ATTENUATION TANK DESIGN FOR 100 YEAR STORM EVENT

TITLE	Job Reference	Revision No.	Calculations by	Date
Housing Development, Tyrrels Land, Portlaoise	23KK001	P1	TD	26.02.24.
	Drawing No.	**Status**	**Checked by**	
	C-015	Stage 1	NP	

Site - Catchment 3	Area (m^2)	Area (hectares)	Percentage Drained
Total Site Area	13650	1.3650	--
Roof Area	2370	0.2370	80%
Road Area	1485	0.1485	80%
Road Parking Area	300	0.0300	80%
In-Curtlidge Parking Area	650	0.0650	40%
Open Area	9145	0.9145	0%
	Site Rev C 09/11/23		

Note:
1 hectare = 10,000m^2

Allowable Outflow 2.75 Litres/second

Rainfall Intensity Records for
Tyrrels Land, Portlaoise

Duration (min)	Rainfall (mm)	Intensity (mm/hr)	Rainfall (m^3/ha)	Proposed Runoff (m^3)		Total Runoff (m^3)	Allowable Outflow (m^3)	Storage Req'd (m^3)
15	20.2	80.80	202	68		68	3	64
30	24.9	49.80	249	83		83	7	77
60	30.7	30.70	307	103		103	14	89
120	37.8	18.90	378	126		126	27	99
240	46.5	11.63	465	155		155	54	101
360	52.5	8.75	525	176		176	81	94
720	64.7	5.39	647	216		216	162	54
1440	79.7	3.32	797	267		267	324	-58
2880	89.6	1.87	896	300		300	649	-349
Met Eireann 14/04/23								

Maximum Storage Volume Required **132** m^3 (Including a 30% Provision for Climate Change)