

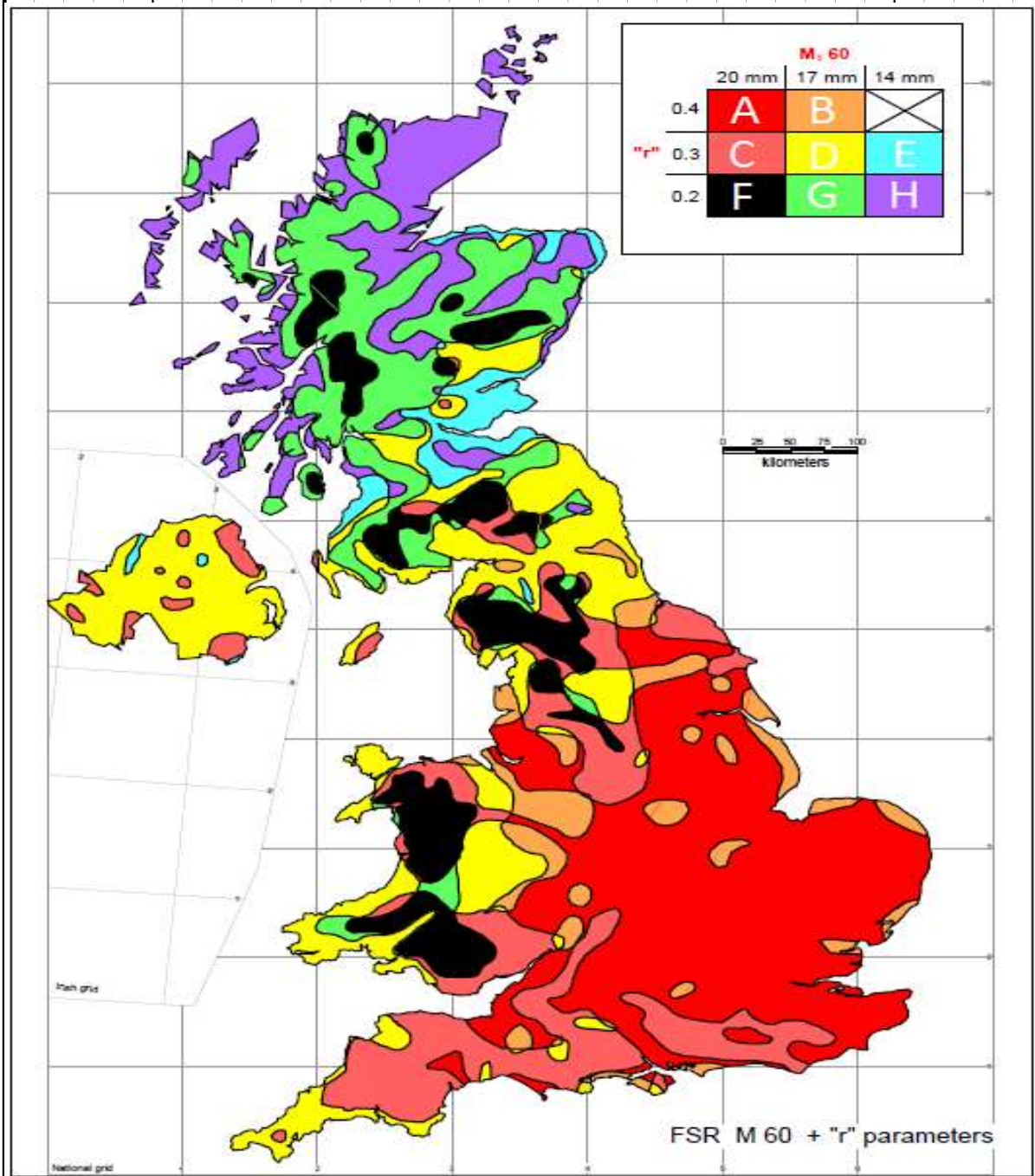
Colebrook-White Calculation

Registered User:

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CivilWeb Consulting Engineers Limited	Project:	Stanwick, Westergate, PO20 3UH	By:
	Calculation:	Attenuation System Design	
	Sheet Number:	1	Date:
Catchment Details			
Catchment Area		270.00	m ²
Runoff Coefficient		1.00	
Location Code		B	
Return Period		100	years
Climate Change Factor		40	%
UK Rainfall Map			



Colebrook-White Calculation

CivilWeb Consulting Engineers Limited	Project:	Stanwick, Westergate, PO20 3UH		By:
	Calculation:	Attenuation System Design		
	Sheet Number:	2	Date:	
				Approved:

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 35%;">Attenuation Tank Outflow</td> <td style="width: 15%; text-align: center;">0.35</td> <td style="width: 50%;">l/s</td> </tr> </table> Results Table <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Storm Duration (Mins)</th> <th>Inflow (l)</th> <th>Outflow (l)</th> <th>Storage Required (m³)</th> </tr> </thead> <tbody> <tr><td>5</td><td>4,322</td><td>105</td><td>4.22</td></tr> <tr><td>10</td><td>6,420</td><td>210</td><td>6.21</td></tr> <tr><td>15</td><td>7,806</td><td>315</td><td>7.49</td></tr> <tr><td>30</td><td>10,263</td><td>630</td><td>9.63</td></tr> <tr><td>45</td><td>11,794</td><td>945</td><td>10.85</td></tr> <tr><td>60</td><td>12,928</td><td>1,260</td><td>11.67</td></tr> <tr><td>120</td><td>15,725</td><td>2,520</td><td>13.20</td></tr> <tr><td>240</td><td>18,749</td><td>5,040</td><td>13.71</td></tr> <tr><td>480</td><td>21,168</td><td>10,080</td><td>11.09</td></tr> <tr><td>600</td><td>22,680</td><td>12,600</td><td>10.08</td></tr> <tr><td>1440</td><td>27,216</td><td>30,240</td><td>0.00</td></tr> </tbody> </table> Attenuation Tank Design <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 35%;">Tank Shape</td> <td colspan="2">Rectangular</td> </tr> <tr> <td>Number of Tanks</td> <td>1</td> <td></td> </tr> <tr> <td>Length</td> <td>10</td> <td>m</td> </tr> <tr> <td>Width</td> <td>4</td> <td>m</td> </tr> <tr> <td>Effective Depth</td> <td>0.4</td> <td>m</td> </tr> <tr> <td>Void Percentage</td> <td>95</td> <td>%</td> </tr> </table> <table style="width: 100%;"> <tr> <td style="width: 40%;">Storage Area Required</td> <td>13.71 m³</td> <td></td> </tr> <tr> <td>Storage Area Provided</td> <td>15.20 m³</td> <td style="text-align: right; color: green;">Acceptable</td> </tr> <tr><td colspan="3"> </td></tr> <tr> <td>Time for Emptying 50%</td> <td>5.4 hours</td> <td style="text-align: right; color: green;">Acceptable</td> </tr> </table>	Attenuation Tank Outflow	0.35	l/s	Storm Duration (Mins)	Inflow (l)	Outflow (l)	Storage Required (m³)	5	4,322	105	4.22	10	6,420	210	6.21	15	7,806	315	7.49	30	10,263	630	9.63	45	11,794	945	10.85	60	12,928	1,260	11.67	120	15,725	2,520	13.20	240	18,749	5,040	13.71	480	21,168	10,080	11.09	600	22,680	12,600	10.08	1440	27,216	30,240	0.00	Tank Shape	Rectangular		Number of Tanks	1		Length	10	m	Width	4	m	Effective Depth	0.4	m	Void Percentage	95	%	Storage Area Required	13.71 m³		Storage Area Provided	15.20 m³	Acceptable				Time for Emptying 50%	5.4 hours	Acceptable	
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