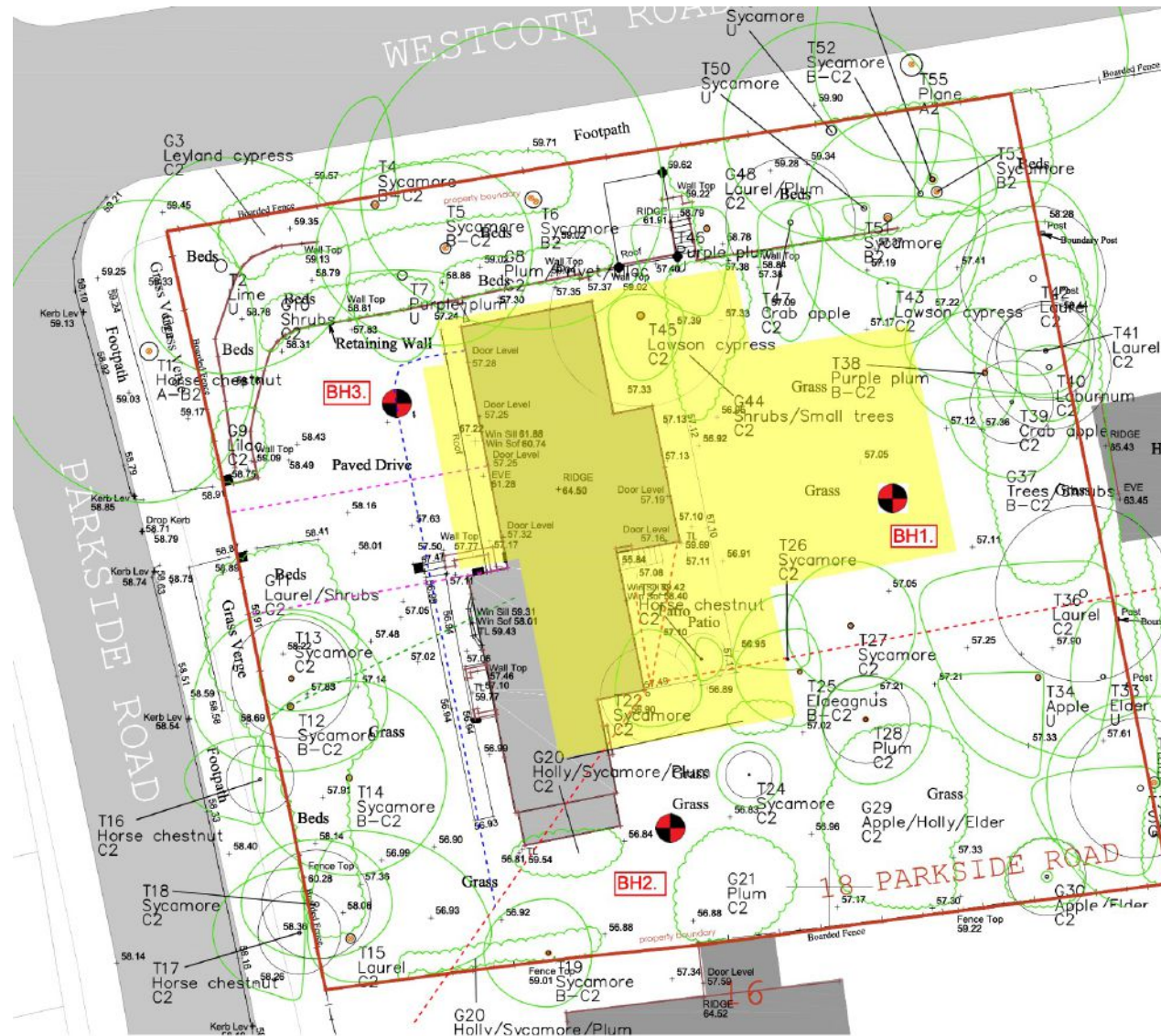




Proposed retaining wall in green



PAGE: 5	iGeo-22-165		BOREHOLE BH03					
DATE:13.09.22	18 Parkside Road, Reading, RG30 2DB							
DESCRIPTION	REDUCED LEVEL m	DEPTH m	LEGEND	SAMPLE		THICKNESS m	SPT N	REMARKS
				TYPE	DEPTH			
MOT Type 1 (placed stone to make a level platform for drilling rig)		0.00		CPT	1.40	0.30	39	Borehole backfilled from GL to 16.45m with bentonite
TARMAC		0.30		D	0.70	0.10		ORIGINAL GROUND DRIVE LEVEL (-0.3m)
MOT Type 1		0.40		D	1.20	0.45		Approximate concrete level in garages (-0.7m)
MADE GROUND: Dark brown gravelly sandy SILT, gravel comprised fine to coarse flint, concrete & brick, also occasional fine chalk gravel		0.50		D	1.60	0.45		Starter pit excavated to 1.4m (1.0m below original ground level)
MADE GROUND: Brown sandy clayey SILT, with fine to coarse flint gravel, also occasional brick & concrete cobbles		0.95		D	1.70	1.10		Concrete and roots present at ~1.7m
Probable MADE GROUND: Dense, becoming very dense (disiccated?) mixed brown & orange brown gravelly sandy silty CLAY, gravel comprised fine to coarse sub-angular flint, also probable rare fine brick gravel		1.40		SPT	2.40		96	2.5m - Approximate horizon
Very dense brown sandy GRAVEL, gravel comprised fine to coarse sub-rounded & sub-angular flint [Probable natural? Lynch Hill Gravel Member]		2.50		D	2.85			500 litres of water added between 2m and 4m
Light brown sandy CLAY [Lambeth Group/Reading Formation]		3.95		CPT	3.00	1.45	95	
Very dense, becoming dense brown, becoming light brown silty fine & medium SAND [Lambeth Group/Reading Formation]		4.00		SPT	4.00	0.05	75	Occasional fine & rare medium sub-angular flint gravel to 5.0m
Medium dense to dense light brown silty SAND, with laminations/thinly bedded stiff light grey, occasionally mottled brown silty CLAY, with occasional coarse brown stained sub-rounded flint gravel [Lambeth Group/Reading Formation]		7.70		D	4.40			
Very stiff grey mottled reddish brown silty CLAY, with occasional light brown silty sand lamination/pockets [Lambeth Group/Reading Formation?]		8.30		SPT	4.45		44	
Very stiff greenish greyish green mottled light brown & orange brown sandy CLAY, with occasional black flecks (some laminations of cream coloured/pink crushed shells from 10.4m) [Lambeth Group/Upnor Formation]		9.50		D	5.00			
Recovered as very weak, low density white & cream coloured CHALK (probably structured), with frequent black specks. Chalk initially a fine to coarse gravelly SILT, becoming a silty GRAVEL [Searford Chalk Formation and Newhaven Chalk Formation]		10.90		SPT	5.45		56	Becoming silty coarse sand
		16.45		D	6.00	3.70		Rare fine & medium sub-rounded flint gravel from 7.5m
				SPT	6.45		49	Penetrometer at 7.7m - Cu=110kPa
				D	7.00	0.60	32	7.8m (silty & gravel sample)
				D	7.45			8.3m - Approximate horizon
				SPT	7.80			U100 Blows = 110
				D	8.00	1.20		Borehole cased to 10.0m
				SPT	8.45		30	
				D	8.50			Chalk is white, with occasionally cream coloured with black specking & rare orange staining on clasts below 12m. Structure also observed more clearly below 12m
				SPT	9.00		50	
				D	9.50			
				SPT	10.00		23	
				D	10.45			
				SPT	11.00		22	
				D	11.30			
				SPT	11.50			
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				SPT	12.45		25	
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PAGE: 8	iGeo-22-165	SPT RESULTS
DATE:13.09.22	18 Parkside Road, Reading, RG30 2DB	

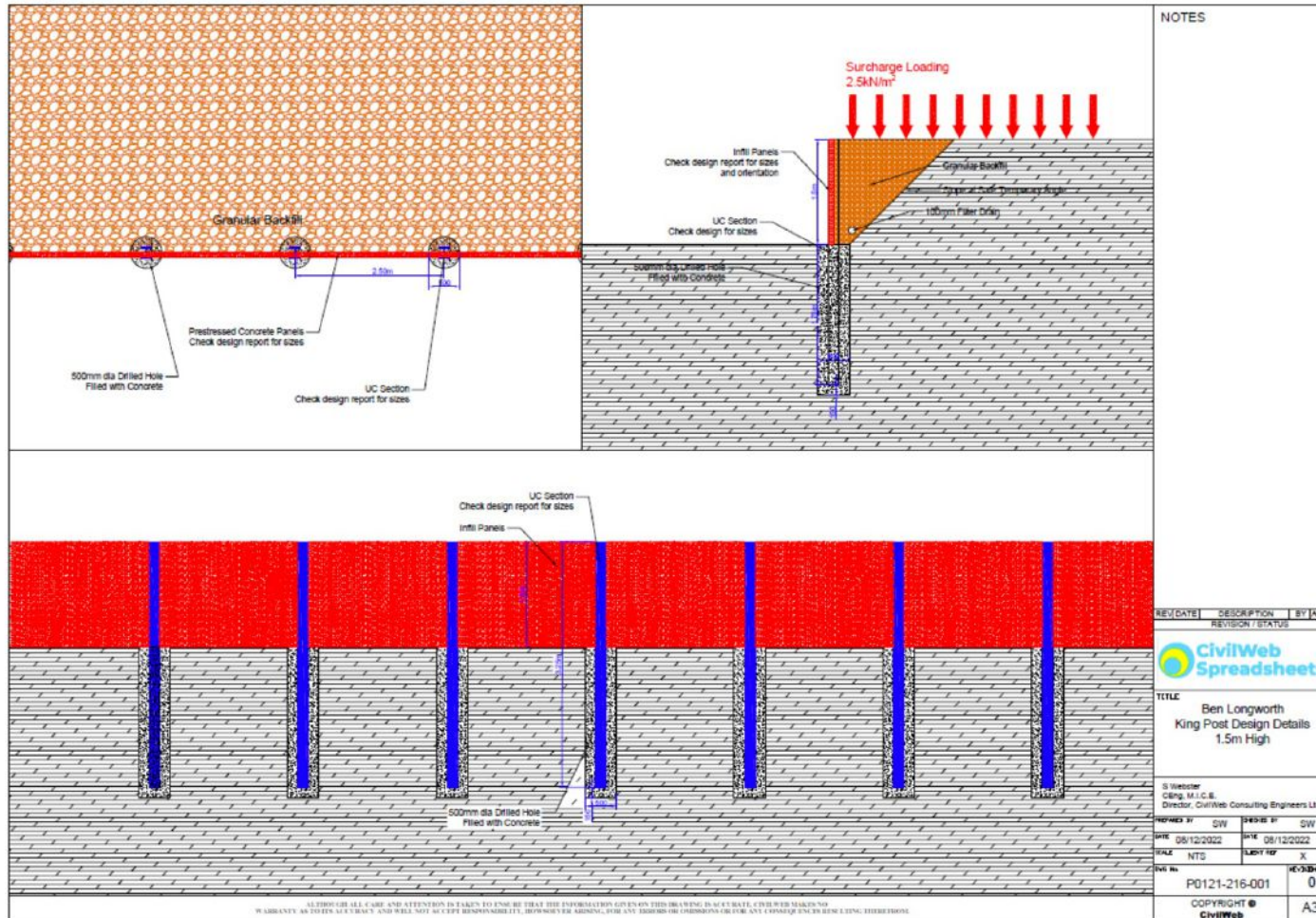
STANDARD PENETRATION TEST RESULTS

BORE HOLE	DEPTH m		TEST TYPE	SOIL DESCRIPTION	NUMBER OF BLOWS					'N'
	FROM	TO			150 mm	75 mm	75 mm	75 mm	75 mm	
BH03	1.40	1.64	CPT	Made Ground (bouncing).....	39 Blows for 235mm					39+
BH03	2.40	2.85	SPT	Sandy GRAVEL.....	24	20	21	25	30	96
BH03	3.00	3.45	CPT	Sandy GRAVEL.....	15	18	22	25	30	95
BH03	4.00	4.45	SPT	Silty SAND.....	28	20	15	18	22	75
BH03	5.00	5.45	SPT	Silty SAND.....	7	7	10	12	15	44
BH03	6.00	6.45	SPT	Silty SAND.....	8	10	12	14	20	56
BH03	7.00	7.45	SPT	Silty SAND.....	10	8	11	12	18	49
BH03	8.00	8.45	SPT	Silty SAND -> Sandy CLAY.....	5	5	7	9	11	32
BH03	10.00	10.45	SPT	Sandy CLAY.....	7	6	8	7	9	30
BH03	11.00	11.03	SPT	CHALK (flint).....	50 Blows for 30mm					50+
BH03	12.00	12.45	SPT	CHALK.....	5	3	6	7	7	23
BH03	13.00	13.45	SPT	CHALK.....	7	4	5	7	6	22
BH03	14.00	14.45	SPT	CHALK.....	8	5	6	7	7	25
BH03	15.00	15.45	SPT	CHALK.....	10	7	6	7	8	28
BH03	16.00	16.45	SPT	CHALK.....	8	6	7	8	8	29

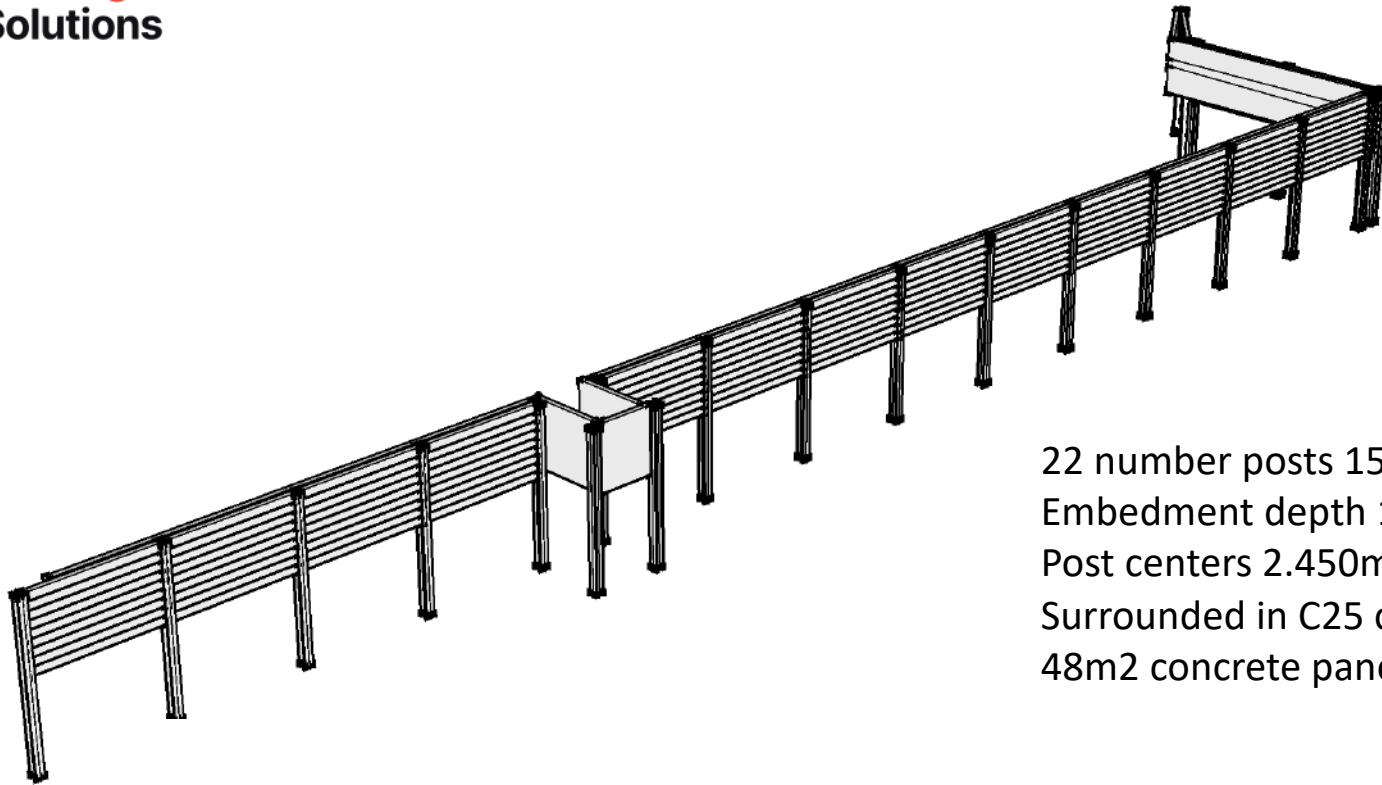


The existing property is to be demolished.

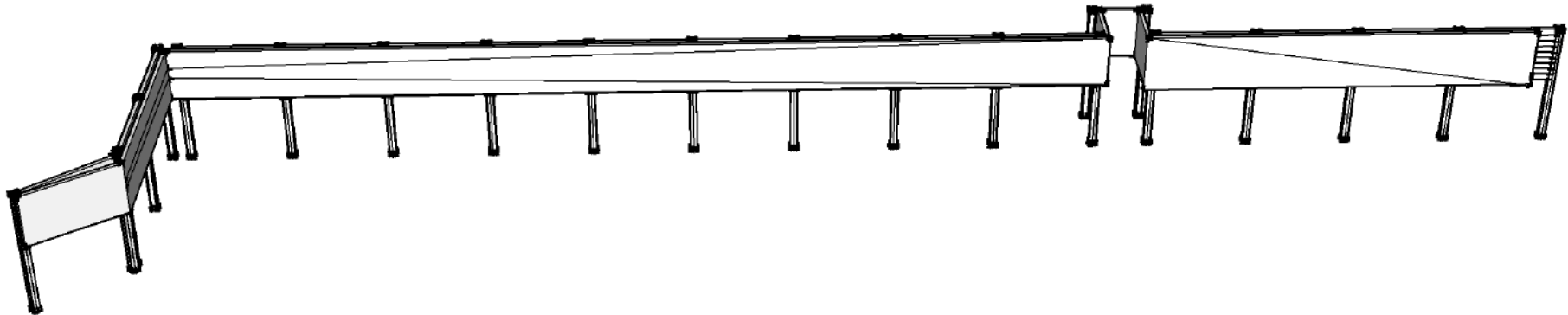
The existing masonry retaining wall is to be demolished and the foundation grubbed up prior to piling.



Retained Height (m)	Required Embedment Depth (m)	Required Steel Section	Spacing (m)	Lagging Max Moment (kNm per m)
up to 1.5	1.75	UC 152x152x23 S275	2.50	7.72



22 number posts 152mm x 152mm x 23kg x 3000mm long
Embedment depth 1.75
Post centers 2.450m
Surrounded in C25 concrete
48m² concrete panels



Item	Quantity	Unit	Rate	Total	Options
King Post Installation					
Piling	1	Item			
Steel posts	22	No			
Steel channel	2	No			
Fabrication	1	Item			
Concrete panels	24	m2			
Concrete lintels 2400mm long	32	No			
Concrete lintels 1260mm long	4	No			
Concrete to piles	3	m3			
Main Contractor					
Overheads 10%					
Profit 5%					
Contingency	1	Item			