

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Title: Rainfall Analysis Criteria			
			Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY	

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	300
Pre-fill Manhole Sumps	☒
Perform No Discharge Analysis	☐

Rainfall	
Rossett	Type: FSR
Region	England And Wales
M5-60 (mm)	18.0
Ratio R	0.354
Summer	☒
Winter	☒

Return Period	
Return Period (years)	Increase Rainfall (%)
10.0	0.000

Storm Durations	
Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Details: Type: Junctions Summary Storm Phase: South			
			Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY	



Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
Silt Trap	Rossett: 10 years: +0 %: 15 mins: Winter	13.441	11.924	12.419	0.495	2.5	0.079	0.000	2.4	1.556	OK
Silt Trap (35)	Rossett: 10 years: +0 %: 15 mins: Winter	13.429	11.866	12.362	0.496	2.7	0.079	0.000	2.6	1.733	OK
Silt Trap (61)	Rossett: 10 years: +0 %: 15 mins: Winter	13.394	11.868	12.357	0.489	2.0	0.078	0.000	1.9	1.250	OK
Silt Trap (50)	Rossett: 10 years: +0 %: 15 mins: Winter	13.047	11.980	12.474	0.494	2.4	0.078	0.000	2.3	1.475	OK
Silt Trap (49)	Rossett: 10 years: +0 %: 15 mins: Winter	13.452	12.145	12.644	0.499	2.9	0.079	0.000	2.9	1.769	OK
Silt Trap (60)	Rossett: 10 years: +0 %: 15 mins: Winter	13.348	11.793	12.284	0.491	2.1	0.078	0.000	2.1	1.370	OK
Silt Trap (59)	Rossett: 10 years: +0 %: 15 mins: Winter	13.105	11.745	12.333	0.588	14.9	0.093	0.000	14.6	8.692	OK
Silt Trap (7)	Rossett: 10 years: +0 %: 15 mins: Winter	13.150	11.796	12.325	0.529	6.9	0.084	0.000	6.8	4.370	OK
Silt Trap (57)	Rossett: 10 years: +0 %: 15 mins: Winter	13.291	11.953	12.442	0.489	2.0	0.078	0.000	1.9	1.250	OK
Silt Trap (12)	Rossett: 10 years: +0 %: 15 mins: Winter	13.488	11.889	12.381	0.492	2.2	0.078	0.000	2.2	1.439	OK
Silt Trap (23)	Rossett: 10 years: +0 %: 15 mins: Winter	13.423	11.805	12.334	0.529	6.7	0.084	0.000	6.6	3.485	OK
Silt Trap (1)	Rossett: 10 years: +0 %: 30 mins: Winter	13.398	11.891	12.375	0.484	1.4	0.077	0.000	1.4	1.306	OK
Silt Trap (21)	Rossett: 10 years: +0 %: 15 mins: Winter	13.348	11.863	12.361	0.498	2.8	0.079	0.000	2.7	1.784	OK
Silt Trap (25)	Rossett: 10 years: +0 %: 15 mins: Winter	13.340	11.753	12.276	0.523	5.9	0.083	0.000	5.8	2.748	OK
Silt Trap (4)	Rossett: 10 years: +0 %: 30 mins: Winter	13.417	11.570	12.125	0.555	1.0	0.088	0.000	0.9	0.910	OK
Silt Trap (48)	Rossett: 10 years: +0 %: 15 mins: Winter	13.443	12.145	12.643	0.498	2.8	0.079	0.000	2.7	1.706	OK
Silt Trap (47)	Rossett: 10 years: +0 %: 15 mins: Winter	13.430	12.087	12.579	0.492	2.3	0.078	0.000	2.2	1.427	OK
Silt Trap (46)	Rossett: 10 years: +0 %: 15 mins: Winter	13.435	12.198	12.689	0.491	2.1	0.078	0.000	2.0	1.310	OK
Silt Trap (45)	Rossett: 10 years: +0 %: 15 mins: Winter	13.452	11.717	12.202	0.485	1.5	0.077	0.000	1.5	0.840	OK
Silt Trap (37)	Rossett: 10 years: +0 %: 15 mins: Winter	13.448	12.195	12.665	0.470	0.5	0.075	0.000	0.5	0.345	OK
Silt Trap (11)	Rossett: 10 years: +0 %: 15 mins: Winter	13.507	11.945	12.435	0.490	2.0	0.078	0.000	2.0	1.196	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023				
	Designed by: CP	Checked by: RDN	Approved By: RA		
	Report Details: Type: Junctions Summary Storm Phase: South				
			Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY		

Silt Trap (44)	Rossett: 10 years: +0 %: 15 mins: Winter	13.463	12.067	12.563	0.496	2.6	0.079	0.000	2.5	1.703	OK
Silt Trap (56)	Rossett: 10 years: +0 %: 15 mins: Winter	13.489	12.051	12.534	0.483	1.4	0.077	0.000	1.4	0.891	OK
Silt Trap (71)	Rossett: 10 years: +0 %: 15 mins: Winter	13.486	12.055	12.538	0.483	1.4	0.077	0.000	1.4	0.891	OK
Silt Trap (70)	Rossett: 10 years: +0 %: 15 mins: Winter	13.420	11.853	12.337	0.484	1.5	0.077	0.000	1.4	0.852	OK
Silt Trap (36)	Rossett: 10 years: +0 %: 15 mins: Winter	13.420	12.043	12.539	0.496	2.6	0.079	0.000	2.6	1.619	OK
Silt Trap (64)	Rossett: 10 years: +0 %: 15 mins: Winter	13.464	11.844	12.333	0.489	1.9	0.078	0.000	1.9	1.133	OK
Silt Trap (63)	Rossett: 10 years: +0 %: 15 mins: Winter	13.464	12.059	12.542	0.483	1.4	0.077	0.000	1.4	0.891	OK
Silt Trap (62)	Rossett: 10 years: +0 %: 15 mins: Winter	13.467	12.023	12.508	0.485	1.6	0.077	0.000	1.5	1.029	OK
Silt Trap (66)	Rossett: 10 years: +0 %: 15 mins: Winter	13.451	12.025	12.510	0.485	1.6	0.077	0.000	1.5	1.028	OK
Silt Trap (52)	Rossett: 10 years: +0 %: 15 mins: Winter	13.603	12.196	12.685	0.489	1.9	0.078	0.000	1.8	1.208	OK
Silt Trap (32)	Rossett: 10 years: +0 %: 15 mins: Winter	13.693	12.146	12.635	0.489	1.9	0.078	0.000	1.8	1.208	OK
Silt Trap (31)	Rossett: 10 years: +0 %: 15 mins: Winter	13.690	12.256	12.745	0.489	2.0	0.078	0.000	1.9	1.253	OK
Silt Trap (26)	Rossett: 10 years: +0 %: 15 mins: Winter	13.457	12.025	12.524	0.499	4.1	0.079	0.000	4.0	2.420	OK
_Silt Trap (30)	Rossett: 10 years: +0 %: 15 mins: Winter	13.400	12.011	12.531	0.520	6.1	0.083	0.000	5.9	3.209	OK
Silt Trap (10)	Rossett: 10 years: +0 %: 15 mins: Winter	13.512	11.923	12.420	0.497	2.7	0.079	0.000	2.6	1.658	OK
Silt Trap (16)	Rossett: 10 years: +0 %: 15 mins: Winter	13.504	12.092	12.583	0.491	2.1	0.078	0.000	2.1	1.373	OK
Silt Trap (51)	Rossett: 10 years: +0 %: 15 mins: Winter	13.456	11.864	12.360	0.496	2.6	0.079	0.000	2.6	1.718	OK
Silt Trap (20)	Rossett: 10 years: +0 %: 15 mins: Winter	13.420	11.891	12.383	0.492	2.2	0.078	0.000	2.1	1.388	OK
Silt Trap (54)	Rossett: 10 years: +0 %: 15 mins: Winter	13.414	11.897	12.387	0.490	2.0	0.078	0.000	1.9	1.289	OK
Silt Trap (73)	Rossett: 10 years: +0 %: 15 mins: Winter	13.382	11.888	12.380	0.492	2.2	0.078	0.000	2.1	1.406	OK
Silt Trap (3)	Rossett: 10 years: +0 %: 15 mins: Winter	13.352	11.903	12.393	0.490	2.0	0.078	0.000	1.9	1.259	OK
Silt Trap (2)	Rossett: 10 years: +0 %: 15 mins: Winter	13.350	11.891	12.382	0.491	2.2	0.078	0.000	2.1	1.403	OK
Silt Trap (8)	Rossett: 10 years: +0 %: 15 mins: Winter	13.394	11.897	12.387	0.490	2.0	0.078	0.000	1.9	1.286	OK
_Silt Trap (65)	Rossett: 10 years: +0 %: 30 mins: Winter	13.567	11.800	12.374	0.574	6.3	0.091	0.000	6.2	5.844	OK
Silt Trap (18)	Rossett: 10 years: +0 %: 15 mins: Winter	13.474	11.929	12.424	0.495	2.7	0.079	0.000	2.6	1.646	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023							
	Designed by: CP	Checked by: RDN	Approved By: RA					
	Report Details: Type: Junctions Summary Storm Phase: South							
			Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY					

Simple Junction	Rossett: 10 years: +0 %: 60 mins: Winter		11.650	12.096	0.446	53.2			52.4	169.458	Surcharged
Hydro-Brake	Rossett: 10 years: +0 %: 360 mins: Winter	13.412	11.035	11.844	0.809	7.1	2.059	0.000	6.9	246.058	Surcharged
Manhole (R4TH)	Rossett: 10 years: +0 %: 30 mins: Winter	13.486	12.285	12.379	0.094	8.0	0.081	0.000	7.7	7.404	OK
Silt Trap (5)	Rossett: 10 years: +0 %: 30 mins: Winter	13.368	12.093	12.156	0.063	3.5	0.010	0.000	3.4	3.335	OK
Domestic IC (3)	Rossett: 10 years: +0 %: 15 mins: Winter	13.279	12.141	12.195	0.054	3.5	0.009	0.000	3.5	2.549	OK
Domestic IC (2)	Rossett: 10 years: +0 %: 30 mins: Winter	13.102	12.227	12.279	0.052	3.6	0.008	0.000	3.5	3.341	OK
Domestic IC (1)	Rossett: 10 years: +0 %: 30 mins: Winter	12.923	12.313	12.358	0.045	2.7	0.007	0.000	2.7	2.507	OK
Domestic IC	Rossett: 10 years: +0 %: 30 mins: Winter	12.881	12.400	12.425	0.025	0.9	0.004	0.000	0.9	0.835	OK
Wet Well	Rossett: 10 years: +0 %: 120 mins: Winter	13.404	10.971	11.034	0.063	6.9	0.000	0.000	6.9	74.222	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Details: Type: Stormwater Controls Summary Storm Phase: South			
Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY				



Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
S Road 1 (a)	Rossett: 10 years: +0 %: 30 mins: Winter	12.147	12.127	0.071	0.104	9.9	3.033	0.000	0.000	8.5	9.103	90.434	OK
S Road 1 (b)	Rossett: 10 years: +0 %: 60 mins: Winter	12.110	12.106	0.111	0.258	27.7	18.437	0.000	0.000	19.8	42.346	82.590	OK
S Road 1 (c)	Rossett: 10 years: +0 %: 60 mins: Winter	12.105	12.099	0.275	0.357	37.7	18.383	0.000	0.000	19.8	68.665	74.803	OK
S Road 1 (d)	Rossett: 10 years: +0 %: 60 mins: Winter	12.064	11.953	0.505	0.496	65.1	33.695	0.000	0.000	43.1	175.275	65.798	OK
S Road 1 (e)	Rossett: 10 years: +0 %: 120 mins: Winter	11.939	11.896	0.497	0.505	44.0	16.783	0.000	0.000	41.5	227.664	67.298	OK
S Road 2	Rossett: 10 years: +0 %: 60 mins: Winter	12.099	12.097	0.219	0.367	28.7	25.306	0.000	0.000	17.2	43.121	71.283	OK
S Road 3 (a)	Rossett: 10 years: +0 %: 60 mins: Winter	12.172	12.105	0.145	0.115	31.0	2.664	0.000	0.000	30.5	58.443	87.003	OK
S Road 3 (b)	Rossett: 10 years: +0 %: 30 mins: Winter	12.289	12.188	0.139	0.142	30.8	8.566	0.000	0.000	29.4	36.505	83.327	OK
S Road 4	Rossett: 10 years: +0 %: 30 mins: Winter	12.368	12.344	0.160	0.194	29.6	14.818	0.000	0.000	19.9	24.791	78.219	OK
S Road 1TH	Rossett: 10 years: +0 %: 360 mins: Winter	11.856	11.856	0.465	0.519	31.3	17.459	0.000	0.000	29.6	340.532	66.191	OK
Pond	Rossett: 10 years: +0 %: 360 mins: Winter	11.848	11.848	0.690	0.690	29.5	177.025	0.000	0.000	7.1	247.880	74.062	OK
Plot 97-101 SA	Rossett: 10 years: +0 %: 60 mins: Winter	13.353	13.206	0.056	0.206	8.1	6.722	0.000	10.382	0.0	0.000	83.368	OK
Plot 80-82 SA	Rossett: 10 years: +0 %: 60 mins: Winter	13.181	13.006	0.061	0.206	9.6	8.066	0.000	11.994	0.0	0.000	83.772	OK
Plot 122-124 SA	Rossett: 10 years: +0 %: 60 mins: Winter	13.294	13.070	0.053	0.270	7.7	6.672	0.000	9.043	0.0	0.000	83.302	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Details: Type: Connections Summary Storm Phase: South			
Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY				



Critical Storm Per Item: Rank By: Total Discharge Volume

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
Pipe	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (18)	S Road 1 (a)	13.474	12.392	0.012	6.575	0.3	0.01	0.2	OK
Pipe (1)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (4)	S Road 1 (b)	13.417	12.044	0.034	2.724	0.1	0.01	0.1	OK
Pipe (2)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (8)	S Road 1 (b)	13.394	12.359	0.011	5.279	0.3	0.01	0.2	OK
Pipe (3)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (2)	S Road 1 (b)	13.350	12.353	0.012	5.732	0.3	0.01	0.2	OK
Pipe (4)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (25)	S Road 1 (b)	13.340	12.219	0.016	11.225	0.3	0.02	0.3	OK
Pipe (5)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (3)	S Road 1 (b)	13.352	12.364	0.011	5.204	0.3	0.01	0.2	OK
Pipe (6)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (21)	S Road 1 (b)	13.348	12.326	0.013	7.283	0.3	0.01	0.2	OK
Pipe (7)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (73)	S Road 1 (b)	13.382	12.350	0.012	5.756	0.3	0.01	0.2	OK
Pipe (8)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (54)	S Road 1 (b)	13.414	12.359	0.011	5.309	0.3	0.01	0.2	OK
Pipe (9)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (20)	S Road 1 (b)	13.420	12.353	0.012	5.696	0.3	0.01	0.2	OK
Pipe (10)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (23)	S Road 1 (c)	13.423	12.273	0.018	14.069	0.4	0.03	0.4	OK
Pipe (11)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (51)	S Road 1 (c)	13.456	12.327	0.013	7.061	0.3	0.01	0.2	OK
Pipe (12)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (1)	S Road 1 (c)	13.398	12.351	0.010	4.007	0.2	0.01	0.1	OK
Pipe (13)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (12)	S Road 1 (c)	13.488	12.351	0.012	5.840	0.3	0.01	0.2	OK
Pipe (14)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (16)	S Road 1 (c)	13.504	12.554	0.012	5.636	0.3	0.01	0.2	OK
Pipe (15)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (11)	S Road 1 (c)	13.507	12.406	0.010	4.763	0.3	0.01	0.1	OK
Pipe (16)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (10)	S Road 1 (c)	13.512	12.386	0.013	6.617	0.3	0.01	0.2	OK
Pipe (17)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (7)	S Road 2	13.150	12.266	0.020	17.753	0.4	0.04	0.5	OK
Pipe (18)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (59)	S Road 2	13.105	12.223	0.028	35.375	0.5	0.07	1.0	OK
Pipe (19)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (60)	S Road 2	13.348	12.255	0.012	5.606	0.3	0.01	0.2	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023			
	Designed by: CP	Checked by: RDN	Approved By: RA	
	Report Details: Type: Connections Summary Storm Phase: South			

Pipe (20)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (61)	S Road 2	13.394	12.329	0.011	5.150	0.3	0.01	0.2	OK
Pipe (21)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (57)	S Road 2	13.291	12.414	0.011	5.150	0.3	0.01	0.2	OK
Pipe (22)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (36)	S Road 2	13.420	12.506	0.013	6.479	0.3	0.01	0.2	OK
Pipe (23)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (49)	S Road 1 (e)	13.452	12.608	0.013	7.043	0.3	0.02	0.2	OK
Pipe (24)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (50)	S Road 1 (e)	13.047	12.442	0.012	5.990	0.3	0.01	0.2	OK
Pipe (25)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (48)	S Road 1 (e)	13.443	12.608	0.013	6.785	0.3	0.01	0.2	OK
Pipe (26)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap	S Road 1 (d)	13.441	12.386	0.012	6.254	0.3	0.01	0.2	OK
Pipe (27)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (46)	S Road 1 (d)	13.435	12.660	0.011	5.393	0.3	0.01	0.2	OK
Pipe (28)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (47)	S Road 1 (d)	13.430	12.549	0.012	5.834	0.3	0.01	0.2	OK
Pipe (29)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (35)	S Road 1 (d)	13.429	12.329	0.012	7.085	0.3	0.01	0.2	OK
Pipe (30)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (37)	S Road 1 (d)	13.448	12.651	0.005	1.475	0.2	0	0.0	OK
Pipe (31)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (44)	S Road 3 (a)	13.463	12.530	0.013	7.007	0.3	0.01	0.2	OK
Pipe (32)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (45)	S Road 3 (a)	13.452	12.176	0.009	3.473	0.2	0.01	0.1	OK
Pipe (33)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (56)	S Road 3 (b)	13.489	12.511	0.009	3.623	0.2	0.01	0.1	OK
Pipe (34)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (64)	S Road 3 (b)	13.464	12.305	0.010	4.511	0.3	0.01	0.1	OK
Pipe (35)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (63)	S Road 3 (b)	13.464	12.519	0.009	3.623	0.2	0.01	0.1	OK
Pipe (36)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (71)	S Road 3 (b)	13.486	12.515	0.009	3.623	0.2	0.01	0.1	OK
Pipe (37)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (62)	S Road 3 (b)	13.467	12.483	0.010	4.346	0.3	0.01	0.1	OK
Pipe (38)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (70)	S Road 3 (b)	13.420	12.313	0.009	3.479	0.2	0.01	0.1	OK
Pipe (39)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (66)	S Road 3 (b)	13.451	12.485	0.010	4.346	0.2	0.01	0.1	OK
Pipe (40)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	_Silt Trap (65)	S Road 4	13.567	12.270	0.024	17.957	0.3	0.04	0.5	OK
Pipe (41)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (52)	S Road 4	13.603	12.657	0.011	5.024	0.3	0.01	0.2	OK
Pipe (42)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (32)	S Road 4	13.693	12.607	0.011	5.024	0.3	0.01	0.2	OK
Pipe (43)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (31)	S Road 4	13.690	12.717	0.011	5.168	0.3	0.01	0.2	OK
R1(a) - R1(b)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 1 (a)	S Road 1 (b)	13.348	12.051	0.033	28.462	0.1	0.01	0.9	OK

CGH02 - Rossett Road, Rossett: Southern Parcel Surface Water (SAB) Details Rev 4.0 Results with a Factor of Safety of 10	Date: 20/10/0023					
	Designed by: CP	Checked by: RDN	Approved By: RA			
	Report Details: Type: Connections Summary Storm Phase: South				Betts-Associates: Old Marsh Farm Barns, Welsh Road, Sealand Flintshire, CH5 2LY	

R1(b) - R1(c)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 1 (b)	S Road 1 (c)	13.318	11.895	0.051	106.957	0.2	0.04	3.2	OK
R1(d) - R1(e)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 1 (d)	S Road 1 (e)	13.331	11.671	0.225	479.704	0.3	0.17	13.9	OK
R1(e) - R1TH	Rossett: 10 years: +0 %: 1440 mins: Winter	No Delay	S Road 1 (e)	S Road 1TH		11.694	0.159	507.087	0.0		14.3	
R1(c) - R1(d)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 1 (c)	Simple Junction	13.411	11.799	0.052	174.022	0.4	0.06	5.2	OK
R1(c) - R1(d) (1)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Simple Junction	S Road 1 (d)	13.386	11.727	0.120	432.145	0.5	0.16	12.8	OK
R2 - R1(d)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 2	Simple Junction	13.304	11.773	0.049	108.411	0.3	0.04	3.2	OK
Pipe (44)	Rossett: 10 years: +0 %: 1440 mins: Winter	No Delay	S Road 4	S Road 3 (b)		12.205	0.056	84.931	0.0		2.5	
Pipe (48)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 3 (b)	S Road 3 (a)	13.364	12.099	0.052	128.292	0.3	0.05	3.8	OK
R3(a) - R1(d)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 3 (a)	Simple Junction	13.332	12.038	0.047	149.714	0.4	0.03	4.4	OK
Pipe (45)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	_Silt Trap (30)	Manhole (R4TH)	13.400	12.478	0.017	12.989	0.3	0.03	0.4	OK
Pipe (49)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (26)	Manhole (R4TH)	13.457	12.488	0.013	9.782	0.4	0.01	0.3	OK
Pipe (50)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Manhole (R4TH)	S Road 4	13.486	12.305	0.030	22.769	0.2	0.02	0.7	OK
Pipe (47)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Pond	Hydro-Brake	13.210	11.706	0.225	515.218	0.3	0.17	6.9	Surcharged
Pipe (46)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	S Road 1TH	Pond	13.188	11.687	0.225	515.968	0.9	0.33	13.7	Surcharged
Pipe (51)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Domestic IC	Domestic IC (1)	12.881	12.408	0.011	2.502	0.1	0.01	0.1	OK
Pipe (52)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Domestic IC (1)	Domestic IC (2)	12.923	12.327	0.015	7.505	0.3	0.02	0.2	OK
Pipe (53)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Domestic IC (2)	Domestic IC (3)	13.102	12.243	0.016	10.006	0.3	0.02	0.3	OK
Pipe (54)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Domestic IC (3)	Silt Trap (5)	13.279	12.157	0.016	10.006	0.3	0.02	0.3	OK
Pipe (55)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Silt Trap (5)	S Road 1 (a)	13.368	12.108	0.023	10.006	0.2	0.02	0.3	OK
Pipe (56)	Rossett: 10 years: +0 %: 1440 mins: Winter	Pipe	Hydro-Brake	Wet Well	13.412	11.701	0.064	515.193	0.7	0.17	6.9	Surcharged