

Appendix 12.5 Noise Modelling Assumptions

The following prediction methodologies and assumptions were adopted and implemented in to the acoustic model:

- The base map of the acoustic model is based on scale mapping of the site, including OS Vector Mapping, and proposed layout drawings provided by Eastleigh Borough Council;
- A baseline Digital Terrain Model (DTM) has been created for the within the acoustic model based on OS Terrain 5m resolution topographical data of the Site and surrounding area;
- A Digital Terrain Model (DTM) representative of future years has been created using a combination of baseline DTM and topographical data, together with Bubb Lane - Burnetts Lane Link Road and the Allington Lane Link Road;
- Existing buildings, that will not be demolished as part of the proposed development, are incorporated within the acoustic model, to allow prediction of screening effects across the Site. Buildings are assumed to have fully reflective facades;
- No specific mitigation has been included within the acoustic model for the Wider OPA Site;
- 2m high barriers, with a surface density of 10kg/m^2 , at the boundary of gardens closest to, and with a direct line of sight to Burnetts Lane and the proposed north - south link road have been included for the OPA Phase 1 Site, as per the development proposals.
- Noise propagation is predicted in accordance with ISO 9613-2:1996 'Acoustics – Attenuation of sound during propagation outdoors – Part 2: General Method of calculation' (ISO9613);
- To reflect the local ground cover, ground absorption was set to $G = 0.5$ for mixed ground across the model (50% acoustically absorptive ground);
- Road surfaces are defined as fully reflective;
- Road traffic is assumed to travel at the known speed limits on each road;
- 10% HGV assumed on each road; and,
- 1st order reflections included in predictions of road traffic noise, as per CRTN guidance.