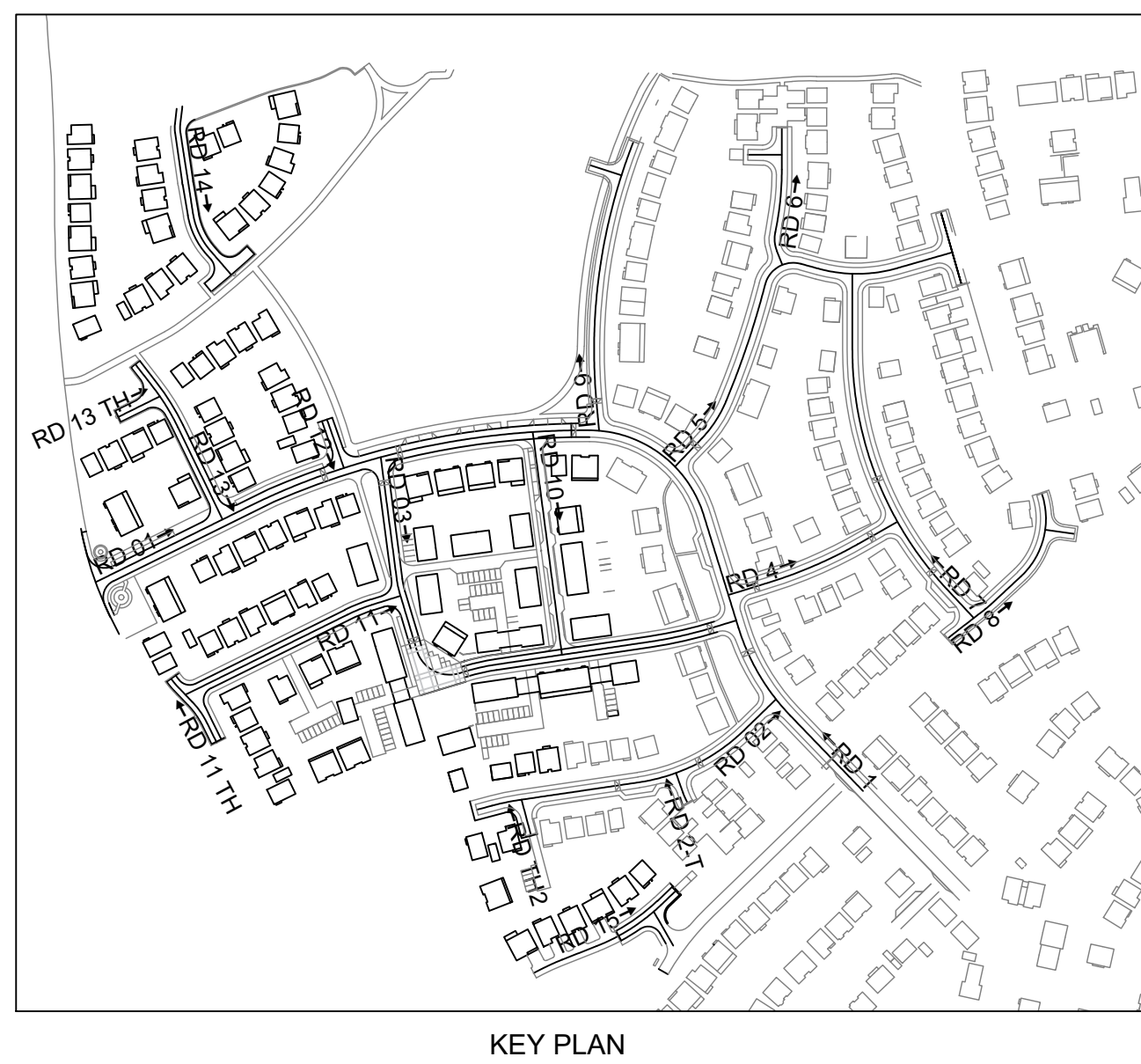
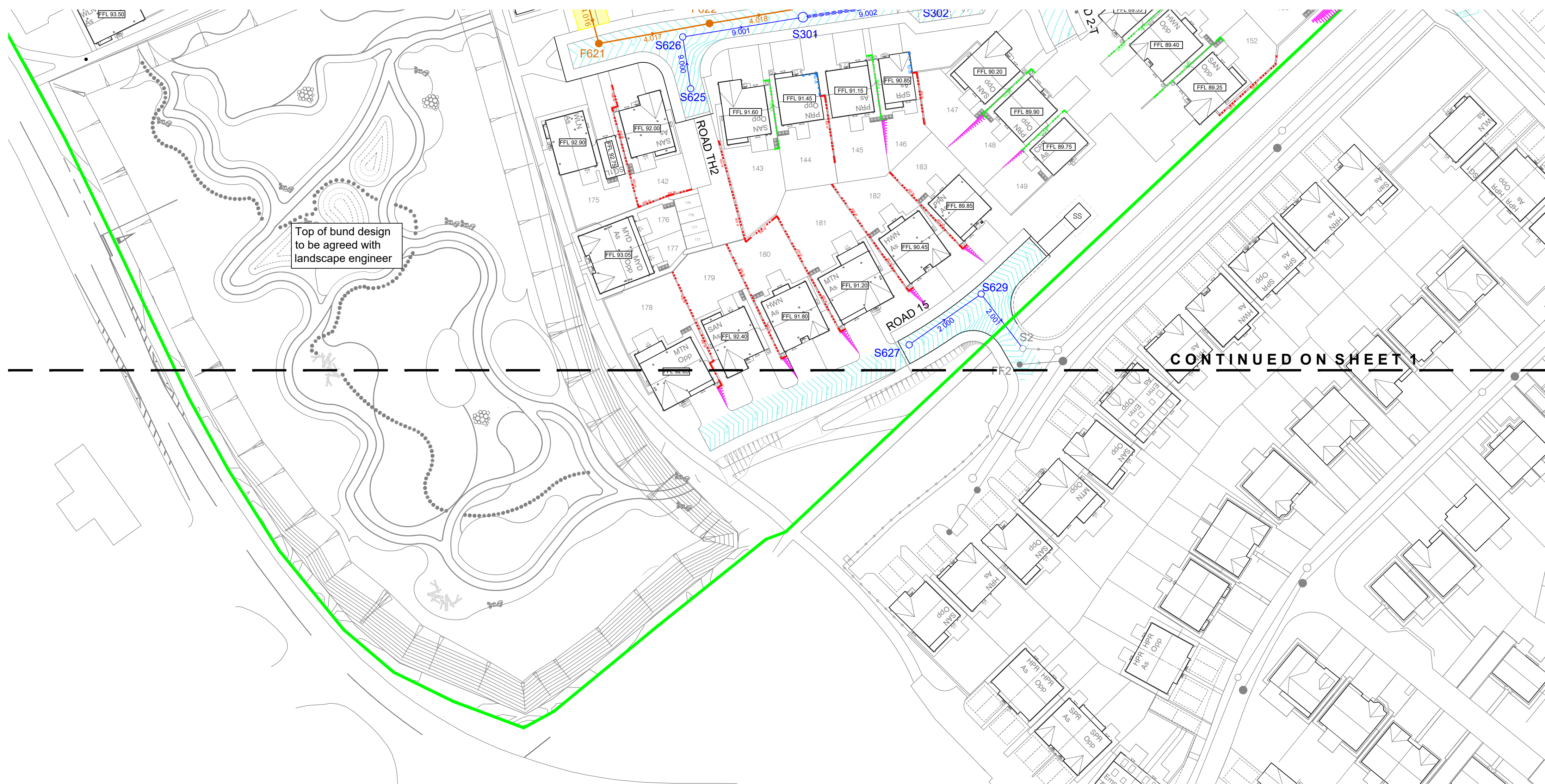
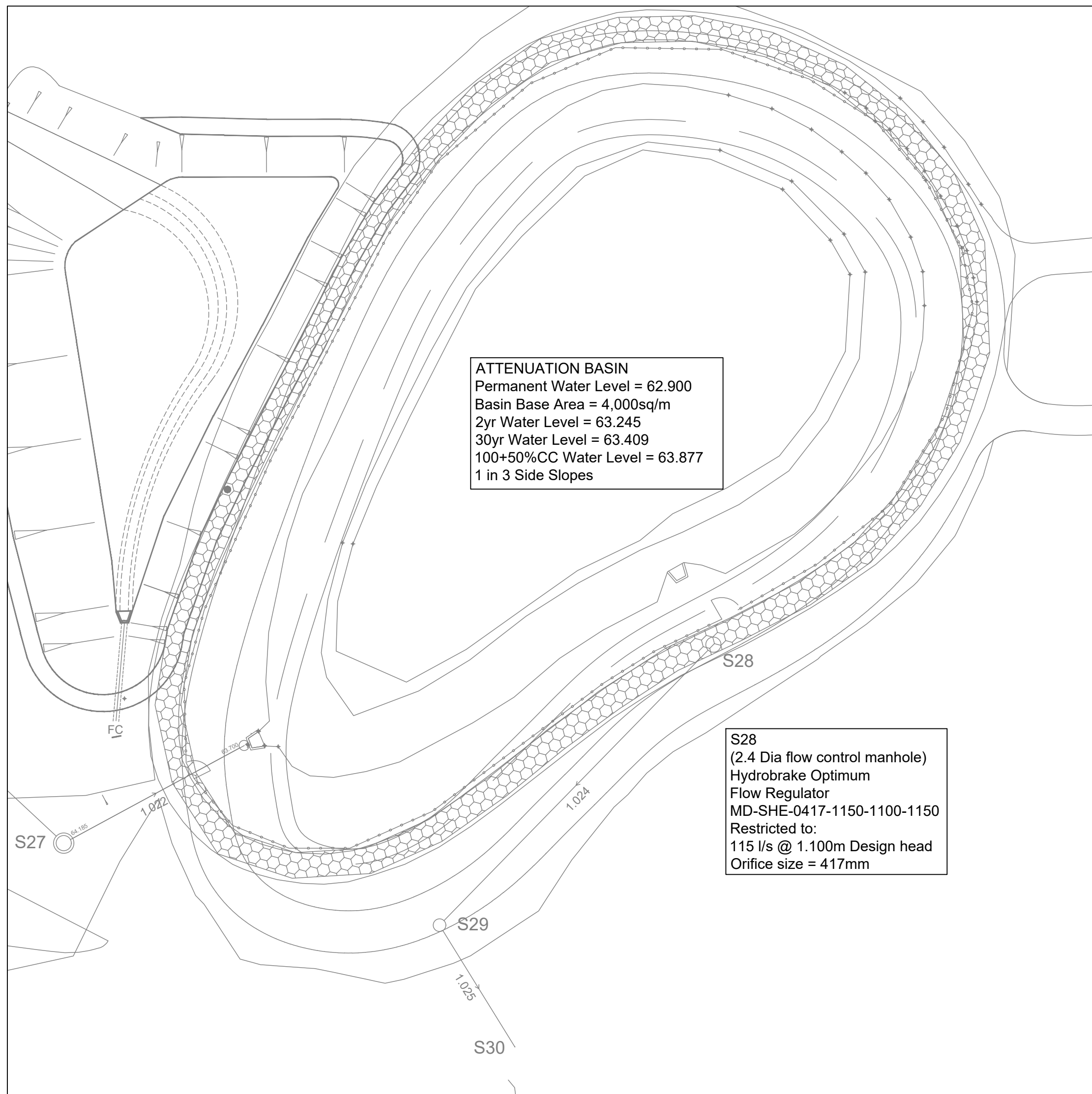


DO NOT SCALE



Legend

- Site Boundary
- 450 SPLT Plot Slab Level Split
- 600 W Brick Retaining Wall
- 450 FOE Flag Retaining Wall
- 150 UB Underbuild
- Batter
- FFL 18.65 Plot Slab Level
- S01 Adoptable Surface Water Sewer
- F01 Adoptable Foul Sewer
- FC Flow Control Manhole
- S Silt Trap Manhole
- Sewer Easement
- Cellular Attenuation Tank



ATTENUATION BASIN
Permanent Water Level = 62.900
Basin Base Area = 4,000sq/m
2yr Water Level = 63.245
30yr Water Level = 63.409
100+50yrCC Water Level = 63.877
1 in 3 Side Slopes

S28
(2.4 Dia flow control manhole)
Hydrobrake Optimum
Flow Regulator
MD-SHE-0417-1150-1100-1150
Restricted to:
115 l/s @ 1.100m Design head
Orifice size = 417mm

ATTENUATION BASIN / OUTFALL

FOUL Network 2											
Pipe Code	Diameter (mm)	Gradient (1:1)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	150	42	PVC-U	31.982	F201	94.11	95.45	F202	93.35	94.71	
1.001	150	150	PVC-U	18.720	F202	93.35	94.71	F203	93.23	94.86	
1.002	150	150	PVC-U	21.982	F203	93.23	94.86	F205	93.05	94.23	
1.003	150	22	PVC-U	21.369	F205	92.00	94.23	F206	91.03	93.39	
1.004	150	38	PVC-U	49.841	F206	91.03	93.39	F209	89.74	92.45	
1.005	150	25	PVC-U	19.188	F209	90.45	92.45	F210	89.86	91.43	
1.006	150	15	PVC-U	21.013	F210	88.86	91.43	F214	87.56	89.94	
1.007	150	150	PVC-U	31.714	F214	86.48	89.94	F215	86.27	89.25	
1.008	150	150	PVC-U	16.206	F215	86.27	89.25	F216	86.16	87.51	
2.000	150	150	PVC-U	24.083	F204	93.16	94.51	F205	93.00	94.23	
3.000	150	80	PVC-U	44.951	F201	92.05	93.22	F202	91.52	93.09	
3.001	150	150	PVC-U	36.427	F602	91.50	93.09	F208	91.26	92.67	
3.002	150	150	PVC-U	29.189	F208	91.26	92.67	F209	91.06	92.45	
4.000	150	30	PVC-U	21.751	F603	92.67	94.22	F604	92.14	93.49	
4.001	150	150	PVC-U	48.942	F604	92.14	93.49	F605	91.81	93.20	
4.002	150	150	PVC-U	12.848	F605	91.81	93.20	F606	91.73	93.10	
4.003	150	150	PVC-U	12.130	F606	91.73	93.10	F607	91.65	93.14	
4.004	150	149	PVC-U	8.784	F607	91.65	93.14	F608	91.59	93.07	
4.005	150	150	PVC-U	46.178	F608	91.59	93.07	F609	91.26	92.42	
4.006	150	150	PVC-U	20.293	F609	91.26	92.42	F610	91.14	93.07	
4.007	150	150	PVC-U	25.652	F610	91.14	93.07	F611	90.97	92.99	
4.008	150	150	PVC-U	22.834	F611	90.97	92.99	F612	90.82	92.29	
4.009	150	149	PVC-U	9.407	F612	90.82	92.29	F613	90.76	93.21	
4.010	150	150	PVC-U	48.241	F613	90.76	93.21	F614	90.44	93.01	
4.011	150	150	PVC-U	7.028	F614	90.44	93.01	F616	90.38	93.11	
4.012	150	150	PVC-U	29.322	F616	90.38	93.11	F617	90.18	93.54	
4.013	150	150	PVC-U	34.025	F617	90.18	93.54	F618	89.95	93.40	
4.014	150	150	PVC-U	14.076	F618	89.95	93.40	F619	89.86	93.35	
4.015	150	17	PVC-U	17.760	F619	89.86	93.35	F620	89.78	92.69	
4.016	150	150	PVC-U	8.439	F620	89.78	92.69	F621	89.53	92.40	
4.017	150	150	PVC-U	21.097	F621	89.53	92.40	F622	89.39	91.80	
4.018	150	150	PVC-U	19.438	F622	89.39	91.80	F301	87.26	91.24	
4.019	150	150	PVC-U	37.301	F301	87.26	91.24	F302	87.01	90.26	
4.020	150	150	PVC-U	22.337	F302	87.01	90.26	F212	86.86	89.65	
4.021	150	44	PVC-U	16.983	F212	86.86	89.65	F213	86.48	89.09	
4.022	150	44	PVC-U	18.986	F213	86.48	89.09	F214	86.48	89.09	
5.000	150	80	PVC-U	14.697	F615	90.57	92.87	F616	90.38	93.11	

FOUL Network 1											
Pipe Code	Diameter (mm)	Gradient (1:1)	Pipe Type	Pipe Length	Number	Upstream Manhole Invert	Cover	Number	Downstream Manhole Invert	Cover	
1.000	150	78	CLAY	25.767	F101	93.37	95.42	F102	93.01	95.47	
1.001	150	38	CLAY	15.584	F102	93.01	95.47	F103	92.60	95.55	
1.002	150	20	CLAY	29.374	F103	92.60	95.55	F105	91.13	94.02	
1.003	150	150	CLAY	45.321	F105	90.15	94.02	F106	89.85	92.23	
1.004	150	150	CLAY	29.339	F106	89.85	92.23	F107	89.85	91.81	
1.005	150	12	CLAY	21.923	F107	89.85	91.81	F108	87.83	90.88	
1.006	150	150	CLAY	20.094	F108	87.83	90.88	F109	87.69	89.55	
1.007	150	27	CLAY	18.772	F109	87.69	89.55	F110	86.72	88.33	
1.008	150	12	CLAY	31.122	F110	86.72	88.33	F111	84.47	86.72	
1.009	150	150	CLAY	23.007	F111	84.47	86.72	F112	84.32	86.32	
1.010	150	148	CLAY	10.810	F112	84.32	86.32	F114	84.24	86.21	
1.011	150	20	CLAY	25.460	F114	84.24	86.21	F115	83.00	84.94	
2.000	150	70	CLAY	36.176	F104	90.67	92.02	F105	90.15	94.02	
3.000	150	15	CLAY	13.995	F113	90.12	90.47	F114	84.24	86.21	

STORM Network 1											
Pipe Code	Diameter (mm)	Gradient (1:1)	Pipe Type	Pipe Length	Number	Upstream Manhole	Invert	Cover	Number	Downstream Manhole	Invert
1.000	300	44	PVC-U	28.859	S1	87.50	89.35	S3	86.85	89.00	
1.001	300	80	PVC-U	58.970	S3	86.85	89.00	S4	86.11	88.04	
1.002	300	102	PVC-U	42.972	S4	86.11	88.04	S5	85.86	87.61	
1.003	675	48	CONC	61.448	S5	83.52	87.61	S11	82.23	84.61	
1.004	675	411	CONC	11.925	S11	82.23	84.61	S12	82.20	84.27	
1.005	675	45	CONC	46.517	S12	82.20	84.27	S13	81.17	83.41	
1.006	675	67	CONC	24.119	S13	81.17	83.41	S15	80.81	82.95	
1.007	675	51	CONC	12.640	S15	80.81	82.95	S16	80.56	82.90	
1.008	675	70	CONC	25.986	S16	80.56	82.90	S20	80.18	83.05	
1.009	750	78	CONC	46.235	S20	77.94	83.05	S21	77.35	79.52	
1.010	750	85	CONC	34.824	S21	75.85	79.52	S23	75.44	77.69	
1.011	750	46	CONC	19.832	S23	73.19	77.69	S24	72.78	76.00	
1.012	750	66	CONC	13.183	S24	70.76	76.00	S25	70.56	73.50	
1.013	750	43	CONC	29.678	S25	68.46	73.50	S26	67.87	70.61	
1.014	750	50	CONC	71.017	S26	65.60	70.61	S27	64.18	66.50	
1.015	750	50	CONC	24.246	S27	64.18	66.50	SHWALL 1	63.70	65.50	
1.016	750	414	CONC	66.728	SHWALL 1	63.13	65.50	S28	62.96	64.60	
1.017	450	24	CONC	46.344	S28	62.96	64.60	S29	61.06	62.75	
1.018	450	100	CONC	16.932	S29	59.47	62.75	S30	59.30	62.25	
2.000	225	20	PVC-U	17.567	S627	89.77	91.50	S628	88.89	90.61	
2.001	225	20	PVC-U	16.533	S628	88.89	90.61	S629	88.05	89.78	
2.002	225	16	PVC-U	12.886	S629	88.05	89.78	S2	87.34	89.33	
2.003	225	20	PVC-U	6.543	S2	87.34	89.33	S3	86.92	89.00	
3.000	225	168	PVC-U	27.205	S620	91.94	93.36	S622	91.77	94.04	
3.001	300	59	PVC-U	58.299	S622	91.70	94.04	S623	90.06	93.07	
3.002	450	404	CONC	13.751	S623	88.65	93.07	S624	88.63	93.08	
3.003	450	400	CONC	26.826	S624	88.63	93.08	S201	88.84	92.63	
3.004	450	398	CONC	28.230	S201	88.64	92.63	S202	88.47	92.41	
3.005	450	232	CONC	19.466	S202	88.47	92.41	S203	88.39	91.27	
3.006	450	232	CONC	19.325	S203	88.39	91.27	S204	88.30	89.87	
3.007	450	288	CONC	31.926	S206	86.92	89.87	S207	86.81	88.16	
3.008	675	384	CONC	12.217	S207	83.55	86.16	S5	83.52	87.61	
3.009	675	188	PVC-U	9.342	S621	92.99	94.27	S622	92.94	94.04	
5.000	225	24	PVC-U	15.440	S601	93.80	95.52	S602	93.16	94.88	
5.001	225	24	PVC-U	8.748	S602	93.16	94.88	S603	92.67	94.40	
5.002	225	12	PVC-U	18.875	S603	92.67	94.40	S604	90.94	93.39	
5.003	450	400	CONC	58.806	S604	89.61	93.39	S605	89.47	93.15	
5.004	450	402	CONC	20.153	S605	89.47	93.15	S606	89.38	93.13	
5.005	450	401	CONC	55.301	S606	89.39	93.13	S608	89.25	93.45	
5.006	450	399	CONC	49.898	S608	89.25	93.45	S609	89.15	92.99	
5.007	450	407	CONC	47.211	S609	89.15	92.99	S610	89.09	93.28	
5.008	450	391	CONC	7.432	S610	89.08	93.28	S612	89.06	93.21	
5.009	450	401	CONC	42.954	S612	89.06	93.21	S613	88.96	92.96	
5.010	450	400	CONC	31.863	S613	88.96	92.96	S617	88.92	93.13	
5.011	450	398	CONC	39.417	S617	88.92	93.13	S618	88.82	93.57	
5.012	450	397	CONC	24.615	S618	88.82	93.57	S619	88.76	93.33	
5.013	450	401	CONC	37.720	S619	88.76	93.33	S623	88.66	93.07	
6.000	225	28	PVC-U	48.878	S607	92.67	94.39	S626	90.87	93.45	
7.000	150	10	PVC-U	7.720	S611	91.97	93.32	S612	91.21	93.41	
8.000	225	11	PVC-U	13.400	S614	91.38	92.81	S615	90.16	92.90	
8.001	450	398	CONC	61.849	S615	89.70	92.80	S616	88.96	92.78	
8.002	450	400	CONC	17.625	S616	88.96	92.78	S617	88.92	93.13	
8.003	450	399	CONC	18.499	S617	88.92	93.13	S618	88.82	93.57	
9.001	225	18	PVC-U	22.869	S626	89.85	91.59	S301	88.58	91.31	
9.002	450	401	CONC	24.860	S301	87.40	91.31	S302	87.34	90.68	
9.003	450	398	CONC	19.307	S302	87.34	90.68	S204	87.20	90.41	
9.004	450	279	CONC	19.882	S204	87.29	90.12	S205	87.22	89.64	
9.005	450	279	CONC	19.882	S205	87.22	89.64	S206	87.15	89.08	
10.000	225	70	PVC-U	21.361	S6	84.06	86.14	S7	84.06	85.84	
10.001	225	68	PVC-U	25.257	S7	84.06	86.14	S8	83.68	85.46	
10.002	225	24	PVC-U	24.293	S8	83.68	85.46	S9	83.34	85.12	
10.003	300	102	PVC-U	46.460	S9	83.27	85.12	S10	82.81	84.51	
10.004	300	140	PVC-U	30.307	S10	82.81	84.51	S11	82.50	84.25	
10.005	300	115	PVC-U	21.739	SHWALL 2	83.85	84.12	S12	82.69	84.44	
11.001	225	20	PVC-U	28.254	S14	82.67	84.40	S15	81.26	82.95	
11.002	225	20	PVC-U	13.012	S15	81.26	82.95	S16	80.51	82.23	
12.001	450	391	CONC	29.538	S18	83.38	85.03	S19	82.48	84.40	
12.002	450	398	CONC	27.863	S19	81.48	84.40	S20	80.41	83.05	
12.003	450	398	CONC	23.844	S20	80.41	83.05	S21	79.44	81.92	
13.001	225	54	PVC-U	33.304	S102	91.18	95.08	S103	92.54	95.03	
13.002	225	54	PVC-U	26.830	S103	91.17	95.08	S104	90.44	92.93	
13.003	300	150	PVC-U	28.980	S104	90.37	92.23	S105	90.18	91.93	
13.004	300	248	PVC-U	21.846	S105	90.18	91.93	S106	89.27	90.87	
13.005	300	188	PVC-U	13.682	S106	89.27	90.87	S107	88.25	89.84	
13.006	300	398	CONC	20.700	S107	88.70	88.84	S121	88.65	88.88	
13.007	450	398	CONC	17.500	S121	88.65	88.88	S122	88.57	88.80	
13.008	450	409	CONC	34.153	S122	83.60	86.99	S129	83.51	86.23	
13.009	450	204	CONC	26.368	S129	83.51	86.23	S138	83.38	85.03	
13.010	450	32	PVC-U	18.519	S138	83.38	85.03	S139	83.30	84.73	
14.001	225	32	PVC-U	36.830	S108	95.30	96.72	S109	94.20	95.62	
14.002	225	28	PVC-U	34.949	S109	94.20	95.62	S110	92.97	94.31	
14.003	225	18	PVC-U	18.889	S110	92.97	94.31	S111	92.75	94.11	
14.004	225	18	PVC-U	16.052	S111	92.75	94.40	S115	92.57	94.33	
14.005	225	18	PVC-U	14.537	S115	92.57	94.33	S116	91.75	93.51	
14.006	450	49	CONC	42.929	S116	91.63	93.51	S117	90.80	92.17	
14.007	450	49	CONC	22.646	S117	90.80	92.17	S118	90.43	92.25	
14.008	450	28	CONC	38.850	S118	89.43	92.25	S119	89.17	91.19	
14.009	450	25	CONC	25.532	S119	88.35	90.00	S120	88.10	89.84	
15.001	225	15	PVC-U	18.744	S120	88.10	89.84	S125	87.73	89.41	
15.001	225	15	PVC-U	18.744	S125	87.73	89.41	S126	87.48	89.16	
15.002	225	15	PVC-U	18.744	S126	87.48	89.16	S127	87.23	88.91	
16.001	300	54	PVC-U	17.647	S134	92.83	94.45	S115	92.64	94.43	
16.002	300	54	PVC-U	16.725	S134	92.83	94.45	S135	92.67	94.46	
16.003	300	30	PVC-U	21.480	S135	85.74	89.43	S128	85.02	87.84	
16.004	300	30	PVC-U	16.240	S128	85.02	87.84	S127	84.67	87.23	
16.005	300	398	CONC	24.244	S127	84.62	87.23	S128	84.48	86.03	
16.006	300	398	CONC	13.862	S128	84.48	86.03	S133	84.37	85.93	
17.001	225	18	PVC-U	18.862	S228	78.32	80.05	S228	78.00	79.92	
17.002	225	18	PVC-U	21.616	S228	78.00	79.92	S22	76.55	79.36	
17.003	225	11	PVC-U	17.032	S22	76.55	79.36	S23	75.22	77.69	
17.004	225	17	PVC-U	19.035	S244	72.72	74.45	S248	72.01	74.85	
17.005	225	17	PVC-U	19.035	S244	72.01	74.85	S249	71.41	74.50	
18.001	225	78	PVC-U	23.122	S244	72.41	76.50	S24	72.11	76.92	