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Client:	Dennis Sowerby	C No.:	C0171
Site:	Low Street, Haxey, Doncaster	Plot:	03
		By:	GWH
		Date:	07.08.17

A Domestic Yield

Plan area of main dwelling roof (m²)		137
Plan area of any garages / sheds (m²)		36
TOTAL roof areas contributing to yield (m²)		173
FEH Annual Average Rainfall (mm)		579
Hydraulic Filter Efficiency		0.9
Roof Material Factor (pitched roof with tiles)		0.8
Annual Rain Water Volume (litres) (YIELD)		72,120

B Domestic Demand

Number of people in the house		4
Number of clothes washing cycles per day (50 litres each)	1.00	50
Number of toilet flushes per day (5 flushes per person, average 5 litres each)	20	100
Outside tap use per day (cleaning / irrigation) (average 6 litres per person per day)		24
Average daily requirement (litres)		174
Annual requirement (litres) (DEMAND)		63,510
Drought Protection (days)		18
Drought Protection Capacity Requirement (litres)		3,132

C Comparison of Yield and Demand

The lesser of calculated annual YIELD (A) or DEMAND (B) (litres)	63,510
Minimum volume of rainwater storage required (litres)	3,132
CONCLUSION (does the yield exceed 75% of the demand)	YES

D Suggested Rain Water Harvesting Tank Size

Calculated tank size:	Use a 3400 litre tank

E BS 8515:2009 check

Based on BS 8515, the rainwater tank must be big enough to hold 5% of the annual rainwater yield, or 5% of the annual non-potable water demand, whichever is the lesser. The figures below serve as a check against the tank size recommended above.

5% of annual rainwater yield (litres)	3,606
5% of annual non-potable water demand (litres)	3,176
To conform to BS8515, tank must hold at least the lesser of these two figures (litres)	3,176
Tank size required from BS 8515:2009 requirement:	Use a 3400 litre tank