

## APPENDIX EIGHT

### Ground Conditions

#### *Introduction*

8.1.1 A preliminary site investigation has been completed to provide preliminary information on conditions at the site. Refer to Appendix Seven for the full report.

8.1.2 The scope of the investigation was to meet the requirements to provide information for planning purposes and for design of the development. The specific activities carried out are as follows:

- undertake a desk study of available information to include a review of existing reports, history of the site and geo-environmental data;
- carry out a site walk over; and
- develop a preliminary conceptual site model and refine this according to the findings of the investigation commercial development at the site.

8.1.3 A preliminary risk assessment has been carried out based on the contaminant-pathway receptor model as defined in Statutory Guidance to Part IIA of the Environment Protection Act, 1990, and in accordance with BS 10175: 2011 +A1 2013 'Investigation of Potentially Contaminated Sites – Code of Practice'. This work has produced a preliminary assessment of the characteristic ground conditions and elements of the surrounding environment and has assisted with identifying the potential contaminants, the potential receptors of the contamination and the potential pathways between them.

8.1.4 The results of the risk assessments indicate that there are sources of contaminants present at or in the immediate vicinity of the site. Depending on the organic content of the Made Ground and Tidal Flat Deposits at the site landfill type ground gases may also present an issue. Anecdotal evidence has indicated that Made Ground of ash underlies the site; a former petrol station was located to the southwest corner of the site, in the area now occupied by the concrete works aggregate bays.

8.1.5 The majority of the site is currently not fully covered in hard standing, although the south-western boundary is covered in concrete and the southern portion of the site is

covered by MOT stone. A layer of Made Ground is expected directly below the surface and to be predominantly ash material. This is likely to be overlying either Glacial Till or Tidal Flat Deposits. It is anticipated that minor earthworks may be required to modify ground levels and create new foundations for the structures and infrastructure for the HRC.

8.1.6 Due to the presence of Glacial Till in the area, and underlying the majority of the site and the surrounding area and the presence of the drainage ditch/culvert to the immediate north of the site, it is unlikely that significant concentrations of ground gas are migrating to or from the site. As the Glacial Till has relatively low permeability, unless the clay has significant granular bands of gravel or sand within it (which would act as a preferential pathway), this would act as a natural barrier for migration on and offsite.

8.1.7 The site is noted to be in a radon affected area; however no permanent buildings will be constructed, ergo no protection measures will be required to be implemented.