OPERATIONAL (COMMERCIAL) WASTE CALCULATIONS

1.1 COMMERCIAL WASTE

Employment Derived Waste

1.1.1 Calculated utilising the information available within the Socio-Economic chapter of the Environmental Statement that provides indicative criteria of 1 employee per 77m2 of distribution employment space, (HCA Employment Density Figures-2015). The proposed development would create the equivalent gross external area of 492,600m2 of floorspace. The Socio-Economic assessment also assessed the same employment density being applied to the mezzanine floorspace as an unrealistic assumption, so a 50% reduction has been applied. The development proposes 163,150m2 of mezzanine floor space. The number of estimated employees has been calculated on the following ratios. Distribution- 1employee: 77m^2 and mezzanine 1 employee: 54m^2.

1.1.2 Using these ratios, the proposed development is estimated when fully operational to provide approximately 7,457.00 jobs based on standard densities, and assuming full implementation of the mezzanine floorspace allowed for in the proposals. Based on BS 5906:2005 Waste Management in Buildings – Code of Practice which estimates 50 litres of waste generation per employee (office Worker) per week.

1.1.3 50 litres (converted to tonnes based on a 1:1 ratio) equals 0.05 tonnes. Based on the above, 0.05 tonnes of waste produced per employee (0.05 x 7,457 employees) = 373 tonnes per week produced. Therefore, the yearly total arisings (373 x 52 weeks in the year) is **19,396.00** tonnes produced per year.

Process Derived Waste

1.1.4 The total distribution warehouse and mezzanine floor area (sqm) (598,889.00 m2) was used in combination with BS 5906:2005 Waste Management in Buildings – Code of Practice which estimates a 5-litre generation of waste per sqm of industrial floor space per week.

1.1.5 5 litres were converted to tonnes based on a 1:1 ratio which equals 0.005 tonnes. 0.005 tonnes of waste produced per sqm of industrial floor space per week (0.005 x 598,889.00 Sqm) = 2,994.00 tonnes per week produced. Therefore, the yearly total arisings (2,994.00 x 52 weeks in the year) is **155,688.00** tonnes produced per year.

Summary Table

Waste	Waste (Tonnes Per Annum)
Commercial	**19,369.00**
Industrial	**155,688.00**
Total Arising's assuming a 52% recycling rate (Ref 14.14)	**84,027**