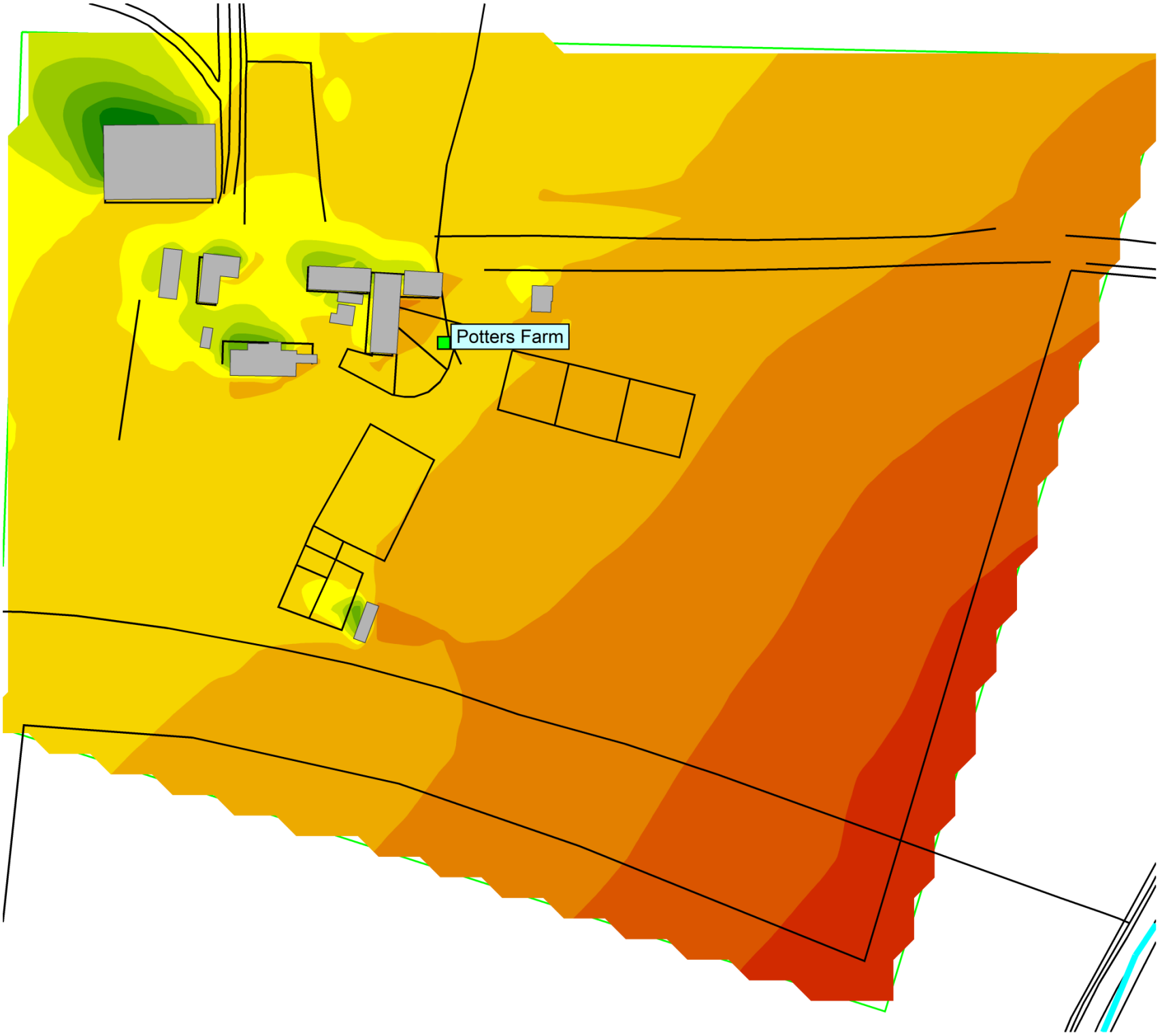
With Mitigation

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Potters Farm

Phase 1B/2

No Mitigation

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Potters Farm

Phase 1B/2

With Mitigation

LAeq(T)

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3/4

Potters Farm

LAeq(T)

Without Mitigation

Scale 1:1250

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.18

Main Development Site Daytime Construction Noise Contours

Potters Street

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A No Mitigation

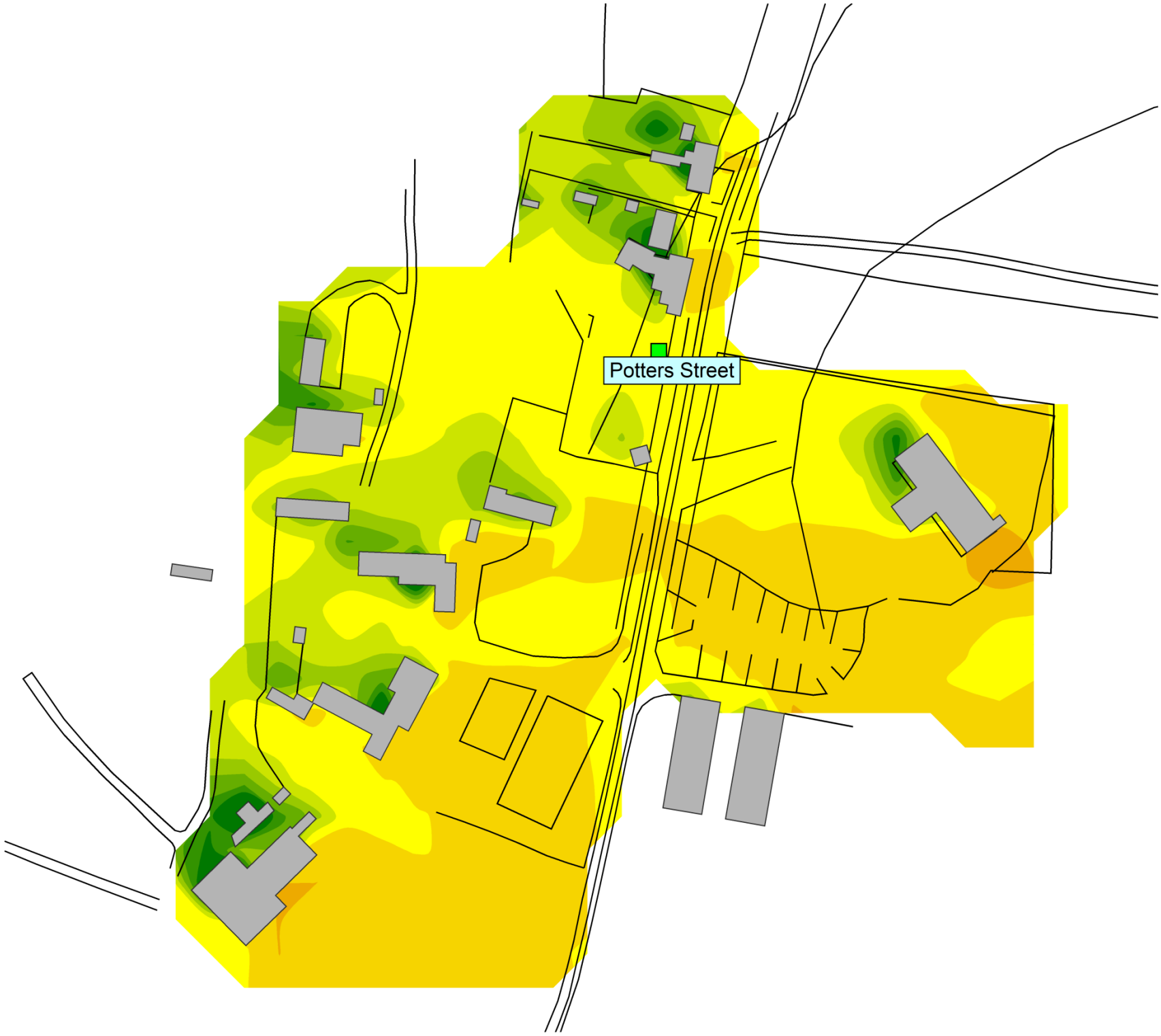
Potters Street

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A With Mitigation

Potters Street

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2 No Mitigation

Potters Street

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3/4 No Mitigation

Potters Street

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.19

Main Development Site Daytime Construction Noise Contours

Rosery Cottages

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

LAeq(T)

No Mitigation

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2

LAeq(T)

No Mitigation

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3 & 4

LAeq(T)

No Mitigation

Scale 1:3000

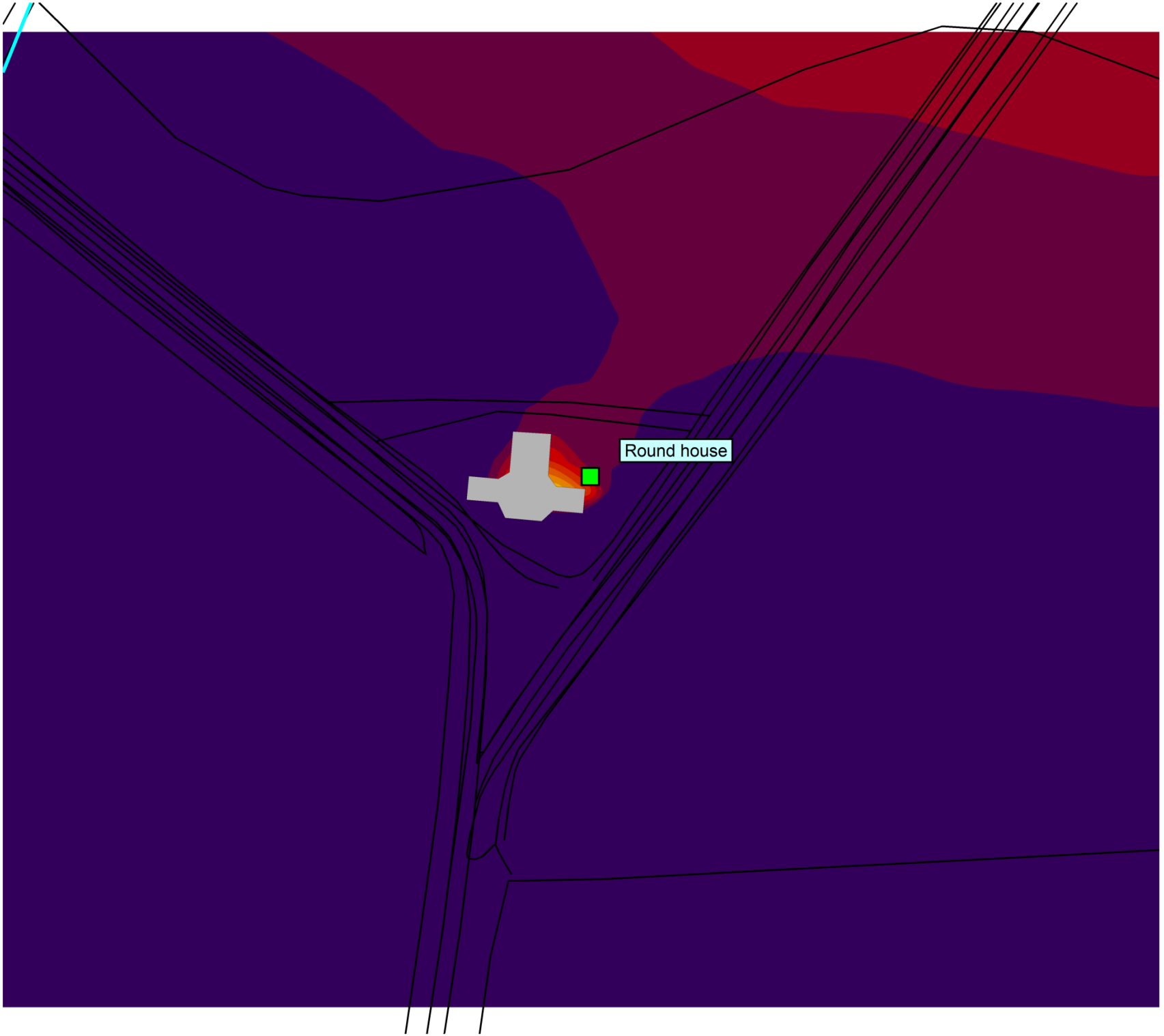
0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.20

Main Development Site Daytime Construction Noise Contours

Roundhouse



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<		

Sizewell Construction Noise

Phase 1a

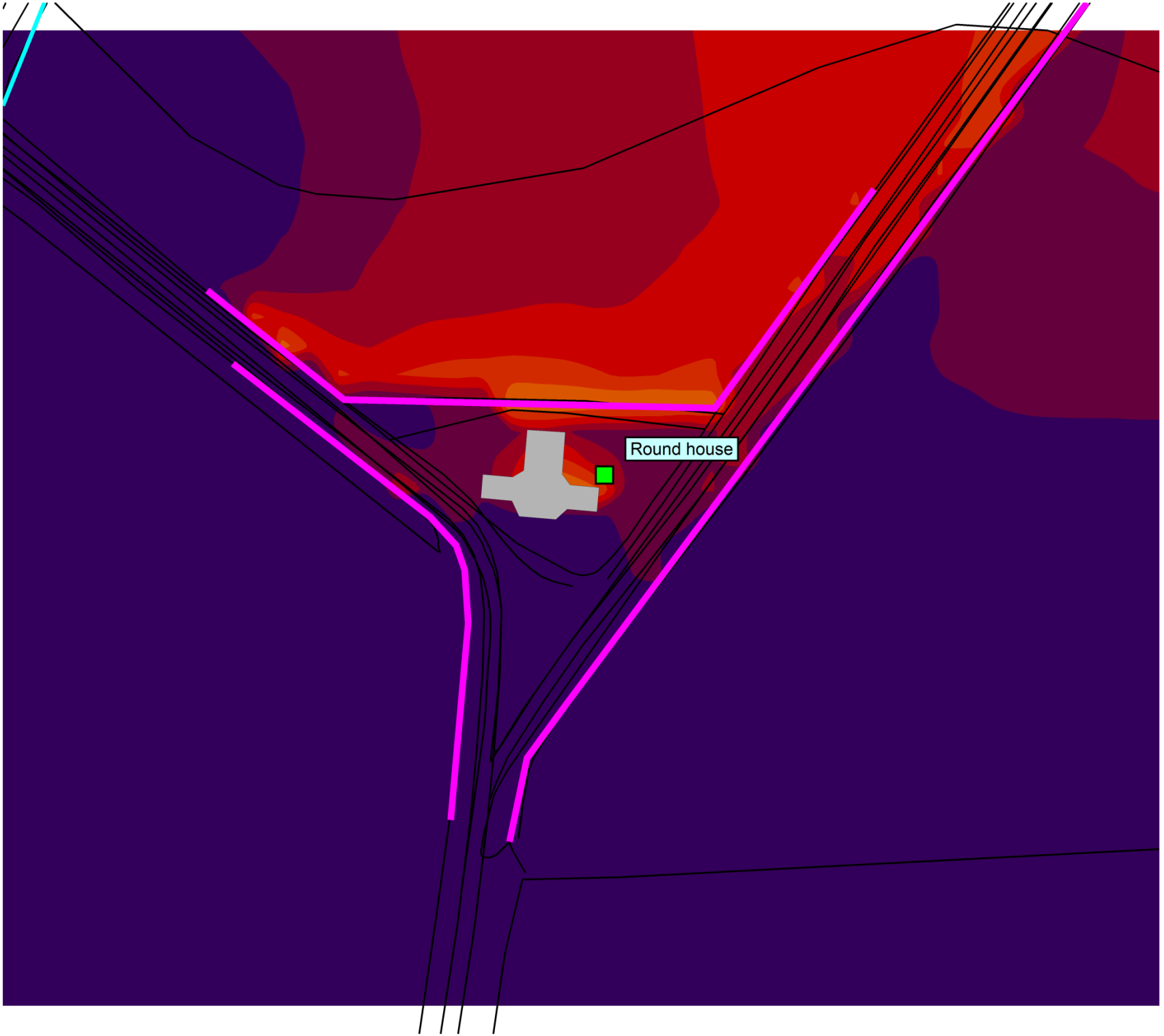
Round House

LAeq(T)

Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<		

Sizewell Construction Noise

Phase 1a

Round House

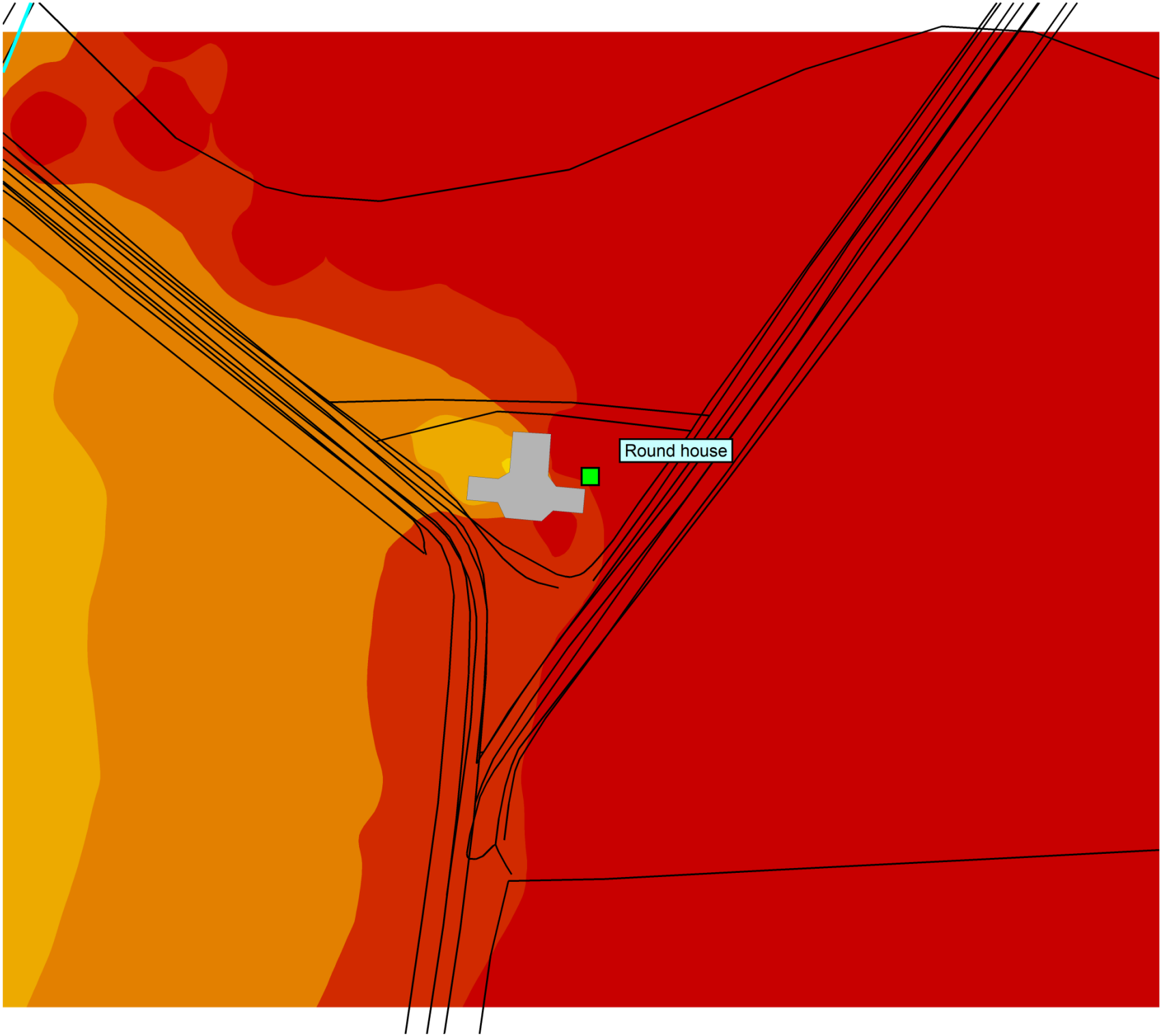
LAeq(T)

With 3m Barriers

Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

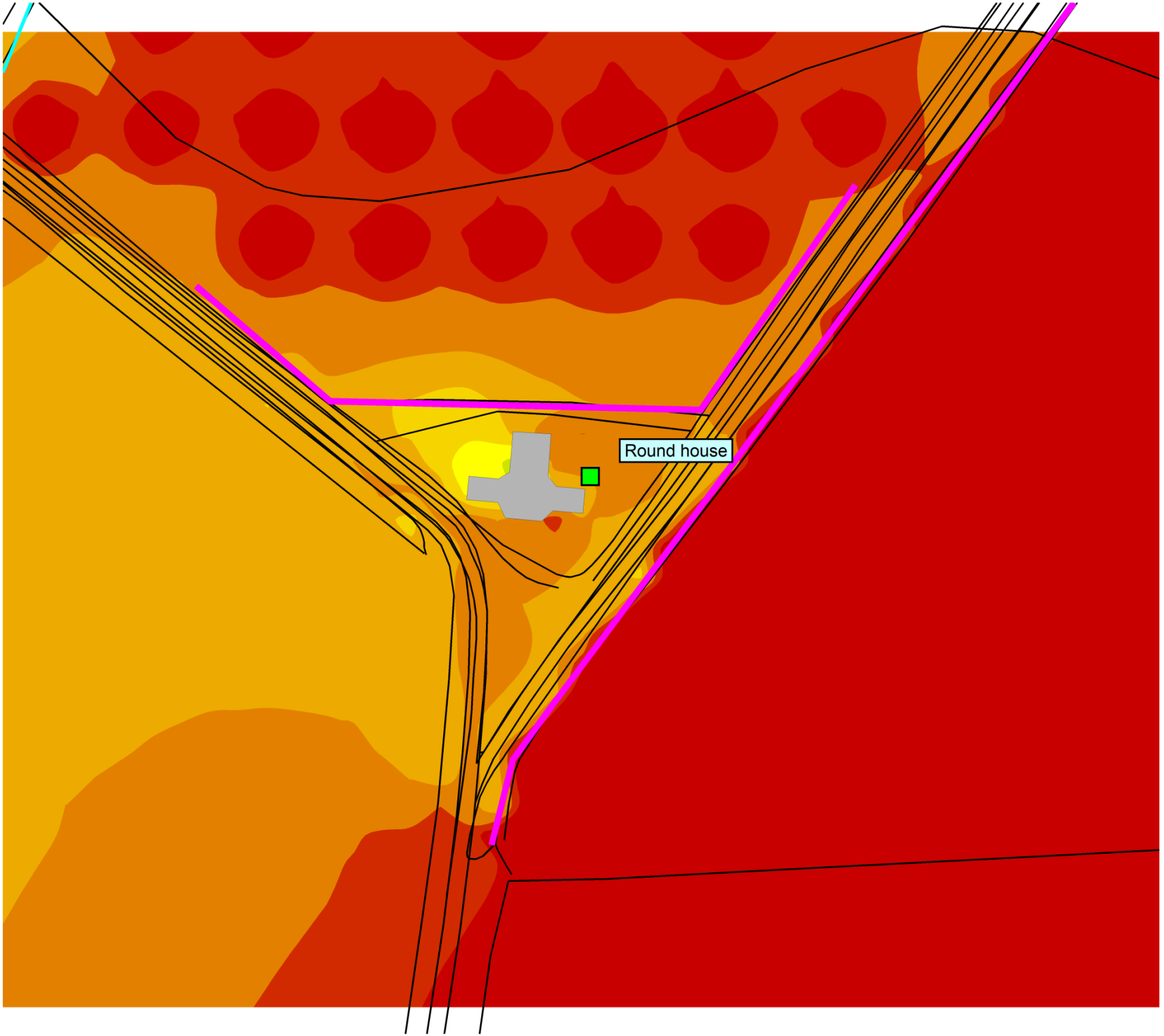
Phase 1B/2

LAeq(T)

Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phase 1B/2

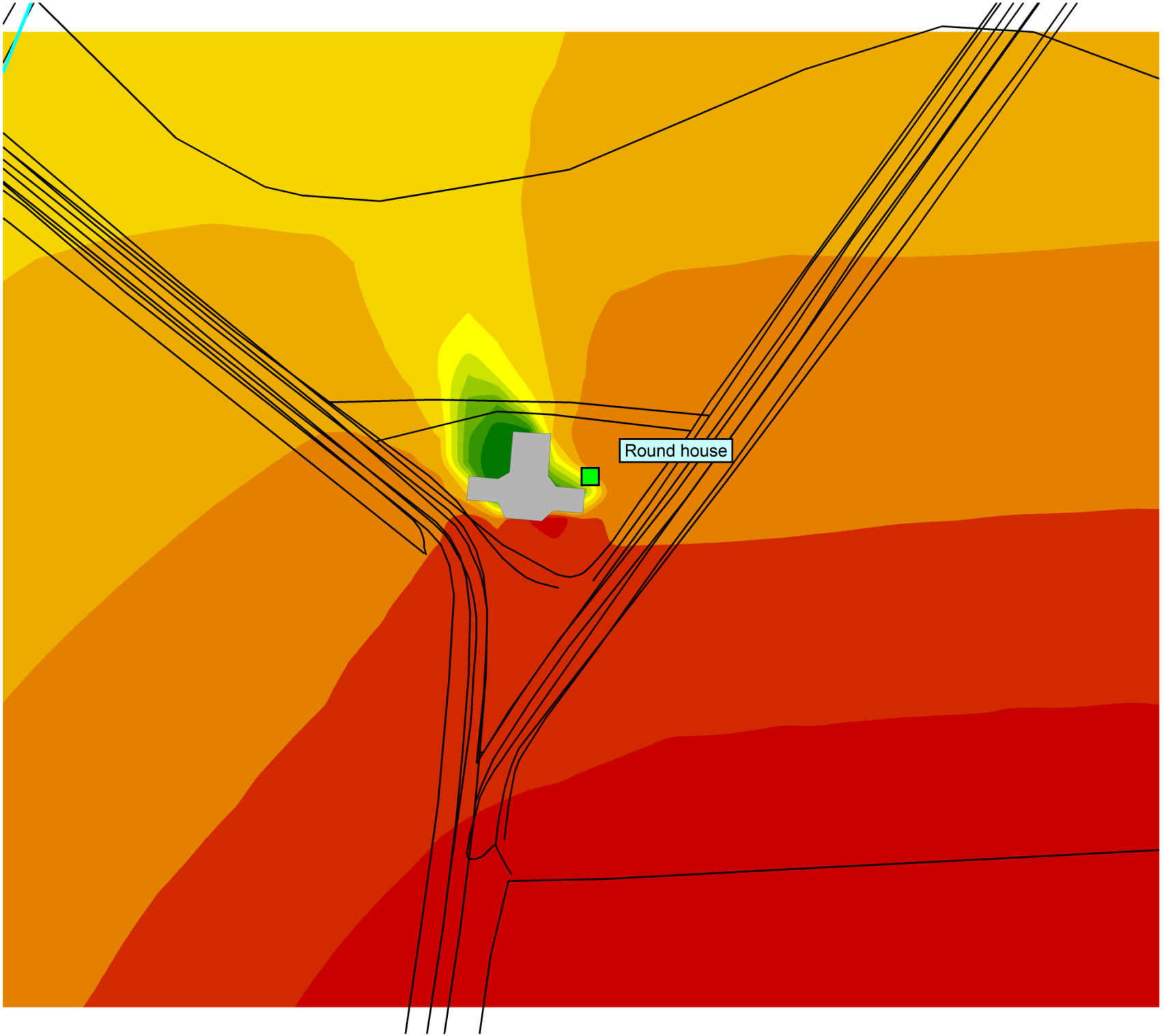
With Mitigation

LAeq(T)

Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

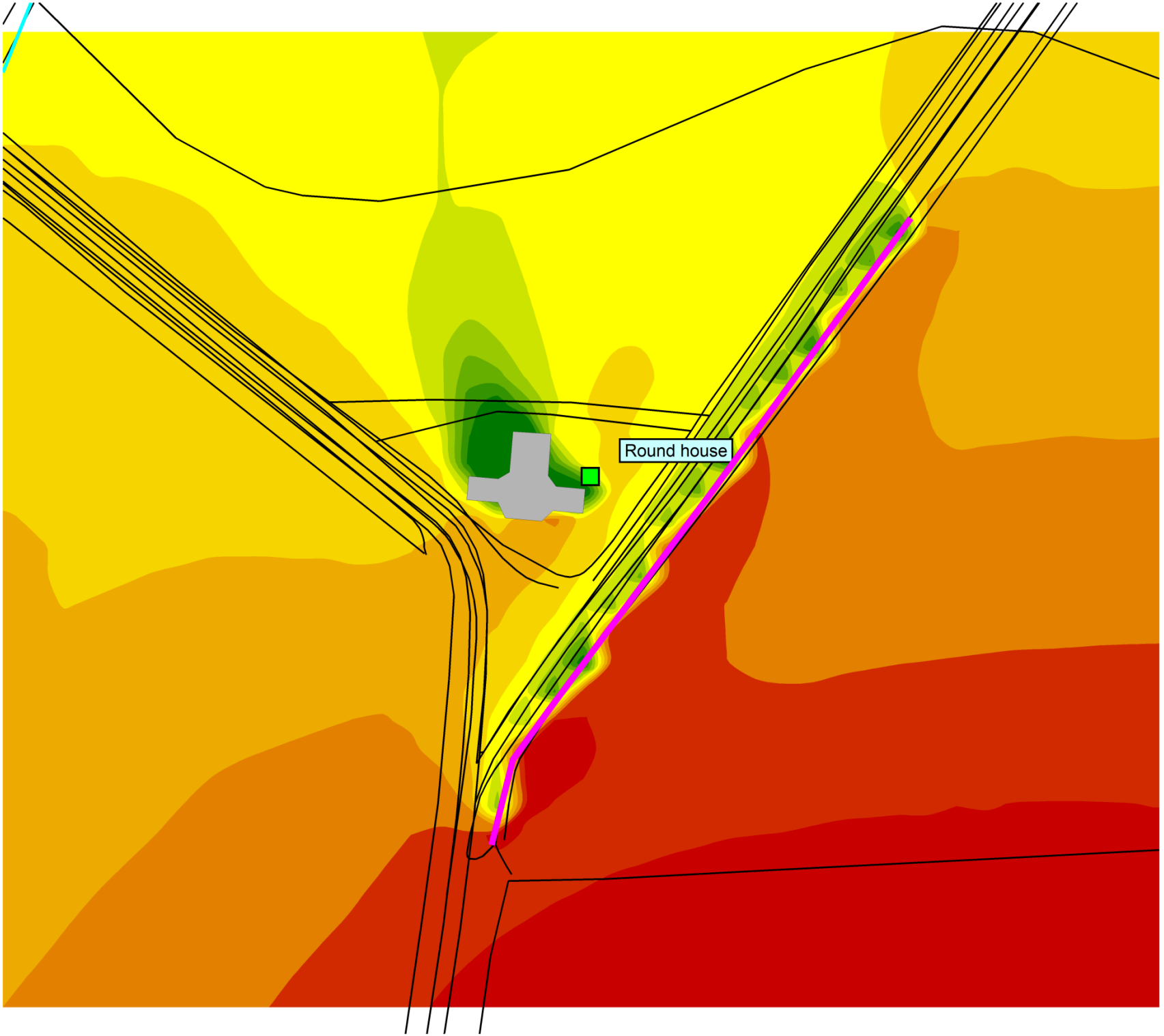
Phases 3 & 4

LAeq(T)

Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Sizewell Construction Noise

Phases 3 & 4

With Mitigation

LAeq(T)

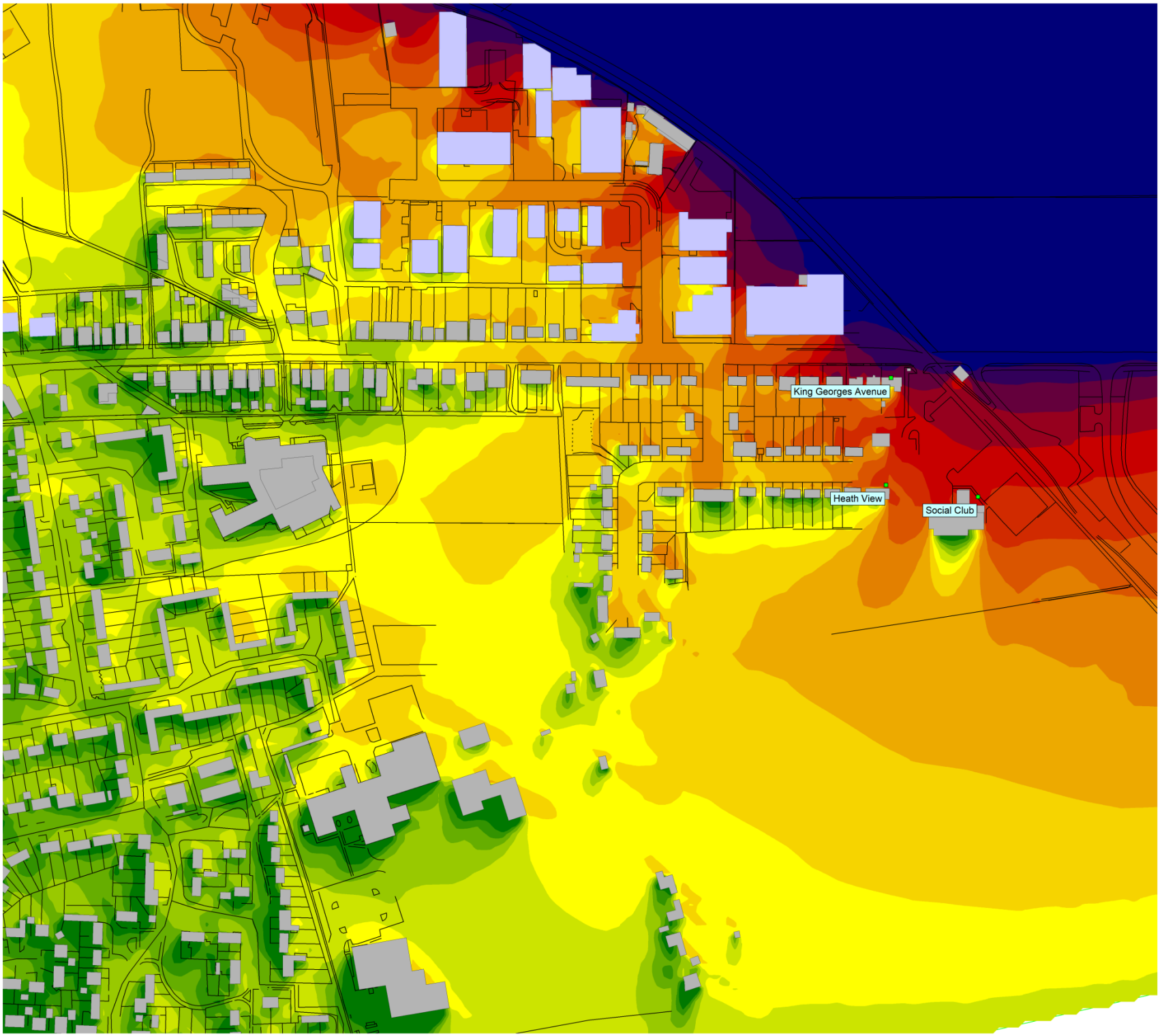
Scale 1:900

0 4.5 9 18 27 36 45

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.21

Main Development Site Daytime Construction Noise Contours
Sizewell Sports and Social Club



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

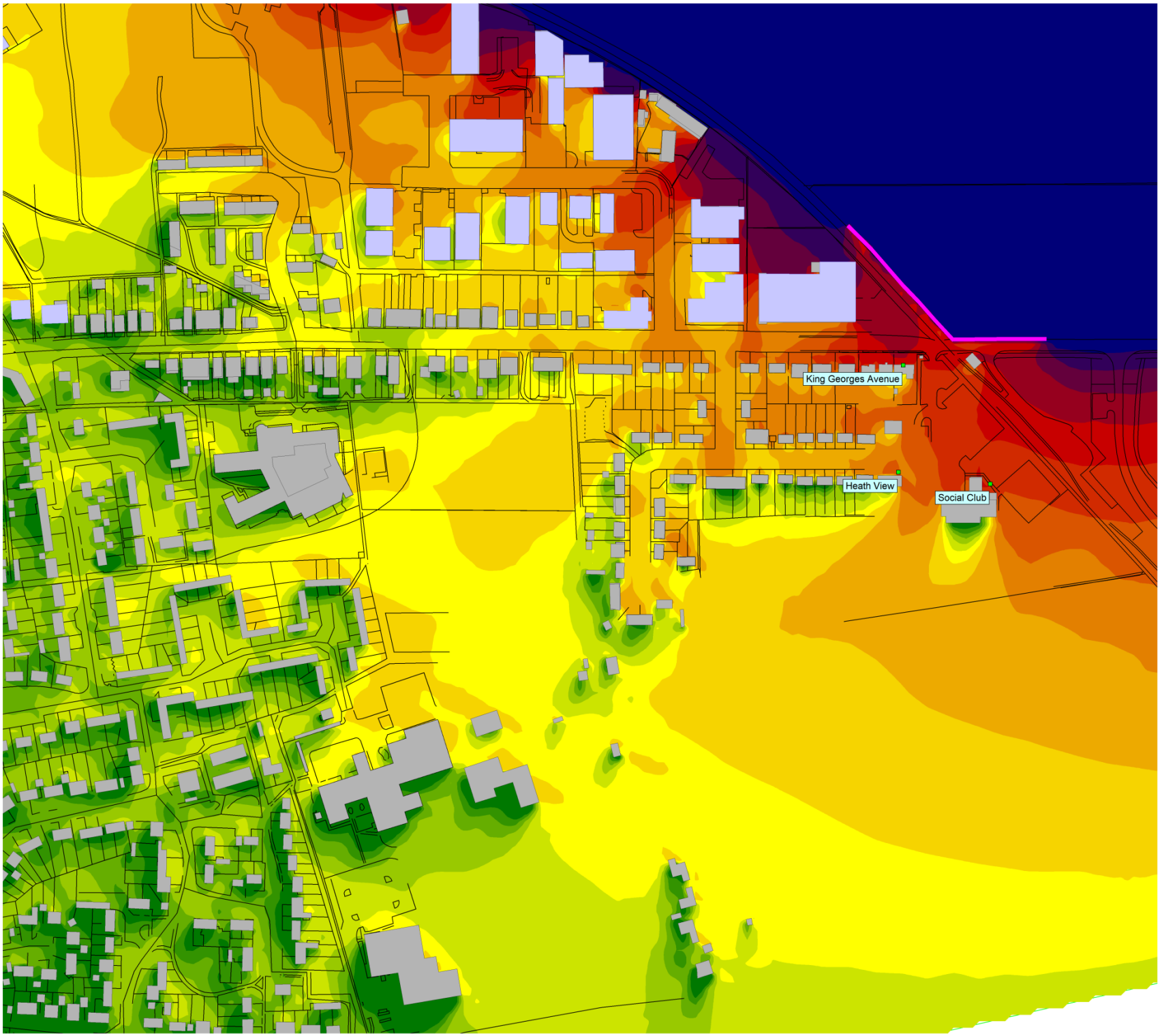
Initial site strip and level

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

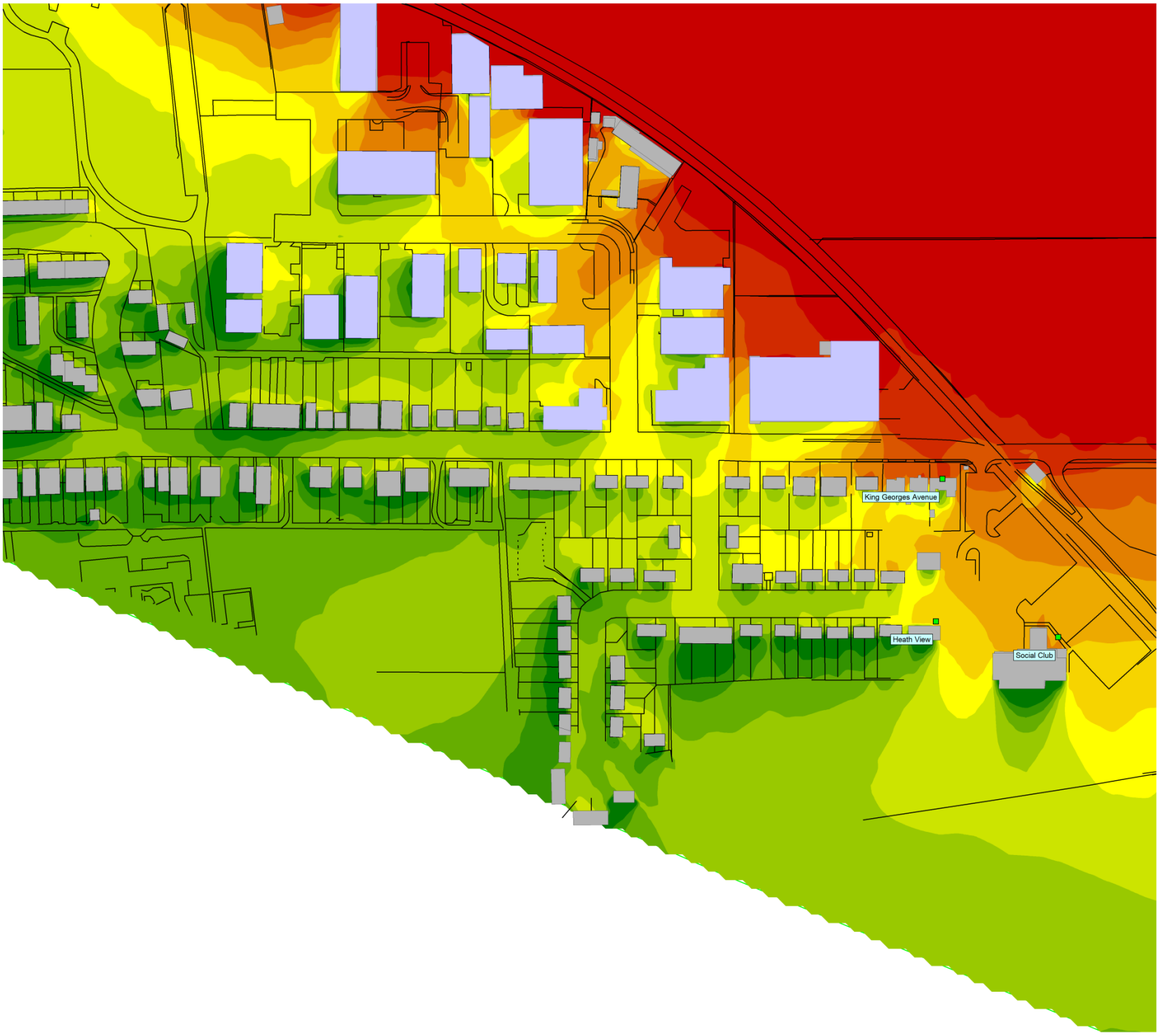
With Mitigation

LAeq(T)

Scale 1:4000

0 20 40 80 120 160 200

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

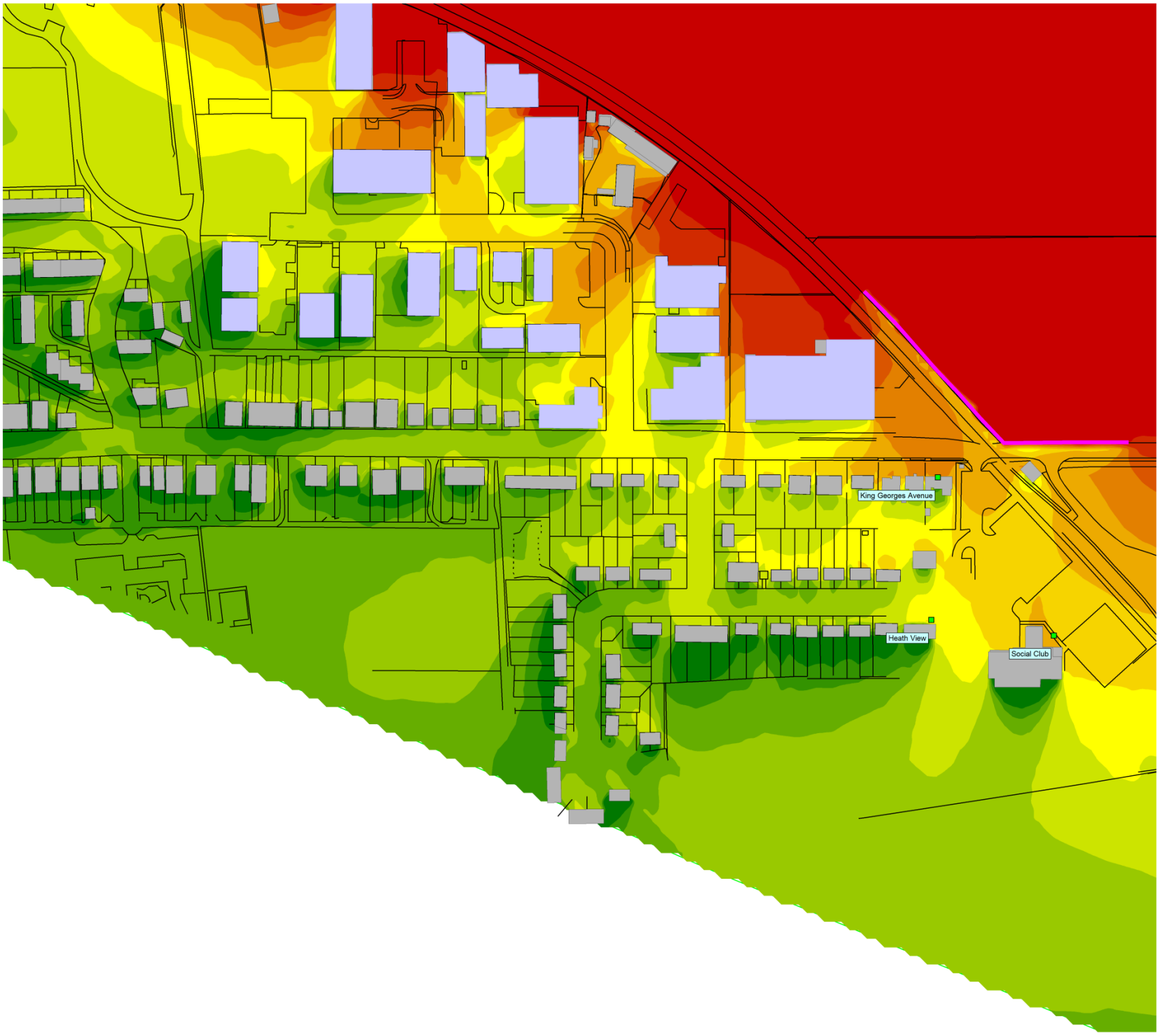
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Construction Noise

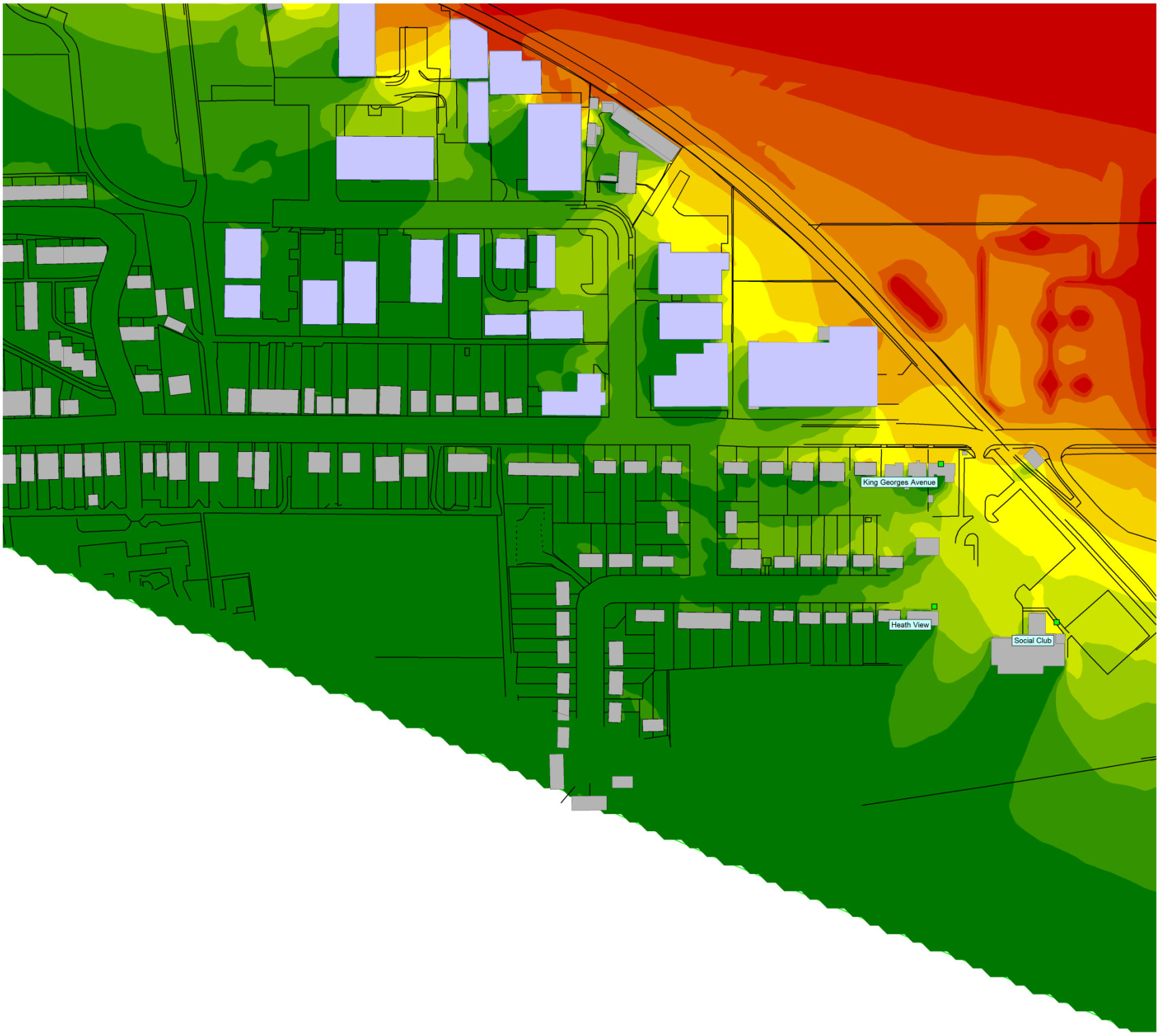
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

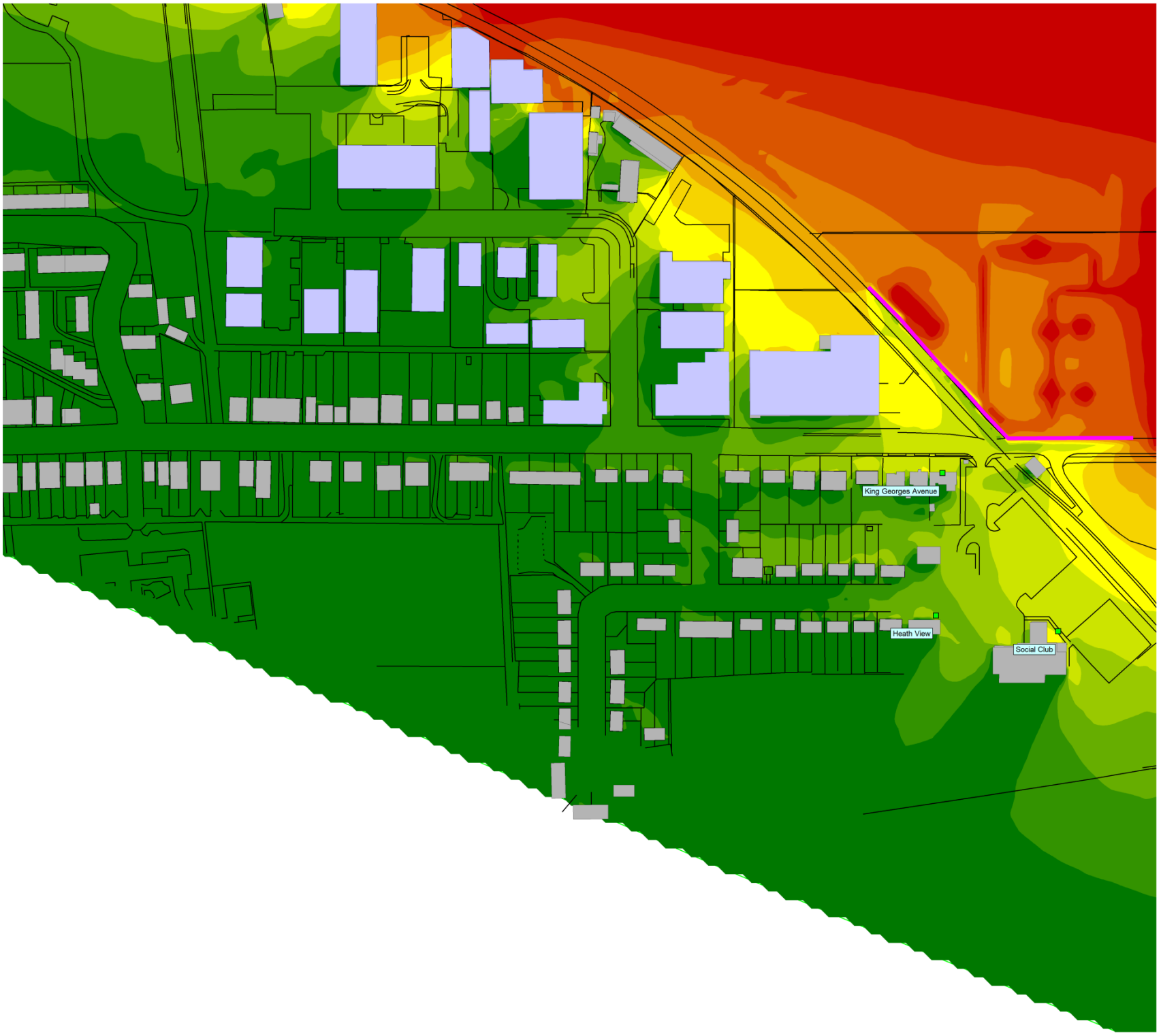
Operational Noise
(Early Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Early Years)

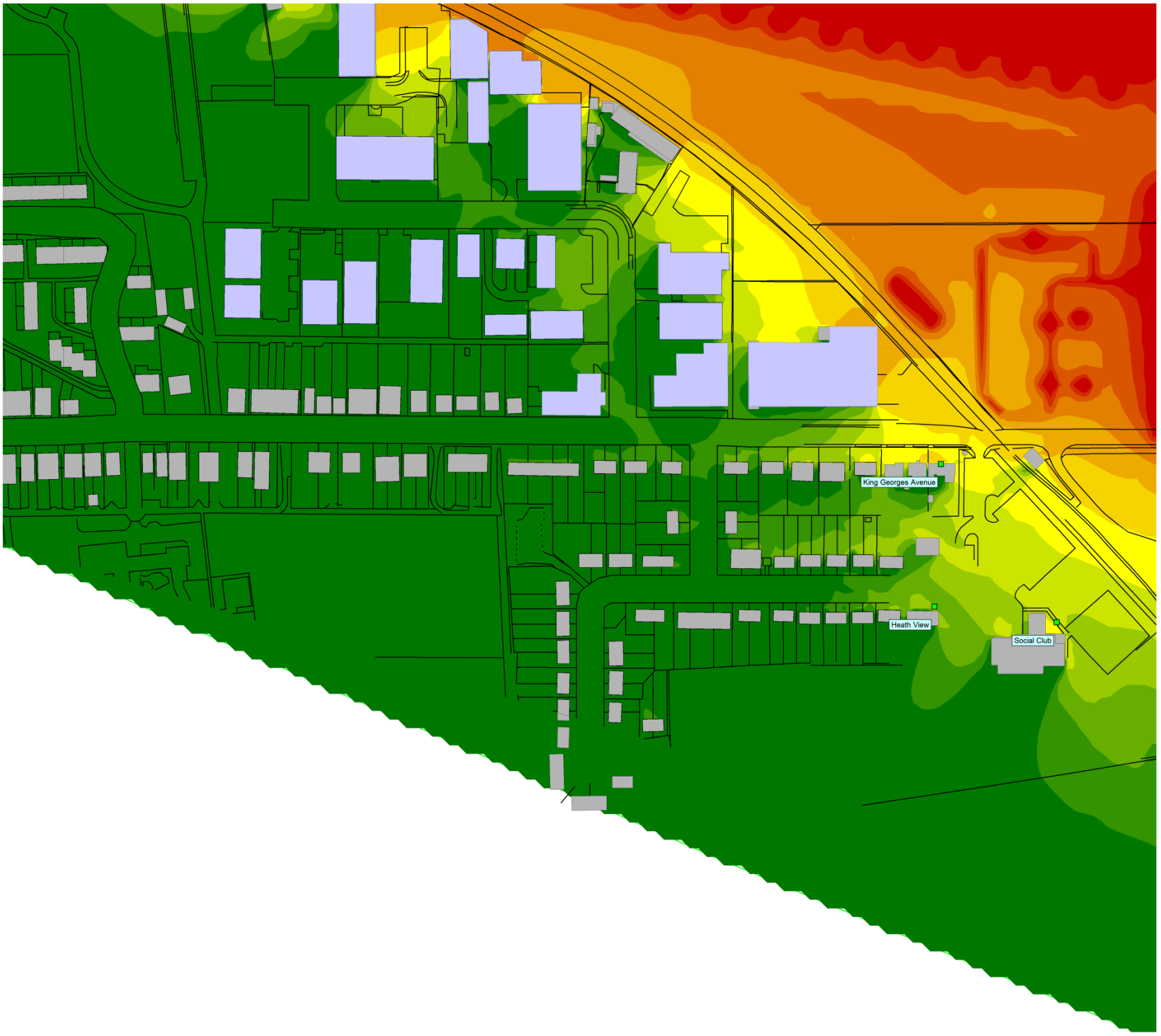
With Mitigation

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

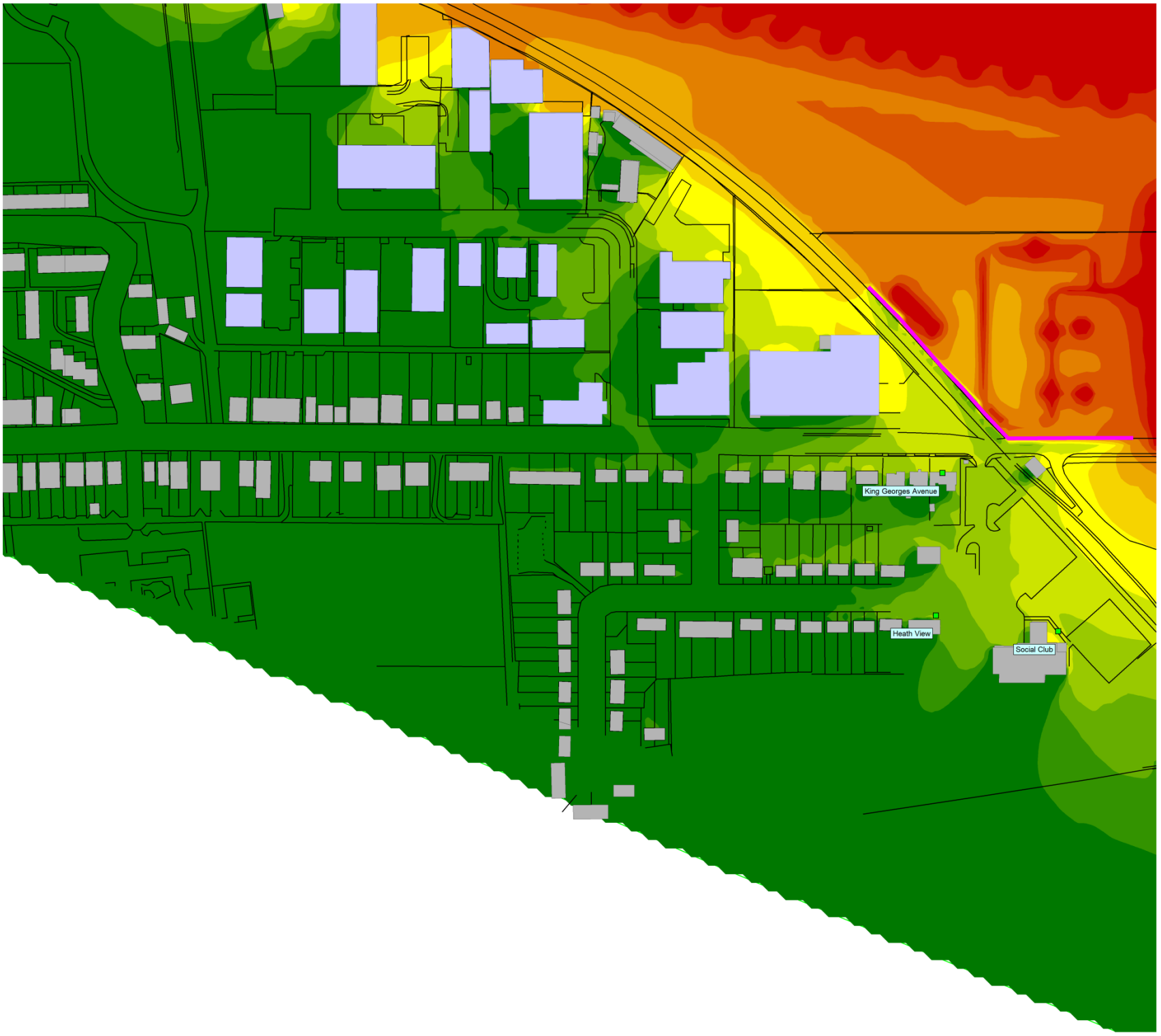
Operational Noise
(Later Years)

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<		

Operational Noise
(Later Years)

With Mitigation

LAeq(T)

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.22

Main Development Site Daytime Construction Noise Contours
Sizewell Village

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1A

LAeq(T)

No Mitigation

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 1B/2

LAeq(T)

No Mitigation

Scale 1:3000

0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Sizewell Construction Noise

Phase 3 & 4

LAeq(T)

No Mitigation

Scale 1:3000

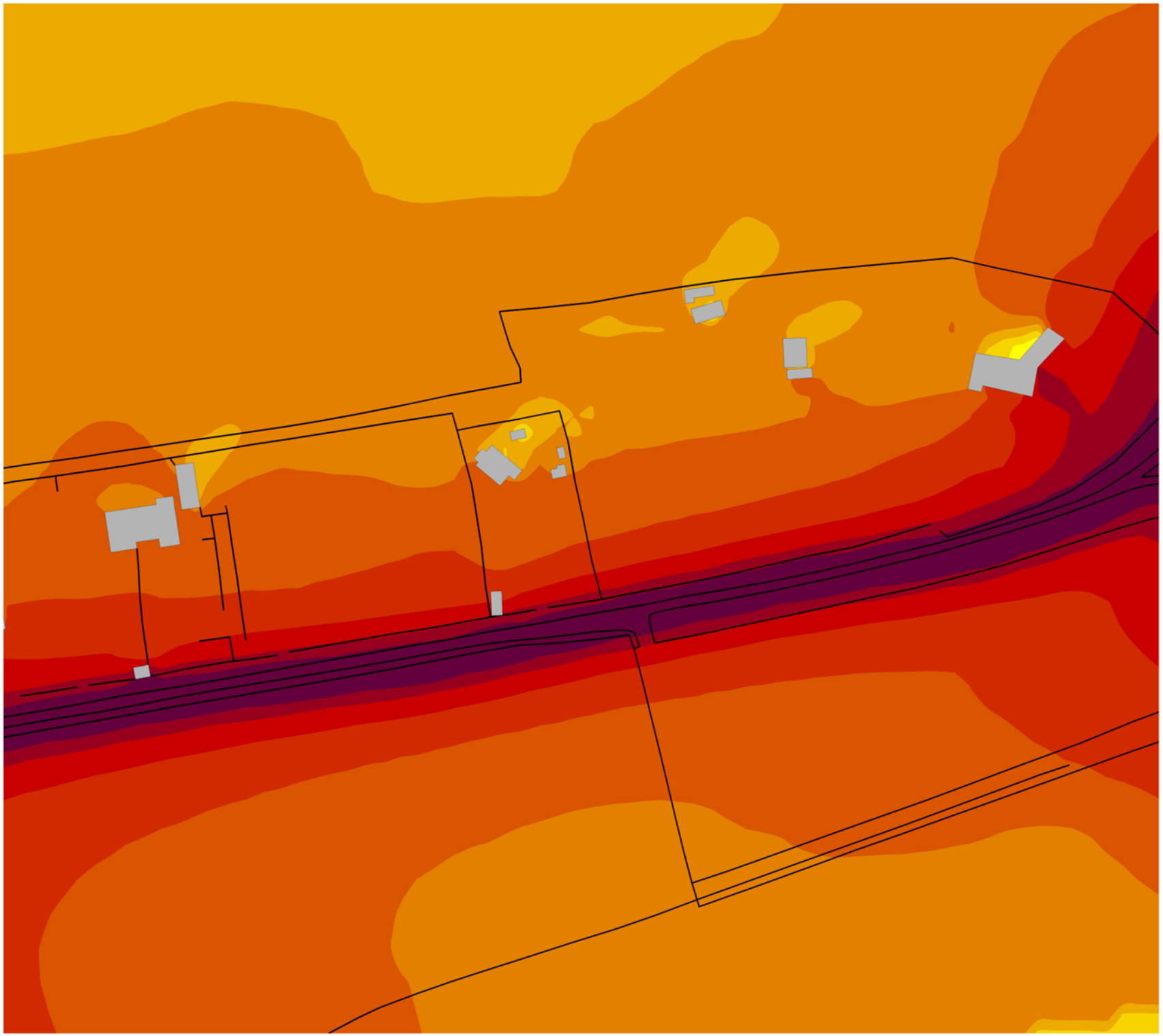
0 15 30 60 90 120 150

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.23

Main Development Site Daytime Construction Noise Contours

The Studio



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<		

Construction Noise

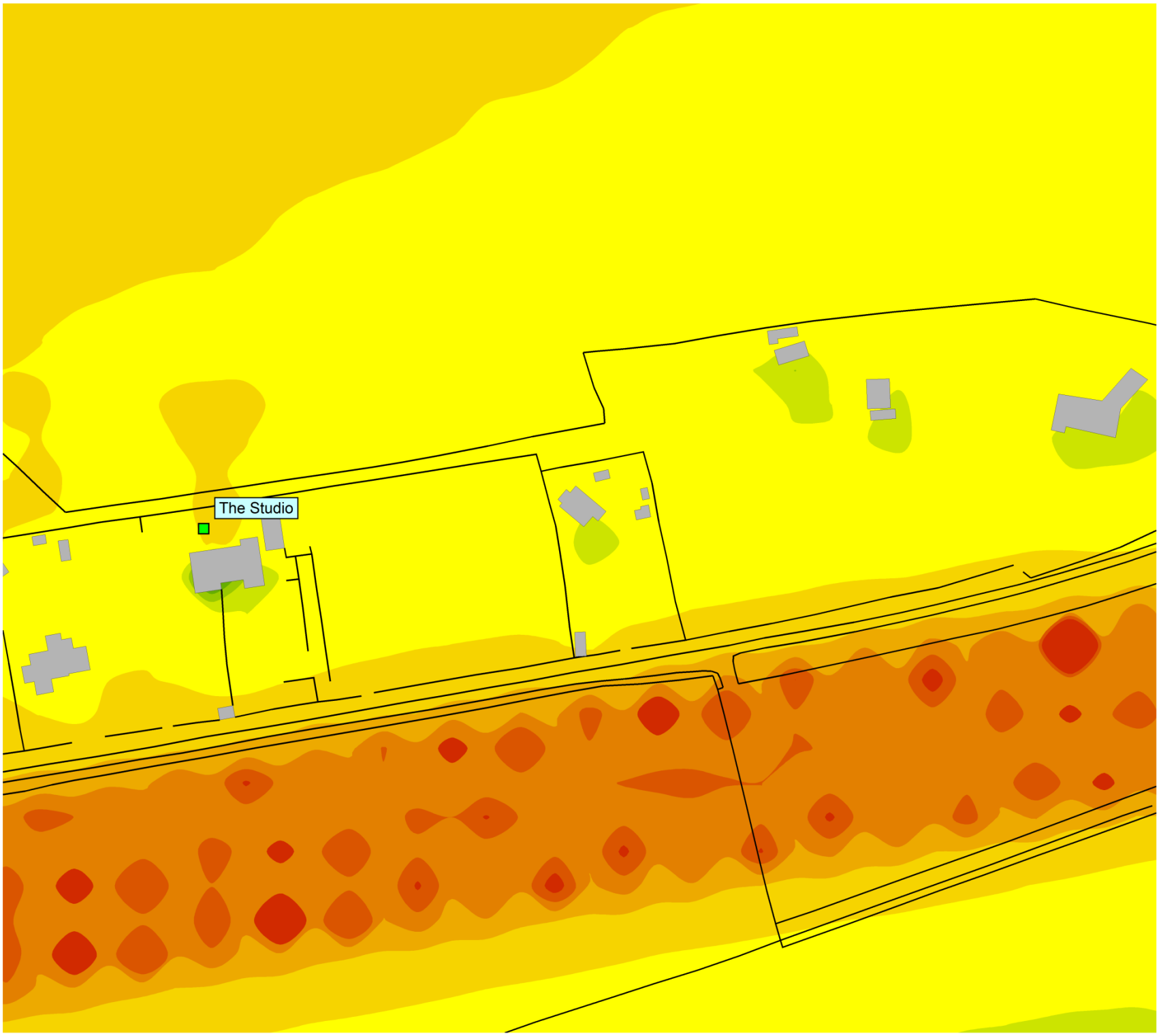
Initial site strip and level and water detention area creation

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Construction Noise

Phase 1B/2

LAeq(T)

Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<		

Construction Noise

Phases 3 & 4

LAeq(T)

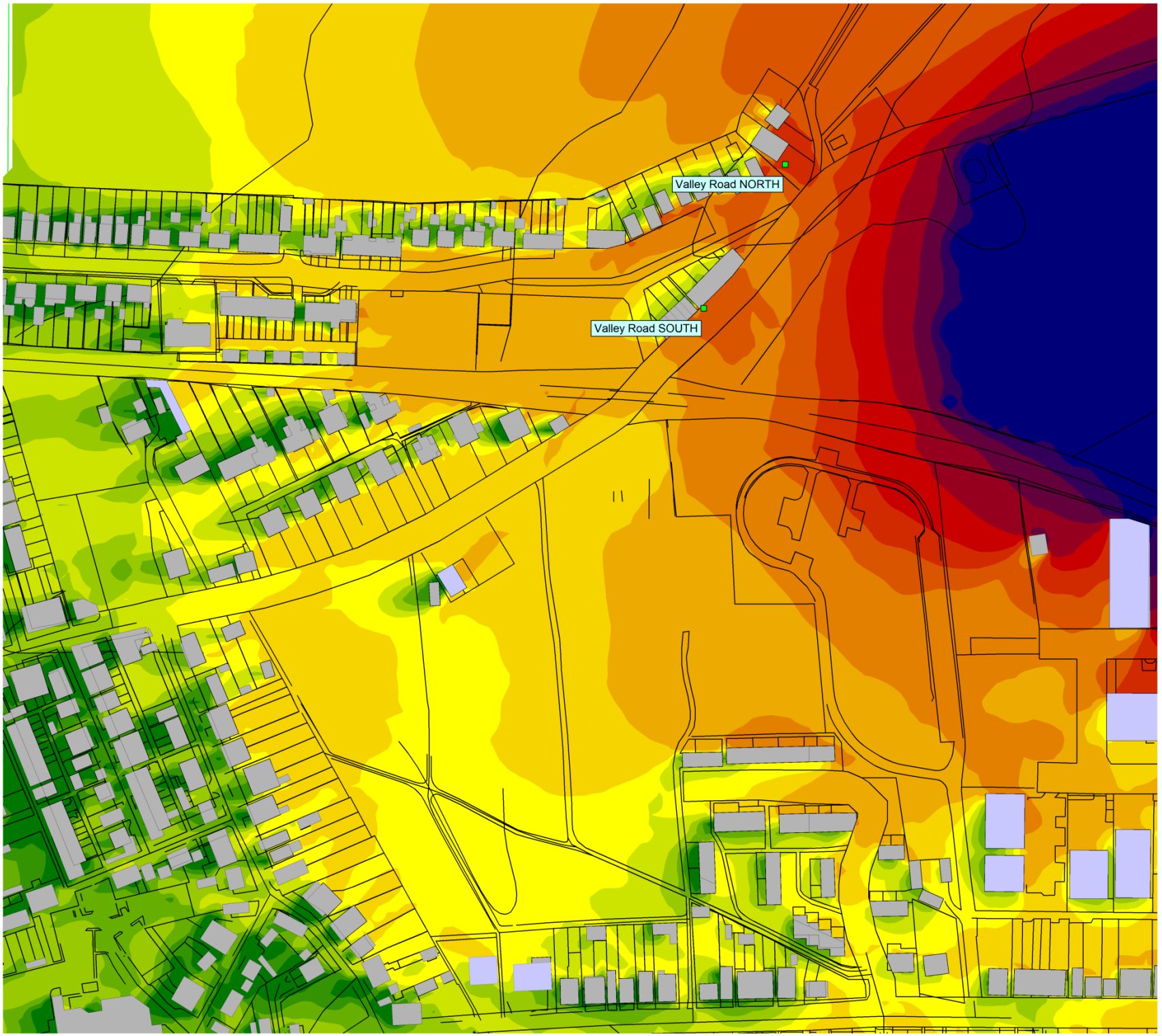
Scale 1:1500

0 5 10 20 30 40 50 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Annex 11B/E.24

Main Development Site Daytime Construction Noise Contours
Valley Road



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

LAeq(T)

Scale 1:2750

0 10 20 40 60 80 100 m

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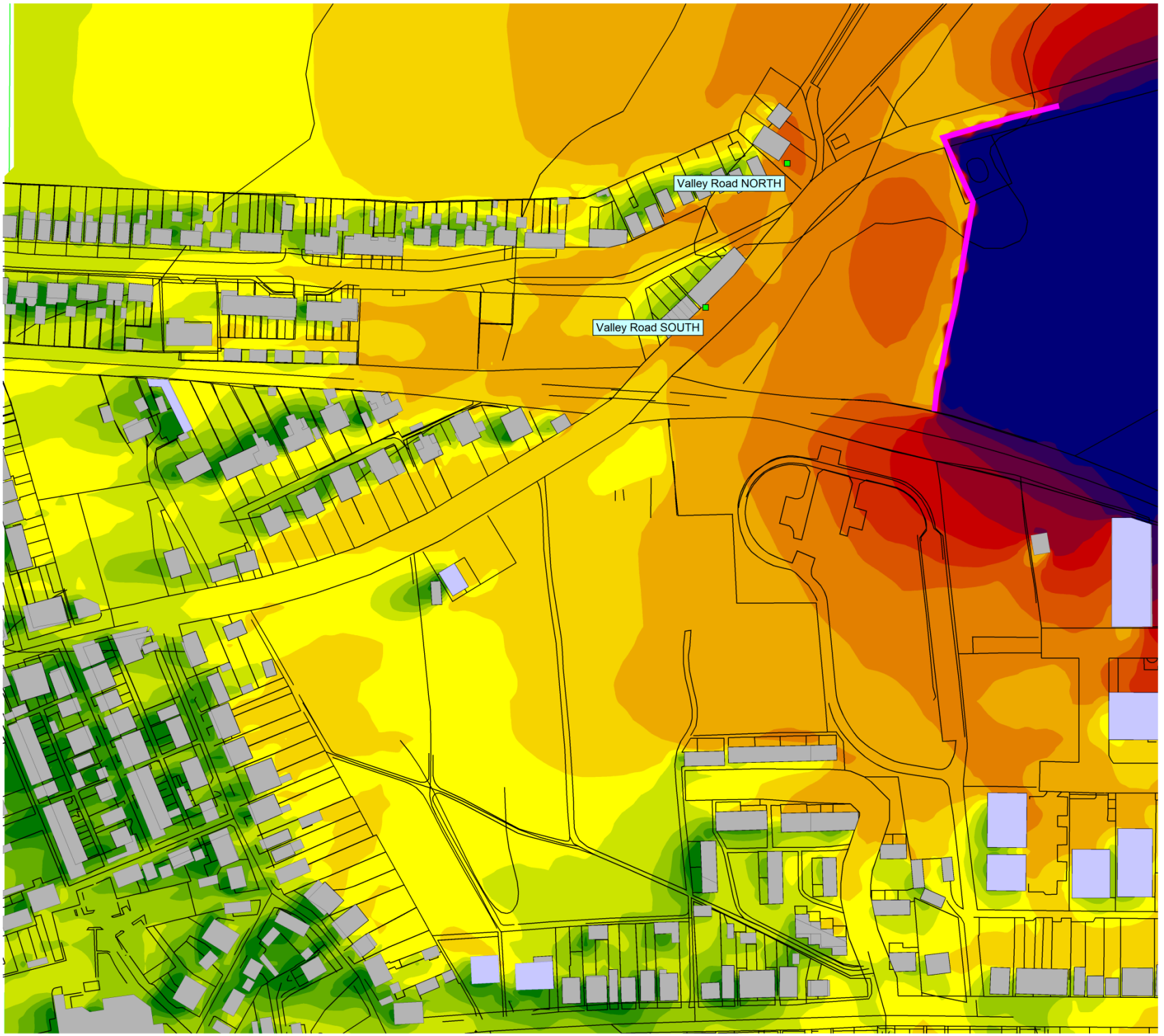


Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Initial site strip and level

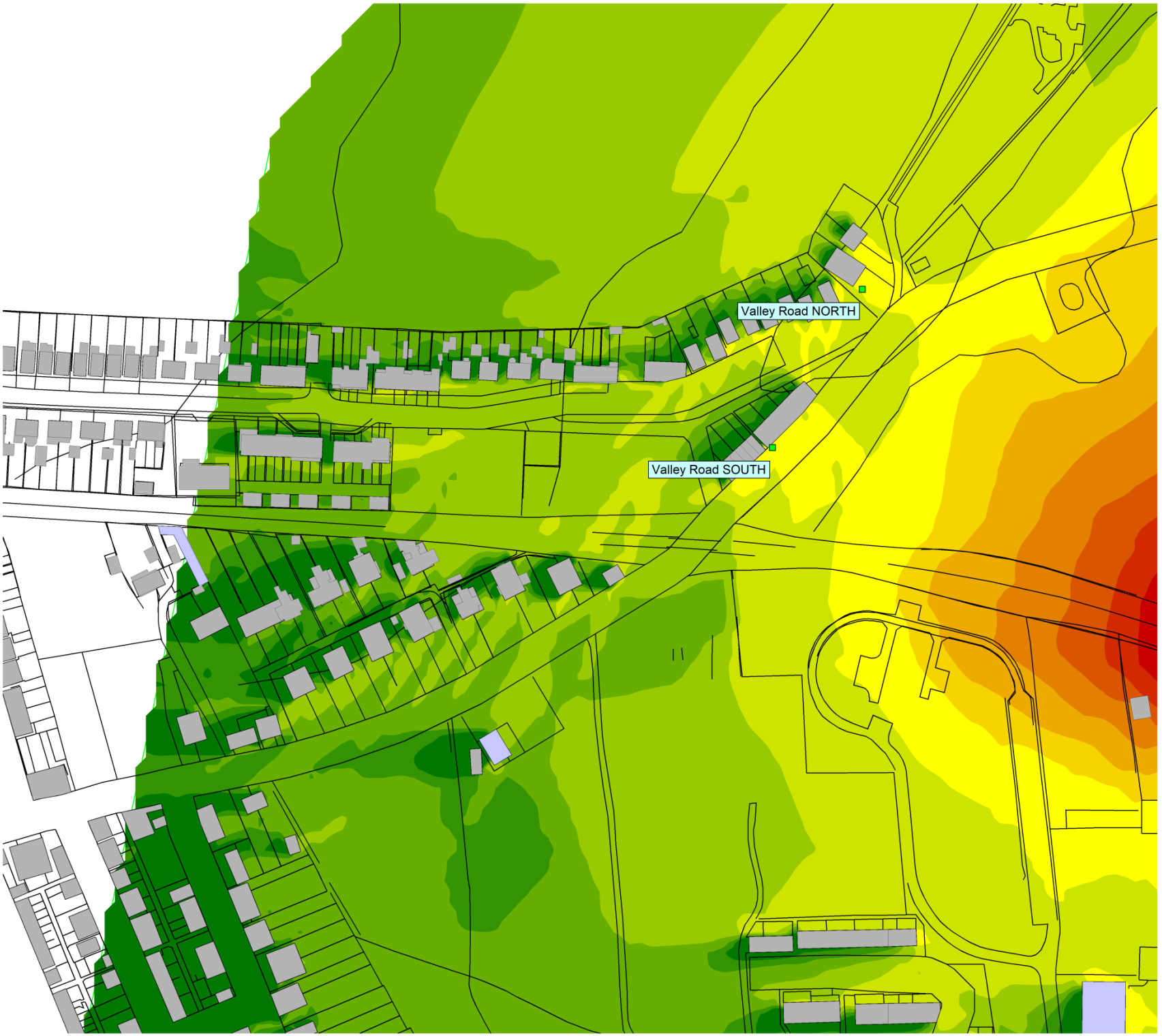
With Mitigation

LAeq(T)

Scale 1:2750

0 10 20 40 60 80 100 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

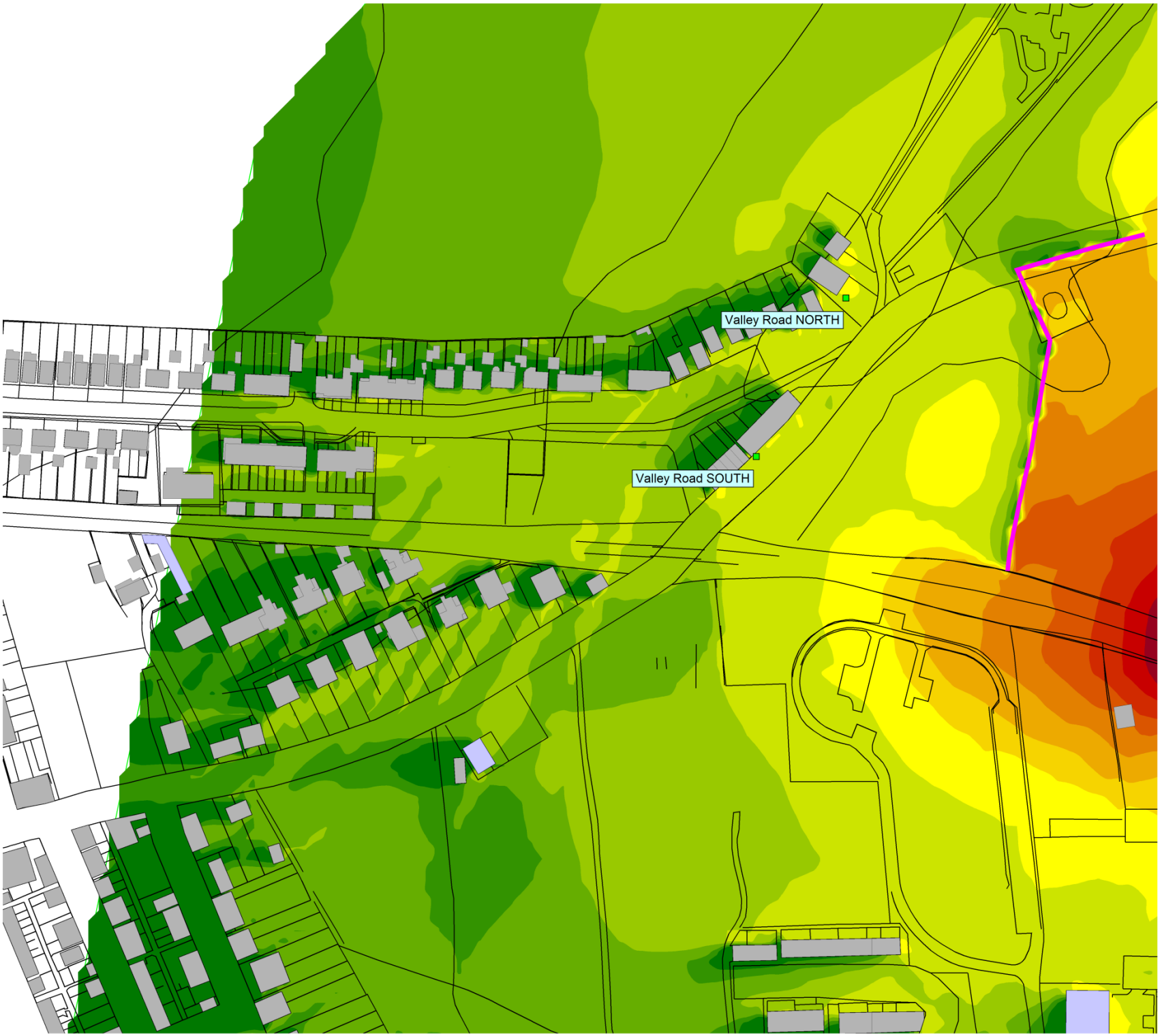
Site Preparation
& Railhead construction

LAeq(T)

Scale 1:2500

0 10 20 40 60 80 100 m

SHARPS REDMORE
ACOUSTIC CONSULTANTS



Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Construction Noise

Site Preparation
& Railhead construction

With Mitigation

LAeq(T)

Scale 1:2500

0 10 20 40 60 80 100 m

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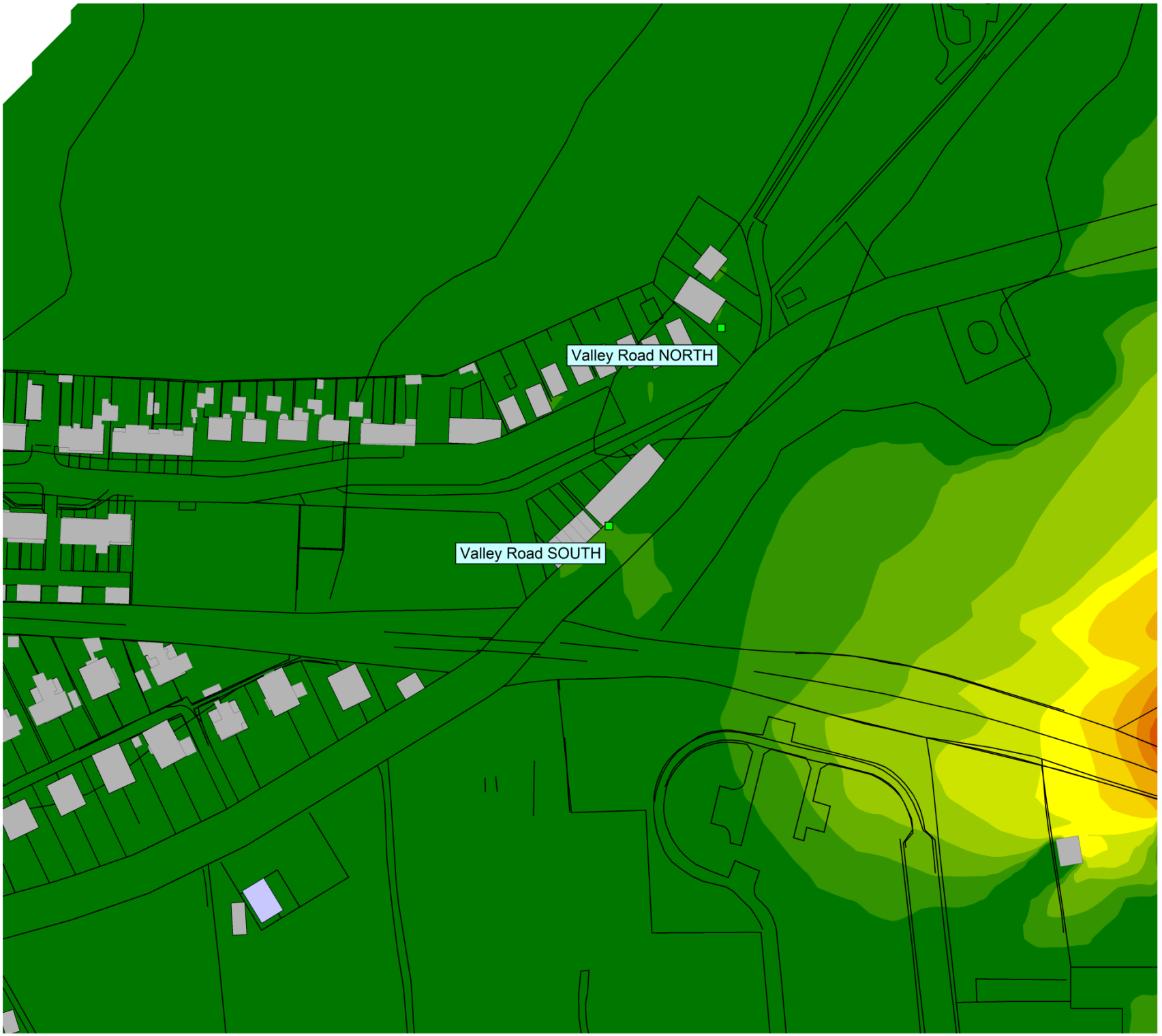

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Operational Noise
(Early Years)

LAeq(T)

Scale 1:2000

0 10 20 40 60 80 100

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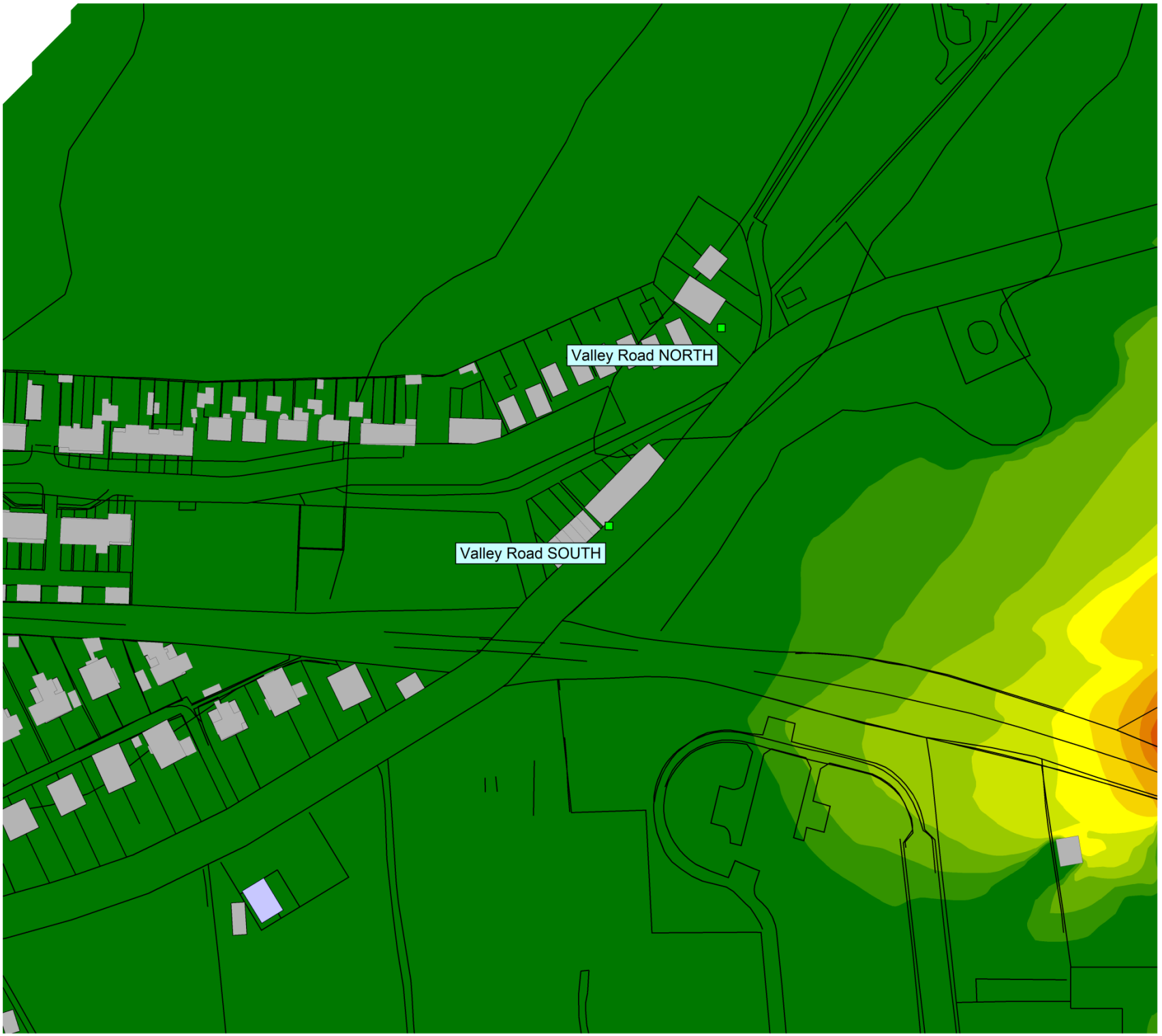

Noise level
LAeq(T)
(dB)

		<=	42
42	<	<=	44
44	<	<=	46
46	<	<=	48
48	<	<=	50
50	<	<=	52
52	<	<=	54
54	<	<=	56
56	<	<=	58
58	<	<=	60
60	<	<=	62
62	<	<=	64
64	<	<=	66
66	<	<=	68
68	<	<=	70
70	<		

Operational Noise
(Later Years)

LAeq(T)

Scale 1:2000

0 10 20 40 60 80 100

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