PDF2: Summary of Mepal Site conditions that have impacted on the development proposals

The Topographical Survey:

A full topographical survey of the site has been carried out. This has confirmed the following:

- The site has been quarried right to the boundary of the site except from the central area of the site where the existing buildings are located. The backfilling of the site has been filled predominantly with sand from the quarry site opposite and imported construction rubble and clay has been used to cap the sand to a depth of 1 metre in some locations

- Some of the site is not suitable for construction and burial plots because it is predominantly sand. Therefore, it is proposed to locate the cremation building on the site of the existing buildings with the chapel being elevated to obtain views of the lake. The natural burial area should be created on a part of the site suitable for such a use

The Tier 2 Groundwater Risk Assessment for a new cemetery:

The Tier 2 assessment carried out has been fully compliant with the criteria required by the Environment Agency. This is to ensure that East Cambridgeshire District Council as the Planning Authority has sufficient information to evidence that the environmental risks have been fully considered and that the Environment Agency has been consulted and the views recorded. Detailed below are the findings of the risk assessment:

- The site investigations have been thorough with a total of seven trial pits having been excavated across the area proposed for natural burials. This is to provide an assessment of the ground conditions, to identify the presence and composition of made up ground soils and to assess whether any shallow groundwater is encountered on site

- Based on the assessment, the site is deemed to be moderate to high risk for use as a natural burial site, with a risk score of 43-52 calculated for the site. The highest risk scores (9-10) were attributed to the presence of the groundwater table less than 5m below ground level and the close proximity of the lake to the west of the proposed burial ground. The final assessment of the risk for the site would be classed as being moderate risk for up to 20 burials per annum, a moderate to high risk for 21 to 25 burials per annum and high risk for over 25 burials per annum

- The proposed natural burial area is situated in made up ground soil that was used to backfill the former sand pit. The soils were found to comprise of loose, poorly compacted sand, which in some areas was overlain by variable clayey anthropogenic made ground soils which contained brick, concrete, timber, metal and other detrital material. At one location, the trial pit confirmed the presence of large concrete rubble and other demolition materials, including possible asbestos containing material, indicating that the nature of the imported material may vary significantly across the site. The soils are considered to offer little in the way of mitigation against burial contaminants migrating away from the source and into the nearest receptor, the lake to the west of the site

- The variable materials used to backfill the site suggests that there is a risk of contaminated soils being encountered, which would pose a risk if excavated and left exposed at the surface of the site for grounds maintenance staff and mourners. This has been factored into the development proposals so that construction will not take place in the areas of the site made up substantially of backfill materials.

- Recognising the site conditions burials are proposed to be restricted to single depth burials and the depth to groundwater table will be carefully monitored on a seasonal basis to ensure the groundwater does not encounter within 1m of the base of any grave