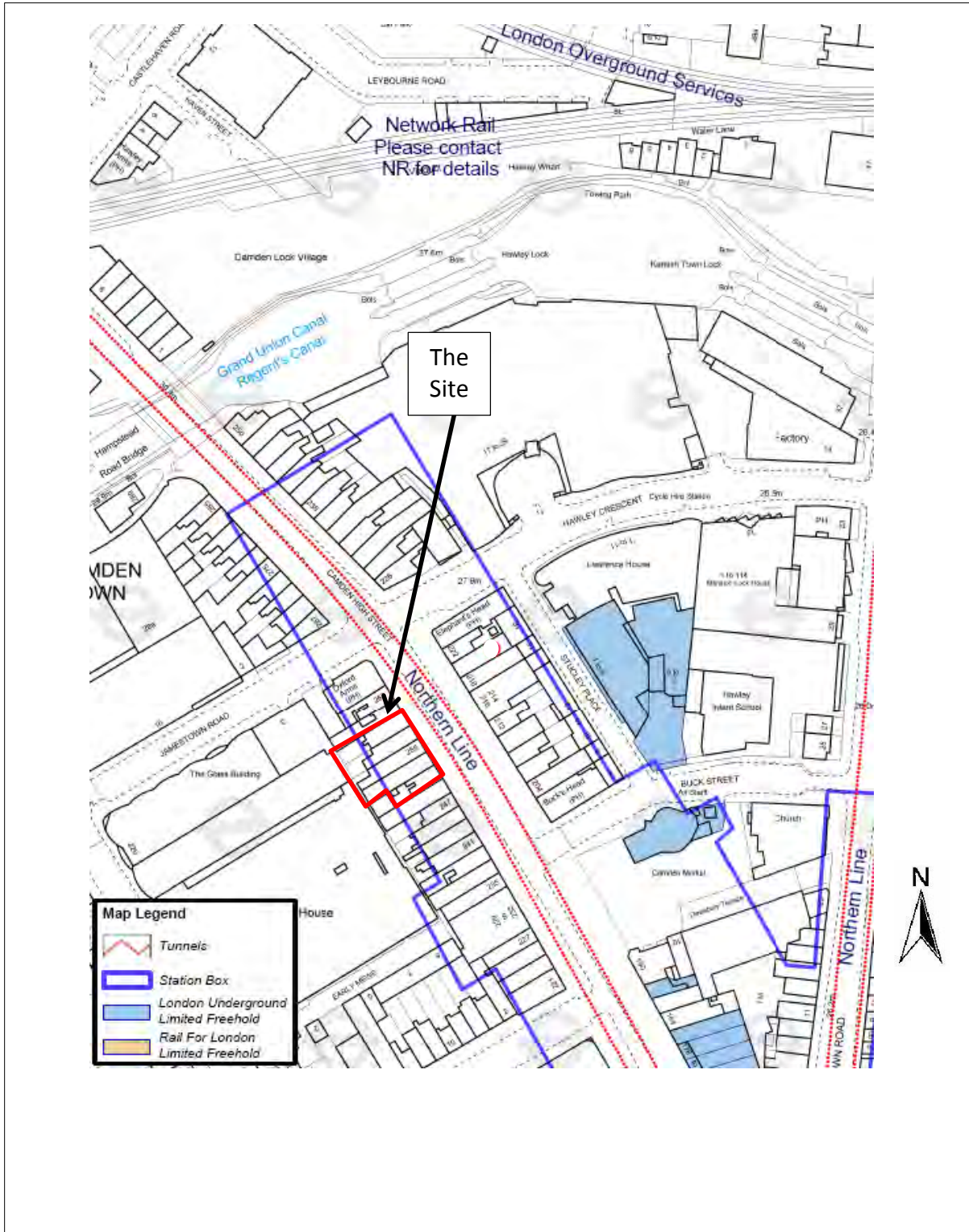

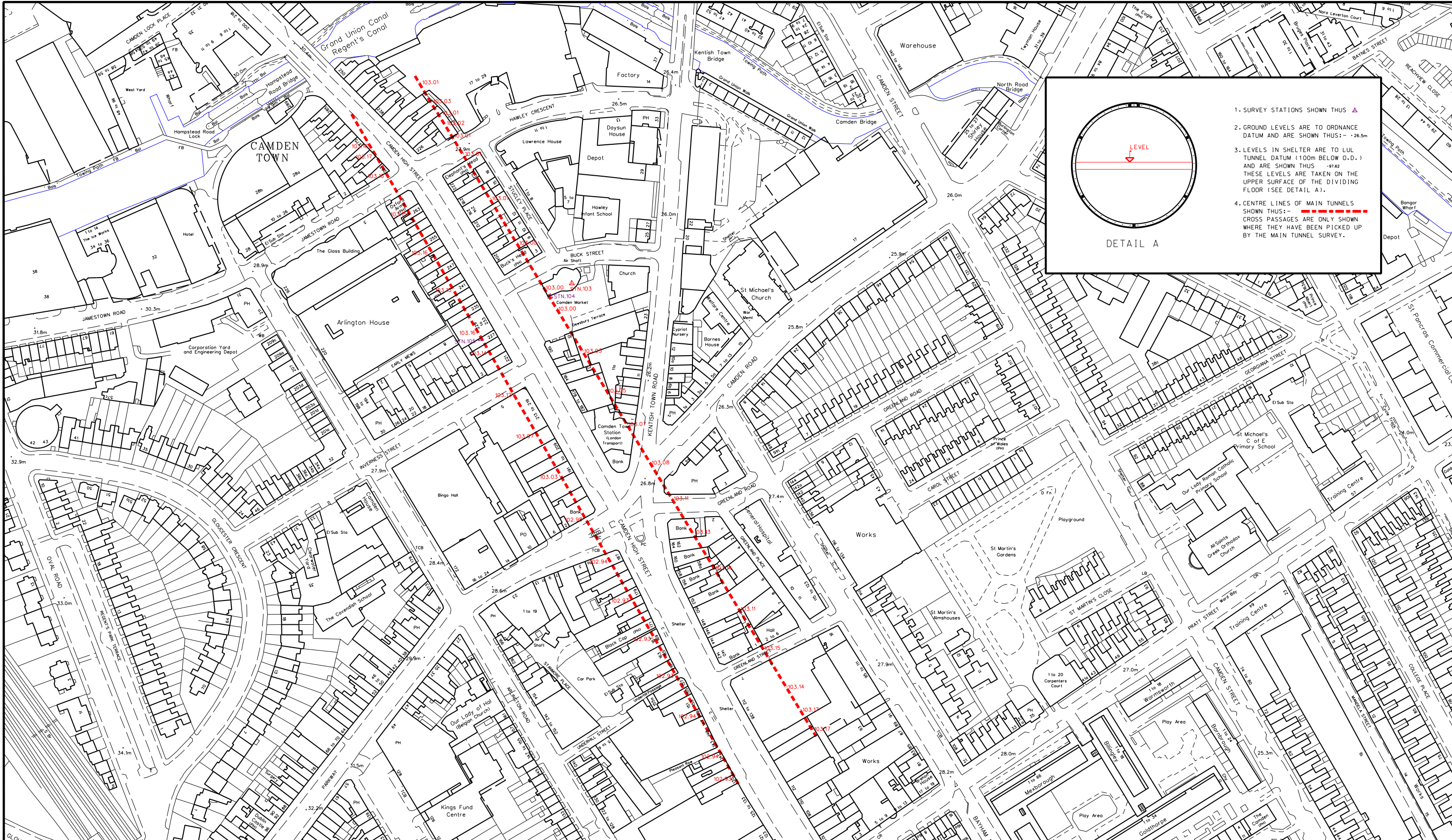


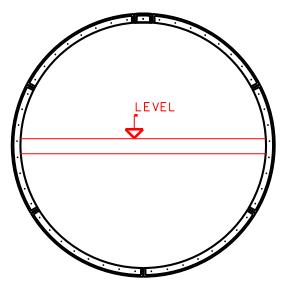
APPENDIX C

Underground infrastructure drawings



<p>Client</p> <p>Castlehaven Row Limited</p>	<p>Project</p> <p>251 – 259 Camden High Street, London</p>	<p>Job No</p> <p>CG/18648</p>
	<p>Title</p> <p>London underground tunnel plan</p>	<p>Appendix C</p>





DETAIL A

1. SURVEY STATIONS SHOWN THUS ▲
2. GROUND LEVELS ARE TO ORDNANCE DATUM AND ARE SHOWN THUS: - 26.5m
3. LEVELS IN SHELTER ARE TO LUL TUNNEL DATUM (100m BELOW O.D.) AND ARE SHOWN THUS -97.62 THESE LEVELS ARE TAKEN ON THE UPPER SURFACE OF THE DIVIDING FLOOR (SEE DETAIL A).
4. CENTRE LINES OF MAIN TUNNELS SHOWN THUS: - - - - - - CROSS PASSAGES ARE ONLY SHOWN WHERE THEY HAVE BEEN PICKED UP BY THE MAIN TUNNEL SURVEY.



London Underground Limited

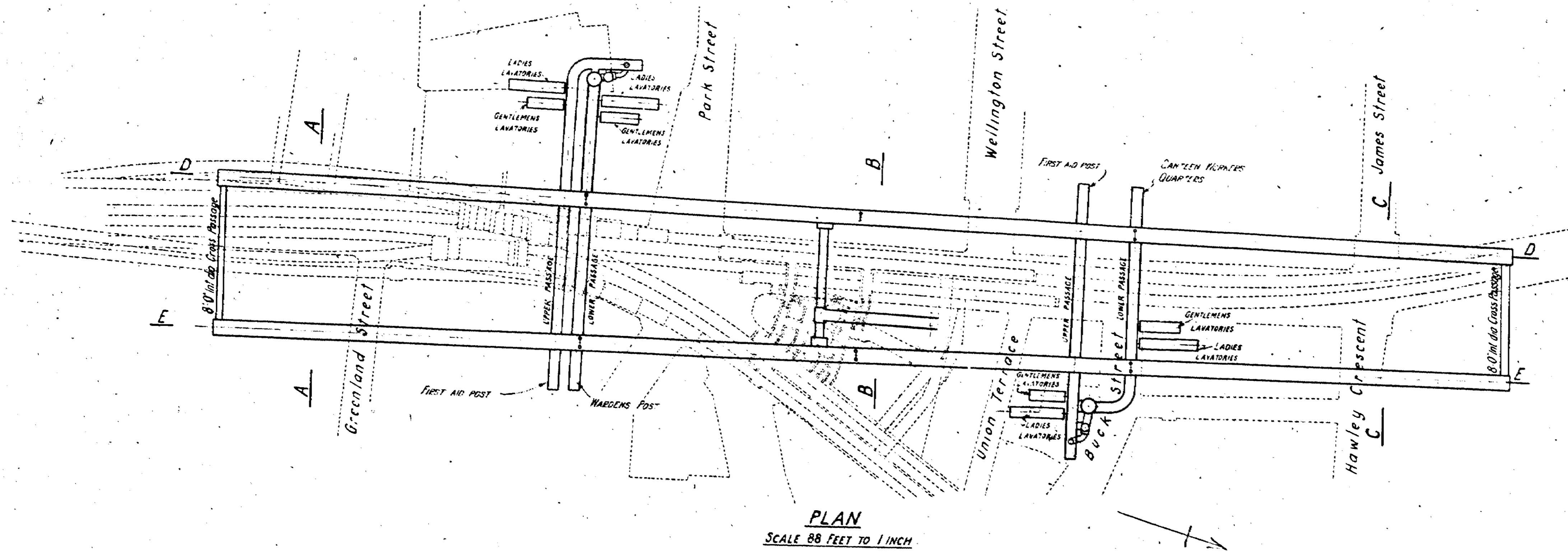
Infrastructure Protection

Camden Town
Deep Level Shelter

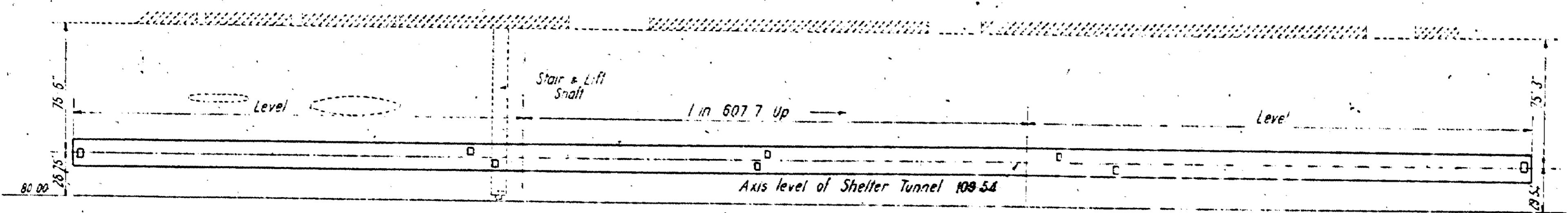
© Crown copyright and database rights 2011 Ordnance Survey 100035971

Date

Drawing No

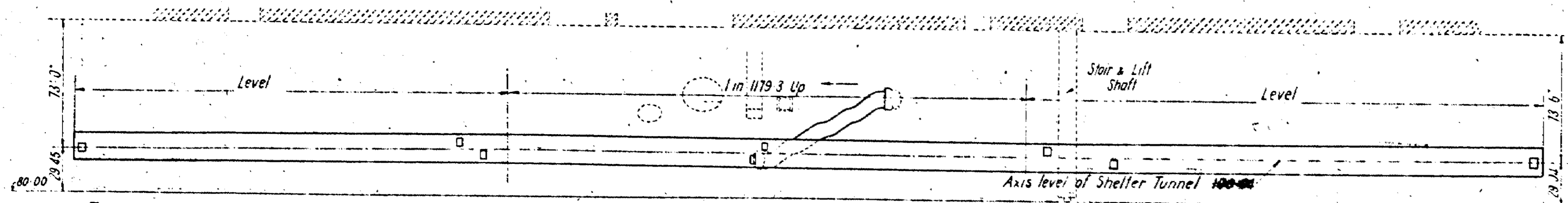


PLAN
SCALE 88 FEET TO 1 INCH



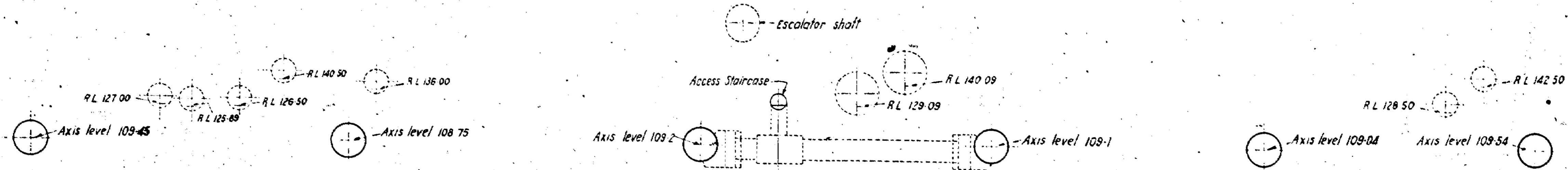
LONGITUDINAL SECTION D D
HORIZONTAL SCALE 88 FEET TO 1 INCH
VERTICAL SCALE 60 FEET TO 1 INCH

Datum is 100.00 below ordnance datum
All levels refer to Liverpool Datum



LONGITUDINAL SECTION E E
HORIZONTAL SCALE 88 FEET TO 1 INCH
VERTICAL SCALE 60 FEET TO 1 INCH

Road level 192.00

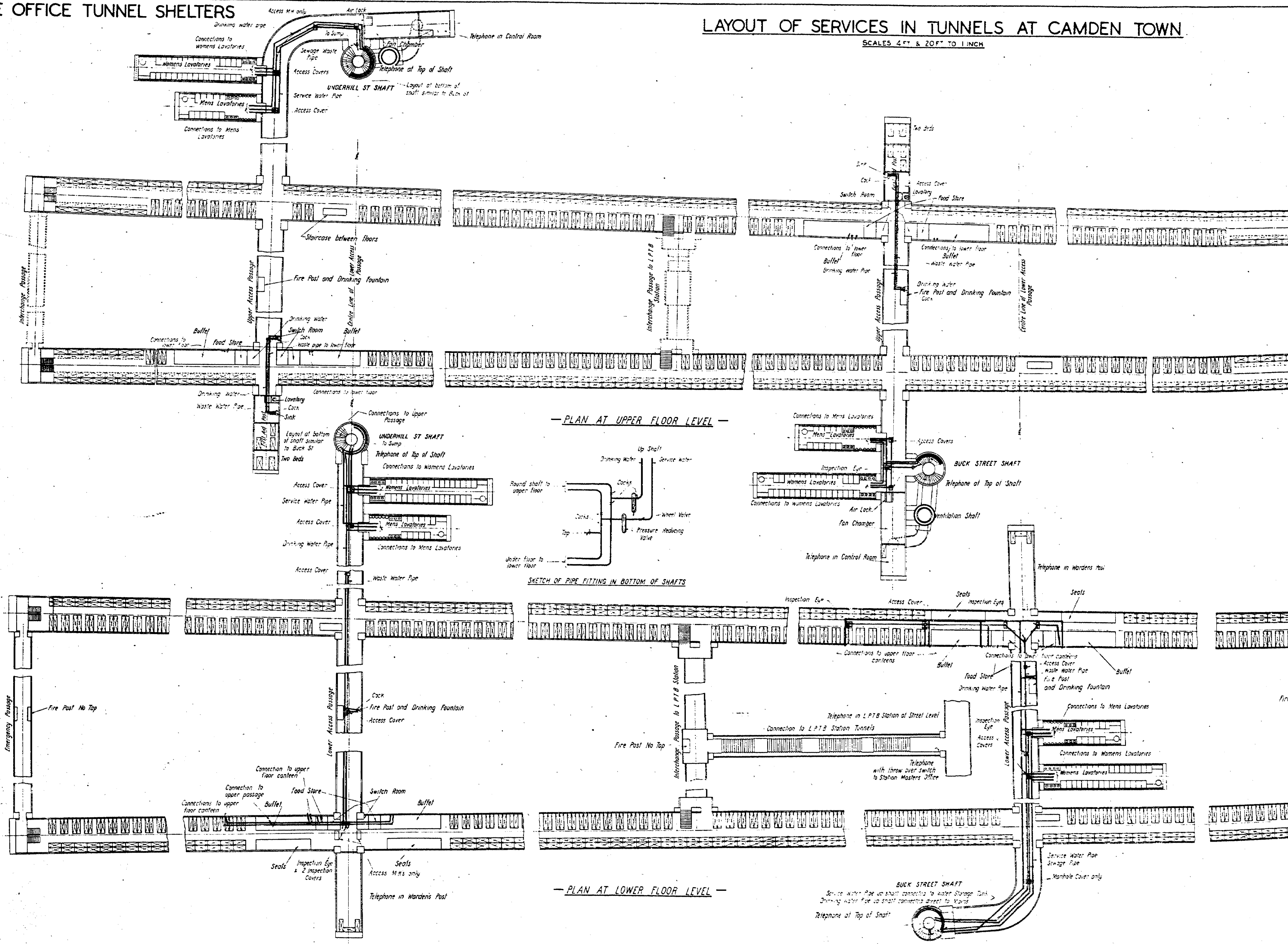


SECTION A A

SECTION B B
SCALE 40 FEET TO 1 INCH

SECTION C C

SCALES 4 FT & 20 FT TO 1 INCH



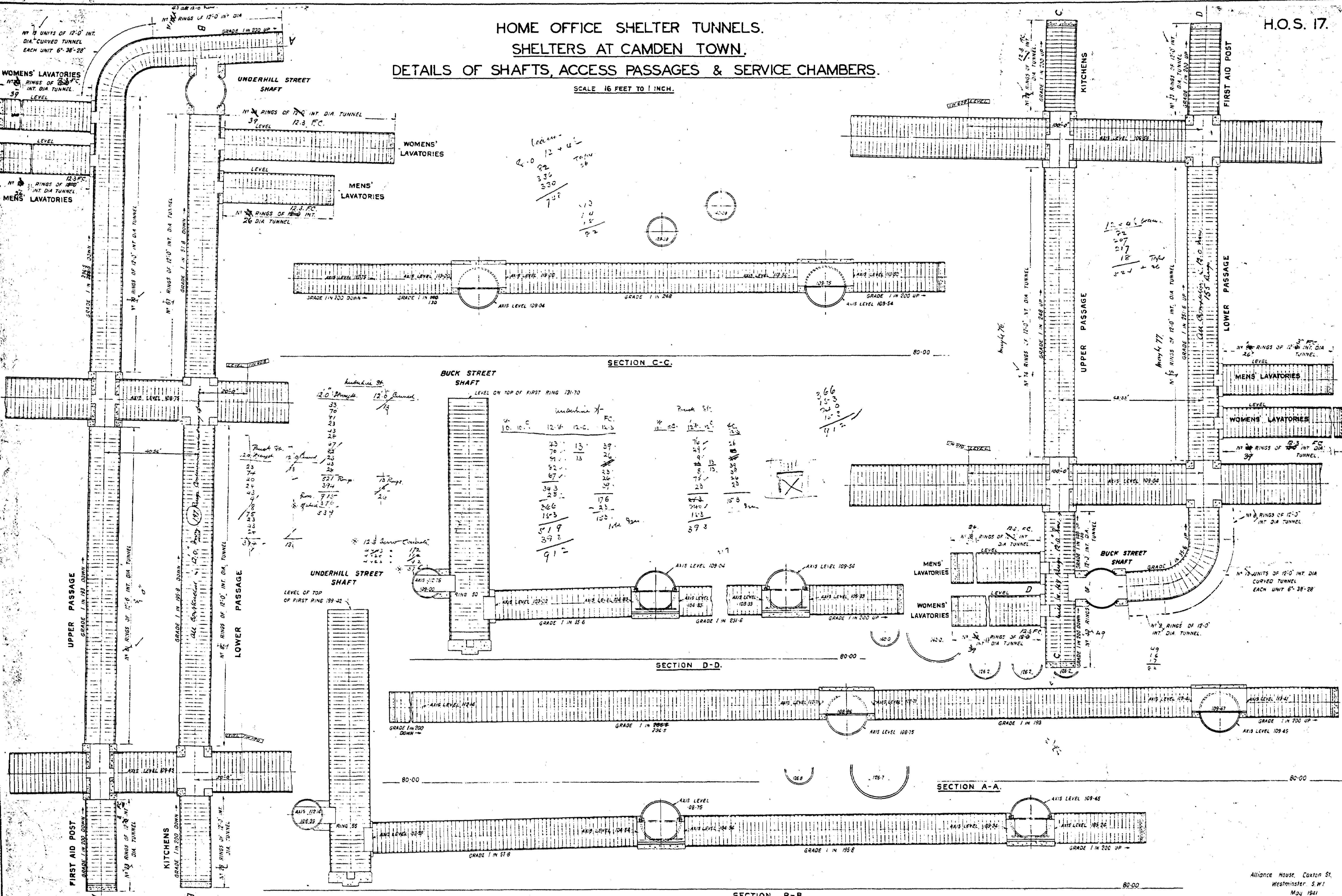
PLAN AT UPPER FLOOR LEVEL

SKETCH OF PIPE FITTING IN BOTTOM OF SHAFTS

PLAN AT LOWER FLOOR LEVEL

HOME OFFICE SHELTER TUNNELS. SHELTERS AT CAMDEN TOWN. DETAILS OF SHAFTS, ACCESS PASSAGES & SERVICE CHAMBERS.

SCALE 16 FEET TO 1 INCH.



$$\begin{array}{r} 12 + 42 \\ 22 \\ 336 \\ 330 \\ \hline 789 \end{array}$$

 1.3
1.0
1.5
P.2

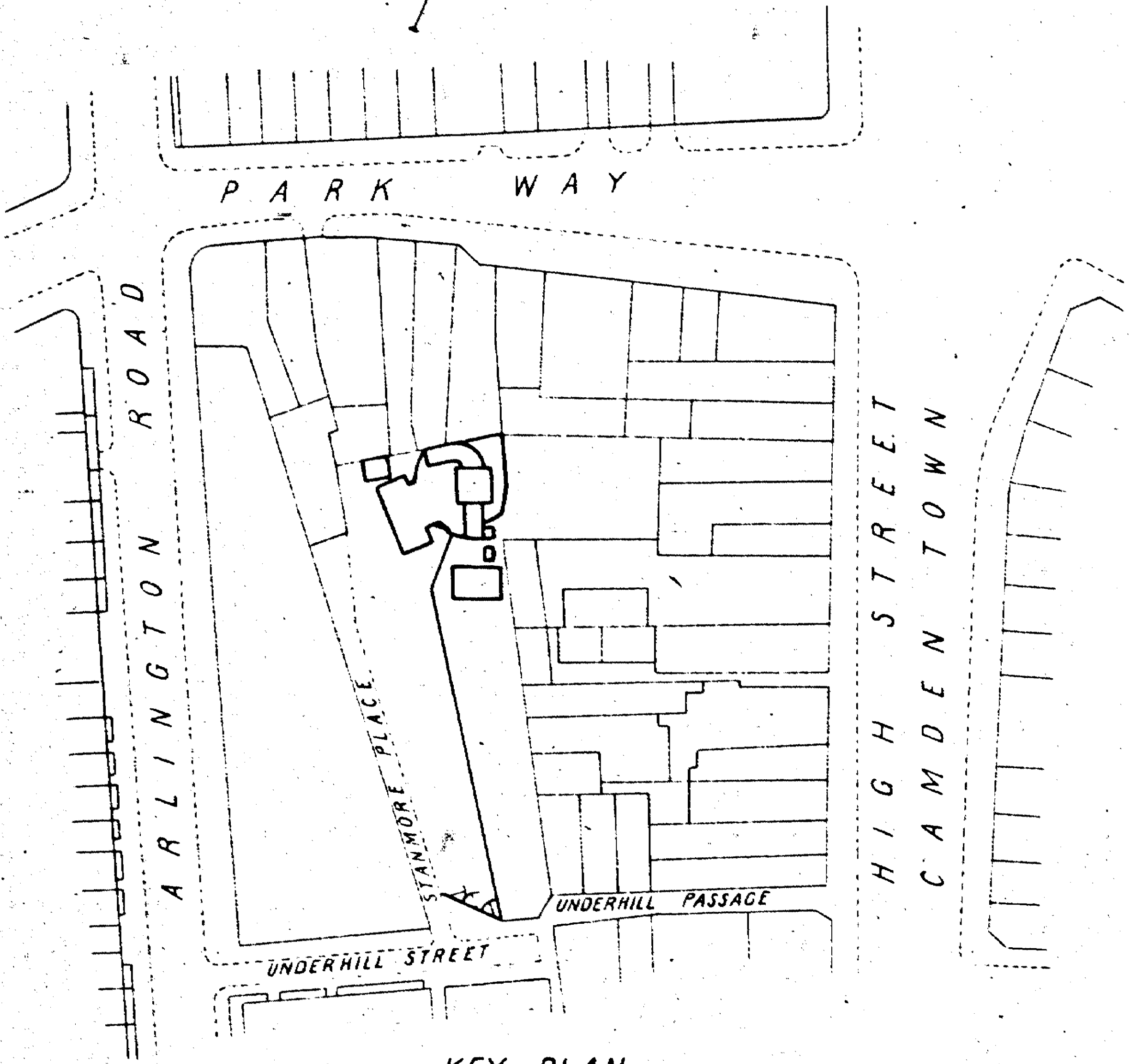
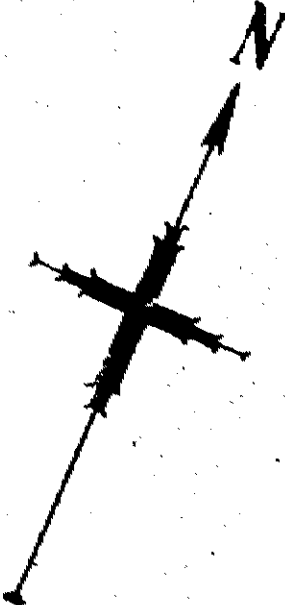
2.0
33
70
41
33
23
20
27
23
43
28
394
715
376
334
131

Machine		F.C.		Buck St.	
10.	10.	12.4	12.0	12.4	12.0
43	13	39		76	
70		26		21	
41	13			9	
33		23		8	
23		59		23	
20		23		23	
27		176		23	
23		23		23	
43		153		153	
394		912		393	

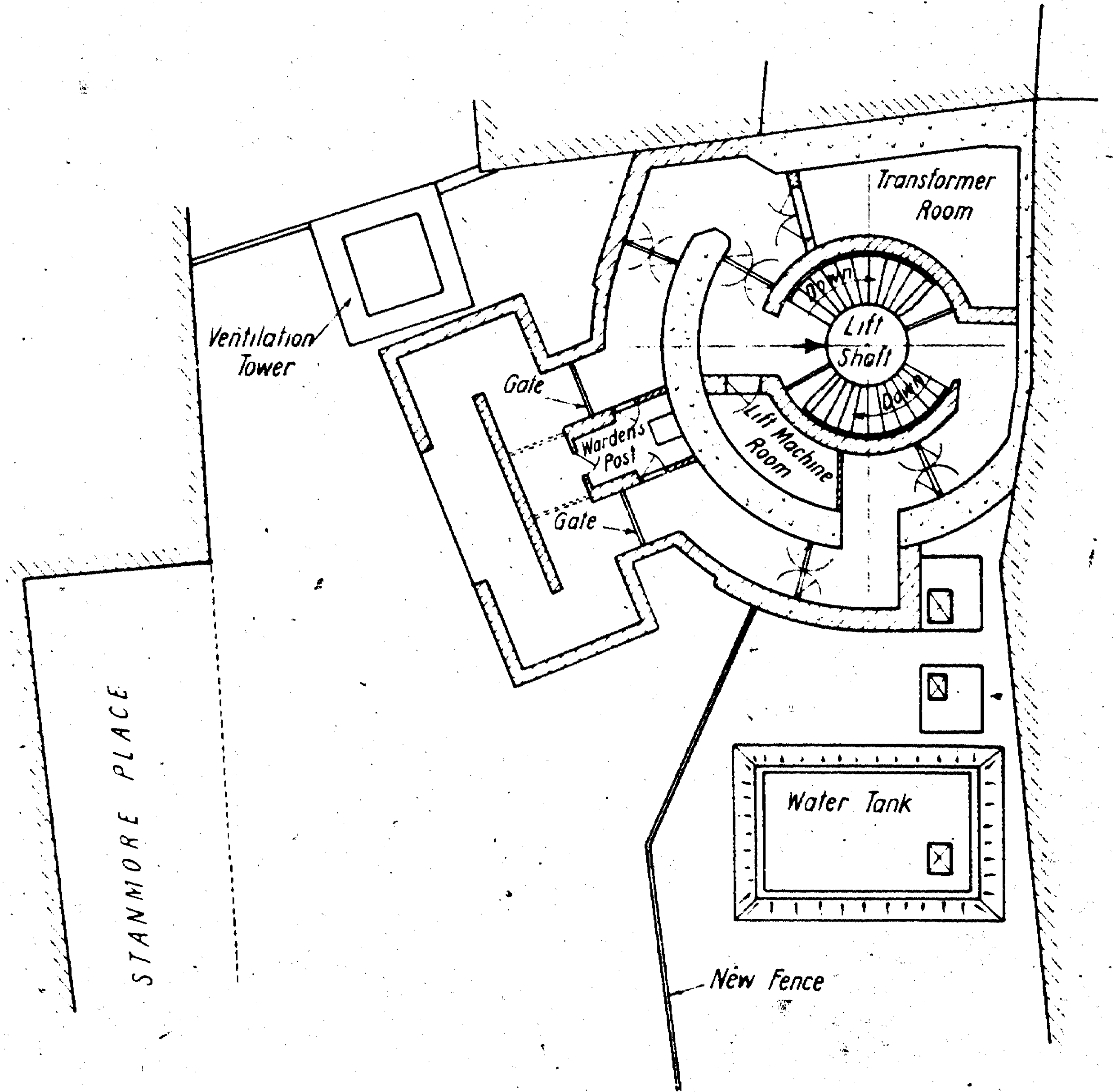
$$\begin{array}{r} 12 + 42 \\ 22 \\ 207 \\ 217 \\ 18 \\ \hline 524 \end{array}$$

 1.3
1.0
1.5
P.2

X101

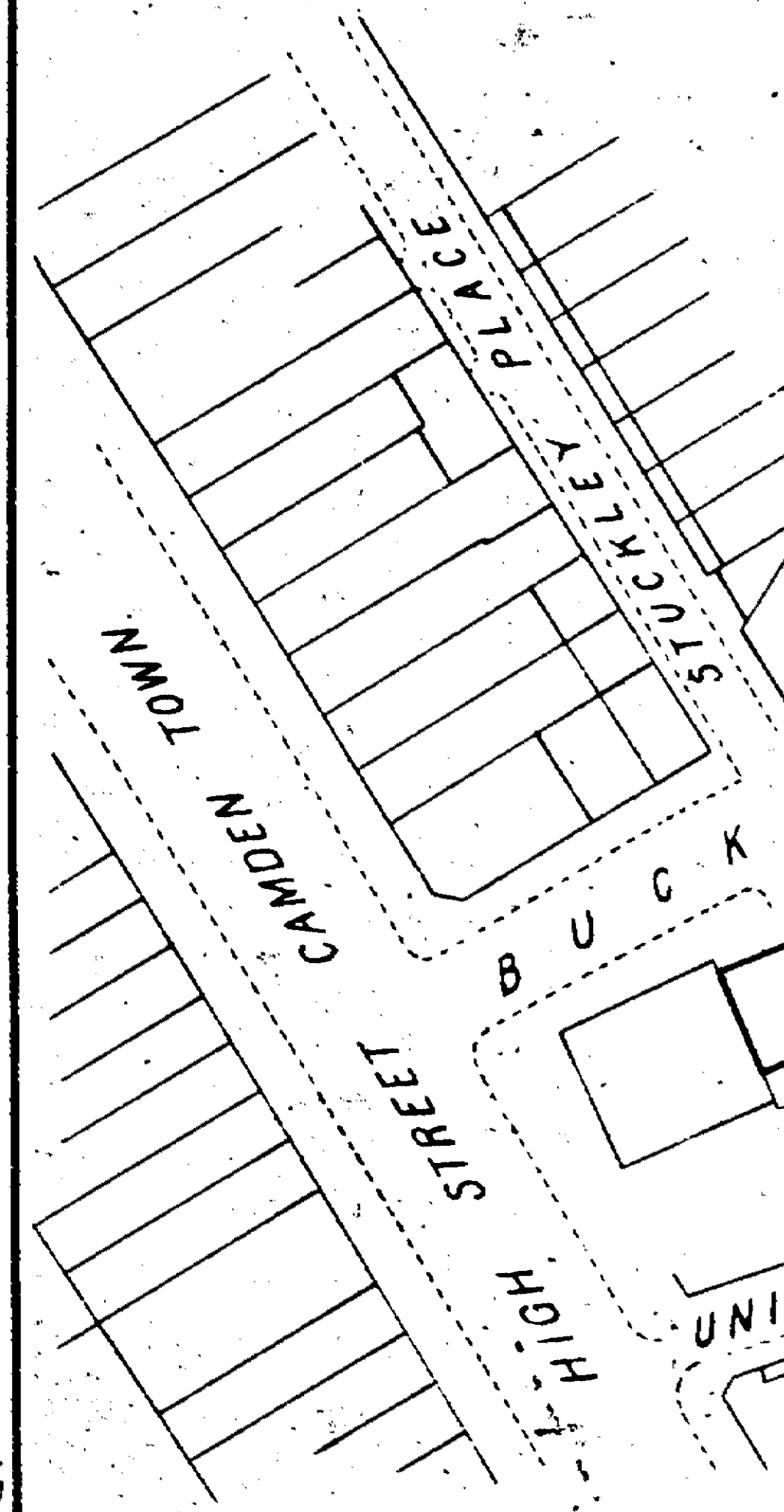
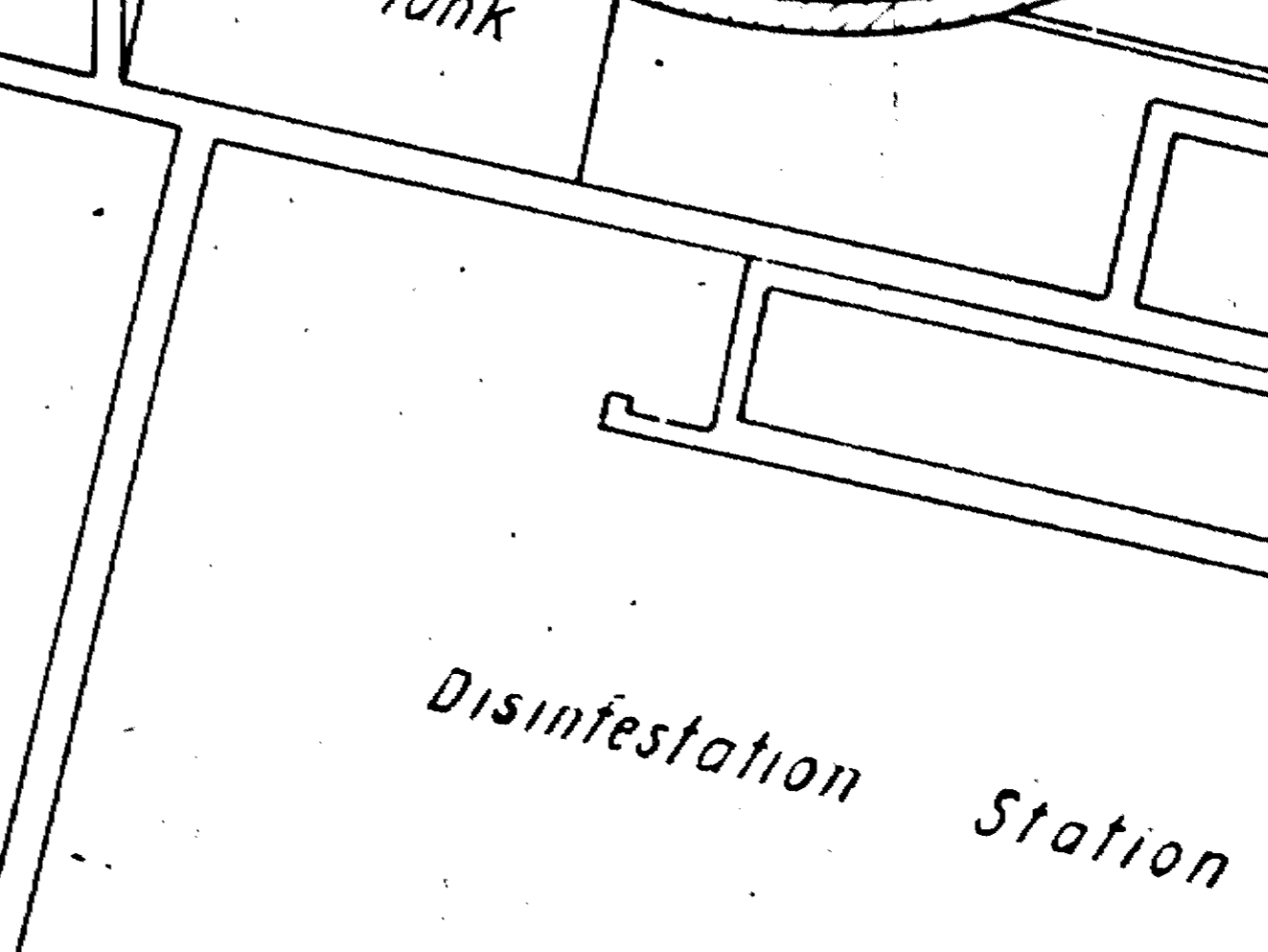
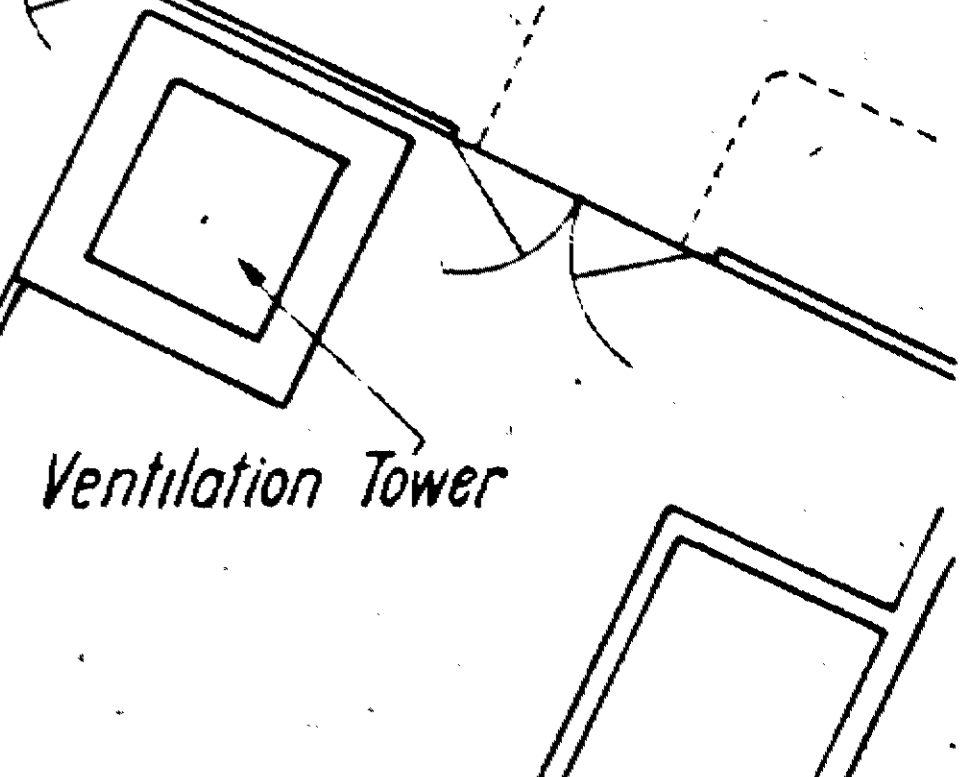
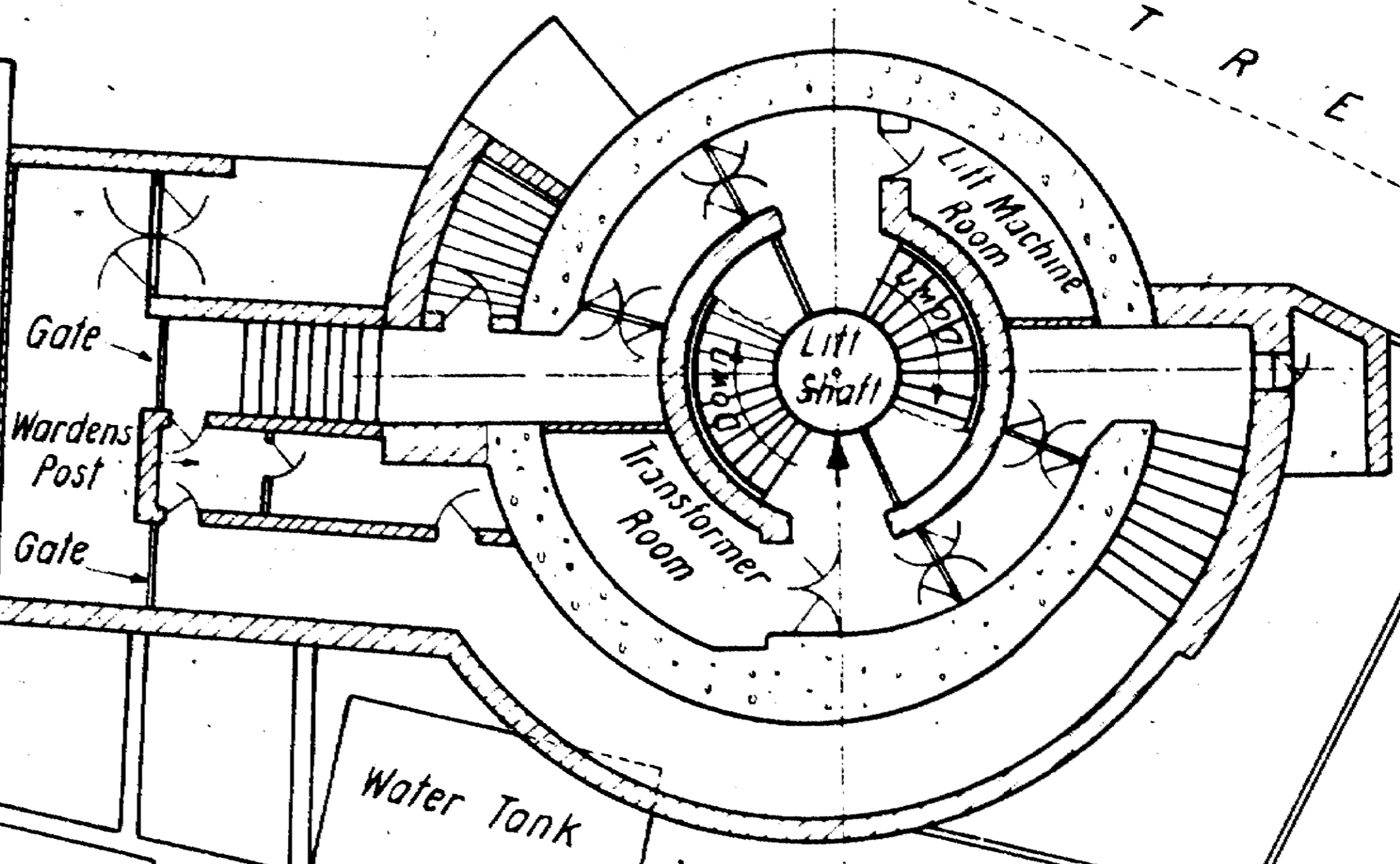
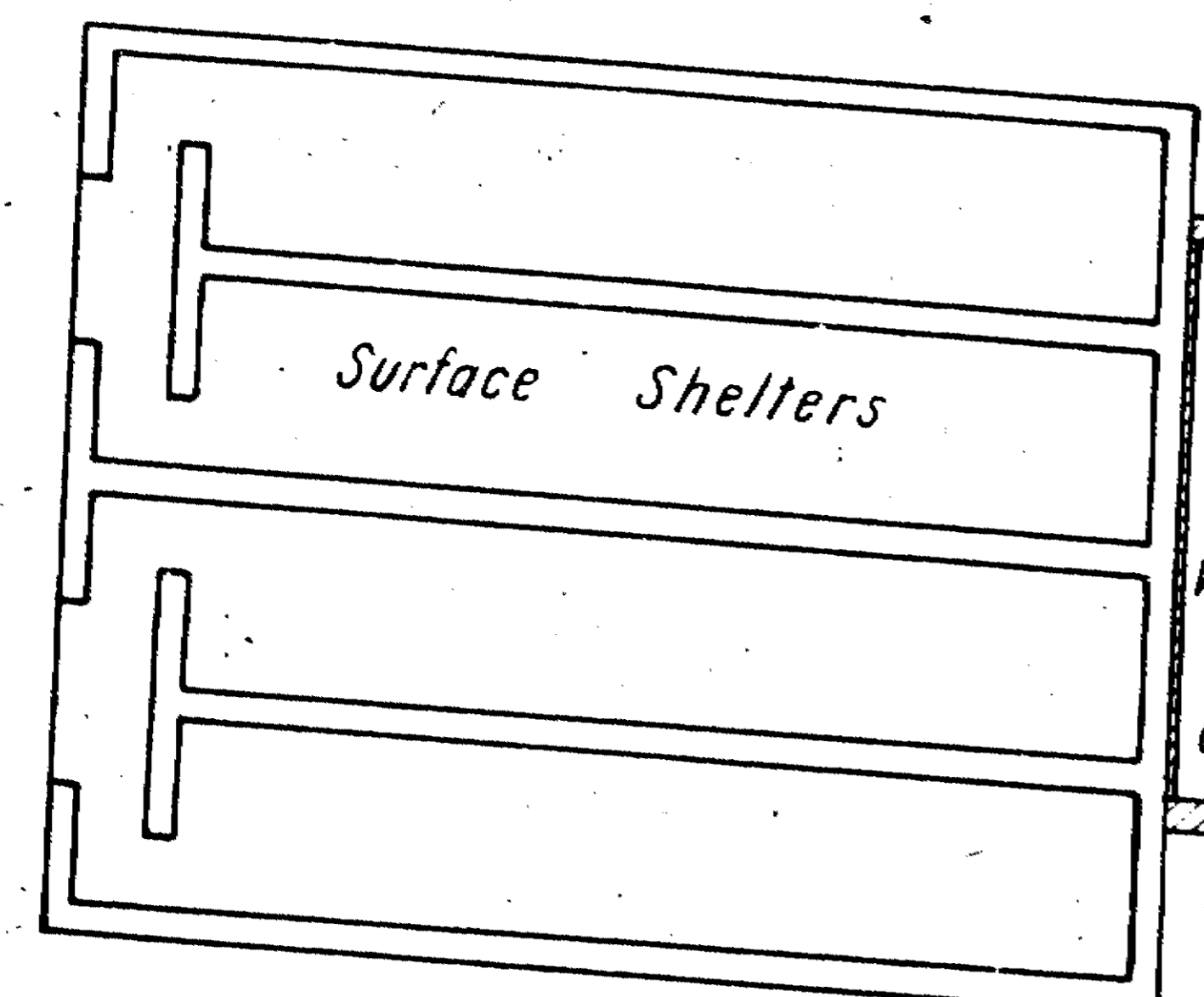
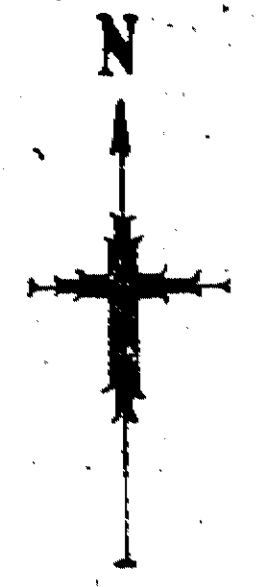


KEY PLAN
Scale 88'-1"



SITE PLAN
Scale 16'-1"

7.10.41

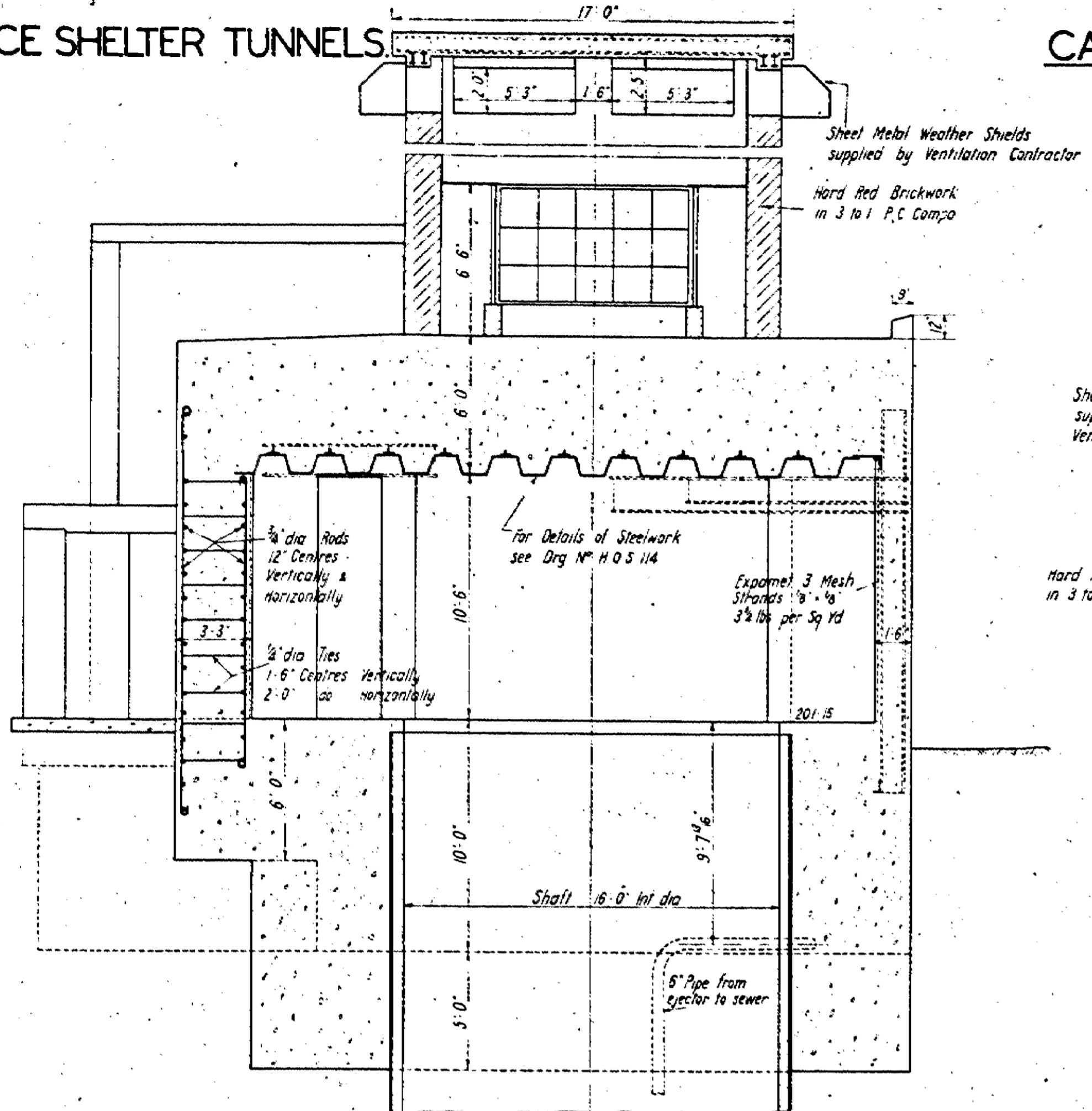


KEY PLAN
Scale 88'-1"

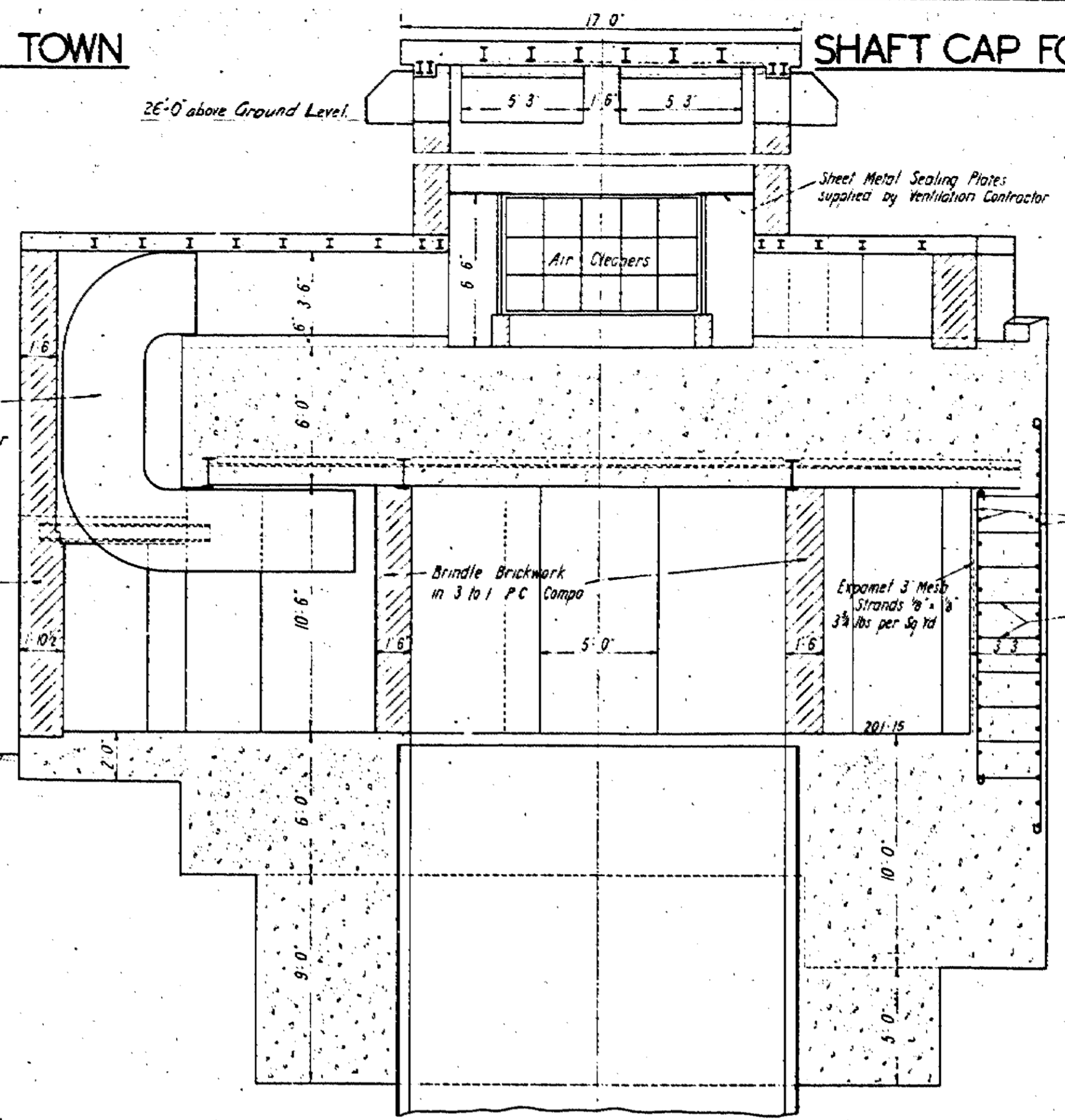
FRAME No. 28

SITE PLAN
Scale 16'-1"

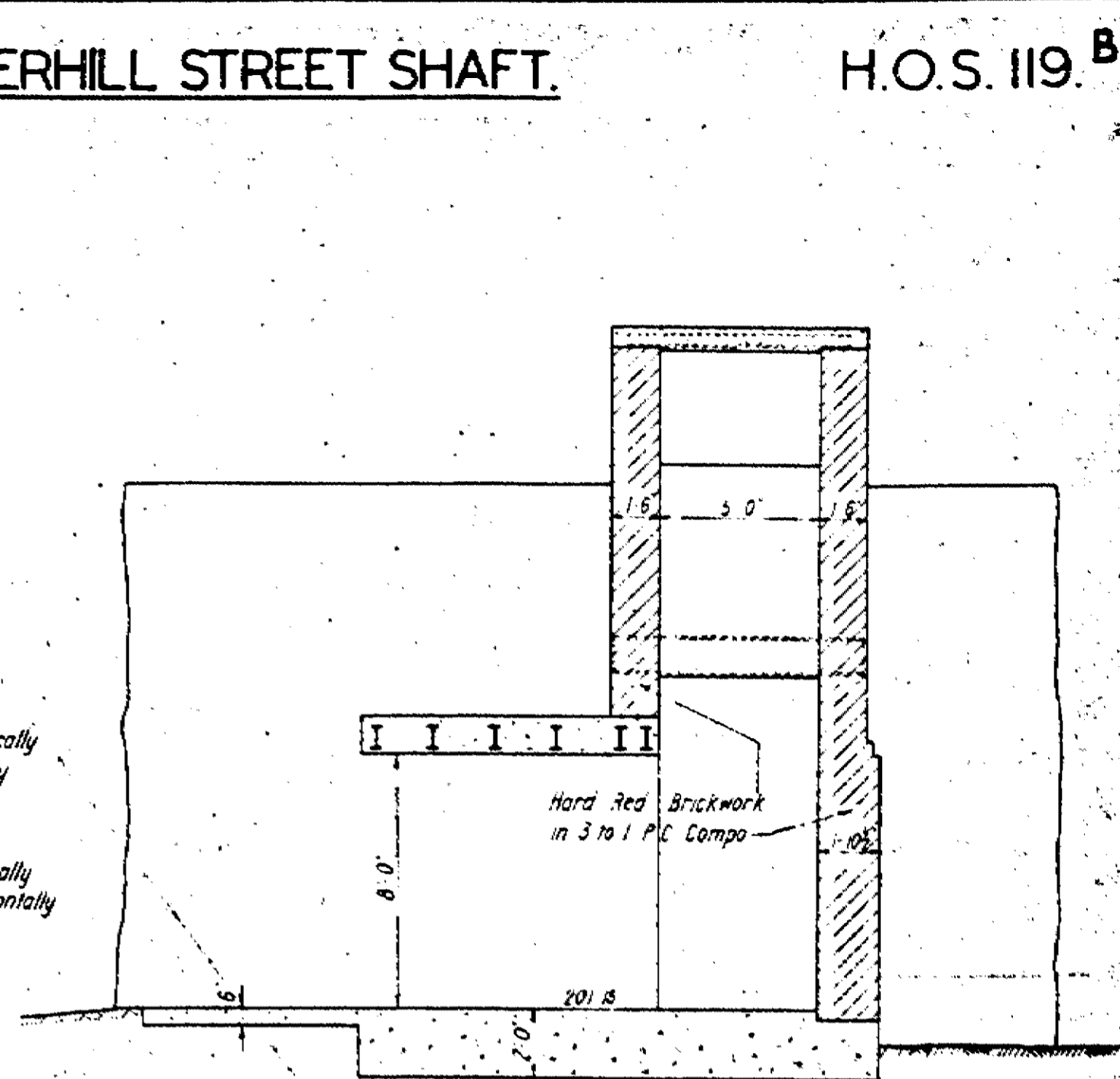
Alliance House, Caxton Street,
Westminster S W 1
7th June 1943



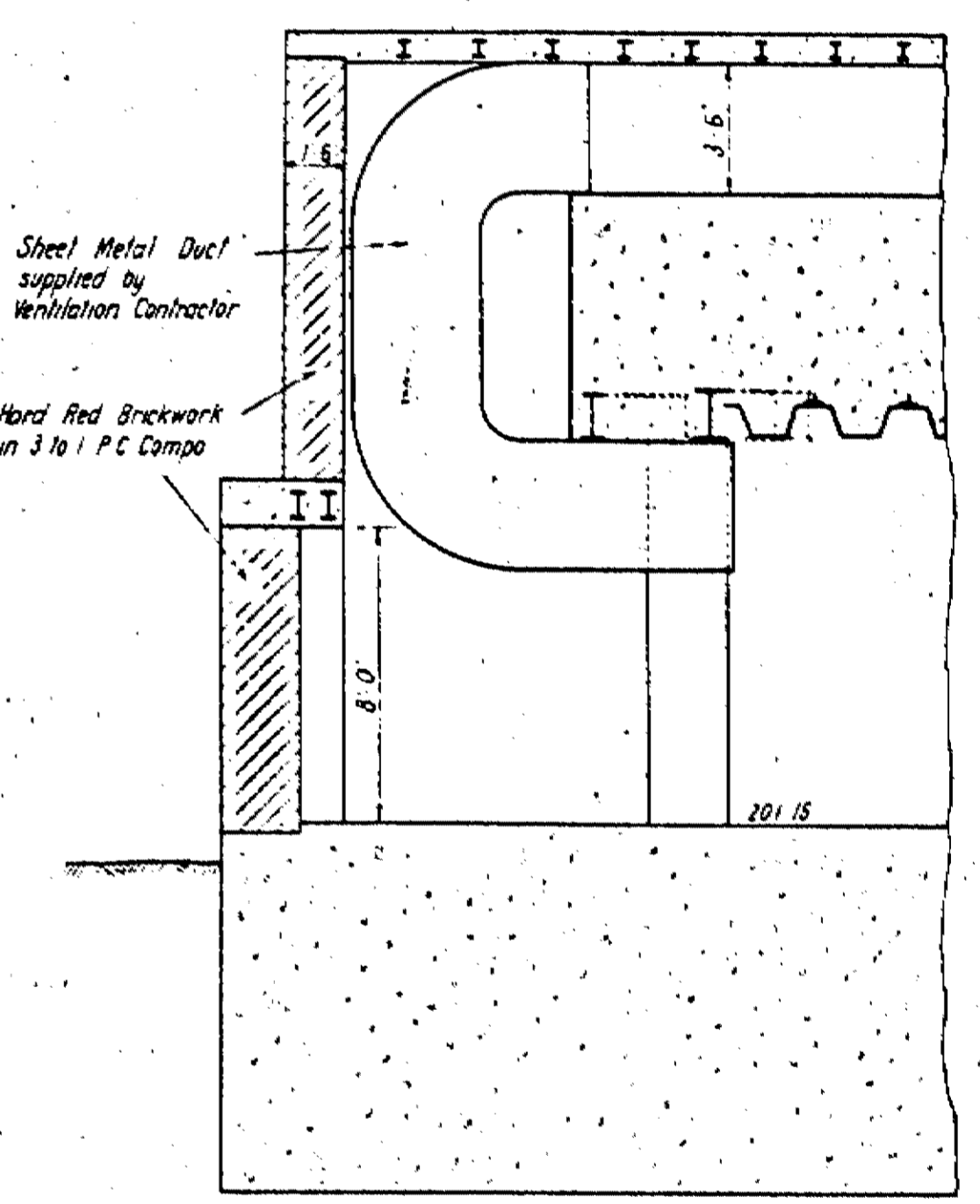
SECTION A A



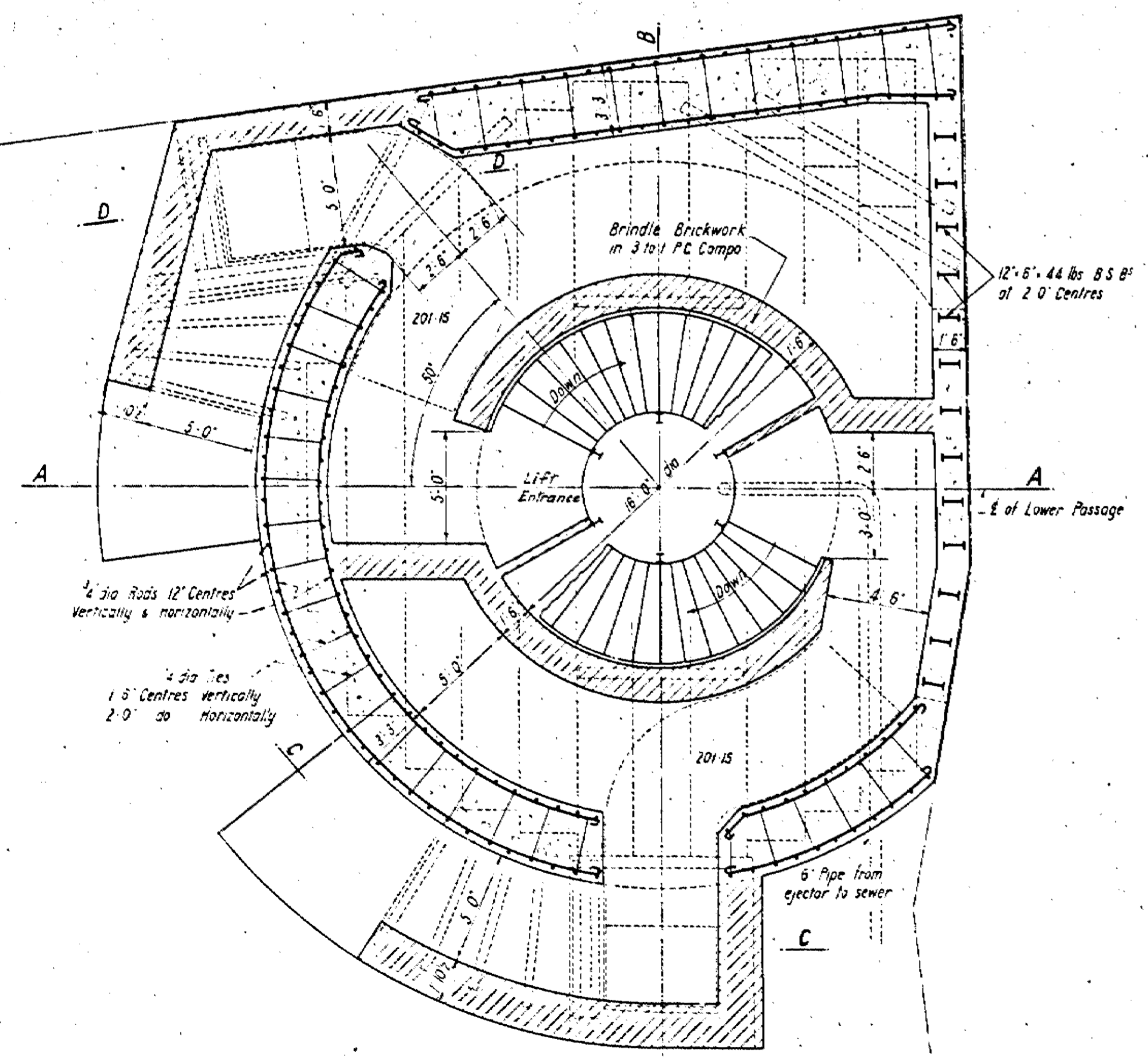
SECTION B B



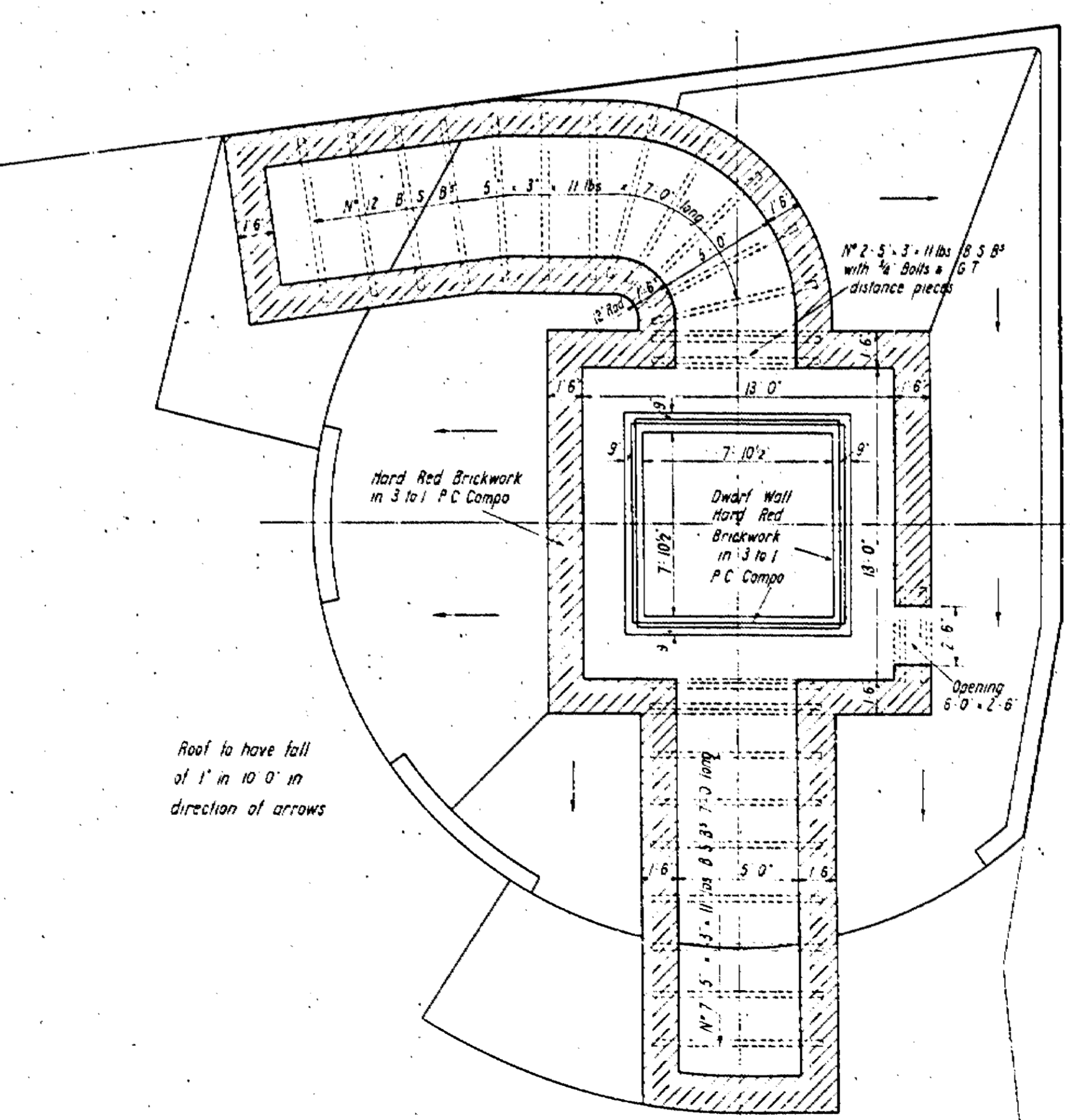
SECTION C C



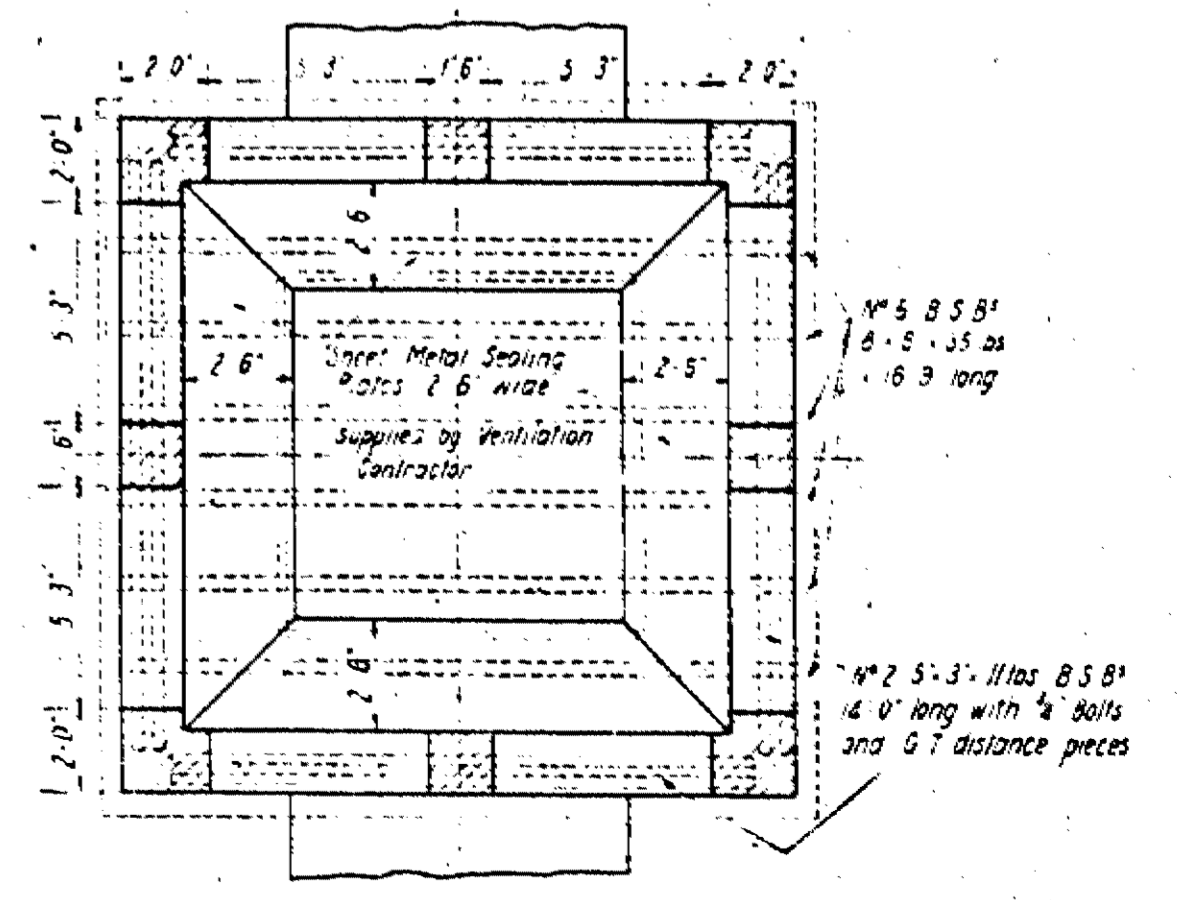
SECTION D D



PLAN

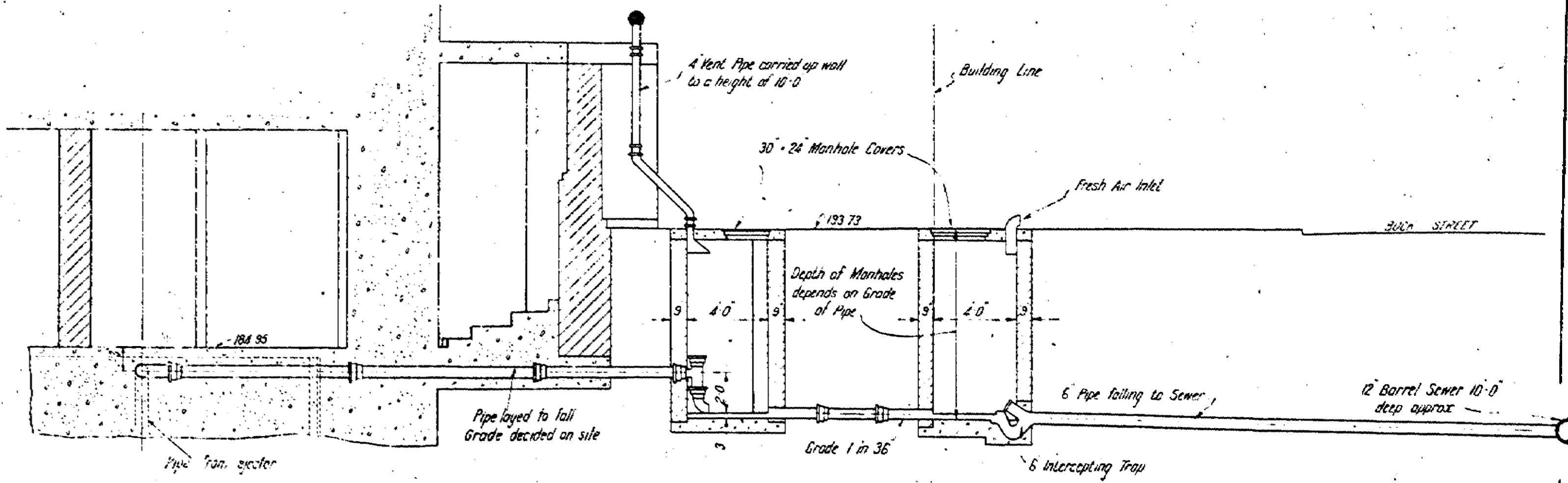
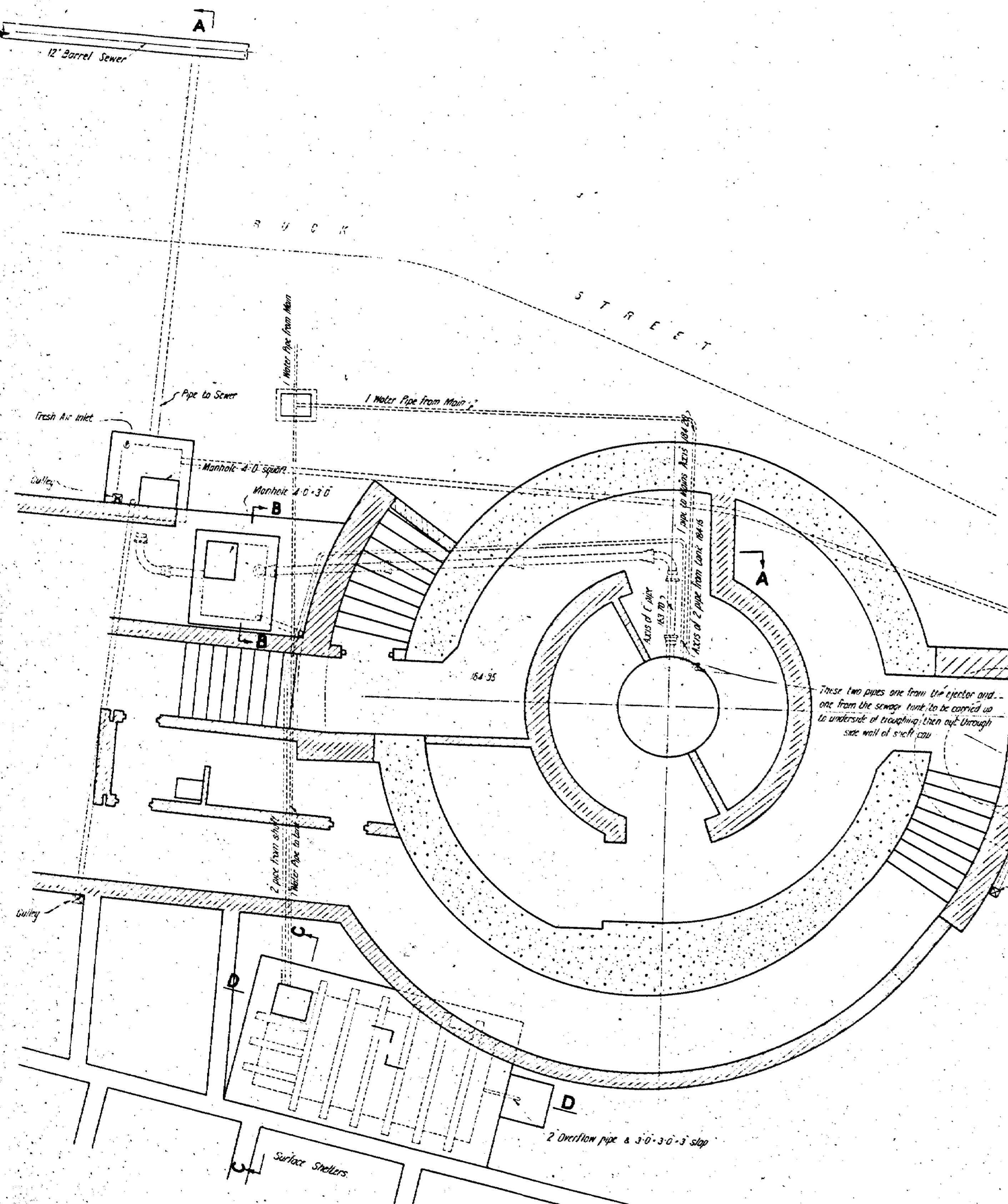


ROOF PLAN SHEWING AIR FILTER HOUSE AND DUCTS

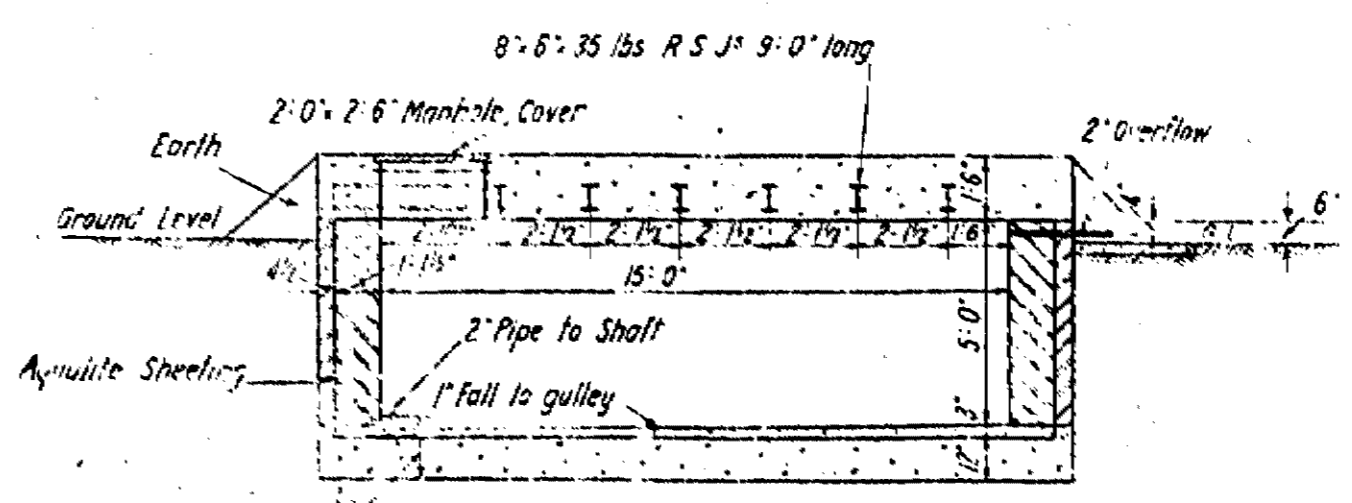


PLAN OF UPPER PART OF FILTER HOUSE

Scale 4 feet to 1 inch



SECTION A.A

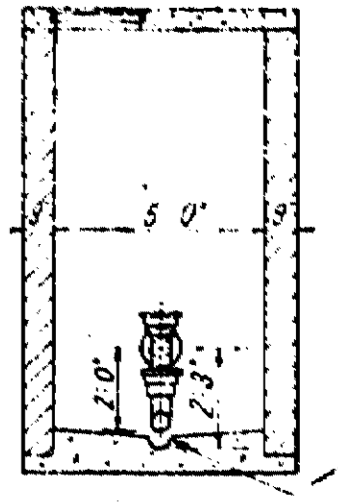


SECTION D.D.

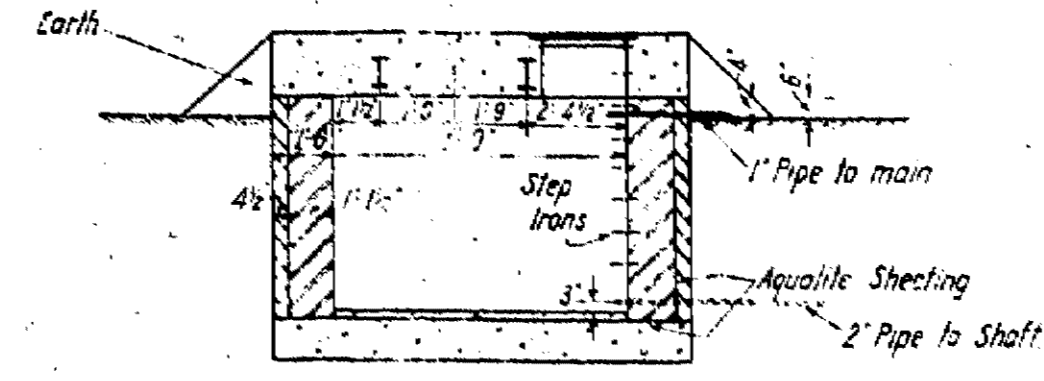
NOTE

Actual connection in sewer is to be made by 30" diameter Burdett Council. A minimum of 24 hours notice is to be given to the Council for carrying out this work.

Manhole covers, pipes & pipe connections to be supplied by Shilton White & Co Ltd. Main contractors to build manholes.



SECTION B.B.



SECTION C.C.

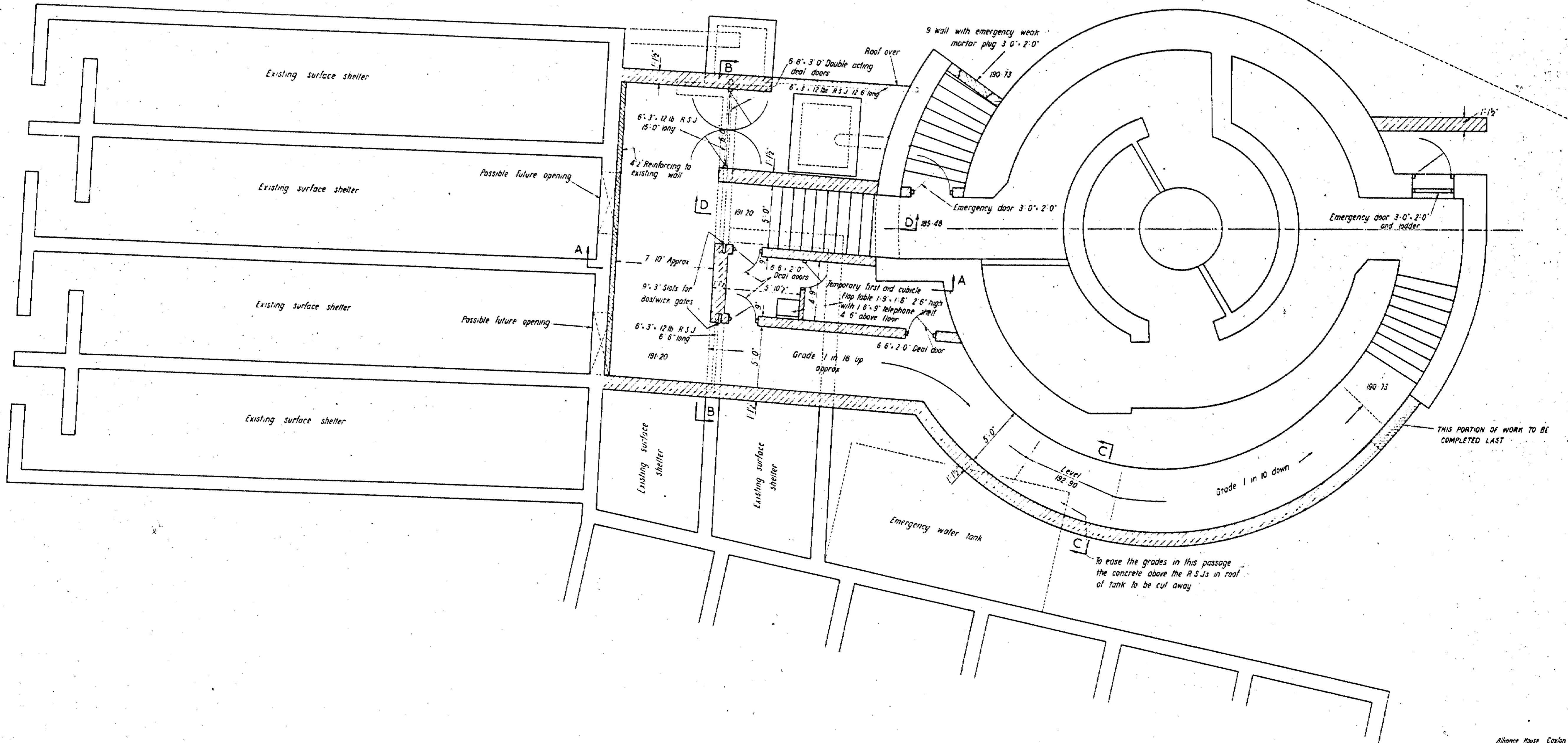
ADDITIONAL TRAFFIC PROTECTION AT SHAFT CAP - PLAN.

SCALE 1/4" TO 1 FOOT

For roof plan and sections see Drg # H.O.S. 205

All 6' 6" x 2' 0" doors have been ordered

B U C K S T R E E T

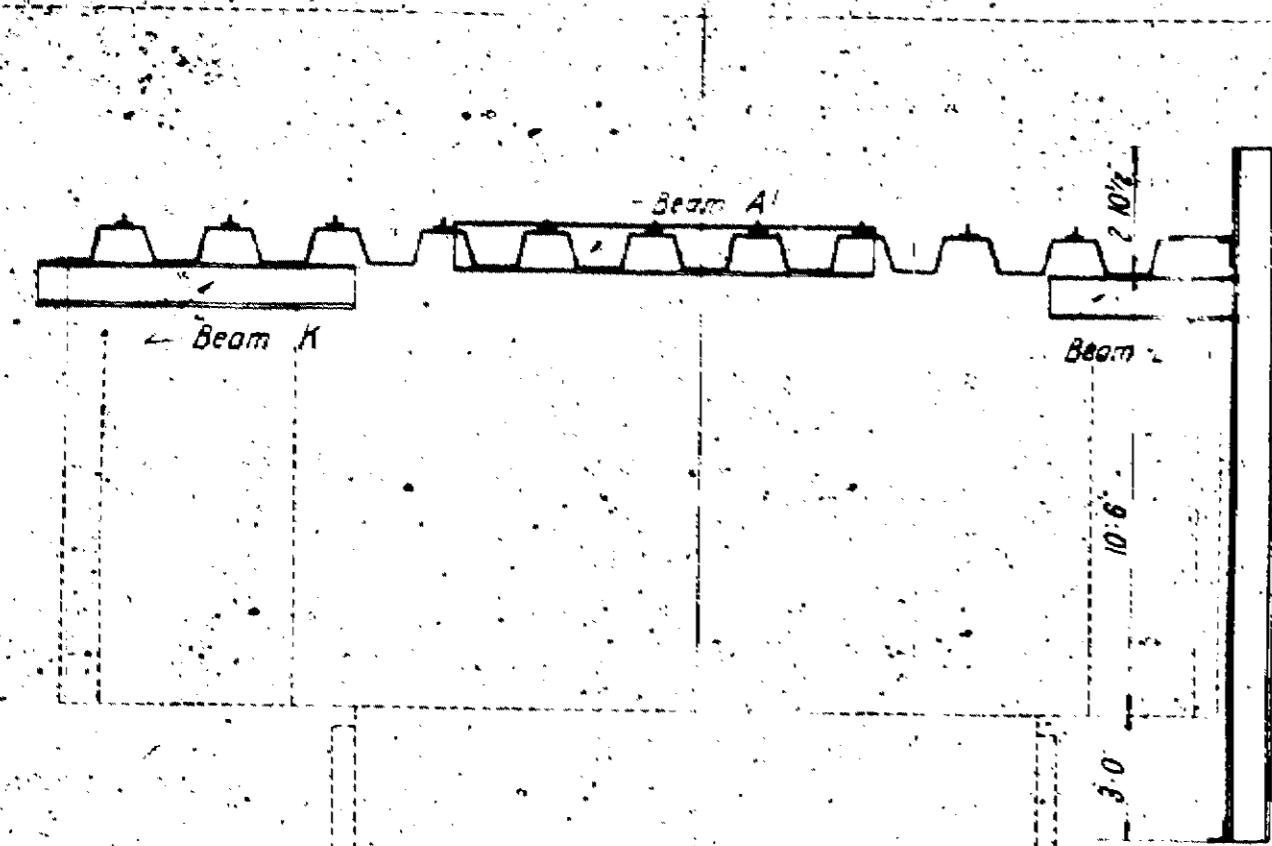


HOME OFFICE SHELTER TUNNELS.

H.O.S. 103.

CAMDEN TOWN. ALTERATION TO TROUGHING FOR TOP OF UNDERHILL STREET SHAFT.

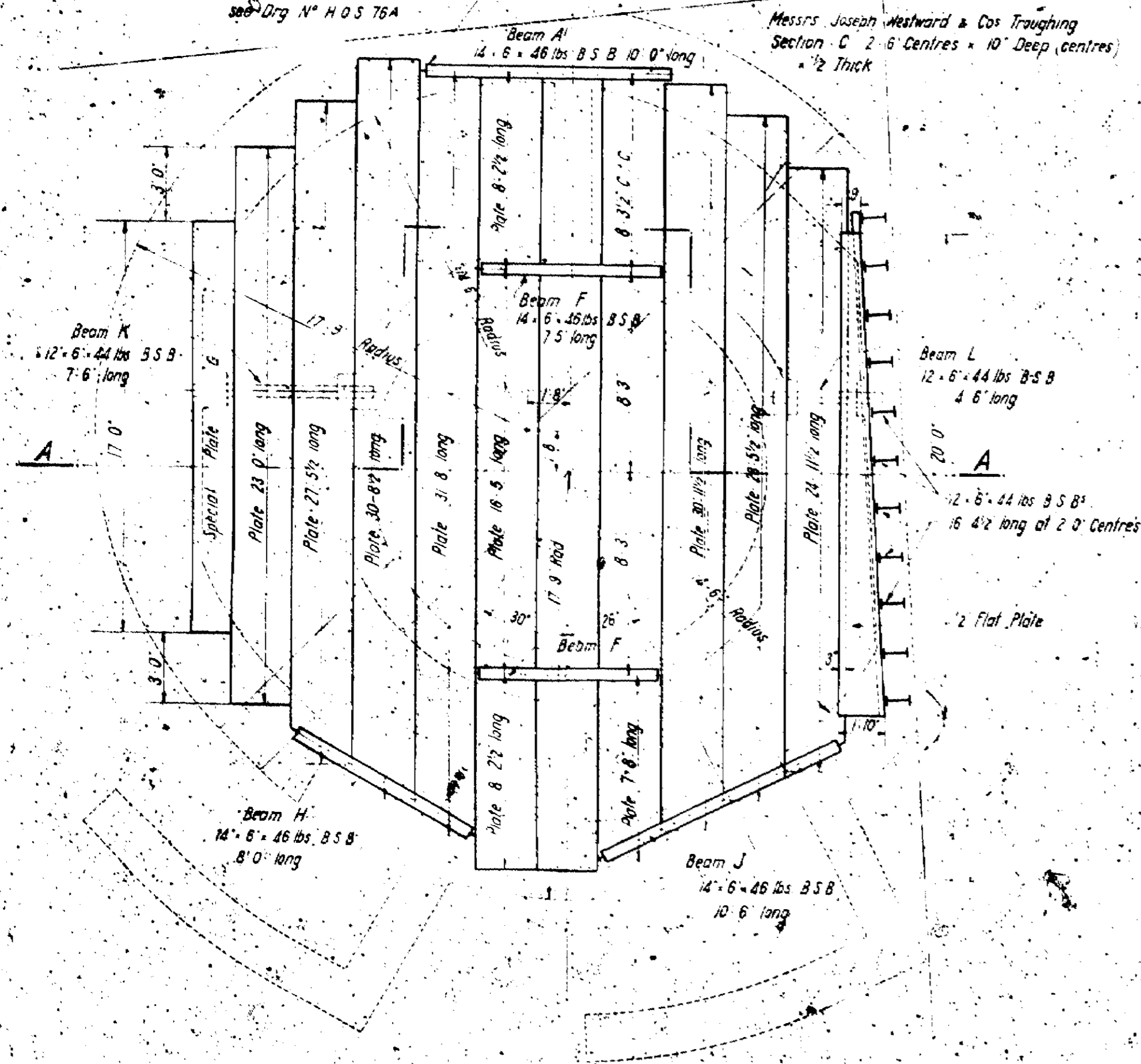
SCALES 1/4 INCH & 1 INCH TO 1 FOOT



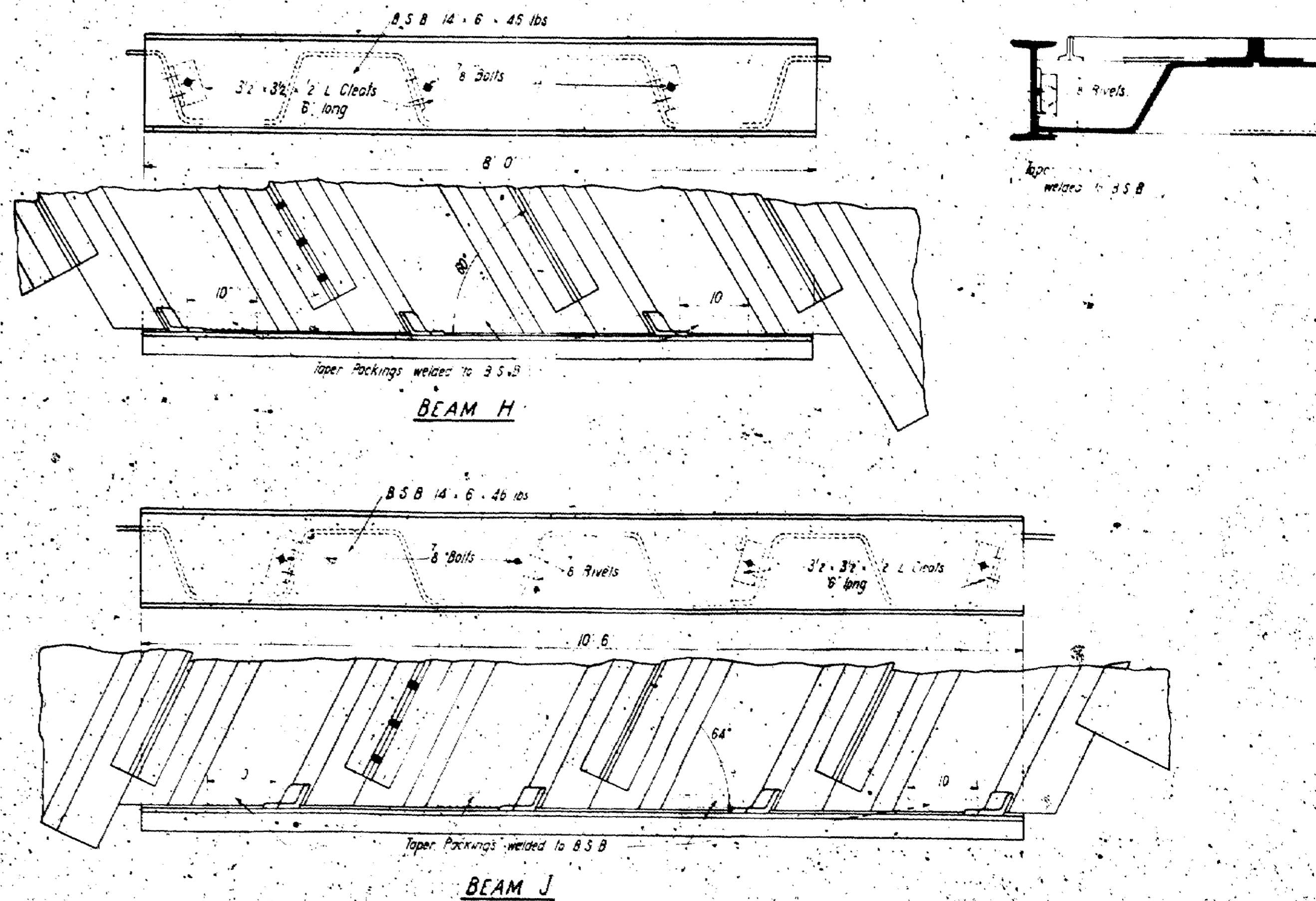
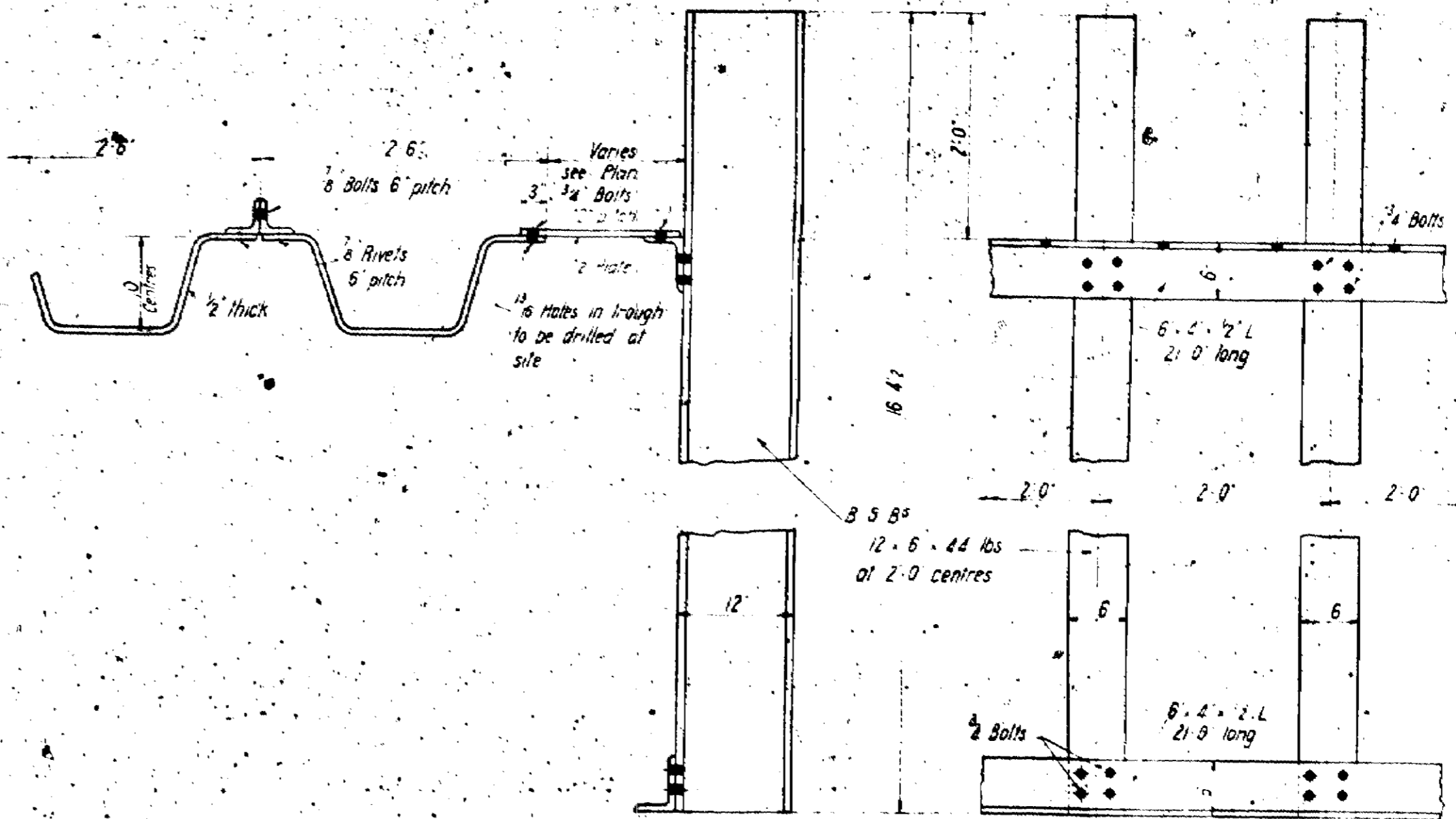
SECTION A A

Beam A1 is similar to Beams A except that it is 6" shorter; this end for details of Beams A & F see-*Org* N° H.O.S. 76A

Messrs Joseph Westward & Co's Troughing Section - C 2' 6" Centres x 10" Deep, centres 1/2" Thick

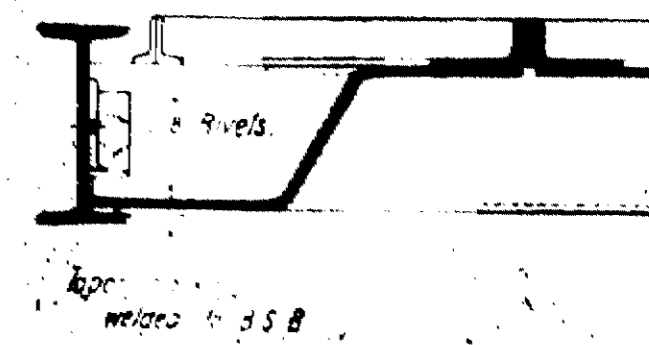


PLAN



BEAM H

BEAM J



Rivets welded to B.S.B.

HOME OFFICE SHELTER TUNNELS

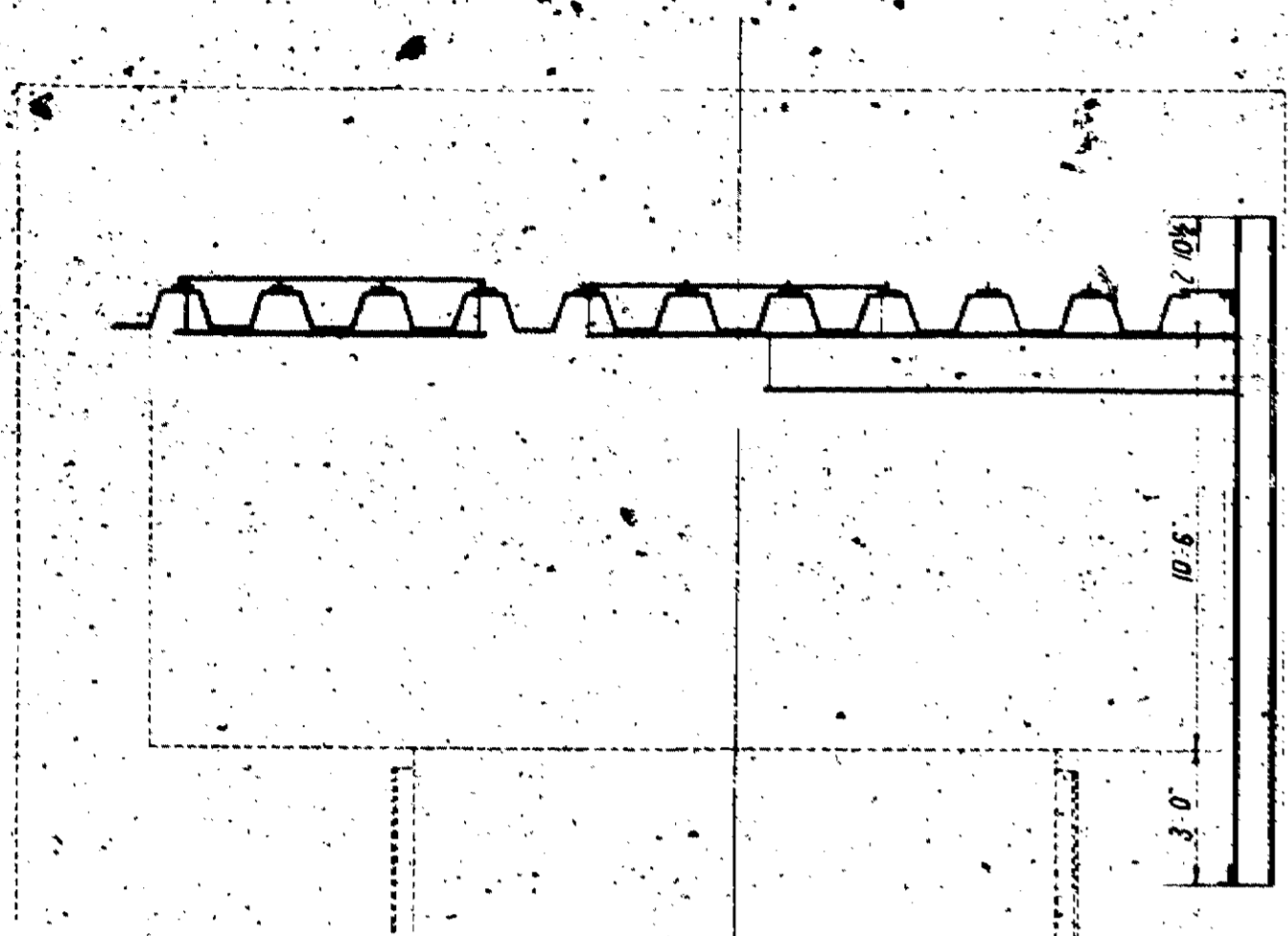
CAMDEN TOWN

STEELWORK FOR TOP OF UNDERHILL STREET SHAFT.

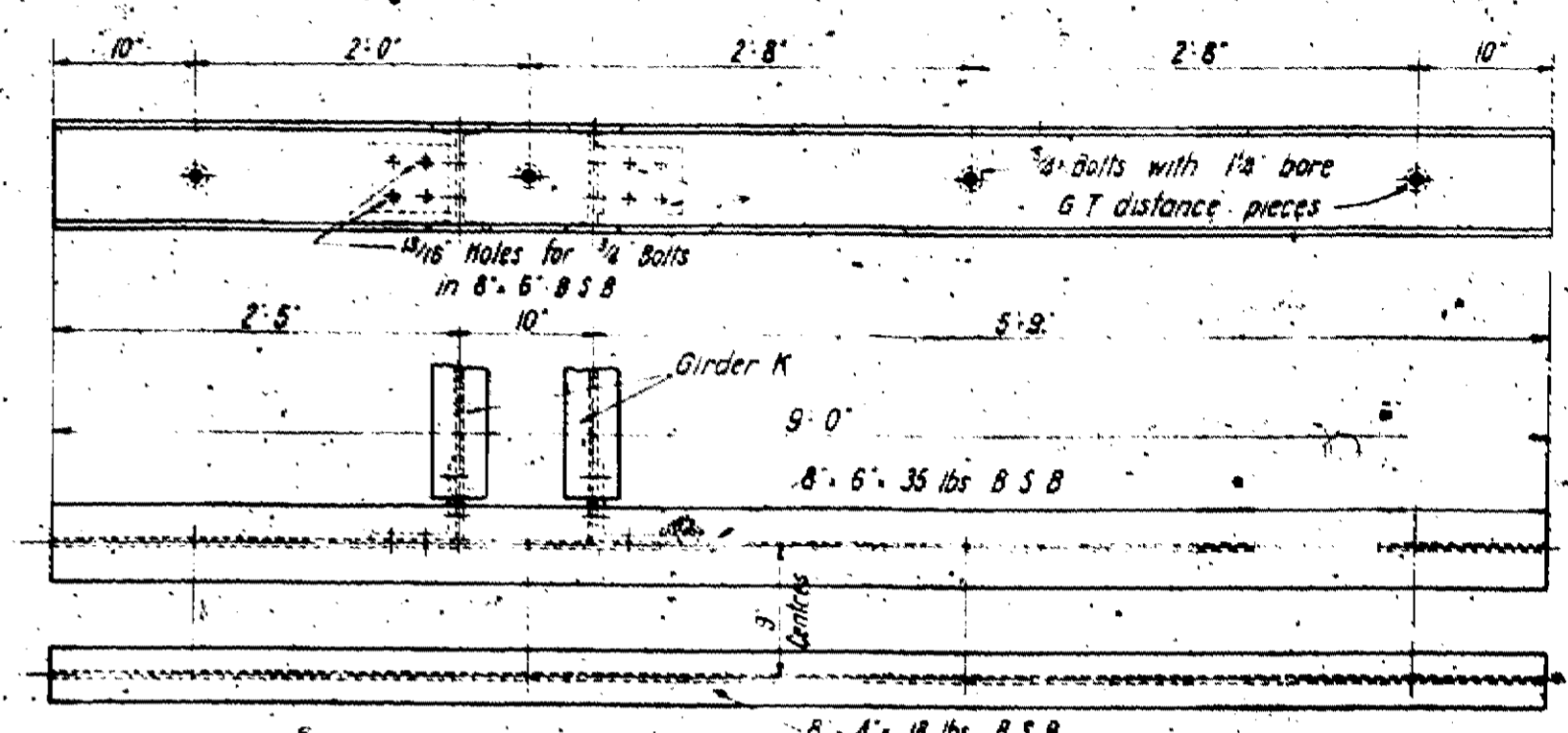
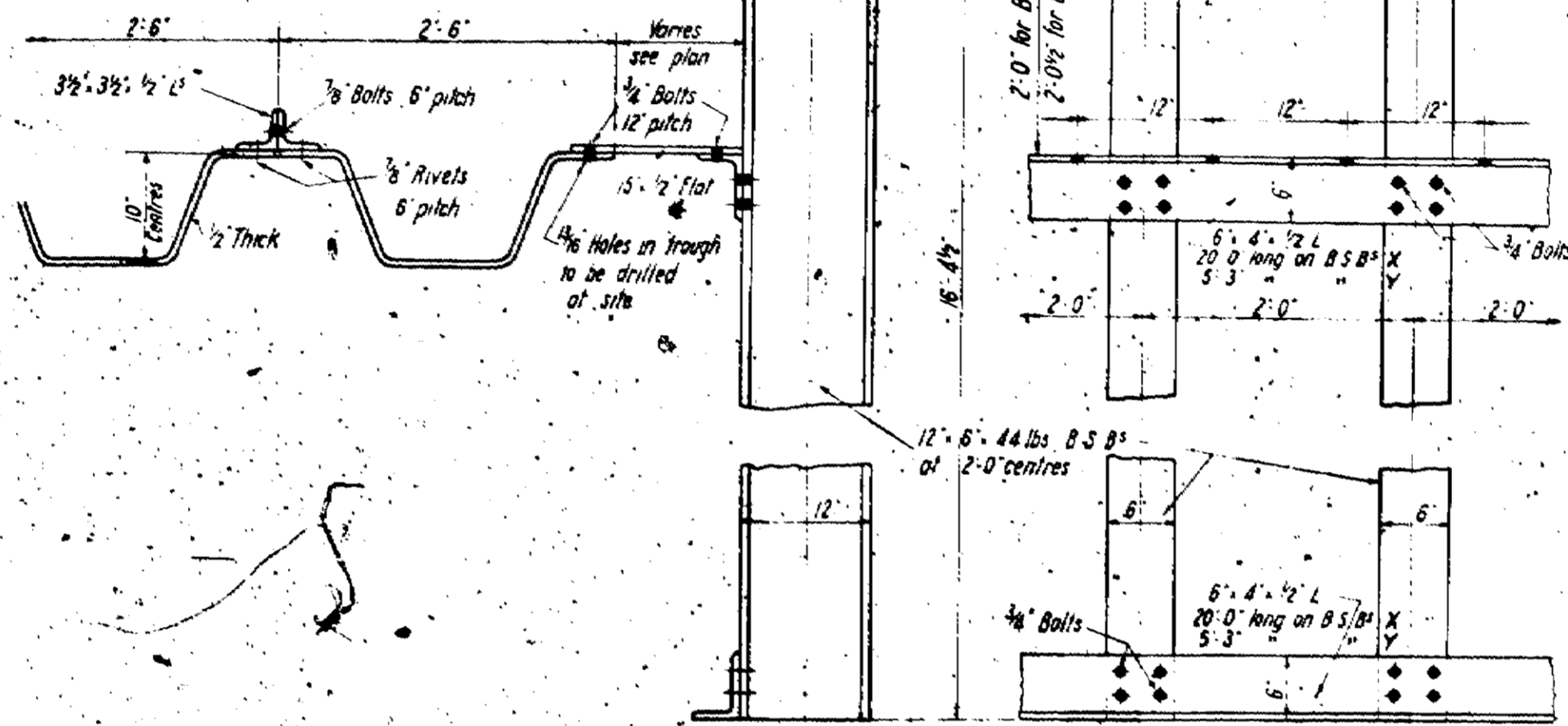
SCALES 1/4" = 1' TO 1" = 0'

H.O.S. 114

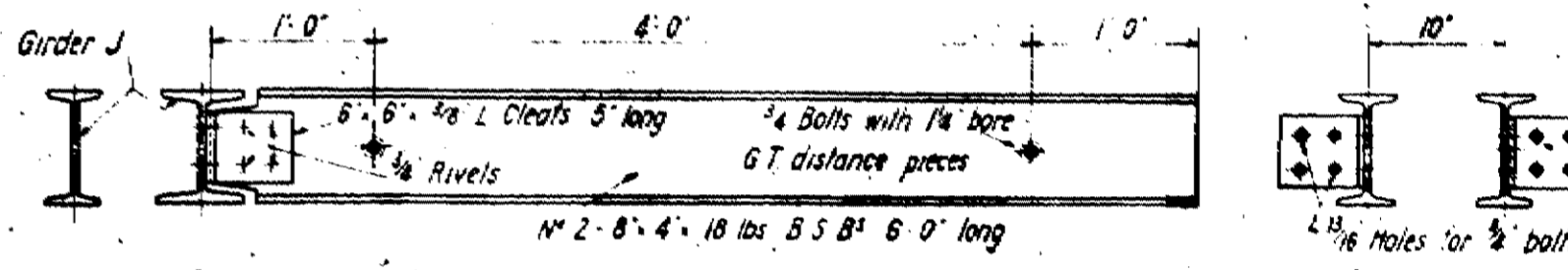
THIS DRAWING SUPERSEDES H.O.S. 103



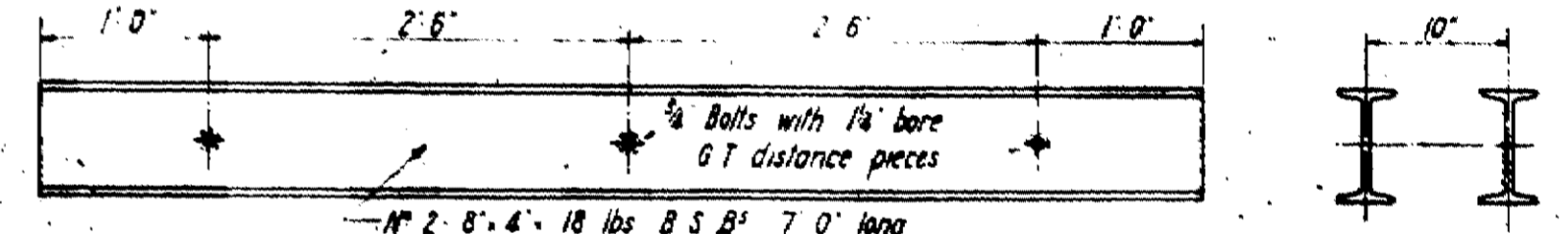
SECTION A-A



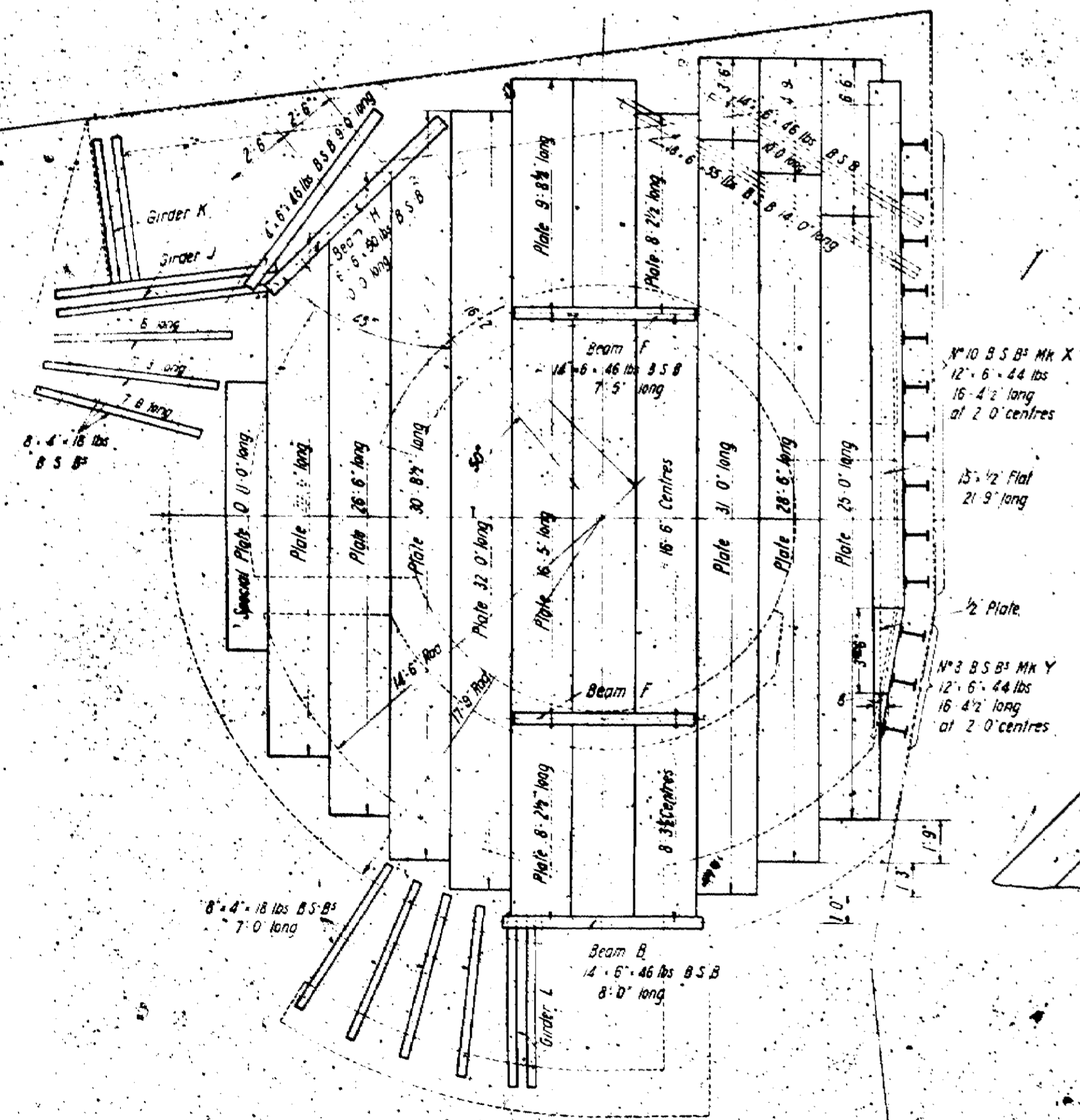
GIRDER J



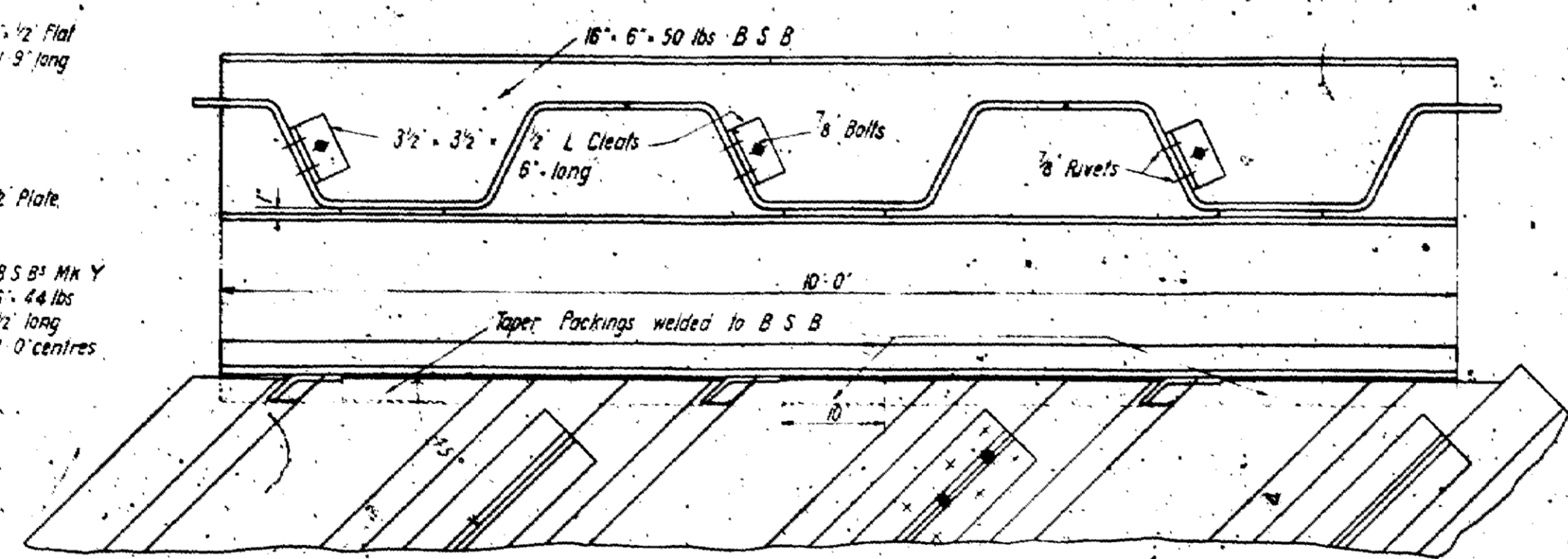
GIRDER K



GIRDER L



PLAN



BEAM H

APPENDIX D

Exploratory hole records

BOREHOLE LOG



Project 251-259 Camden High Street, London				BOREHOLE No BH01	
Job No CG/18648	Date 21-12-16 23-12-16	Ground Level (m) 26.85	Co-Ordinates (m) E 528,793.0 N 184,027.0		
Client Castlehaven Row Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	
0.50	B		↓	26.35		0.50	Loose brown black slightly silty gravelly sand. Gravel is fine to coarse subangular to subrounded of brick, concrete, plastic, ceramic and flint. Sand is fine to medium. [MADE GROUND]
1.00	B			25.85		1.00	Soft dark brown black gravelly slightly sandy silty clay. Sand is fine to medium. Gravel is fine to medium subangular to subrounded of brick, concrete, plastic ceramic and flint. [REWORKED ALLUVIUM]
1.50-1.95	D SPT	N5		24.85		2.00	Soft dark blue green brown black slightly sandy silty CLAY. Sand is fine to medium. [ALLUVIUM]
2.50	D					(1.00)	1.50 Slight organic odour
3.00-3.45	U100	95kPa				(3.00)	Firm to stiff light orange brown silty CLAY. [WEATHERED LONDON CLAY FORMATION]
3.00	D						2.50 Fissured blue grey
4.50	D						
4.50-4.95	SPT	N16		21.85		5.00	Stiff dark orange brown silty CLAY with occasional fine to medium selenite crystals. [WEATHERED LONDON CLAY FORMATION]
4.50							
5.50	D						
6.00-6.45	U100	110kPa	↓			(4.00)	
6.00	D						
6.50							
7.50	D						
7.50-7.95	SPT	N20					
7.50							
8.50	D					9.00	8.50 Fissured light orange
9.00-9.45	U100	190kPa		17.85			Stiff to very stiff dark grey brown silty CLAY. [LONDON CLAY FORMATION]
9.00	D					(2.00)	
9.50							
10.50	D						
10.50-10.95	SPT	N22		15.85		11.00	
10.50							(Borehole terminated at 11m)

Boring Progress and Water Observations						General Remarks
Date	Comment	Strike Depth	Casing Depth	Casing Dia. mm	Standing Depth	
		0.60				1. Borehole terminated at 11mbgl. 2. Perched water encountered at 0.6mbgl. Slight water seepage encountered at 6.5mbgl. 3. N = SPT 'N' value; D = small disturbed sample; B = bulk disturbed sample; U = undisturbed U100 sample. 4. Installation details: 0.0 to 2.0 plain pipe with bentonite seal; 2.0 to 7.0 slotted pipe with gravel filter; 7.0 to 8.0 bottom bentonite seal; 8.0 to 11.0 backfilled with arisings. Gas tap and bung. Flush cover at the surface.
		6.50				

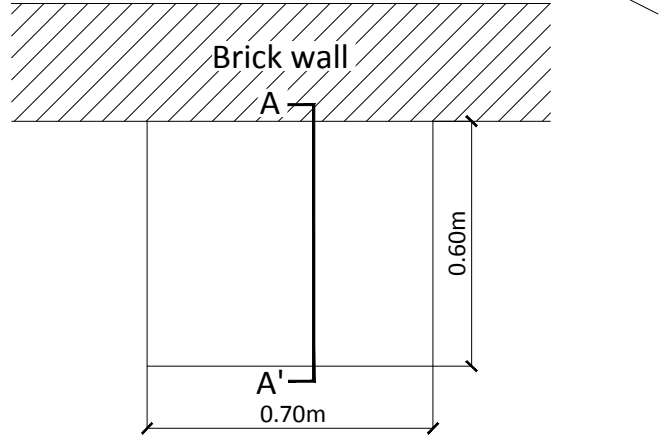
Method/ Plant Used	Cut-down CP	Field Crew	Steve Lay	Logged By	GES	Checked By	JMS
-----------------------	-------------	------------	-----------	-----------	-----	------------	-----

CGI.BH.LOG CG:18648.GPJ GINT STD AGS.3.1.GPT. 28/1/16

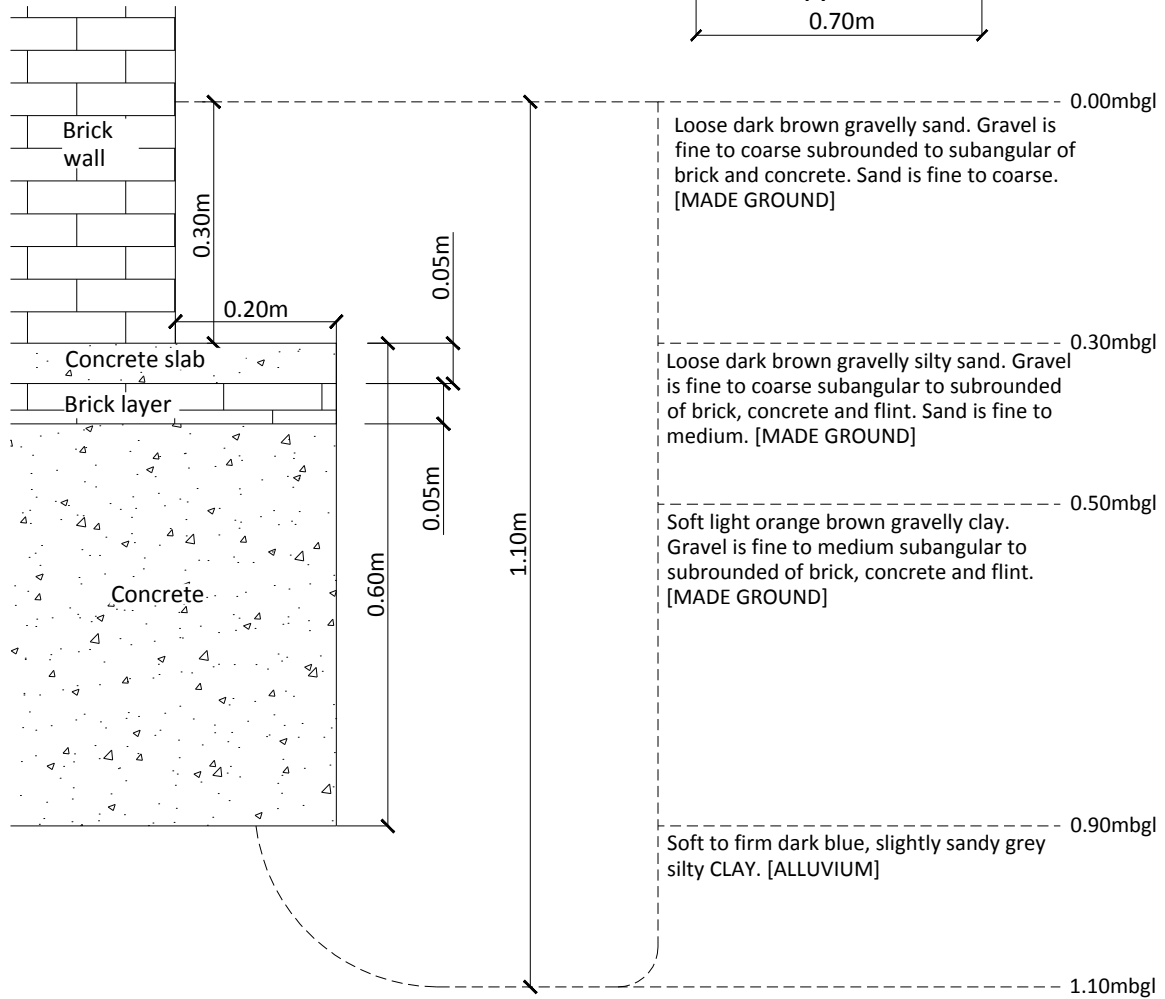
Notes:


1. Trial pit terminated at 1.10mbgl.
2. No groundwater encountered.
3. Ground level at 26.80mOD.

Camden High Street FTP01 Plan



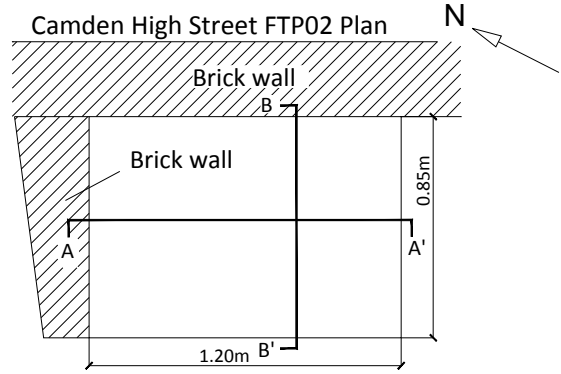
**Camden High Street
Section A-A'
FTP01**



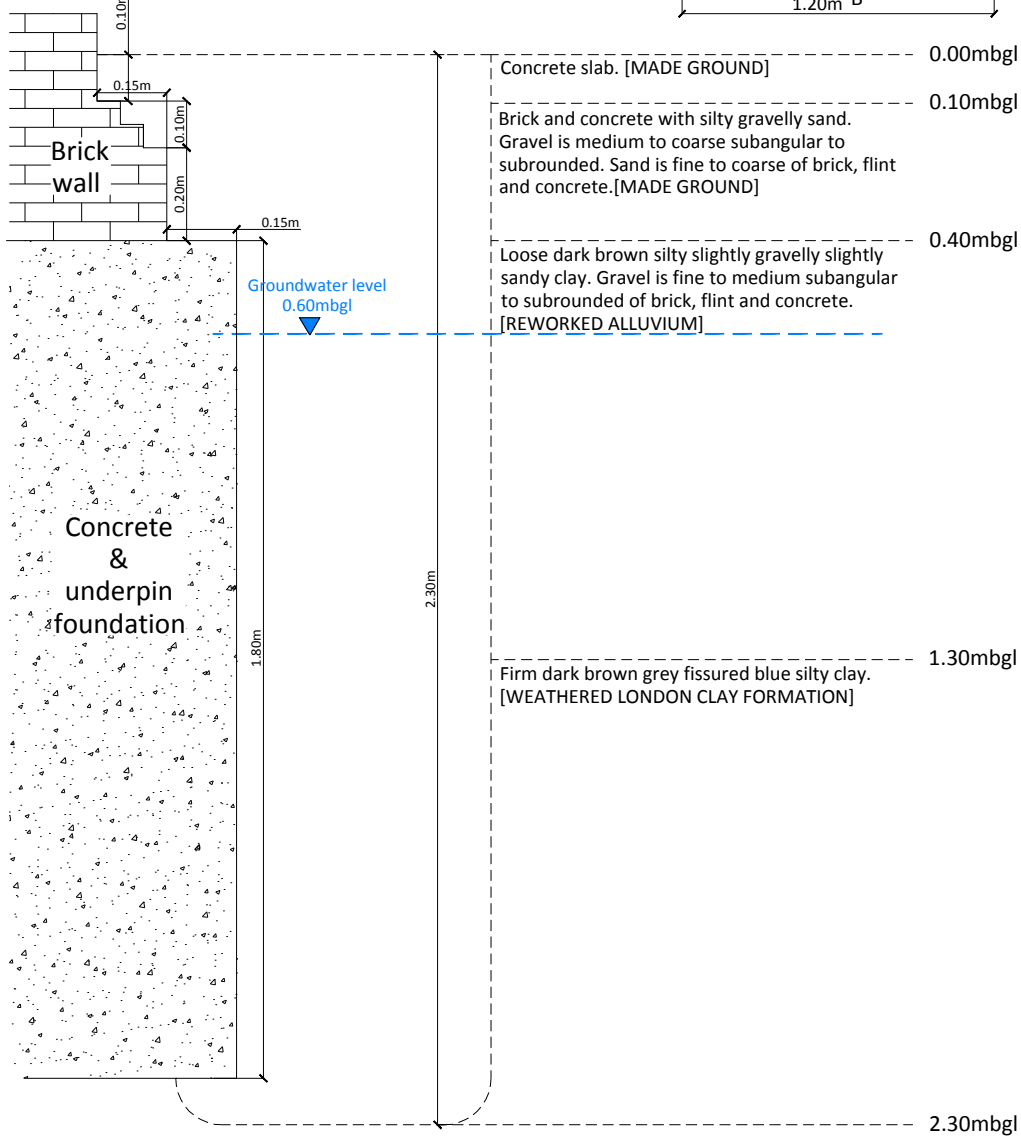
<p>Client</p> <p>Castlehaven Row Limited</p>	<p>Project</p> <p>251-259 Camden High Street</p>	<p>Job No</p> <p>CG/18648</p>								
	<p>Title</p> <p>Foundation Inspection Pit FTP01 Plan & Section</p>	<table border="1"> <tr> <td>Drawn by</td> <td>TSB</td> </tr> <tr> <td>Checked by</td> <td></td> </tr> <tr> <td>Approved by</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">DRAFT</td> </tr> </table>	Drawn by	TSB	Checked by		Approved by		DRAFT	
Drawn by	TSB									
Checked by										
Approved by										
DRAFT										


Notes:

1. Trial pit terminated at 2.30mbgl.
2. Standing groundwater was pumped out during excavation works and then was noted rising at 100mm/hour.
3. Slight organic odour.
4. Ground level at 26.8mOD.



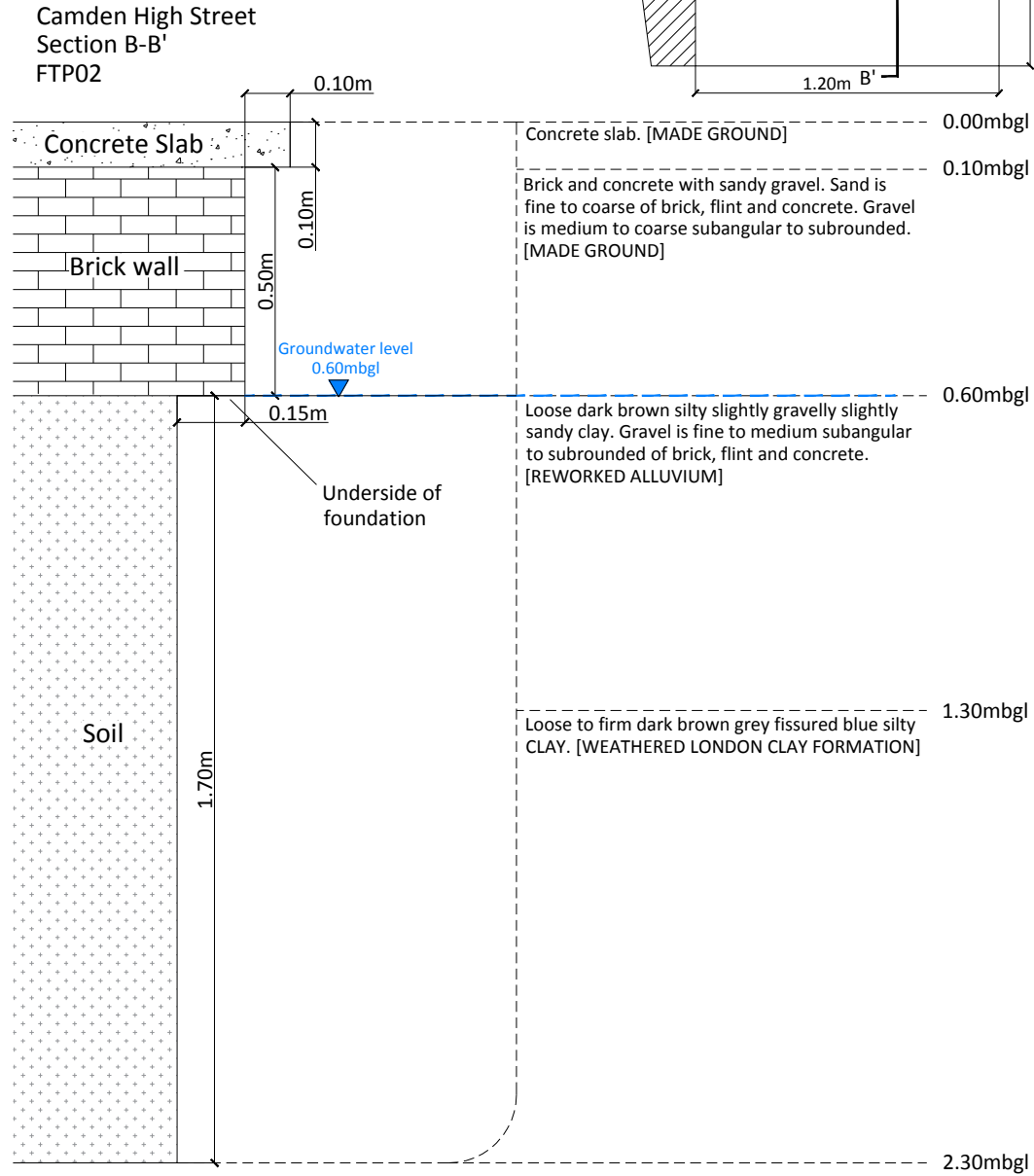
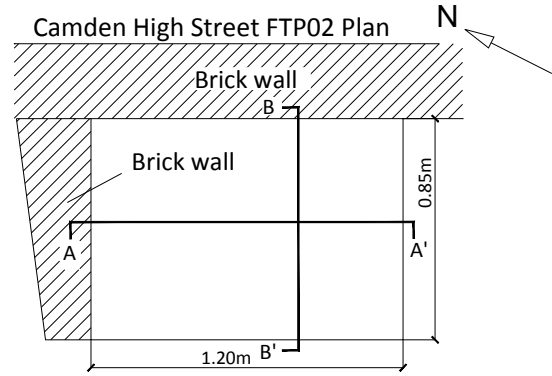
**Camden High Street
Section A-A'
FTP02**




<p>Client</p> <p>Castlehaven Row Limited</p>	<p>Project</p> <p>251-259 Camden High Street</p>	<p>Job No</p> <p>CG/18648</p>								
	<p>Title</p> <p>Foundation Inspection Pit FTP02 Plan & Section A-A'</p>	<table border="1"> <tr> <td>Drawn by</td> <td>TSB</td> </tr> <tr> <td>Checked by</td> <td></td> </tr> <tr> <td>Approved by</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">DRAFT</td> </tr> </table>	Drawn by	TSB	Checked by		Approved by		DRAFT	
Drawn by	TSB									
Checked by										
Approved by										
DRAFT										

Notes:

1. Trial pit terminated at 2.30mbgl.
2. Standing groundwater was pumped out during excavation works and then was noted rising at 100mm/hour.
3. Slight organic odour.
4. Ground level at 26.8mOD.

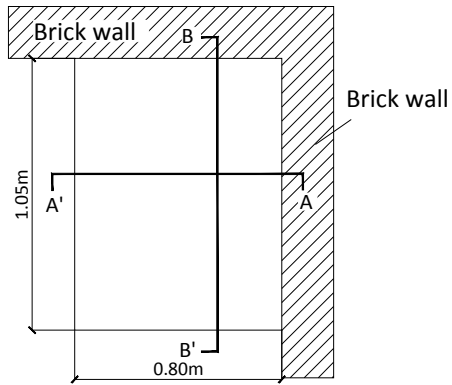


<p>Client</p> <p>Castlehaven Row Limited</p>	<p>Project</p> <p>251-259 Camden High Street</p>	<p>Job No</p> <p>CG/18648</p>								
	<p>Title</p> <p>Foundation Inspection Pit FTP02 Plan & Section B-B'</p>	<table border="1"> <tr> <td>Drawn by</td> <td>TSB</td> </tr> <tr> <td>Checked by</td> <td></td> </tr> <tr> <td>Approved by</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">DRAFT</td> </tr> </table>	Drawn by	TSB	Checked by		Approved by		DRAFT	
Drawn by	TSB									
Checked by										
Approved by										
DRAFT										

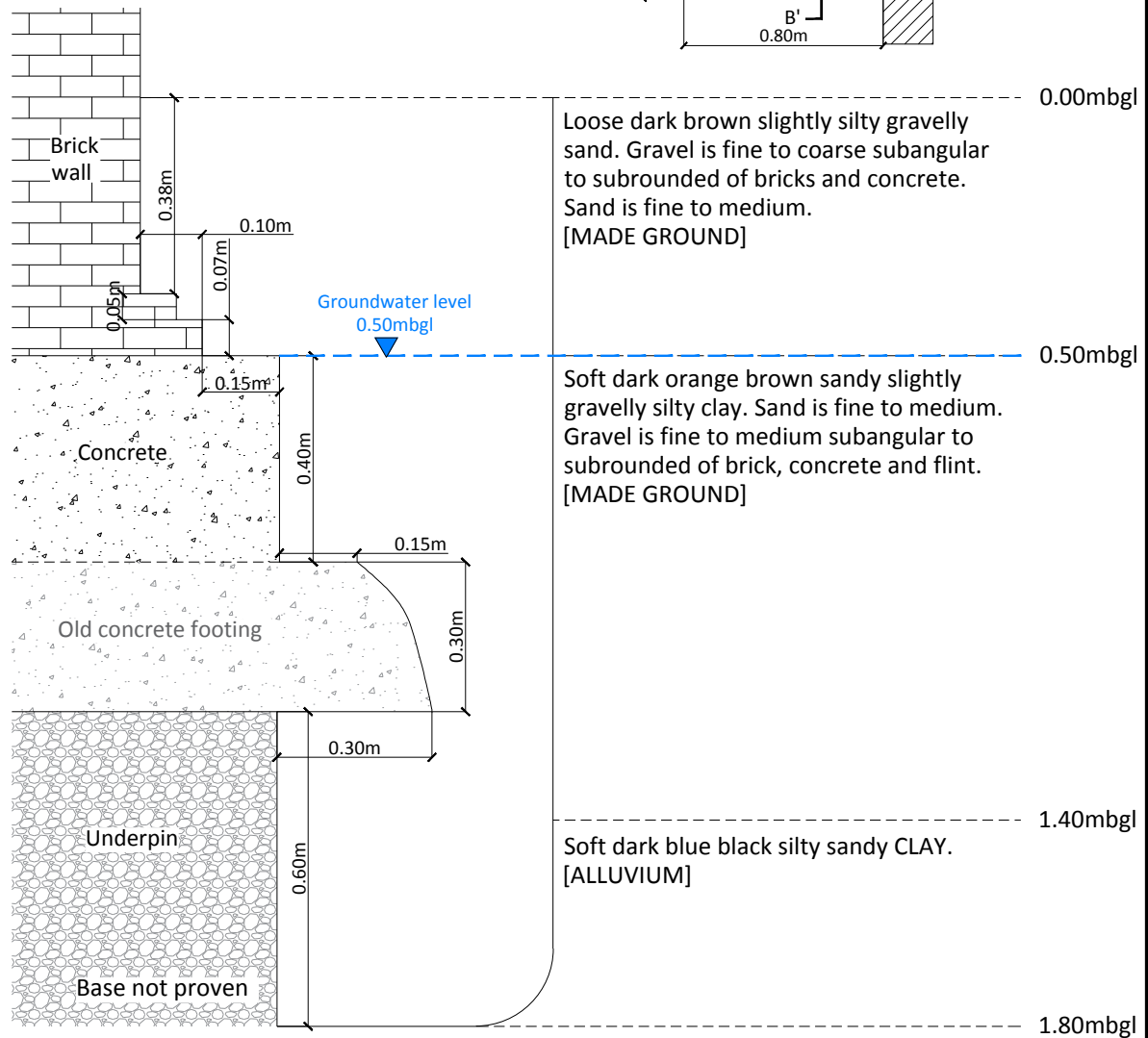
Notes:


1. Trial pit terminated at 1.80mbgl.
2. Standing groundwater was pumped out during excavation works and then was noted rising more than 100mm/hour.
3. Slight organic odour.
4. Ground level at 26.98mOD.

Camden High Street FTP03 Plan



Camden High Street
Section A-A'
FTP03

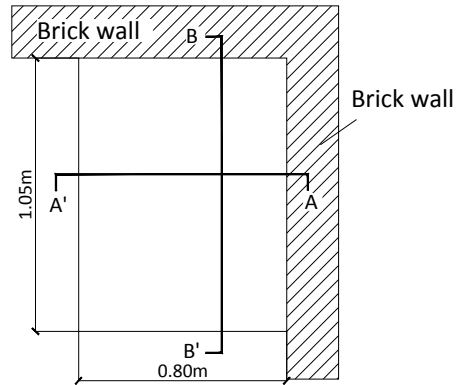


<p>Client Castlehaven Row Limited</p>	<p>Project 251-259 Camden High Street</p>	<p>Job No CG/18648</p>								
	<p>Title Foundation Inspection Pit FTP03 Plan & Section A-A'</p>	<table border="1"> <tr> <td>Drawn by</td> <td>TSB</td> </tr> <tr> <td>Checked by</td> <td></td> </tr> <tr> <td>Approved by</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">DRAFT</td> </tr> </table>	Drawn by	TSB	Checked by		Approved by		DRAFT	
Drawn by	TSB									
Checked by										
Approved by										
DRAFT										

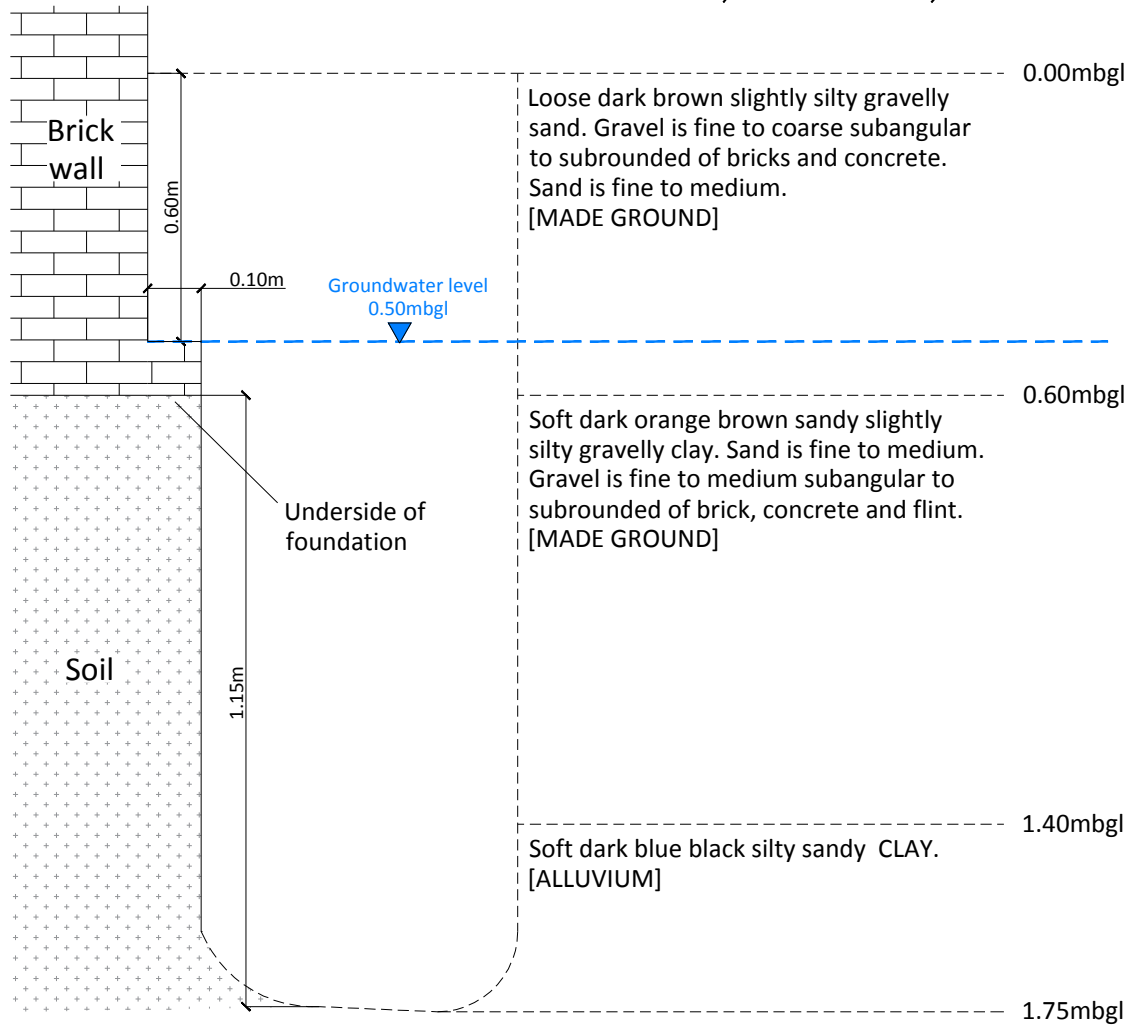
Notes:


1. Trial pit terminated at 1.75mbgl.
2. Standing groundwater was pumped out during excavation works and then was noted rising more than 100mm/hour.
3. Slight organic odour.
4. Ground level at 26.98mOD.

Camden High Street FTP03 Plan



Camden High Street
Section B-B'
FTP03



<p>Client Castlehaven Row Limited</p>	<p>Project 251-259 Camden High Street</p>	<p>Job No CG/18648</p>								
	<p>Title Foundation Inspection Pit FTP03 Plan & Section B-B'</p>	<table border="1"> <tr> <td>Drawn by</td> <td>TSB</td> </tr> <tr> <td>Checked by</td> <td></td> </tr> <tr> <td>Approved by</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">DRAFT</td> </tr> </table>	Drawn by	TSB	Checked by		Approved by		DRAFT	
Drawn by	TSB									
Checked by										
Approved by										
DRAFT										

APPENDIX E

Monitoring records

GROUNDWATER MONITORING RECORD SHEET

JOB DETAILS			
Site:	251-259 Camden High Street	Job No:	CG/18648
Date:	07/01/2016	Engineer:	GES
Time:	10:00	Client:	Castlehaven Row Limited
Weather:	Slight rain		

MONITORING DETAILS							
Standing Groundwater				Infiltration rate records			
Well / Borehole reference: BH01		1min	5min	15min	30min	45min	60min
Monitoring details		After bailing groundwater out from the borehole and become almost dry (Standing GW at 6.92mbgl)					
Ground elevation (+mOD)	26.85	26.85	26.85	26.85	26.85	26.85	26.85
Groundwater depth (mbgl)	3.50	6.81	6.77	6.75	6.74	6.74	6.73
Groundwater elevation (+mOD)	23.35	20.04	20.08	20.10	20.11	20.11	20.12
Depth to base of well (mbgl)	7.10	7.10	7.10	7.10	7.10	7.10	7.10
Diameter of well (m)	0.050	0.050	0.050	0.050	0.050	0.050	0.050
Condition of well	Good	Good	Good	Good	Good	Good	Good
Top of response zone (mbgl)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Base of response zone (mbgl)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Free product thickness (m)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hydrocarbon sheen noted (Y/N)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Infiltration rate (litres/hour)	n/a	0.3729					
Purging details							
Purge method				Bailing			
Purged volume (litres)				7			
Recharge (good / poor)				Good			
Sampling details							
Sampling method	N/A						
Volume of water sample taken (litres)							
Volume of free product sample taken (litres)							
Colour / odours noted*							
In-situ measurements							
pH	N/A						
Temperature (°C)							
Dissolved oxygen (mg/l)							
Redox potential (mV)							
Electrical conductivity (µS/cm)							
Total dissolved solids (ppt)							
* Respiratory protective equipment to be worn if odours are noted during initial monitoring & on sites which are potentially contaminated							

NOTES
At the same day, FTPO2 was reinstated with 0.5m of concrete thickness at a depth of 0.5mbgl due to localised leakage from an adjacent sewer. The leaked water was coming from the corner of the rear party wall which adjoins FTP03.

APPENDIX F

Laboratory certificates



Gerasimos Sfaellos
Card Geotechnics Ltd
4 Godalming Business Centre
Woolsack Way
Godalming
Surrey
GU7 1XW

t: 01483 310600
f: 01483 527285
e: GerasimosS@cgl-uk.com

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 16-86299

Project / Site name:	Camden High Street	Samples received on:	21/01/2016
Your job number:	CG-18648	Samples instructed on:	21/01/2016
Your order number:	2790	Analysis completed by:	29/01/2016
Report Issue Number:	1	Report issued on:	29/01/2016
Samples Analysed:	3 soil samples		

Signed: _____

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed: _____

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.



Analytical Report Number: 16-86299
Project / Site name: Camden High Street
Your Order No: 2790

Lab Sample Number				527354	527355	527356		
Sample Reference				BH01	BH01	BH01		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				3.00-3.45	6.00-6.45	9.00-9.45		
Date Sampled				Deviating	Deviating	Deviating		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	21	21	20		
Total mass of sample received	kg	0.001	NONE	0.69	0.57	0.73		

General Inorganics

	pH Units	N/A	MCERTS	7.8	7.8	8.2		
pH	mg/kg	50	MCERTS	15000	5500	2300		
Total Sulphate as SO ₄	g/l	0.00125	MCERTS	3.3	2.4	0.93		
Water Soluble Sulphate (2:1 Leachate Equivalent)	mg/kg	50	NONE	6300	1900	3600		
Total Sulphur								



Analytical Report Number : 16-86299

Project / Site name: Camden High Street

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
527354	BH01	None Supplied	3.00-3.45	Brown clay.
527355	BH01	None Supplied	6.00-6.45	Brown clay.
527356	BH01	None Supplied	9.00-9.45	Brown clay.



Analytical Report Number : 16-86299

Project / Site name: Camden High Street

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, and MEWAM 2006 Methods for the Determination of Metals in Soil	L038-PL	D	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.