

Inlets
SWMH19

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	178.0	0.500	273.0	0.900	361.0	1.300	456.0	1.700	561.0
0.300	231.0	0.700	316.0	1.100	407.0	1.500	507.0	1.900	616.0

Node SWMH18 Porous Paving Storage Structure

Underdrain Link Type	Circular	Underdrain Slope (1:X)	550.0	Porosity	0.30
Underdrain Diameter (mm)	600	Underdrain Height above base (m)	0.000	Invert Level (m)	56.670
Underdrain Velocity	Colebrook-White	Base Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0
Underdrain ks (mm) / n	0.525	Side Inf Coefficient (m/hr)	0.00000		
Underdrain Length (m)	18.000	Safety Factor	2.0		

Inlets
SWMH15 | SWMH17

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	40.0	40.0	2.499	40.0	122.5	2.500	130.0	255.0

15 minute summer	PP01	10	61.026	0.026	1.9	0.0149	0.0000	OK
15 minute summer	PP02	10	61.327	0.027	1.6	0.0127	0.0000	OK
15 minute summer	PP03	10	61.181	0.031	2.0	0.0186	0.0000	OK
15 minute summer	PP04	10	62.920	0.020	1.2	0.0075	0.0000	OK
15 minute summer	PP05	10	60.550	0.050	7.9	0.1178	0.0000	OK
15 minute summer	PP06	10	61.519	0.019	1.6	0.0090	0.0000	OK
15 minute summer	PP07	10	61.538	0.038	2.8	0.0320	0.0000	OK
15 minute summer	PP08	10	61.533	0.033	2.0	0.0197	0.0000	OK
15 minute summer	PP09	10	58.964	0.064	7.3	0.0311	0.0000	OK
15 minute summer	PP10	10	59.737	0.037	2.3	0.0253	0.0000	OK
15 minute summer	PP11	10	59.734	0.034	2.0	0.0207	0.0000	OK
15 minute summer	PP12	10	59.274	0.074	8.1	0.1783	0.0000	OK
15 minute summer	PP13	10	59.492	0.042	3.4	0.0427	0.0000	OK
15 minute summer	PP14	10	59.344	0.044	4.4	0.0572	0.0000	OK
15 minute summer	PP15	10	59.772	0.022	1.1	0.0070	0.0000	OK
15 minute summer	PP16	10	59.282	0.032	1.9	0.0178	0.0000	OK

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conisbee	Alan Conisbee & Associates Ltd		File: 250595 Surface Water Drainage for Planning.				Page 6		
			Network: Storm Network				250995-CN-C-0001		
			Jake Dooner				Padnell Grange, Waterloooville		
			March 2026				Surface Water Drainage for Planning		
Results for 2 year Critical Storm Duration. Lowest mass balance: 99.94%									
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	
15 minute summer	SWMH01	10	60.760	0.085	25.5	0.2128	0.0000	OK	
15 minute summer	SWMH02	11	60.053	0.153	36.9	0.2618	0.0000	OK	
15 minute summer	SWMH03	11	59.975	0.155	36.5	0.1749	0.0000	OK	
15 minute summer	SWMH04	10	60.158	0.058	9.8	0.0807	0.0000	OK	
15 minute summer	SWMH05	11	59.808	0.088	49.7	0.1180	0.0000	OK	
15 minute summer	SWMH06	10	59.398	0.098	24.0	0.1879	0.0000	OK	
15 minute summer	SWMH07	11	59.133	0.153	33.5	0.2314	0.0000	OK	
15 minute summer	SWMH08	11	59.018	0.268	94.8	0.3731	0.0000	OK	
15 minute summer	SWMH09	11	58.951	0.251	114.5	0.3407	0.0000	OK	
15 minute summer	SWMH10	11	58.806	0.126	123.8	0.1605	0.0000	OK	
15 minute summer	SWMH11	11	58.073	0.073	13.7	0.0937	0.0000	OK	
15 minute summer	SWMH12	11	57.855	0.125	30.2	0.2411	0.0000	OK	
15 minute summer	SWMH13	11	57.710	0.110	41.4	0.1547	0.0000	OK	
15 minute summer	SWMH14	11	57.476	0.366	195.0	0.9495	0.0000	OK	
15 minute summer	SWMH15	12	57.069	0.367	200.3	0.0000	0.0000	OK	
15 minute summer	SWMH16	1	58.380	0.000	0.0	0.0000	0.0000	OK	
15 minute summer	SWMH17	12	57.011	0.308	5.8	0.0000	0.0000	OK	
15 minute summer	SWMH18	12	56.964	0.294	210.1	7.5273	0.0000	OK	
180 minute summer	SWMH19	120	56.782	0.532	81.2	0.0000	0.0000	OK	
180 minute summer	Attenuation Basin	120	56.765	0.515	53.2	121.0533	0.0000	SURCHARGED	
180 minute summer	SWMH20	120	56.331	0.131	28.2	0.2315	0.0000	OK	
180 minute summer	Outfall	120	56.127	0.127	28.2	0.0000	0.0000	OK	
15 minute summer	PP01	10	61.031	0.031	2.7	0.0178	0.0000	OK	
15 minute summer	PP02	10	61.332	0.032	2.3	0.0153	0.0000	OK	
15 minute summer	PP03	10	61.187	0.037	2.9	0.0225	0.0000	OK	
15 minute summer	PP04	10	62.924	0.024	1.8	0.0091	0.0000	OK	
15 minute summer	PP05	10	60.561	0.061	11.3	0.1443	0.0000	OK	
15 minute summer	PP06	10	61.522	0.022	2.3	0.0108	0.0000	OK	
15 minute summer	PP07	10	61.546	0.046	4.0	0.0384	0.0000	OK	
15 minute summer	PP08	10	61.540	0.040	2.9	0.0238	0.0000	OK	
15 minute summer	PP09	11	58.988	0.088	10.5	0.0433	0.0000	OK	
15 minute summer	PP10	10	59.745	0.045	3.3	0.0304	0.0000	OK	
15 minute summer	PP11	10	59.742	0.042	2.9	0.0249	0.0000	OK	
15 minute summer	PP12	10	59.292	0.092	11.6	0.2235	0.0000	OK	
15 minute summer	PP13	10	59.501	0.051	4.9	0.0518	0.0000	OK	
15 minute summer	PP14	10	59.353	0.053	6.3	0.0693	0.0000	OK	
15 minute summer	PP15	11	59.776	0.026	1.5	0.0082	0.0000	OK	
15 minute summer	PP16	10	59.288	0.038	2.7	0.0214	0.0000	OK	
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)	
15 minute summer	SWMH01	1.001	SWMH02	25.2	0.984	0.178	1.2572	235.2	
15 minute summer	SWMH02	1.002	SWMH03	36.5	1.003	0.437	0.5121		
15 minute summer	SWMH03	1.003	SWMH05	36.7	1.375	0.519	0.6581		
15 minute summer	SWMH04	2.001	SWMH05	9.7	0.924	0.145	0.2572		
15 minute summer	SWMH05	1.004	SWMH08	49.7	1.140	0.189	0.7352		
15 minute summer	SWMH06	3.001	SWMH07	23.7	0.868	0.235	1.0858		
15 minute summer	SWMH07	3.002	SWMH08	33.3	0.972	0.476	0.6856		
15 minute summer	SWMH08	1.005	SWMH09	95.1	1.005	0.582	1.8282		
15 minute summer	SWMH09	1.006	SWMH10	112.8	1.898	0.711	0.5212		
15 minute summer	SWMH10	1.007	SWMH14	122.1	1.387	0.178	3.0677		
15 minute summer	SWMH11	5.001	SWMH12	13.8	0.678	0.132	0.6297		
15 minute summer	SWMH12	5.002	SWMH13	30.1	1.176	0.334	0.5035		
15 minute summer	SWMH13	5.003	SWMH14	41.6	0.751	0.292	1.4017		
15 minute summer	SWMH14	1.008	SWMH15	194.3	1.359	0.842	3.7465		
15 minute summer	SWMH15	Porous Paving	SWMH18	134.0	0.962	0.453	0.0000		
15 minute summer	SWMH16	6.001	SWMH17	0.0	0.000	0.000			
15 minute summer	SWMH17	Porous Paving	SWMH18	134.0	0.962	0.453			
15 minute summer	SWMH18	1.010	SWMH19	209.3	1.692	0.375	0.9394		
180 minute summer	Attenuation Basin	1.012	SWMH20	28.2	0.988	0.220	0.1078		235.2
180 minute summer	SWMH20	1.013	Outfall	28.2	0.976	0.380	1.2866		
15 minute summer	PP01	23	SWMH01	2.7	1.026	0.091	0.0192	0.0604	
15 minute summer	PP02	24	SWMH01	2.3	0.845	0.096	0.0302		
15 minute summer	PP03	22	SWMH02	2.9	0.865	0.128	0.0315		
15 minute summer	PP04	18	SWMH04	1.8	0.977	0.055	0.0110		
15 minute summer	PP05	6.000p	SWMH06	11.2	1.734	0.310	0.0315		
15 minute summer	PP06	7.000p	SWMH07	2.3	1.387	0.048	0.0345		
15 minute summer	PP07	17.000p	SWMH08	3.9	0.878	0.196	0.0703		
15 minute summer	PP08	19	SWMH09	2.8	0.766	0.149	0.0652		
15 minute summer	PP09	4.001	SWMH09	10.1	0.655	0.524	0.2422		
15 minute summer	PP10	16.000p	SWMH10	3.2	0.734	0.190	0.0969		
15 minute summer	PP11	15.000p	SWMH10	2.8	0.713	0.164	0.0853		
15 minute summer	PP12	12.000p	SWMH11	11.3	1.006	0.680	0.2564		
15 minute summer	PP13	13.000p	SWMH13	4.8	0.927	0.239	0.0606		
15 minute summer	PP14	14.000p	SWMH14	6.2	1.140	0.256	0.0882		
15 minute summer	PP15	20	SWMH14	1.5	0.757	0.062	0.0215		
15 minute summer	PP16	21	SWMH17	2.7	0.760	0.139	0.0604		
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Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SWMH01	1.001	SWMH02	60.5	1.160	0.427	2.4281	
15 minute summer	SWMH02	1.002	SWMH03	86.6	1.239	1.036	0.9669	
15 minute summer	SWMH03	1.003	SWMH05	86.9	1.664	1.230	1.2614	
15 minute summer	SWMH04	2.001	SWMH05	23.1	1.162	0.347	0.5005	
15 minute summer	SWMH05	1.004	SWMH08	117.9	1.943	0.450	0.9344	
15 minute summer	SWMH06	3.001	SWMH07	56.6	1.017	0.561	2.1014	
15 minute summer	SWMH07	3.002	SWMH08	78.4	1.113	1.121	1.4094	
15 minute summer	SWMH08	1.005	SWMH09	224.9	1.430	1.376	2.9372	
15 minute summer	SWMH09	1.006	SWMH10	271.5	2.415	1.712	0.9009	
15 minute summer	SWMH10	1.007	SWMH14	296.9	2.219	0.433	4.0872	
15 minute summer	SWMH11	5.001	SWMH12	30.7	0.758	0.295	1.7613	
15 minute summer	SWMH12	5.002	SWMH13	68.3	1.263	0.757	1.3844	
15 minute summer	SWMH13	5.003	SWMH14	89.3	1.268	0.626	2.1050	
15 minute summer	SWMH14	1.008	SWMH15	455.4	2.119	1.973	5.4038	
15 minute summer	SWMH15	Porous Paving	SWMH18	330.4	1.271	1.117		
15 minute summer	SWMH16	6.001	SWMH17	0.0	0.000	0.000	0.0000	
120 minute summer	SWMH17	Porous Paving	SWMH18	173.6	0.964	0.587		
120 minute summer	SWMH18	1.010	SWMH19	216.1	1.681	0.387	2.1376	
120 minute summer	Attenuation Basin	1.012	SWMH20	29.0	0.993	0.226	0.1102	
30 minute winter	SWMH20	1.013	Outfall	29.0	0.983	0.391	1.3133	286.7
15 minute summer	PP01	23	SWMH01	6.5	1.308	0.219	0.0363	
15 minute summer	PP02	24	SWMH01	5.4	1.078	0.229	0.0567	
15 minute summer	PP03	22	SWMH02	6.8	1.096	0.306	0.0591	
15 minute summer	PP04	18	SWMH04	4.2	1.245	0.129	0.0202	
15 minute summer	PP05	6.000p	SWMH06	26.7	2.097	0.737	0.0619	
15 minute summer	PP06	7.000p	SWMH07	5.4	1.789	0.114	0.0640	
15 minute summer	PP07	17.000p	SWMH08	9.5	1.107	0.471	0.1341	
15 minute summer	PP08	19	SWMH09	6.7	0.971	0.355	0.1223	
15 minute summer	PP09	4.001	SWMH09	24.2	1.372	1.255	0.3001	
15 minute summer	PP10	16.000p	SWMH10	7.6	0.924	0.450	0.1823	
15 minute summer	PP11	15.000p	SWMH10	6.7	0.902	0.392	0.1607	
15 minute summer	PP12	12.000p	SWMH11	24.7	1.402	1.488	0.3959	
15 minute summer	PP13	13.000p	SWMH13	11.5	1.156	0.568	0.1156	
15 minute summer	PP14	14.000p	SWMH14	14.8	1.419	0.611	0.1690	
15 minute summer	PP15	20	SWMH14	3.6	0.972	0.148	0.0401	
15 minute summer	PP16	21	SWMH17	6.3	0.965	0.330	0.1129	

15 minute summer	PP01	10	61.056	0.056	8.1	0.0318	0.0000	OK
15 minute summer	PP02	10	61.357	0.057	6.9	0.0271	0.0000	OK
15 minute summer	PP03	10	61.217	0.067	8.7	0.0408	0.0000	OK
15 minute summer	PP04	10	62.942	0.042	5.3	0.0158	0.0000	OK
15 minute summer	PP05	10	60.634	0.134	33.7	0.3158	0.0000	OK
15 minute summer	PP06	10	61.539	0.039	6.9	0.0186	0.0000	OK
15 minute summer	PP07	10	61.585	0.085	12.0	0.0717	0.0000	OK
15 minute summer	PP08	10	61.572	0.072	8.6	0.0432	0.0000	OK
15 minute summer	PP09	11	59.745	0.845	31.4	0.4134	0.0000	SURCHARGED
15 minute summer	PP10	10	59.782	0.082	9.7	0.0561	0.0000	OK
15 minute summer	PP11	10	59.776	0.076	8.6	0.0456	0.0000	OK
15 minute summer	PP12	10	59.700	0.500	34.5	1.6244	0.0000	FLOOD RISK
15 minute summer	PP13	10	59.548	0.098	14.5	0.0991	0.0000	OK
15 minute summer	PP14	10	59.402	0.102	18.8	0.1343	0.0000	OK
15 minute summer	PP15	10	59.795	0.045	4.6	0.0145	0.0000	OK
15 minute summer	PP16	10	59.319	0.069	8.0	0.0384	0.0000	OK

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15 minute summer	PP01	23	SWMH01	15.8	1.408	0.537	0.1293
15 minute summer	PP02	24	SWMH01	10.8	1.235	0.452	0.1976
15 minute summer	PP03	22	SWMH02	12.5	1.272	0.558	0.1666
15 minute summer	PP04	18	SWMH04	7.7	1.467	0.236	0.0314
15 minute summer	PP05	6.000p	SWMH06	45.9	2.608	1.269	0.0858
15 minute summer	PP06	7.000p	SWMH07	9.9	2.074	0.206	0.2324
15 minute summer	PP07	17.000p	SWMH08	17.2	1.256	0.856	0.2147
15 minute summer	PP08	19	SWMH09	12.2	1.124	0.648	0.1928
15 minute summer	PP09	4.001	SWMH09	39.6	2.249	2.057	0.3001
15 minute summer	PP10	16.000p	SWMH10	13.8	1.057	0.822	0.2915
15 minute summer	PP11	15.000p	SWMH10	12.2	1.041	0.715	0.2543
15 minute summer	PP12	12.000p	SWMH11	39.6	2.250	2.388	0.4027
15 minute summer	PP13	13.000p	SWMH13	20.6	1.268	1.020	0.1942
15 minute summer	PP14	14.000p	SWMH14	26.2	1.489	1.080	0.2809
15 minute summer	PP15	20	SWMH14	6.6	1.147	0.271	0.0622
15 minute summer	PP16	21	SWMH17	11.5	1.119	0.600	0.1769

APPENDIX H SUDS SUITABILITY ASSESSMENT

SuDS Suitability Assessment

CIRIA C753, The SuDS Manual details different SuDS features that may be suitable for use on development sites as part of the drainage network. The table below summarises the different options and gives an initial assessment of their suitability on the proposed development.

Preliminary SuDS Assessment

SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Green / blue roofs	<p>Rainwater can be stored at roof level to slow the discharge into the below ground network. This can be through;</p> <ul style="list-style-type: none"> Green roofs which have the benefit of increasing biodiversity and allowing evaporation of some rainfall to prevent it draining into the downstream network. Blue roofs which store water only, but allow for non-vegetated finishes over for podiums, terraces, or other considerations. 		The use of blue / green roofs would not be possible due to the proposed design using pitched roofs. Green / blue roofs require flat roofs.

SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Rainwater harvesting	Rainwater harvesting is the collection, storage, treatment (where necessary) of rainwater runoff from roofs and other impermeable areas for reuse within the site. In addition to reducing volume runoff from the site, they can reduce the water demand of the site delivering climate resilience and sustainability benefits.		<p>There are no suitable uses for reuse of rainwater on the site.</p> <p>It would not be economically feasible to provide recycled water as part of the water supply strategy to the site and there is no communal landscaping requiring irrigation.</p>
Trees	Trees help protect the environment in a number of ways including reducing runoff rates through interception of rainwater in their canopies and promoting infiltration in permeable / soft landscaping as well as the visual benefit they provide to the area.		<p>Trees are proposed to be included within soft landscaped areas of the development.</p> <p>The site also includes many existing retained trees.</p>

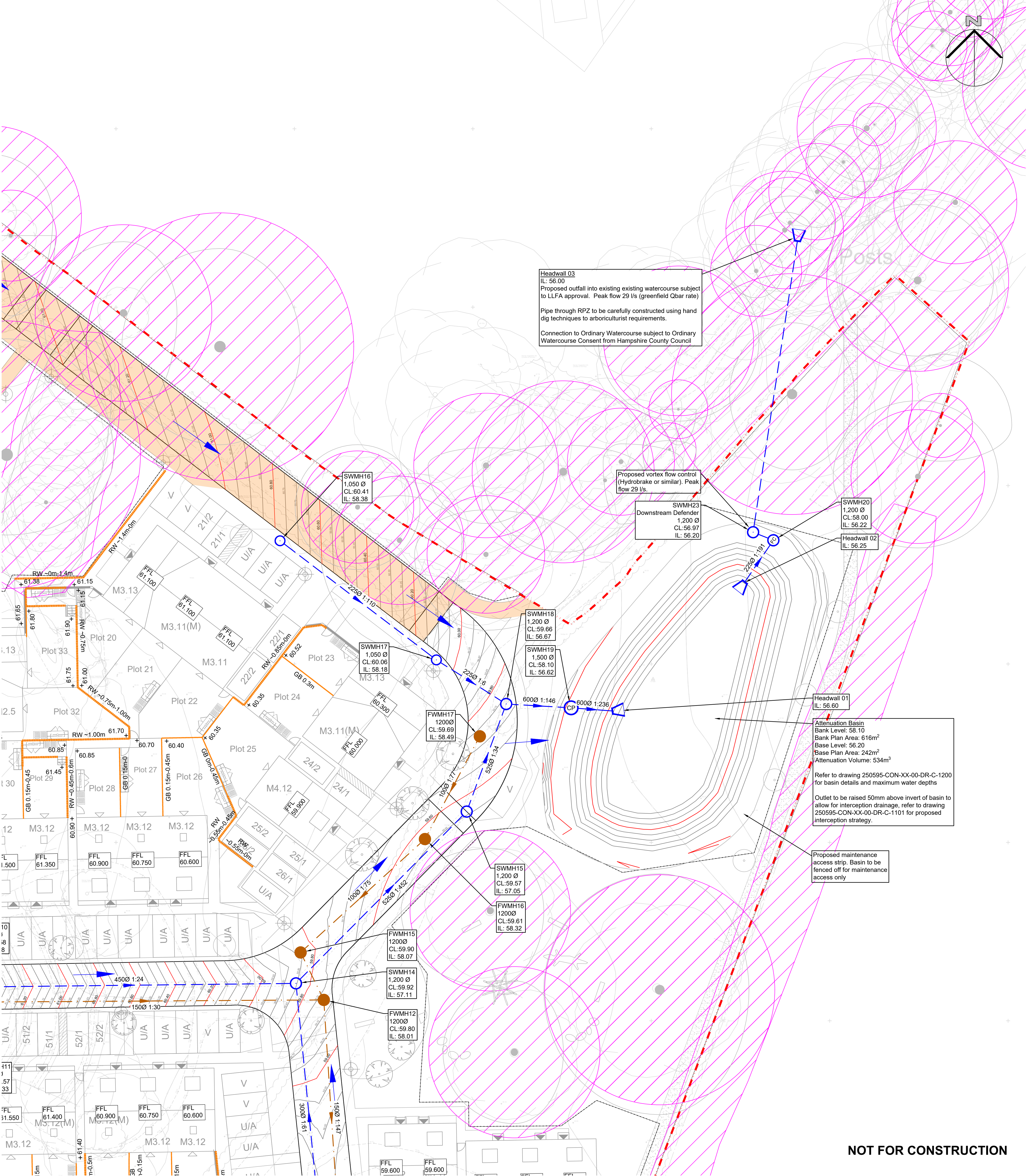
SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Infiltration systems	Infiltration systems hold water and allow it to percolate back into the ground as it would naturally in permeable areas. These can either be traditional shallow soakaways or deep bore soakaways. Their suitability depends on the soil permeability. Due to the effect of water on structural stability, these need to be sited sufficient distances from buildings / foundations. These can reduce volume runoff from sites and contribute to recharging groundwater		Due to the underlying site geology, and as demonstrated in the site testing, infiltration drainage will not be possible on the proposed development.
Pervious pavements	Pervious pavements provide pavement surfaces suitable for pedestrian / trafficked applications whilst allowing runoff to permeate through their structure. This provides filtration benefit to treat runoff. Pervious pavements can be used to collect, treat and convey flow only, or if site condition permit, allow infiltration to the ground direct from their base.		Proposed roads in tree root protection zones will be constructed of a no-dig porous surface. Private driveways, parking bays may be suitable, however have not been included due to economic viability and reliance on land within private demises for site wide drainage.

SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Bioretention systems	Bioretention systems including rain gardens are shallow landscaped depressions to treat and store runoff using engineered soils and vegetation. They provide amenity and visual benefit alongside additional climate benefits. They are usually used for containing / managing frequent storm events.		There are no suitable spaces on the site for raingardens due to the density of the proposed development for economic viability and the existing root protection zones.
Swales	Swales are shallow flat-bottomed channels to convey, infiltrate (where possible) and treat surface water runoff. They can enhance site design and provide biodiversity enhancements. They are often used to drain roads, paths or car parks. Swales can replace traditional pipes as a means to convey flows and used as part of a SuDS train of elements.		There are no suitable spaces on the site for raingardens due to the density of the proposed development for economic viability and the existing root protection zones.

SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Filter drains	Filter drains are shallow trenches filled with gravel to attenuate, treat and convey surface water runoff. They can convey / attenuate only or, depending on site conditions, allow infiltration direct to the ground.		Filter drains are not suitable due to the aspirations for drainage adoption.
Detention basins	Detention basins are landscaped depressions which are normally dry except for during and immediately after storm events. These attenuate flows through controls on the outfalls to store rainwater upstream in networks providing treatment and amenity benefits. With careful design, these can be used for leisure / amenity uses during normal / dry periods.		A detention basin will be used for surface water attenuation. The basin will not be accessible to the public, with access for maintenance only.
Ponds & wetlands	These are similar to detention basins, however they are designed to have a permanent level of water within them to provide biodiversity and amenity benefits.		The proposed detention basin will not include a permanent water level to enable it to contribute to the treatment and interception of surface water runoff.

SuDS Feature	Description		Suitability / comment
Colour Key: Red – Not suitable; Green – May be suitable			
Filter strips	Filter strips are uniformly graded gently sloping strips of grass or vegetation to treat runoff by slowing down flows, promoting sedimentation and infiltration. To operate as a filter strip, these need to have minimal access and not be used for recreational purposes.		These are not suitable for urban developments.
Attenuation storage tanks	Attenuation storage tanks temporarily hold back water for gradual release or reuse at a controlled rate to reduce the peak runoff rate. These can be in the form of above below ground geocellular / concrete tanks or oversized pipes.		These are suitable, however not required as all the attenuation can be provided within the detention basin and permeable pavements.
Proprietary treatment systems	Proprietary treatment systems are manufactured products to remove specified pollutants from runoff. These can reduce downstream maintenance requirements and provide additional benefit, if required, by receiving watercourses / discharge locations.		Other than catchpits / silt traps, proprietary treatment systems are not required as the proposed SuDS features provide sufficient treatment for water quality requirements.

APPENDIX I PROPOSED DRAINAGE STRATEGY DRAWINGS



- GENERAL NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
 - DO NOT SCALE FROM THIS DRAWING IN EITHER PAPER OR DIGITAL FORM. USE WRITTEN DIMENSIONS ONLY.
 - REFER TO DRAWING 250595-CON-XX-XX-DR-C-1010 AND DRAINAGE STRATEGY REPORT 250595-CON-XX-XX-RP-C-0001 FOR DETAILED DRAINAGE DESIGN INFORMATION
 - THIS DRAWING IS BASED ON:
A. PROPOSED OSP ARCHITECTURE SITE PLAN REFERENCE 24143-SK11L
B. SURVEY SOLUTIONS TOPOGRAPHICAL SURVEY REFERENCE 78296TVLS_01-09, AUGUST 2025
C. PROPOSED MARK WELBY TREE REMOVAL AND PROTECTION PLAN REFERENCE MW.2512.PGW.TPP-A0

DESIGN NOTE

ALL DRAINAGE SUBJECT TO LLFA AND PLANNING APPROVAL. NO WORKS TO BE UNDERTAKEN PRIOR TO APPROVAL.

EXTENT OF ON SITE SEWER ADOPTIONS SUBJECT TO DETAILED DESIGN.

ALL DRAINAGE SUBJECT TO DETAILED DESIGN AND COORDINATION

LEGEND

- SITE BOUNDARY
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED CATCHPIT
- PROPOSED FLOW CONTROL
- PROPOSED SURFACE WATER SEWER
- PROPOSED 6m EASEMENT TO ADOPTABLE OFF SITE DRAINAGE
- PROPOSED ROAD GULLY
- PROPOSED FOUL WATER MANHOLE
- PROPOSED FOUL WATER SEWER
- OVERLAND FLOW ROUTE

TREE ROOT PROTECTION AREA

CONSTRUCTION EXCLUSION ZONE

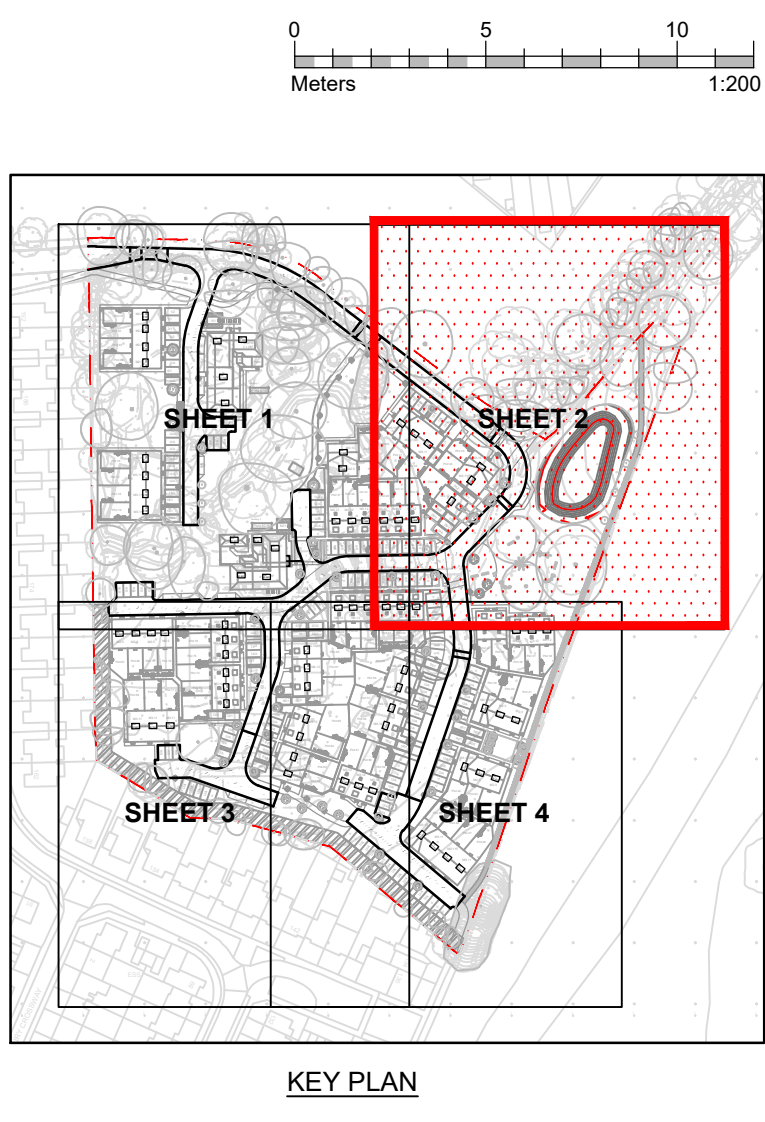
PROPOSED RETAINING WALLS & GRAVEL BOARDS

PROPOSED NO DIG CONSTRUCTION ZONE

PROPOSED ROAD CONTOURS

PRIMARY (EVERY 200mm)

SECONDARY (EVERY 50mm)



NOT FOR CONSTRUCTION

P03	31.03.26	Planning Issue.	GA	AP
P02	13.03.26	Draft Planning Issue	JD	AP
P01	24.09.25	Preliminary Issue.	JD	AP
Rev	Date	Description	Drawn	Check

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Drawing Status	S2 FOR INFORMATION		
Project	PADNELL GRANGE, WATERLOOVILLE		
Title	PRINCIPAL DRAINAGE SHEET 2 OF 4		
Drawing No	250595-CON-XX-00-DR-C-1001		
Revision	P03		
Date	MAR 2026	Scale	1:200@A1
Drawn	JD	Engineer	AP
Project No	250595		

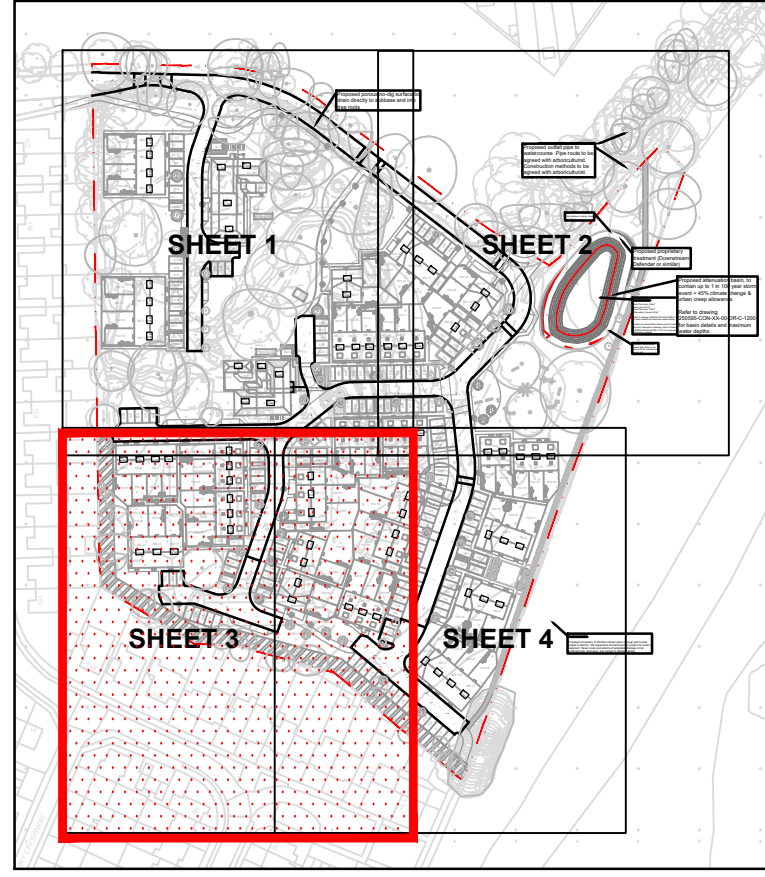
GENERAL NOTES

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- THIS DRAWING IS BASED ON:
 - PROPOSED OSP ARCHITECTURE SITE PLAN REFERENCE 24143-SK11L
 - SURVEY SOLUTIONS TOPOGRAPHICAL SURVEY REFERENCE 78296TVLS_01-09, AUGUST 2025
 - PROPOSED MARK WELBY TREE REMOVAL AND PROTECTION PLAN REFERENCE MW.2512.PGW.TPP-A0

LEGEND

- SITE BOUNDARY
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED CATCHPIT
- PROPOSED FLOW CONTROL
- PROPOSED SURFACE WATER SEWER
- PROPOSED 6m EASEMENT TO ADAPTABLE OFF SITE DRAINAGE
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- PROPOSED FOUL WATER MANHOLE
- PROPOSED FOUL WATER SEWER
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- TREE ROOT PROTECTION AREA
- CONSTRUCTION EXCLUSION ZONE
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 - SECONDARY (EVERY 50mm)



KEY PLAN

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Drawing Status
S2 FOR INFORMATION

Project
**PADNELL GRANGE,
WATERLOOVILLE**

Title
**PRINCIPAL DRAINAGE
SHEET 3 OF 4**

Drawing No
250595-CON-XX-00-DR-C-1002

Date
MAR 2026

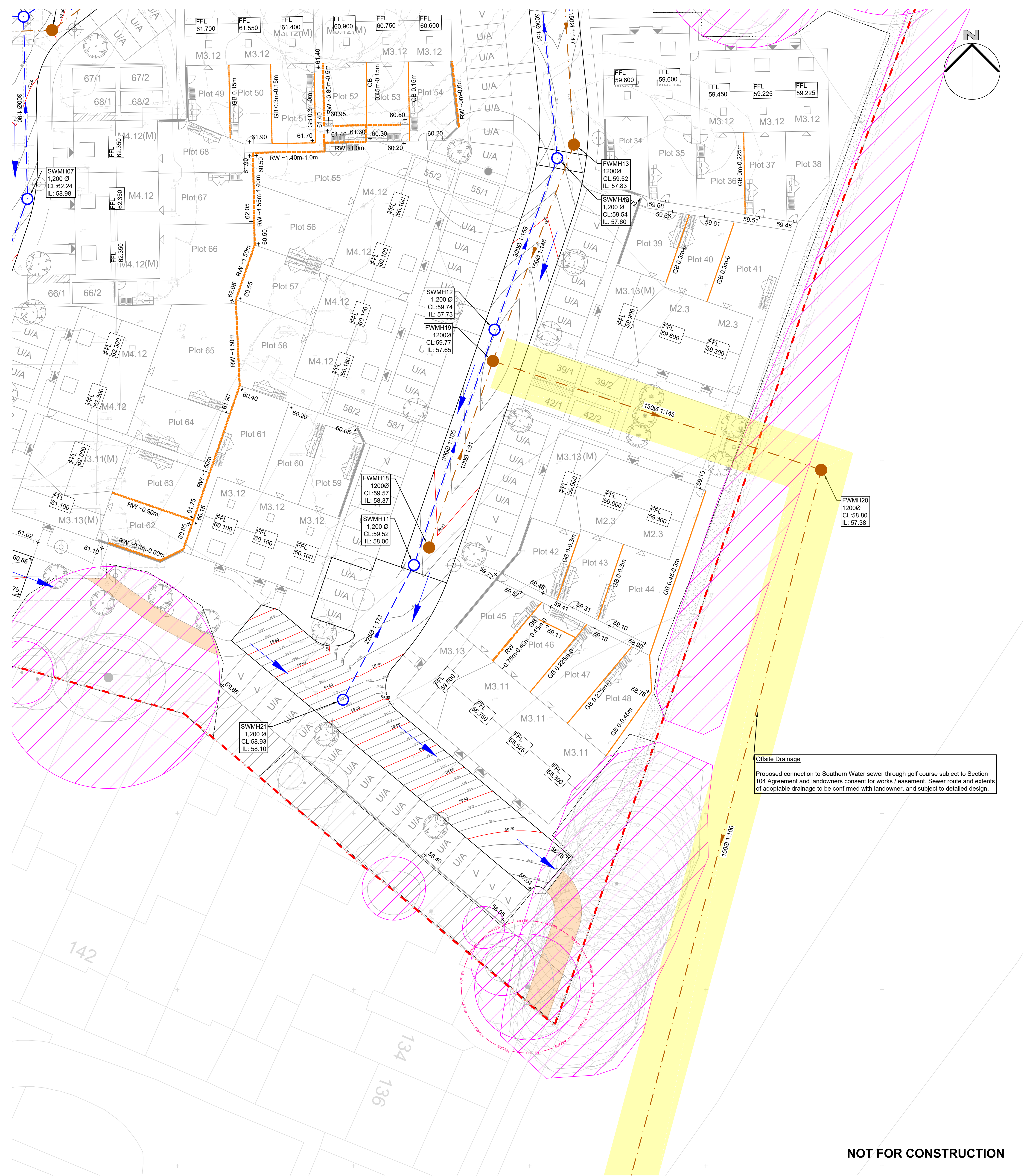
Scale
1:200@A1

Drawn
JD

Engineer
AP

Project No
250595

Revision
P03



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C. PROPOSED MARK WELBY TREE REMOVAL AND PROTECTION PLAN REFERENCE MW.2512.PGW.TPP-A0

DESIGN NOTE

ALL DRAINAGE SUBJECT TO LLFA AND PLANNING APPROVAL. NO WORKS TO BE UNDERTAKEN PRIOR TO APPROVAL.

EXTENT OF ON SITE SEWER ADOPTIONS SUBJECT TO DETAILED DESIGN.

ALL DRAINAGE SUBJECT TO DETAILED DESIGN AND COORDINATION

LEGEND

- SITE BOUNDARY
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TREE ROOT PROTECTION AREA

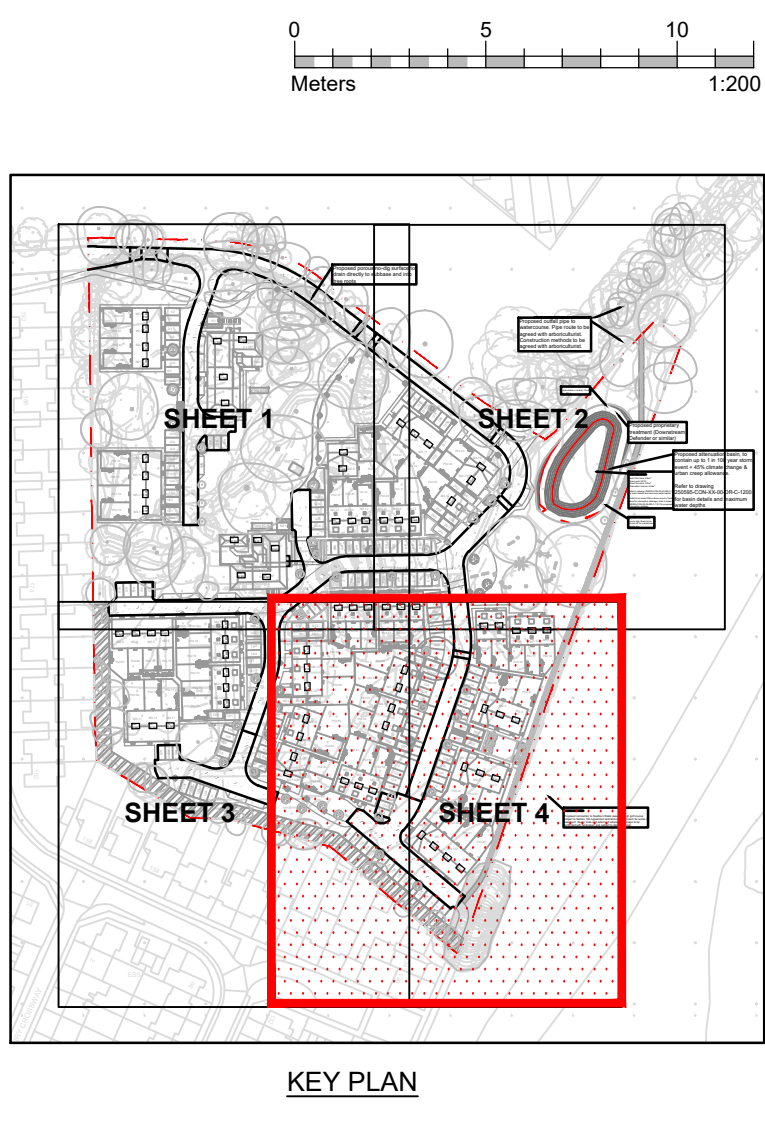
CONSTRUCTION EXCLUSION ZONE

PROPOSED RETAINING WALLS & GRAVEL BOARDS

PROPOSED NO DIG CONSTRUCTION ZONE

PROPOSED ROAD CONTOURS

- PRIMARY (EVERY 200mm)
- SECONDARY (EVERY 50mm)



Offsite Drainage

Proposed connection to Southern Water sewer through golf course subject to Section 104 Agreement and landowners consent for works / easement. Sewer route and extents of adoptable drainage to be confirmed with landowner, and subject to detailed design.

NOT FOR CONSTRUCTION

P03	31.03.26	Planning Issue.	GA	AP
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Drawing Status	S2 FOR INFORMATION	Date	MAR 2026
Project	PADNELL GRANGE, WATERLOOVILLE	Scale	1:200@A1
		Drawn	JD
Title	PRINCIPAL DRAINAGE SHEET 3 OF 4	Engineer	AP
		Project No	250595
Drawing No	250595-CON-XX-00-DR-C-1003	Revision	P03

Padnell Cuts Wood

Padnell Cuts Wood

GENERAL DRAINAGE NOTES

1. INVERT LEVELS AND POSITIONS OF EXISTING DRAINS / CHAMBERS / SEWERS WHERE NEW CONNECTIONS ARE TO BE MADE MUST BE CHECKED AND CONFIRMED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS.
2. ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY, THE ENVIRONMENT AGENCY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'SEWERS FOR ADOPTION' 7TH EDITION AND ANY ADDENDUMS AS APPROPRIATE.
3. ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DETAILS AND THE REQUIREMENTS OF BS EN 752 AND PART H OF THE BUILDING REGULATIONS.
4. ANY PART OF THE EXISTING DRAINAGE SYSTEM TO BE RETAINED AS PART OF THE NEW SCHEME SHALL BE CLEANED AND INSPECTED. ANY STRUCTURAL DEFECTS SHALL BE REPAIRED USING APPROPRIATE AND APPROVED MEANS.
5. FOR SETTING-OUT DIMENSIONS OF SVP'S, RWP'S ETC, REFER TO ARCHITECT'S OR MECHANICAL ENGINEER'S DRAWINGS. POSITIONS SHOWN ARE INDICATIVE AND SUBJECT TO FINAL DESIGN.
6. ALL FOUL AND RWP CONNECTIONS SHALL BE 100MM DIAMETER UNLESS OTHERWISE SPECIFIED.
7. ALL PRECAST CONCRETE UNITS USED IN THE DRAINAGE WORKS SHALL BE MANUFACTURED USING SULPHATE RESISTING CEMENT.
8. MANHOLE COVERS AND FRAMES SHALL BE TO BS EN 124 AND SHALL BE KITEMARKED. COVERS AND FRAMES SHALL BE HEAVY DUTY D400 IN CARRIAGEWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTWAYS AND SOFT LANDSCAPING. IN BLOCKED/CONCRETE PAVED AREAS, COVERS SHALL BE RECESSED FABRICATED STEEL. ALL RECESSED COVERS SHALL IN ACCORDANCE WITH THE FACTA ASSOCIATION GRADINGS.
9. ALL INTERNAL INSPECTION CHAMBERS TO BE RECESSED, DOUBLE SEALED WITH SCREW DOWN COVERS.
10. COVER LEVELS ARE TO BE ADJUSTED LOCALLY TO SUIT FINISHED GROUND LEVELS.
11. AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL VENT TO THE ATMOSPHERE.
12. EXISTING DRAINAGE TO BE REMOVED IS TO BE BROKEN OUT TO BED LEVEL AND VOID BACKFILLED WITH GRANULAR MATERIAL, COMPACTED IN LAYERS NOT EXCEEDING 250MM.
13. ALL DRAIN RUNS FROM SVP'S, STUB STACKS OR FW GULLIES TO BE LAID AT 1:40 GRADIENT UNLESS OTHERWISE STATED. ALL RWP'S TO BE LAID 1:80 MIN UNLESS OTHERWISE STATED.
14. ALL MANHOLES / INSPECTION CHAMBERS IN BLOCK PAVED AREAS, TO HAVE RECESSED COVERS. MH COVERS IN PAVED AREAS TO HAVE COVER & FRAME ORIENTATED 'SQUARE' WITH PAVING TO MINIMISE CUT SLABS OR BLOCKS.
15. ALL PRIVATE DRAINAGE TO BE LAID TO LEVELS SHOWN USING FLEXIBLY JOINTED PIPES, EITHER UPVC TO BS 4660 AND BS 5481 OR VITRIFIED CLAYWARE TO BS EN 295. PIPES BELOW STRUCTURAL BUILDING SLABS OR BASEMENTS SHALL BE CAST IRON TO BS 437.
16. RODDING EYES, ETC ARE TO BE LAID TO MANUFACTURERS MINIMUM COVER AND DEPTH TO ALLOW ADEQUATE FALL FROM ADJOINING UNIT.
17. ALL PROPOSED TREES TO HAVE APPROPRIATE TREE BARRIER DETAILS LINKING PITS TO ENSURE ROOTS ARE DIRECTED AWAY FROM DRAINAGE.
18. WHERE NEW SEWERS ARE CONSTRUCTED WITHIN 5M OF A NEW OR EXISTING TREE THE SEWER SHALL BE CONCRETE ENCASED AGAINST ROOT INTRUSION. REFER TO DRAINAGE DETAILS.
19. ALL NEW DRAINAGE TO BE JETTED AND CCTV SURVEYED ON COMPLETION. CONTRACTOR TO MAKE SURE THAT THE DRAINAGE IS FULLY OPERATIONAL. REFER TO DRAINAGE MAINTENANCE MANUAL FOR MAINTENANCE DETAILS.
20. ALL RUNS CONNECTING INTO THE PUBLIC DRAINAGE NETWORK TO BE VITRIFIED CLAY, EXTRA LENGTH TO BS EN 295 OR BS65 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS.
21. CDM NOTE: ALL PIPEWORK, SILT TRAPS, CATCHPITS, TRAPPED GULLIES AND ATTENUATION TANKS TO BE REGULARLY INSPECTED EVERY THREE MONTHS AND CLEARED OUT ON A REGULAR FREQUENCY FOR THE FIRST NINE MONTHS. AFTER THIS PERIOD THE FREQUENCY CAN BE REDUCED TO EVERY SIX MONTHS. POROUS SURFACE TO BE REGULARLY SWEEPED THREE TIMES A YEAR TO REMOVE THE SILT.
22. HEALTH AND SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS WHO ARE MEMBERS OF A RECOGNISED NATIONAL ORGANISATION. OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING FOR THE OPERATIONS THEY ARE TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL PERTINENT HEALTH AND SAFETY REGULATIONS.

DRAINAGE STRATEGY NOTES

1. CELLWEB NO DIG PERMEABLE SURFACING TO BE USED WHERE NEW PAVEMENTS CONSTRUCTED IN ROOT PROTECTION ZONES. PAVEMENTS TO BE POROUS AND ALLOW WATER TO DRAIN THROUGH SURFACE INTO SUBGRADE.
2. PROPOSED DEVELOPMENT DISCHARGE TO BE RESTRICTED TO PRE-DEVELOPMENT QBAR RUNOFF RATE (29.0 l/s)
3. ALL HIGHWAYS TO BE PRIVATE TO DEVELOPMENT

NOT FOR CONSTRUCTION

GENERAL NOTES

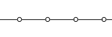
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LEGEND

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TREE ROOT PROTECTION AREA



CONSTRUCTION EXCLUSION ZONE



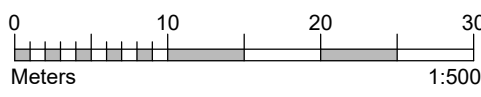
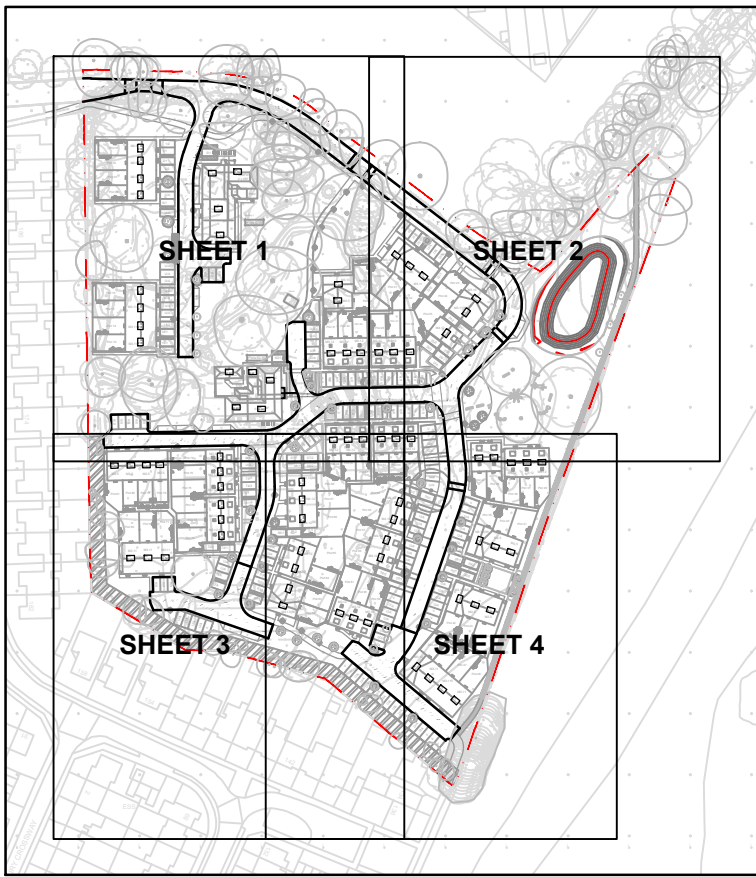
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KEY PLAN



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Drawing Status	S2 FOR INFORMATION
Project	PADNELL GRANGE, WATERLOOVILLE
Title	PRINCIPAL DRAINAGE SITE WIDE
Drawing No	250595-CON-XX-00-DR-C-1010
Revision	P03
Date	MAR 2026
Scale	1:500 @ A1
Drawn	JD
Engineer	AP
Project No	250595