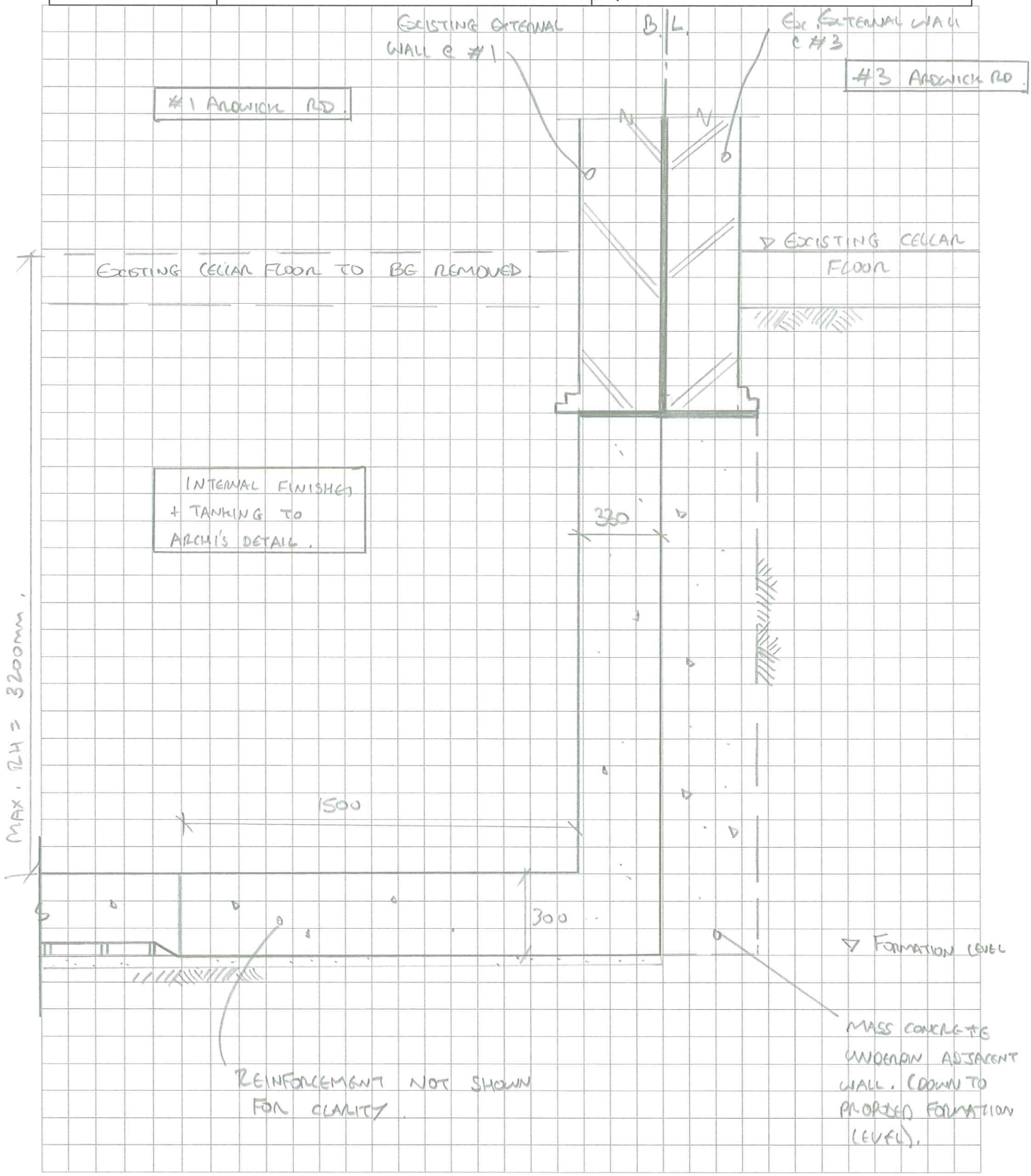
	Project		Job Ref	
GSE GREEN STRUCTURAL ENGINEERING	1 Ardwick Road, NW2 2BX		12693	
	Drawing Ref	Calculations by	Checked by	Sheet of
		JC	BC	
	Part of Structure		Date	
	R2 - LG Floor.		April '15	



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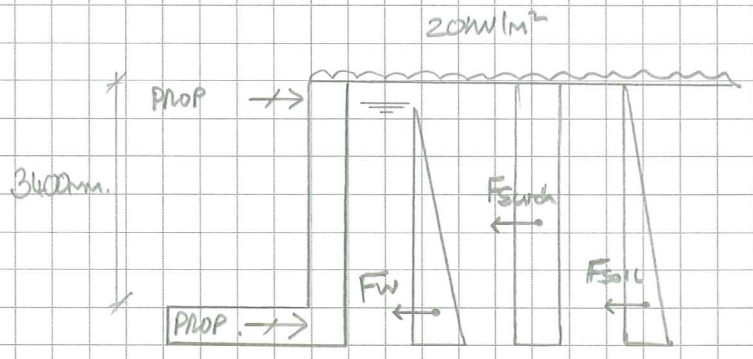
GSE GREEN STRUCTURAL ENGINEERING	1 Ardwick Road, NW2 2BX		12693	
	Drawing Ref	Calculations by	Checked by	Sheet of
		JC	BC	
	Part of Structure		Date	
	R3 – LG. FLOOR		April '15	

Assumptions:

- SBP = 150kPa.
- 20kN/m² surcharge applies
- Low level prop = ground bearing slab.
- High level prop = RC ring beam.
- RLH = 3400mm
- WT @ 1m below G.L.
- No vertical loading



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Sheet	:
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Date	: March '15
Checked	: BC
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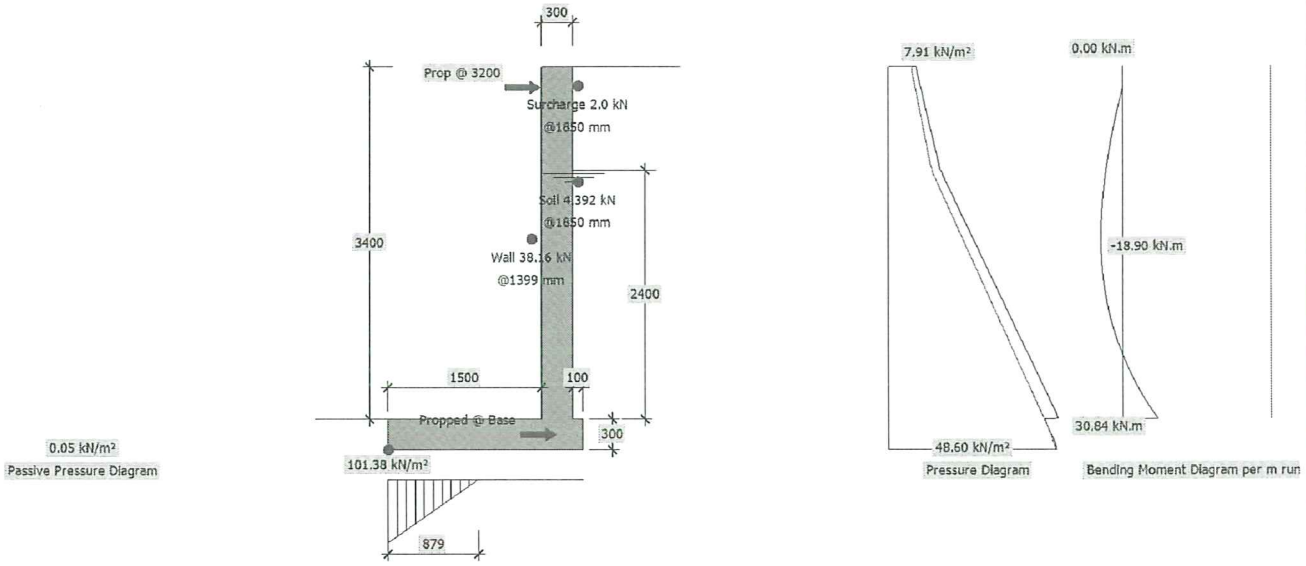
R3 – LG Floor – Permanent Case

MasterKey : Retaining Wall Design to BS 8002 and BS 8110 : 1997
Basic RC Retaining Wall
Reinforced Concrete Retaining Wall with Reinforced Base



Summary of Design Data

Notes	All dimensions are in mm and all forces are per metre run
Material Densities (kN/m³)	Dry Soil 18.00, Saturated Soil 20.80, Submerged Soil 10.80, Concrete 24.00
Concrete grade	fcu 35 N/mm², Permissible tensile stress 0.250 N/mm²
Concrete covers (mm)	Wall inner cover 50 mm, Wall outer cover 30 mm, Base cover 50 mm
Reinforcement design	fy 500 N/mm² designed to BS 8110: 1997
Surcharge and Water Table	Surcharge 20.00 kN/m², Water table level 2400 mm

† The Engineer must satisfy him/herself to the reinforcement detailing requirements of the relevant codes of practice

Additional Loads

Wall Propped at Base Level	Therefore no sliding check is required
Additional Wall Prop	Prop @ 3.2 m
† Dimensions	All props are measured from the top of the base

Soil Properties

Soil bearing pressure	Allowable pressure @ front 150.00 kN/m², @ back 150.00 kN/m²
Back Soil Friction and Cohesion	ϕ = Atn(Tan(30)/1.2) = 25.69°
Base Friction and Cohesion	δ = Atn(0.75xTan(Atn(Tan(30)/1.2))) = 19.84°
Front Soil Friction and Cohesion	ϕ = Atn(Tan(30)/1.2) = 25.69°

Loading Cases

G_{Soil}- Soil Self Weight, G_{Wall}- Wall & Base Self Weight, Fv_{Heel}- Vertical Loads over Heel,
P_a- Active Earth Pressure, $P_{surcharge}$- Earth pressure from surcharge

Case 1: Geotechnical Design	1.00 G_{Soil}+1.00 G_{Wall}+1.00 Fv_{Heel}+1.00 P_a+1.00 $P_{surcharge}$
Case 2: Structural Ultimate Design	1.40 G_{Soil}+1.40 G_{Wall}+1.60 Fv_{Heel}+1.00 P_a+1.00 $P_{surcharge}$

Geotechnical Design

Wall Stability - Virtual Back Pressure

Case 1 Overturning/Stabilising	120.107/138.618	0.866	OK

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Wall Sliding - Virtual Back Pressure

$Fx/(Rx_{Friction}+ Rx_{Passive})$	0.000/(16.076+0.000)	0.000	OK
Prop ReactionCase 2 (Serviceability)	71.6 kN @ Base, 21.0 kN @ 3.500 m		

Soil Pressure

Virtual Back	71.484/150 kN/m², Length under pressure 1.246 m	0.477	OK
Wall Back	101.376/150 kN/m², Length under pressure 0.879 m	0.676	OK
Note:	Length under pressure is less than 75% of the base width		Warning

Structural Design

Prop Reactions

Maximum Prop Reactions (Ultimate)	78.1 kN @ Base, 24.4 kN @ 3.200 m

Wall Design (Inner Steel)

Critical Section	Critical @ 0 mm from base, Case 2		
Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	OK
Compression Steel Provided (Cover)	Main H12@250 (30 mm) Dist. H12@175 (42 mm)	452 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	242 mm, 1000 mm, 1340 mm², 500 N/mm², 35.0 N/mm²	223 mm	
Mr=fn(above,As',d',x,x/d)	452 mm², 36 mm, 42 mm, 0.17	130.2 kN.m	
Moment Capacity Check (M/Mr)	M 30.8 kN.m, Mr 130.2 kN.m	0.237	OK
Shear Capacity Check	F 64.1 kN, vc 0.658 N/mm², Fvr 159.3 kN	0.40	OK

Wall Design (Outer Steel)

Critical Section	Critical @ 1735 mm from base, Case 2		
Steel Provided (Cover)	Main H12@250 (30 mm) Dist. H12@175 (42 mm)	452 mm²	OK
Compression Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	264 mm, 1000 mm, 452 mm², 500 N/mm², 35.0 N/mm²	251 mm	
Mr=fn(above,As',d',x,x/d)	1340 mm², 58 mm, 14 mm, 0.05	49.4 kN.m	
Moment Capacity Check (M/Mr)	M 18.9 kN.m, Mr 49.4 kN.m	0.383	OK
Shear Capacity Check	F 0.3 kN, vc 0.436 N/mm², Fvr 115.0 kN	0.00	OK

Base Top Steel Design

Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	OK
Compression Steel Provided (Cover)	Main H12@150 (50 mm) Dist. H12@175 (62 mm)	754 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	242 mm, 1000 mm, 1340 mm², 500 N/mm², 35 N/mm²	223 mm	
Mr=fn(above,As',d',x,x/d)	754 mm², 56 mm, 42 mm, 0.17	130.2 kN.m	
Moment Capacity Check (M/Mr)	M 0.5 kN.m, Mr 130.2 kN.m	0.004	OK
Shear Capacity Check	F 10.2 kN, vc 0.658 N/mm², Fvr 159.3 kN	0.06	OK

Base Bottom Steel Design

Steel Provided (Cover)	Main H12@150 (50 mm) Dist. H12@175 (62 mm)	754 mm²	OK
Compression Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	244 mm, 1000 mm, 754 mm², 500 N/mm², 35 N/mm²	232 mm	
Mr=fn(above,As',d',x,x/d)	1340 mm², 58 mm, 23 mm, 0.10	76.0 kN.m	
Moment Capacity Check (M/Mr)	M 43.3 kN.m, Mr 76.0 kN.m	0.570	OK
Shear Capacity Check	F 44.8 kN, vc 0.541 N/mm², Fvr 132.0 kN	0.34	OK

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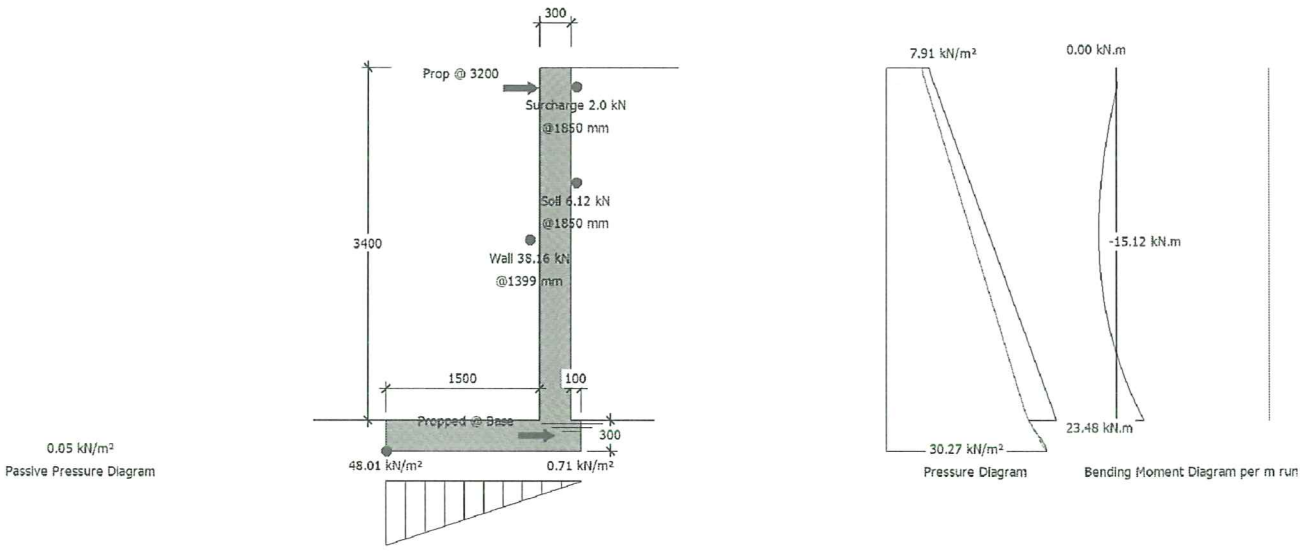
Sheet	:
Made By	: JC
Date	: March '15
Checked	: BC
Approved	:

R3 – LG Floor – Temporary Case

MasterKey : Retaining Wall Design to BS 8002 and BS 8110 : 1997
Basic RC Retaining Wall
Reinforced Concrete Retaining Wall with Reinforced Base



Summary of Design Data

Notes	All dimensions are in mm and all forces are per metre run
Material Densities (kN/m³)	Dry Soil 18.00, Saturated Soil 20.80, Submerged Soil 10.80, Concrete 24.00
Concrete grade	fcu 35 N/mm², Permissible tensile stress 0.250 N/mm²
Concrete covers (mm)	Wall inner cover 50 mm, Wall outer cover 30 mm, Base cover 50 mm
Reinforcement design	fy 500 N/mm² designed to BS 8110: 1997
Surcharge and Water Table	Surcharge 20.00 kN/m², Water table level 0 mm

† The Engineer must satisfy him/herself to the reinforcement detailing requirements of the relevant codes of practice

Additional Loads

Wall Propped at Base Level	Therefore no sliding check is required
Additional Wall Prop	Prop @ 3.2 m
† Dimensions	All props are measured from the top of the base

Soil Properties

Soil bearing pressure	Allowable pressure @ front 150.00 kN/m², @ back 150.00 kN/m²
Back Soil Friction and Cohesion	ϕ = Atn(Tan(30)/1.2) = 25.69°
Base Friction and Cohesion	δ = Atn(0.75xTan(Atn(Tan(30)/1.2))) = 19.84°
Front Soil Friction and Cohesion	ϕ = Atn(Tan(30)/1.2) = 25.69°

Loading Cases

G_{Soil}- Soil Self Weight, G_{Wall}- Wall & Base Self Weight, Fv_{Heel}- Vertical Loads over Heel,
P_a- Active Earth Pressure, $P_{surcharge}$- Earth pressure from surcharge

Case 1: Geotechnical Design	1.00 G_{Soil}+1.00 G_{Wall}+1.00 Fv_{Heel}+1.00 P_a+1.00 $P_{surcharge}$
Case 2: Structural Ultimate Design	1.40 G_{Soil}+1.40 G_{Wall}+1.60 Fv_{Heel}+1.00 P_a+1.00 $P_{surcharge}$

Geotechnical Design

Wall Stability - Virtual Back Pressure

Case 1 Overturning/Stabilising	94.951/131.017	0.725	OK

Wall Sliding - Virtual Back Pressure

Fx/($Rx_{Friction}$+ $Rx_{Passive}$)	0.000/(16.700+0.000)	0.000	OK

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Prop ReactionCase 2 (Serviceability)	47.1 kN @ Base, 17.9 kN @ 3.500 m		

Soil Pressure

Virtual Back (No uplift)	Max(37.487/150, 11.228/150) kN/m²	0.250	OK
Wall Back (No uplift)	Max(48.006/150, 0.710/150) kN/m²	0.320	OK

Structural Design

Prop Reactions

Maximum Prop Reactions (Ultimate)	55.0 kN @ Base, 21.5 kN @ 3.200 m		

Wall Design (Inner Steel)

Critical Section	Critical @ 0 mm from base, Case 2		
Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	OK
Compression Steel Provided (Cover)	Main H12@250 (30 mm) Dist. H12@175 (42 mm)	452 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	242 mm, 1000 mm, 1340 mm², 500 N/mm², 35.0 N/mm²	223 mm	
Mr=fn(above,As',d',x,x/d)	452 mm², 36 mm, 42 mm, 0.17	130.2 kN.m	
Moment Capacity Check (M/Mr)	M 23.5 kN.m, Mr 130.2 kN.m	0.180	OK
Shear Capacity Check	F 46.4 kN, vc 0.658 N/mm², Fvr 159.3 kN	0.29	OK

Wall Design (Outer Steel)

Critical Section	Critical @ 1797 mm from base, Case 2		
Steel Provided (Cover)	Main H12@250 (30 mm) Dist. H12@175 (42 mm)	452 mm²	OK
Compression Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	264 mm, 1000 mm, 452 mm², 500 N/mm², 35.0 N/mm²	251 mm	
Mr=fn(above,As',d',x,x/d)	1340 mm², 58 mm, 14 mm, 0.05	49.4 kN.m	
Moment Capacity Check (M/Mr)	M 15.1 kN.m, Mr 49.4 kN.m	0.306	OK
Shear Capacity Check	F 0.3 kN, vc 0.436 N/mm², Fvr 115.0 kN	0.00	OK

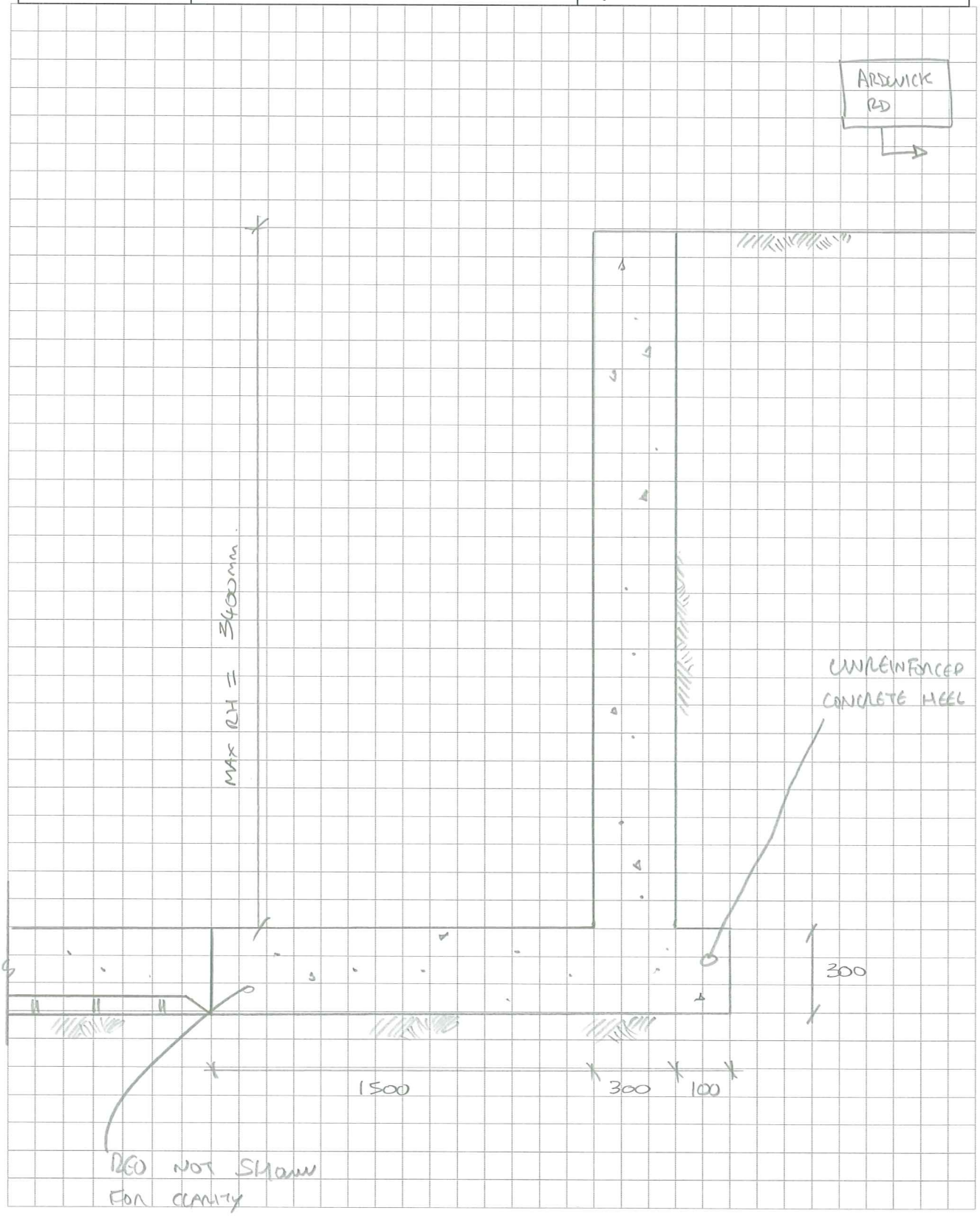
Base Top Steel Design

Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	OK
Compression Steel Provided (Cover)	Main H12@150 (50 mm) Dist. H12@175 (62 mm)	754 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	242 mm, 1000 mm, 1340 mm², 500 N/mm², 35 N/mm²	223 mm	
Mr=fn(above,As',d',x,x/d)	754 mm², 56 mm, 42 mm, 0.17	130.2 kN.m	
Moment Capacity Check (M/Mr)	M 0.5 kN.m, Mr 130.2 kN.m	0.004	OK
Shear Capacity Check	F 10.0 kN, vc 0.658 N/mm², Fvr 159.3 kN	0.06	OK

Base Bottom Steel Design

Steel Provided (Cover)	Main H12@150 (50 mm) Dist. H12@175 (62 mm)	754 mm²	OK
Compression Steel Provided (Cover)	Main H16@150 (50 mm) Dist. H12@175 (66 mm)	1340 mm²	
Leverarm z=fn(d,b,As,fy,Fcu)	244 mm, 1000 mm, 754 mm², 500 N/mm², 35 N/mm²	232 mm	
Mr=fn(above,As',d',x,x/d)	1340 mm², 58 mm, 23 mm, 0.10	76.0 kN.m	
Moment Capacity Check (M/Mr)	M 30.9 kN.m, Mr 76.0 kN.m	0.406	OK
Shear Capacity Check	F 38.5 kN, vc 0.541 N/mm², Fvr 132.0 kN	0.29	OK

	Project		Job Ref	
GSE GREEN STRUCTURAL ENGINEERING	1 Ardwick Road, NW2 2BX		12693	
	Drawing Ref	Calculations by	Checked by	Sheet of
		JC	BC	
	Part of Structure		Date	
	RB LG. Floor.		April '15	



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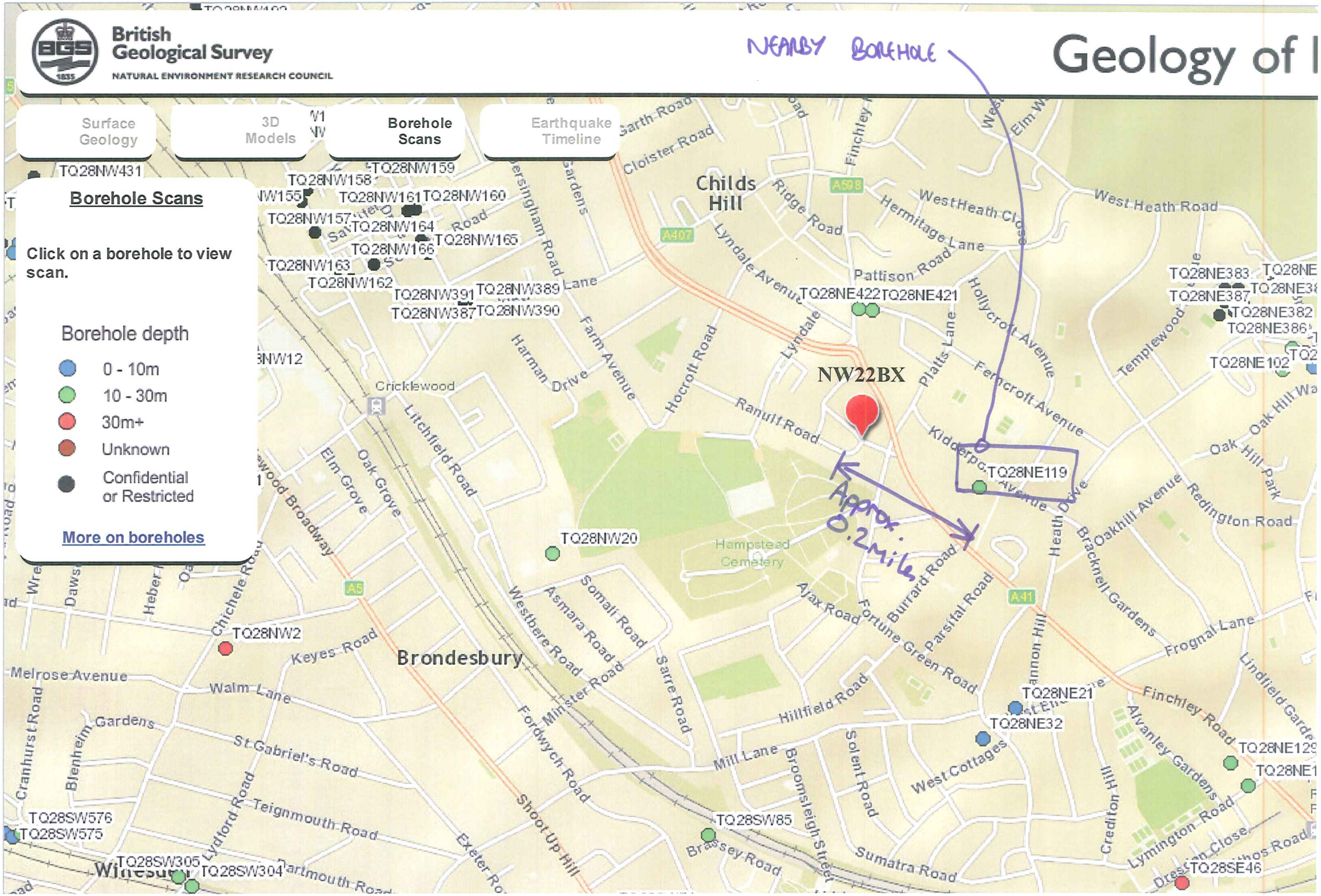
British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL
Geology of
Surface Geology
3D Models
Borehole Scans
Earthquake Timeline
Borehole Scans
Click on a borehole to view scan.
Borehole depth
0 - 10m
10 - 30m
30m+
Unknown
Confidential or Restricted
More on boreholes
NEARBY BOREHOLE
NW22BX
Approx. 0.2mile
TQ28NE119
Childs Hill
Brondesbury
Cricklewood
Hampstead Cemetery
TQ28NW431
TQ28NW159
TQ28NW158
TQ28NW161
TQ28NW160
TQ28NW157
TQ28NW164
TQ28NW165
TQ28NW166
TQ28NW163
TQ28NW162
TQ28NW391
TQ28NW389
TQ28NW387
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TQ28NW2
TQ28NE21
TQ28NE32
TQ28SW85
TQ28SW576
TQ28SW575
TQ28SW305
TQ28SW304
TQ28SE46
West Heath Road
Finchley Road
Cloister Road
Ridge Road
Hermitage Lane
Pattison Road
Lyndale Avenue
Hollycroft Avenue
Ferncroft Avenue
Platts Lane
Templewood
Ranulf Road
Hocroft Road
Farm Avenue
Harman Drive
Litchfield Road
Oak Grove
Elm Grove
Heath Drive
Oakhill Avenue
Redington Road
Bracknell Gardens
Frognal Lane
Burrard Road
Parsifal Road
Ajax Road
Fortune Green Road
Somali Road
Asmara Road
Westbere Road
Minster Road
Sarre Road
Keyes Road
Melrose Avenue
Walm Lane
St Gabriel's Road
Teignmouth Road
Fordwych Road
Shoot Up Hill
Exeter Road
Hillfield Road
Mill Lane
Solent Road
West Cottages
Broomsleigh Street
Sumatra Road
Brassey Road
Alvanley Gardens
Lymington Road
Credition Hill
Chichele Road
Cranhurst Road
Lydford Road
A598
A407
A5
A41

12693 - Nearby borehole (Approx. 0.2m away)

TQ/28NE/119
2537.8575

Fig. 3

BOREHOLE LOG

LOCATION NO. 3117 Westfield College

CARRIED OUT FOR Council of Westfield College

BOREHOLE NO. 3 DIAMETER : 8 inches

GROUND LEVEL : 62.3 ft. above clients arbitrary datum DATE : 20th and 21st March, 1959

Description	Reduced Level	Legend	Sample	Depth	Thickness	%
Soil. TOPSOIL with turf	+62.3 +61.3		1 2	0'0" 1'0" 0'3"	1'0"	
Firm becoming stiff brown and grey mottled sandy silty CLAY. Very sandy at 3 ft. 6 in. (CLAYGATE BEDS)			3 4 5 6		14'0"	28
Formation level.	+47.3		7 8 9 10	15'0" 4'6"		29
Stiff grey slightly fissured silty CLAY with fine gypsum (LONDON CLAY)			11 12 13 14 15		35'0"	20
Each find gypsum 39 ft. and 1 large septarian nodule.			16 17 18 19 20			29
	+12.3		21	50'0" 13'24"		

END OF BOREHOLE

Water Level Observations

Date	Time	Depth of Borehole	Depth of Casing	Depth to Water
21-3-59	0730	41'0"	20'0"	6'6"

Scale: 1 in. = 5 ft. • Disturbed Sample ▮ Core Sample △ Water Sample

SOIL MECHANICS LTD, 65 OLD CHURCH ST, S.W.3.

3119 3120 3123 3124 3125

Bearing on claygate soils over stiff London Clay.

TQ/28NE/119

2537. 8575

Fig. 2

BOREHOLE LOG

LOCATION NO. 3117 Westfield College, Hampstead

CARRIED OUT FOR Council of Westfield College.

BOREHOLE NO. 2 DIAMETER: 8 inches

GROUND LEVEL: 62.0 ft. above Clients arbitrary datum DATE: 19th March, 1959

DESCRIPTION	REDUCED LEVEL	LEGEND	SAMPLE	DEPTH	THICKNESS	M/c %
TOPSOIL with turf	+62.0		1	0'0"	0'6"	
	+61.5		2	0'6"		
Soft becoming firm to stiff brown and grey mottled sandy clayey SILT, more sandy below 10 ft. (CLAYGATE BEDS)			3		13'6"	25
			4			
			5			
			6			
			7			
Coarse gypsum crystals	+48'0		8	14'0"		
			9			30
Firm becoming stiff at 15 ft and very stiff at 28 ft. grey slightly fissured silty CLAY containing fine gypsum (LONDON CLAY)			10			
			11			
			12		21'0"	
			13			27
			14			
			15			
			17 Δ			
			16			27
	+27.0			35'0"		
END OF BOREHOLE						

Water Level Observations

Date	Time	Depth of Borehole	Depth of Casing	Depth to Water
20-3-59	0730	34'0"	—	24'6"

Scale: 1 in. = 5 ft. D Disturbed Sample I Core Sample Δ Water Sample

SOIL MECHANICS LTD., 65, OLD CHURCH ST., S.W.3.

TQ28NE/119
2537.8575

Fig. 1

BOREHOLE LOG

LOCATION NO. 3117 Westfield College, Hampstead, N.W.3.
CARRIED OUT FOR Council of Westfield College.
BOREHOLE NO. 1 DIAMETER : 8 Inch
GROUND LEVEL : 71.7 above Clients arbitrary datum DATE : 14th to 16th March, 1939

Description	Reduced Level	Legend	Sample	Depth	Thickness	M/c %
	+71.7			0'0"		
Rubble, clinker and gravel MADE GROUND	+69.9		1	1'9"	1'9"	
			2			26
Firm mottled grey and brown sandy clayey SILT becoming brown and more sandy below 7 ft. (CLAYGATE BEDS)			3			24
			4			25
			5		12'9"	24
			6			25
	+57.2		7	14'6"		24
Firm becoming stiff light grey-brown sandy clayey SILT, more clayey below 17 ft. (Probably Claygate Beds)			8		4'6"	30
	+52.7		9	19'0"		26
Stiff dark grey silty CLAY fairly slightly fissured and very stiff below 40 ft. Firm gypsum throughout. (LONDON CLAY)			10			29
			11			25
			12			29
			13			27
			14		31'6"	26
			15			25
			16			25
			17			24
			18			25
			19			25
			20			25
			Δ 22			
	+21.2		21	50'6"		29
END OF BOREHOLE						

Water Level Observations

Date	Time	Depth of Borehole	Depth of Casing	Depth to Water
16.3.39	0730	14'6"	14'6"	7'4"
17.3.39	0730	50'6"	-	20'6"

Scale: 1 in. = 5 ft. o Disturbed Sample ▮ Core Sample Δ Water Sample

SOIL MECHANICS LTD, 65 OLD CHURCH ST., S.W.3

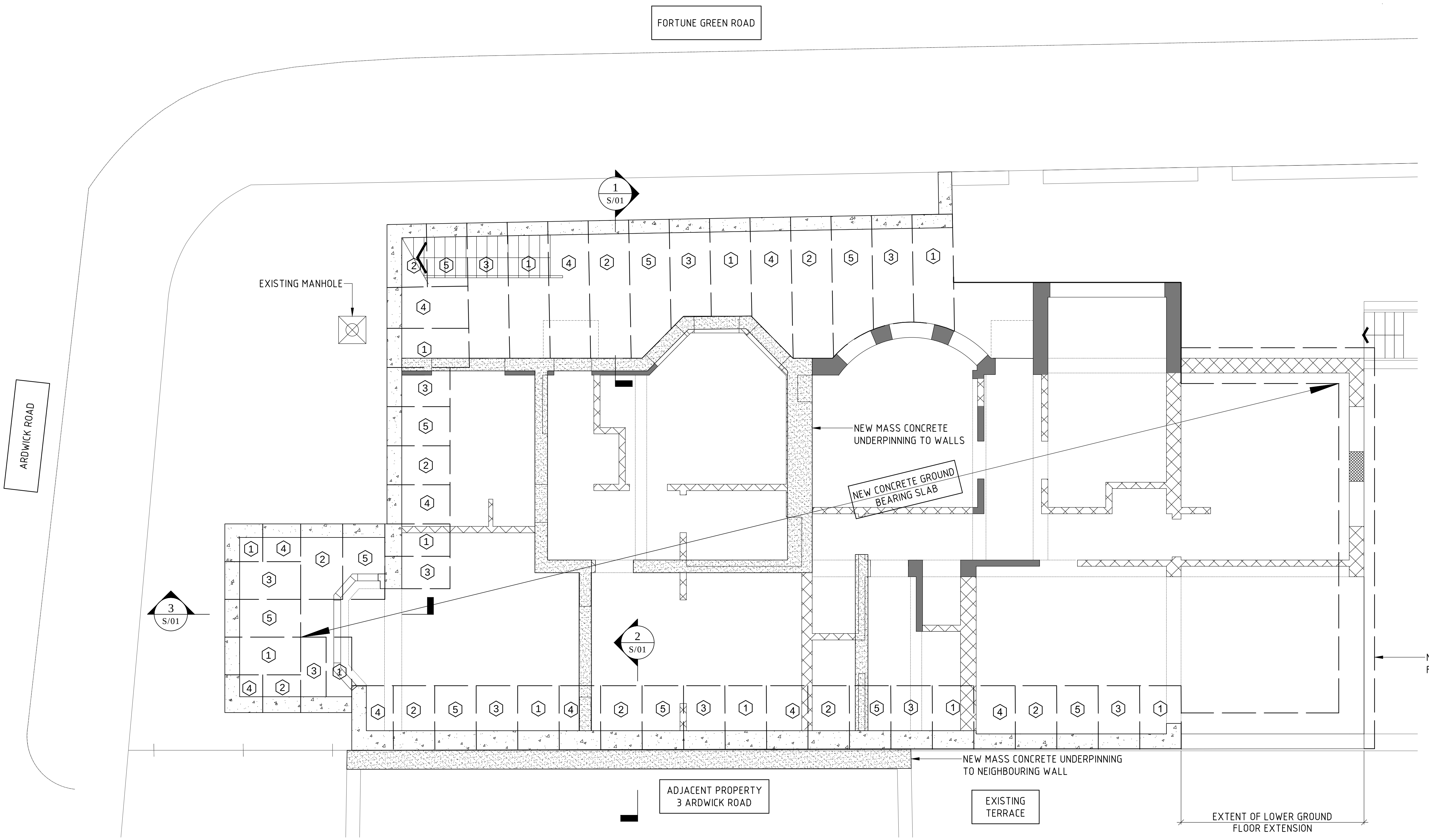
APPENDIX C

GSE STRUCTURAL DRAWINGS

NOTES:
1. UNDERPINS WILL NOT BE STABLE WHILST UNDER CONSTRUCTION. CONTRACTOR MUST PROVIDE ADEQUATE LATERAL SUPPORT TO ALL PINS UNTIL BASEMENT SLAB HAS BEEN CAST.
2. BELOW GROUND WATERPROOFING AND DRAINAGE BY OTHERS.
3. NON COMPRESSIBLE WATER RESISTANT CEMENTITIOUS BOARD LINER TO BACK OF ALL UNDERPIN SUPPORTING PARTY WALLS.

ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
ALL DIMENSIONS AND LEVELS TO BE CONFIRMED BY ARCHITECT
SETTING OUT TO BE CONFIRMED ON SITE

KEY
- EXISTING WALL
- NEW MASS CONCRETE UNDERPIN
- NEW ARCHITECTURAL WALLS
- NEW REINFORCED CONCRETE UNDERPIN



LOWER GROUND FLOOR PLAN
SCALE 1:100

DO NOT SCALE FROM THIS DRAWING
THIS DRAWING IS SUBJECT TO COPYRIGHT

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE DIMENSIONS BEFORE COMMENCING ANY WORK

12693			1 ARDWICK ROAD, CAMDEN, NW2 2BX					
REV	DATE	DESCRIPTION	REV	DATE	DESCRIPTION	REV	DATE	DESCRIPTION
P1	DD/MM/YY	INITIAL ISSUE						

GREEN STRUCTURAL ENGINEERING
020 3405 3120

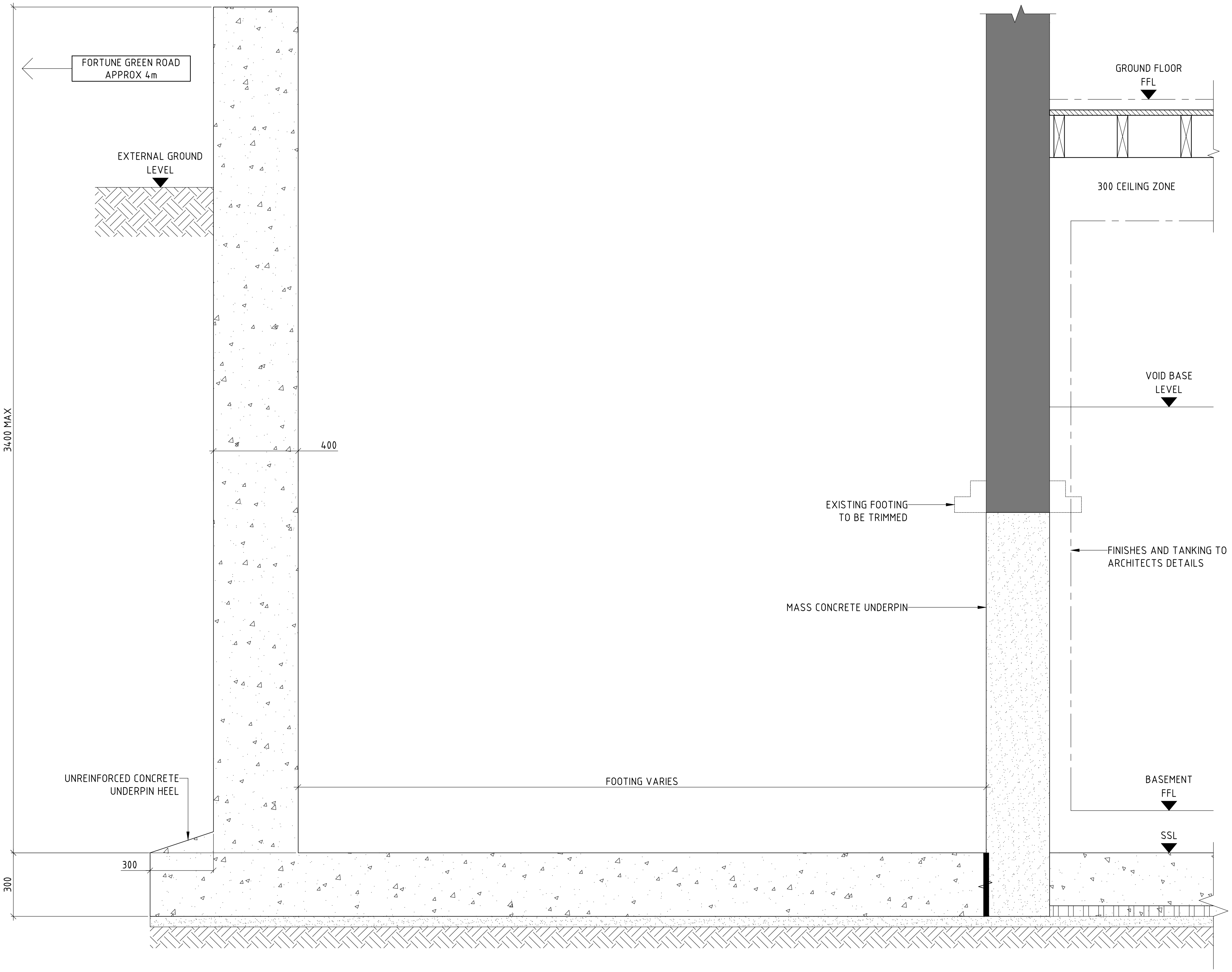
LOWER GROUND FLOOR

DRAWN	CHECKED	DATE	PAPER SIZE	SCALE		
KIB	JC	14/04/2015	A3	AS SHOWN	GA/01	P1

ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
ALL DIMENSIONS AND LEVELS TO BE CONFIRMED BY ARCHITECT
SETTING OUT TO BE CONFIRMED ON SITE

KEY

- EXISTING WALL
- NEW MASS CONCRETE UNDERPIN
- NEW ARCHITECTURAL WALLS
- NEW REINFORCED CONCRETE UNDERPIN



1 SECTION
GA/01 SCALE 1:20

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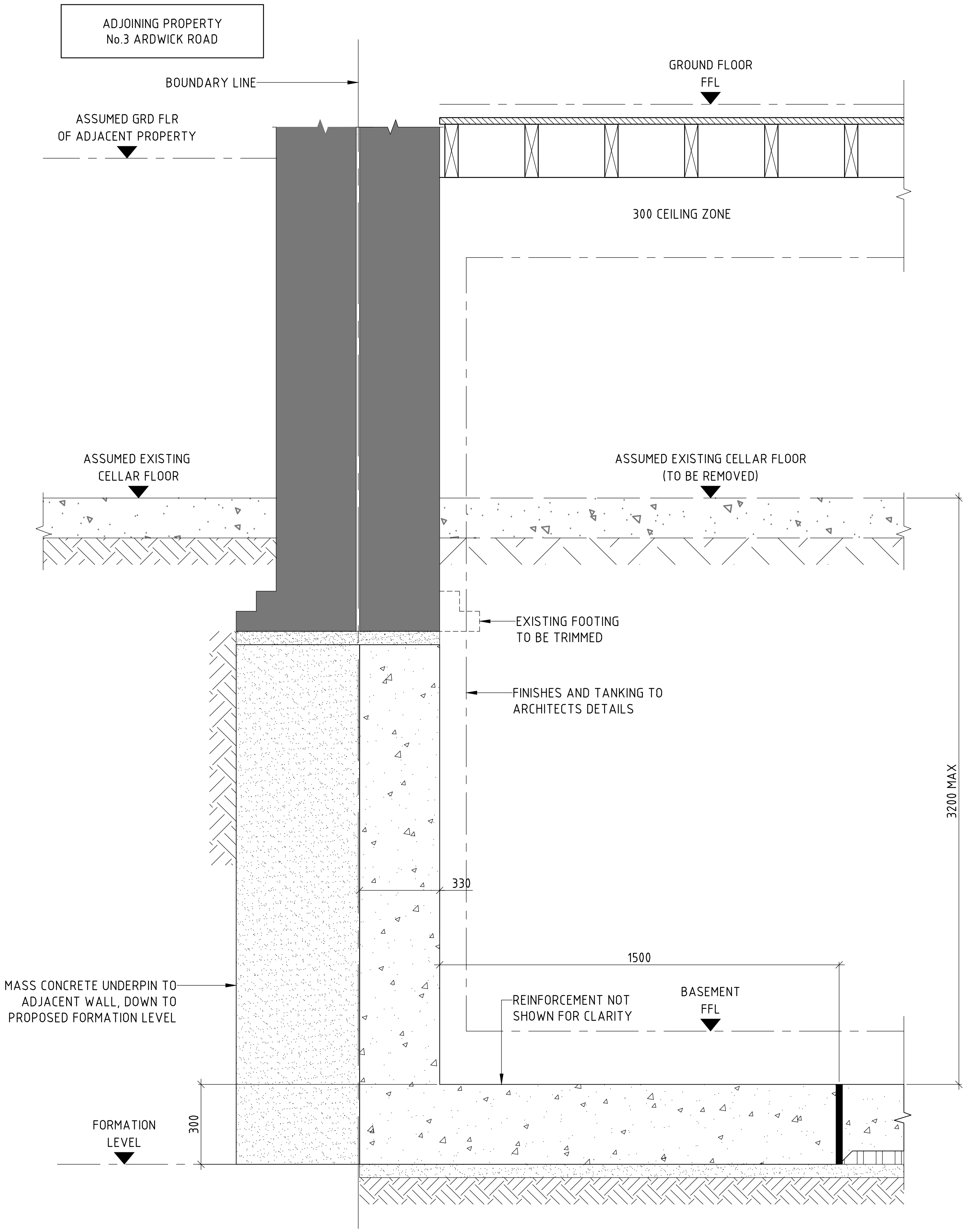
S/01 **P1**

ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
ALL DIMENSIONS AND LEVELS TO BE CONFIRMED BY ARCHITECT
SETTING OUT TO BE CONFIRMED ON SITE

KEY	
	EXISTING WALL
	NEW MASS CONCRETE UNDERPIN
	NEW ARCHITECTURAL WALLS
	NEW REINFORCED CONCRETE UNDERPIN



2 SECTION
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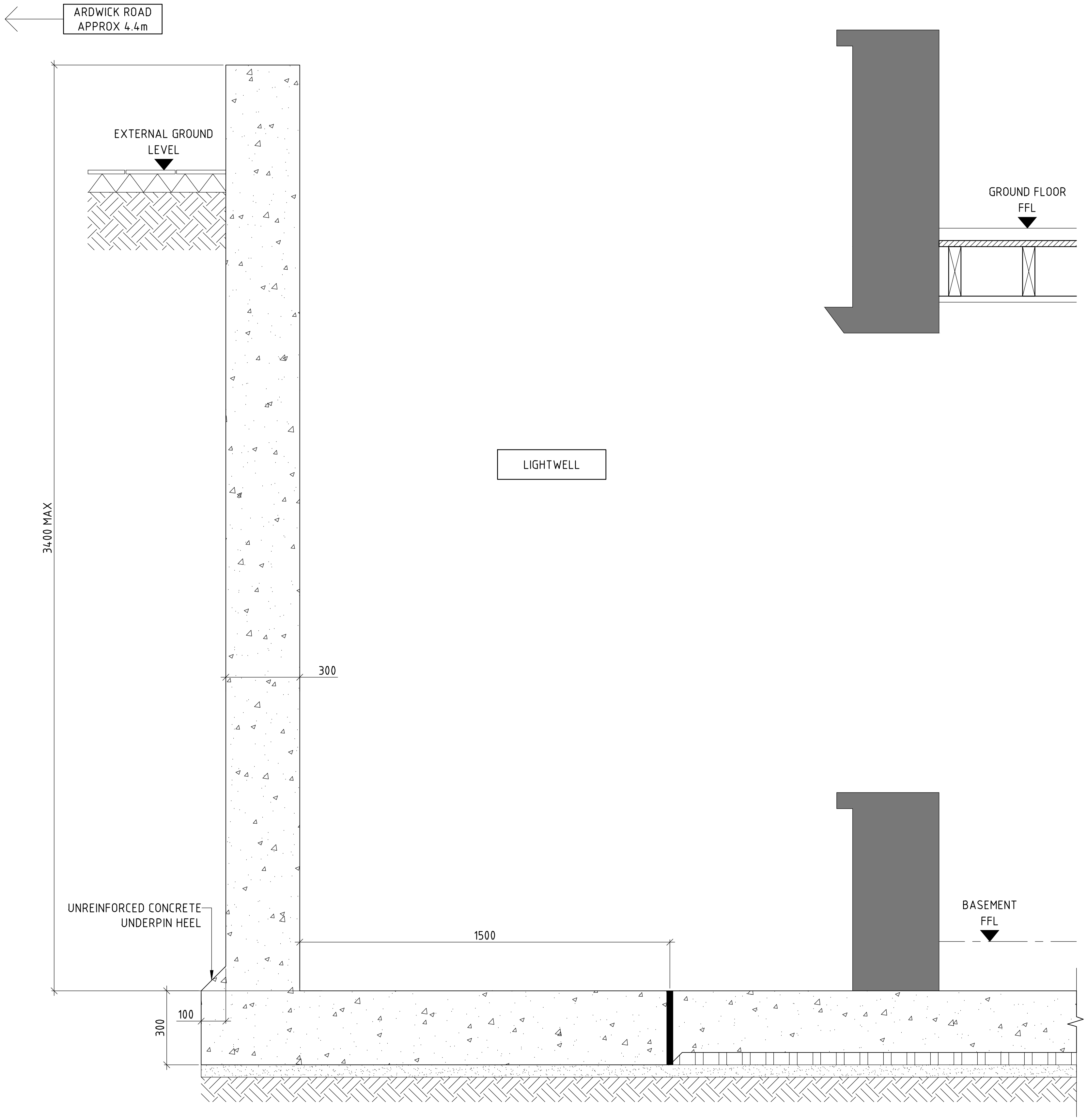
S/02 **P1**

ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
ALL DIMENSIONS AND LEVELS TO BE CONFIRMED BY ARCHITECT
SETTING OUT TO BE CONFIRMED ON SITE

KEY

- EXISTING WALL
- NEW MASS CONCRETE UNDERPIN
- NEW ARCHITECTURAL WALLS
- NEW REINFORCED CONCRETE UNDERPIN



3 SECTION
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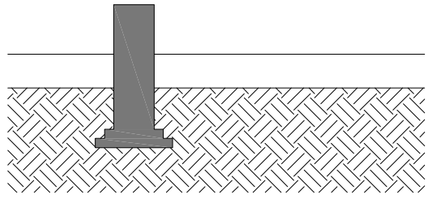
S/03 **P1**

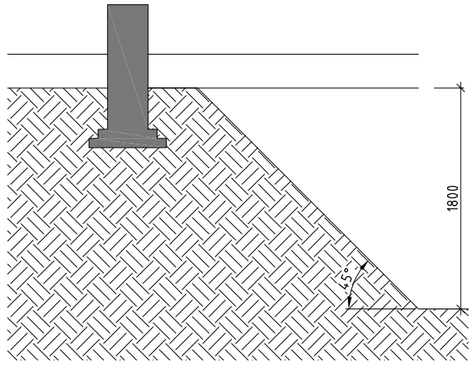
APPENDIX D

GSE ASSUMED CONSTRUCTION SEQUENCE

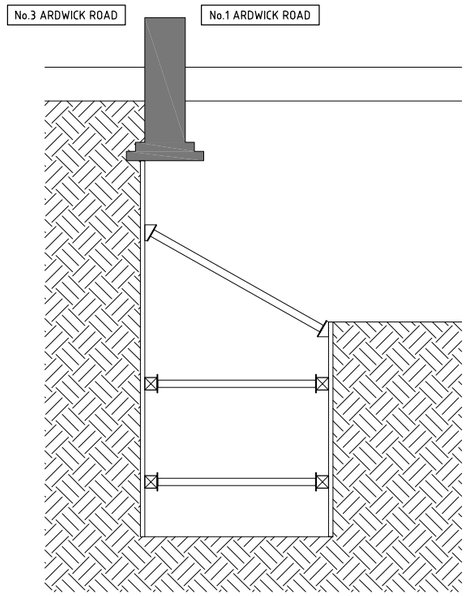
ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED
ALL DIMENSIONS AND LEVELS TO BE CONFIRMED BY ARCHITECT
SETTING OUT TO BE CONFIRMED ON SITE



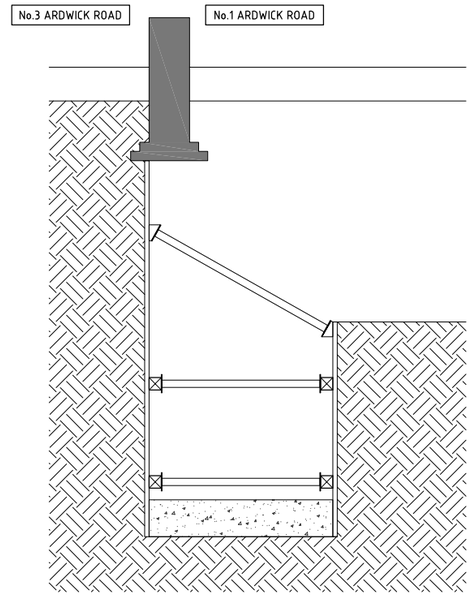
STAGE 0
EXISTING CONDITION



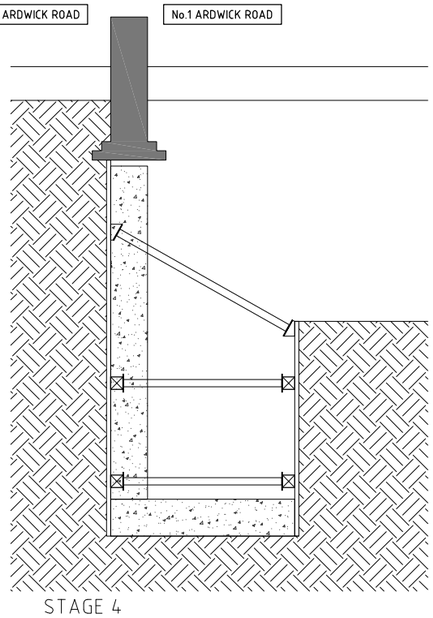
STAGE 1
GENERAL LEVEL REDUCTION



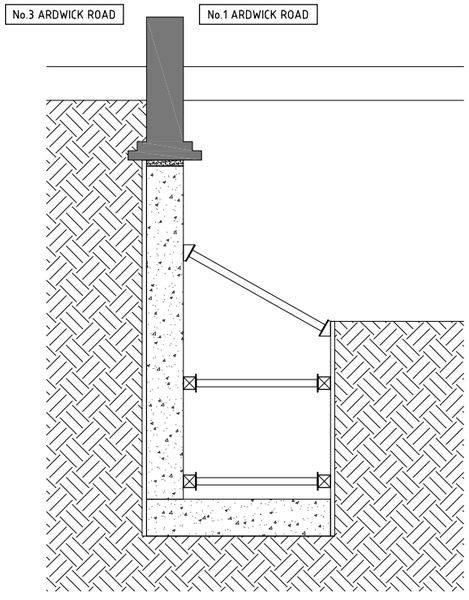
STAGE 2
EXCAVATE TO FORM UNDERPIN



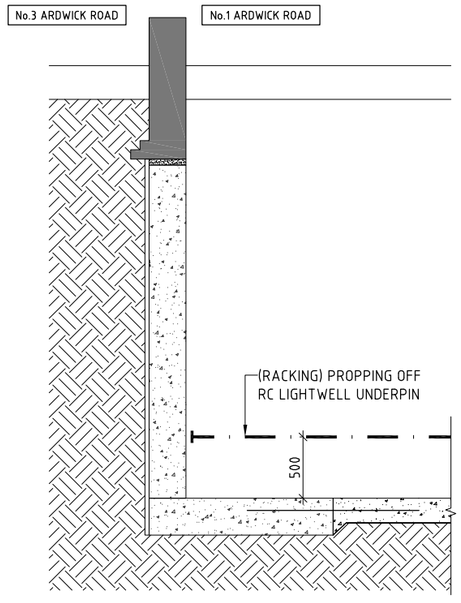
STAGE 3
CONCRETE BASE OF UNDERPIN



STAGE 4
ERECT SHUTTER
CONCRETE STEM OF UNDERPIN



STAGE 5
STRIKE SHUTTER WHEN CONCRETE HAS
GAINED SUFFICIENT STRENGTH, DRYPACK,
TRIM - OFF PROJECTING FOOTING, RE-PROP
UNTIL BASEMENT SLAB IS CAST.



STAGE 6
ONCE FRONT RC WALL HAS BEEN INSTALLED
RAKING PROPOS OFF THE INTERSECTION OF
THE FRONT WALL/ LIGHTWELL WILL TEMPORARILY
PROP PARTY WALL UNTIL NEW LOWER GROUND
FLOOR SLAB IS POURED.

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APPENDIX E

GSE TEMPORARY WORKS INTENT DRAWINGS