

DO NOT SCALE



GENERAL NOTES

- THIS DRAWING IS BASED UPON REDROW HOMES SITE LAYOUT REFERENCE BW-16-02-03 - PROPOSED SITE LAYOUT, AND MET GEO-ENVIRONMENTAL TOPOGRAPHICAL SURVEY DRAWING REFERENCE P15-01196 DATED FEB 2019.
- ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IF IN DOUBT, ASK.
- ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH ICGSA'S SPECIFICATIONS/SPECIAL REQUIREMENTS.
- ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REGULATIONS.
- THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT & DIVERSION WORKS AS NECESSARY TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITY COMPANIES.
- THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL RELEVANT APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON SEWERAGE SYSTEMS.
- UPON COMPLETION OF THE WORKS, THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC DRAINAGE OR WATERCOURSE SYSTEM. ALL DRAINS SHALL BE CCTV SURVEYED WITH THE DVD/CD PASSED TO THE ENGINEER FOR REVIEW.

DRAINAGE NOTES

- (THESE NOTES APPLY TO ALL ADOPTABLE DRAINAGE WORKS)
- ALL ADOPTABLE SEWER WORKS AND MATERIALS ARE TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (DCC)/CODE FOR ADOPTION. THE RELEVANT BRITISH/EUROPEAN AND ICGSA'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
 - MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 675mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES (IN HIGHWAYS).
 - FILLED DRAINS MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF ICGSA BEFORE ANY SEWER WORKS ARE CARRIED OUT.
 - ICGSA IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIASE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
 - COVER SLABS MUST CARRY THE BS KITEMARK OR WILL BE REJECTED BY ICGSA INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 675mm x 675mm FOR THE ICGSA SPECIFIED COVER SIZE.
 - SULPHATE RESISTANT CEMENT (C20-DCC) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - SEWERS MUST HAVE 3m CLEARANCE FROM TREES AND 1.5m FROM SHRUBS / BUSHES.
 - SEWERS TO BE LAIN IN CLASS 'S' BEDDING AND SURROUND. WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.5m IN HIGHWAYS AND AN AREA (OR LESS THAN 300mm IN NON-VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE THE SURROUND.
 - BEDDING AND BACKFILL MATERIAL IS TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
 - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BENDS.
 - ICGSA POLICY IS THAT TYPE 'C' BRICK MANHOLES AND 1050mm DIA MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE 'B' MANHOLE WITH 1200mm DIA OR 1500mm DIA RINGS. WITH THE OPENING SIZED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SLOTT IS BETWEEN 1-1.5m
 - ADOPTABLE PLASTIC SEWER PIPES TO BE BS1 KITEMARKED (CERTIFIED TO MS 4-35-01 AND BS EN13476) AND TO THE RELEVANT BRITISH STANDARDS (SOLID WALL PIPES TO BS EN 1401, SPIRAL WOUND WELDED PIPES TO EN 13476 PARTS 1 & 2, POLYPROPYLENE TO BS EN 1882). ADOPTABLE PLASTIC SEWER PIPES ARE TO BE LAIN IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND ICGSA WOULD PREFER CLAYWARE CHANNELS IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
 - WHERE A 8125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.



CHANGEGE	EXISTING GROUND LEVEL	CENTRE LINE	VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	LEFT HAND CHANNEL	RIGHT HAND CHANNEL	STORMWATER COVER LEVEL	STORMWATER INVERT	STORMWATER DETAILS	STORMWATER LENGTHS	FOULWATER COVER LEVEL	FOULWATER INVERT	FOULWATER DETAILS	FOULWATER LENGTHS
0.000	168.966	168.643	G ₁ = -1.69% L = 20.000 KF = -4.73547	R = 60.000	168.653	168.217	168.277	165.740	Pipe 1.000 Dia 225 Circular CLAY 1 in 23	34.329	164.637	162.480	Pipe 1.000 Dia 150 Circular CLAY 1 in 27	26.585
3.381	168.533	168.210	G ₂ = -0.90% L = 20.000 KF = 7.41695	R = 100.000	168.217	167.954	166.797	165.250	Pipe 1.000 Dia 225 Circular CLAY 1 in 23	32.888	163.922	161.510	Pipe 1.008 Dia 150 Circular CLAY 1 in 128	27.626
6.828	168.100	167.779	G ₃ = -3.194% L = 20.000 KF = -21.40223	R = 200.000	167.954	167.279	166.240	164.240	Pipe 1.002 Dia 225 Circular CLAY 1 in 32	26.477	163.207	160.800	Pipe 1.007 Dia 150 Circular CLAY 1 in 124	18.641
10.266	167.667	167.350	G ₄ = -1.250% L = 20.000 KF = -10.80000	R = 80.000	167.279	166.918	165.250	163.200	Pipe 2.008 Dia 600 Circular CONC 1 in 149	23.927	162.486	159.200	Pipe 1.007 Dia 150 Circular CLAY 1 in 124	18.641
13.704	167.234	167.017	G ₅ = -1.447% L = 20.000 KF = 8.24742	R = 96.164	166.918	166.598	164.550	162.400	Pipe 2.007 Dia 600 Circular CONC 1 in 149	18.686	161.751	157.950	Pipe 2.003 Dia 150 Circular CLAY 1 in 50	22.454
17.142	166.801	166.584	G ₆ = -3.872% L = 20.000 KF = -10.98624	R = 96.164	166.598	166.279	164.550	162.400	Pipe 3.004 Dia 300 Circular CLAY 1 in 14	25.638	161.036	157.200	Pipe 2.002 Dia 150 Circular CLAY 1 in 64	22.513
20.580	166.368	166.151	G ₇ = -5.230% L = 20.000 KF = -10.98624	R = 250.000	166.279	165.958	164.550	162.400	Pipe 3.002 Dia 300 Circular CLAY 1 in 29	25.848	160.321	156.450	Pipe 2.001 Dia 150 Circular CLAY 1 in 40	27.916
24.018	165.935	165.718			165.958	165.638	164.550	162.400	Pipe 3.001 Dia 225 Circular CLAY 1 in 26	25.064	159.606	155.750	Pipe 2.000 Dia 150 Circular CLAY 1 in 17	24.817
27.456	165.502	165.285			165.638	165.318	164.550	162.400	Pipe 3.000 Dia 225 Circular CLAY 1 in 29	31.458	158.891	154.950		
30.894	165.069	164.852			165.318	164.998	164.550	162.400	Pipe 7.000 Dia 725 Circular CLAY 1 in 29	44.098	158.176	154.200		
34.332	164.636	164.419			164.998	164.678	164.550	162.400			157.481	153.450		
37.770	164.203	163.986			164.678	164.358	164.550	162.400			156.766	152.735		
41.208	163.770	163.553			164.358	164.038	164.550	162.400			156.051	152.020		
44.646	163.337	163.120			164.038	163.718	164.550	162.400			155.336	151.305		
48.084	162.904	162.687			163.718	163.398	164.550	162.400			154.621	150.590		
51.522	162.471	162.254			163.398	163.078	164.550	162.400			153.906	149.875		
54.960	162.038	161.821			163.078	162.758	164.550	162.400			153.191	149.160		
58.398	161.605	161.388			162.758	162.438	164.550	162.400			152.476	148.445		
61.836	161.172	160.955			162.438	162.118	164.550	162.400			151.761	147.730		
65.274	160.739	160.522			162.118	161.798	164.550	162.400			151.046	147.015		
68.712	160.306	160.089			161.798	161.478	164.550	162.400			150.331	146.300		
72.150	159.873	159.656			161.478	161.158	164.550	162.400			149.616	145.585		
75.588	159.440	159.223			161.158	160.838	164.550	162.400			148.901	144.870		
79.026	159.007	158.790			160.838	160.518	164.550	162.400			148.186	144.155		
82.464	158.574	158.357			160.518	160.198	164.550	162.400			147.471	143.440		
85.902	158.141	157.924			160.198	159.878	164.550	162.400			146.756	142.725		
89.340	157.708	157.491			159.878	159.558	164.550	162.400			146.041	142.010		
92.778	157.275	157.058			159.558	159.238	164.550	162.400			145.326	141.295		
96.216	156.842	156.625			159.238	158.918	164.550	162.400			144.611	140.580		
99.654	156.409	156.192			158.918	158.598	164.550	162.400			143.896	139.865		
103.092	155.976	155.759			158.598	158.278	164.550	162.400			143.181	139.150		
106.530	155.543	155.326			158.278	157.958	164.550	162.400			142.466	138.435		
109.968	155.110	154.893			157.958	157.638	164.550	162.400			141.751	137.720		
113.406	154.677	154.460			157.638	157.318	164.550	162.400			141.036	137.005		
116.844	154.244	154.027			157.318	156.998	164.550	162.400			140.321	136.290		
120.282	153.811	153.594			156.998	156.678	164.550	162.400			139.606	135.575		
123.720	153.378	153.161			156.678	156.358	164.550	162.400			138.891	134.860		
127.158	152.945	152.728			156.358	156.038	164.550	162.400			138.176	134.145		
130.596	152.512	152.295			156.038	155.718	164.550	162.400			137.461	133.430		
134.034	152.079	151.862			155.718	155.398	164.550	162.400			136.746	132.715		
137.472	151.646	151.429			155.398	155.078	164.550	162.400			136.031	132.000		
140.910	151.213	150.996			155.078	154.758	164.550	162.400			135.316	131.285		
144.348	150.780	150.563			154.758	154.438	164.550	162.400			134.601	130.570		
147.786	150.347	150.130			154.438	154.118	164.550	162.400			133.886	129.855		
151.224	149.914	149.697			154.118	153.798	164.550	162.400			133.171	129.140		
154.662	149.481	149.264			153.798	153.478	164.550	162.400			132.456	128.425		
158.100	149.048	148.831			153.478	153.158	164.550	162.400			131.741	127.710		
161.538	148.615	148.398			153.158	152.838	164.550	162.400			131.026	126.995		
164.976	148.182	147.965			152.838	152.518	164.550	162.400			130.311	126.280		
168.414	147.749	147.532			152.518	152.198	164.550	162.400			129.596	125.565		
171.852	147.316	147.099			152.198	151.878	164.550	162.400			128.881	124.850		
175.290	146.883	146.666			151.878	151.558	164.550	162.400			128.166	124.135		
178.728	146.450	146.233			151.558	151.238	164.550	162.400			127.451	123.420		
182.166	146.017	145.800			151.238	150.918	164.550	162.400			126.736	122.705		
185.604	145.584	145.367			150.918	150.598	164.550	162.400			126.021	121.990		
189.042	145.151	144.934			150.598	150.278	164.550	162.400			125.306	121.275		
192.480	144.718	144.501			150.278	149.958	164.550	162.400			124.591	120.560		
195.918	144.285	144.068			149.958	149.638	164.550	162.400			123.876	119.845		
199.356	143.852	143.635			149.638									