

- LEGEND
- Staffordshire clay patterned paver, herringbone bond, 200 x 100 x 65mm, blue
 - Clay paver, herringbone bond, 200mmx65mmx85mm, buff, autumn, Olive, yellow colour combination
 - Flush granite kerb, 150x150xvaries, silver grey
 - Sloped profile granite kerb, 250x250xvaries, silver grey
 - Clay paver, stretcher bond, 200mmx65mmx85mm, black
 - PCC block paver, stretcher bond, varies x 85mm, grey
 - Wet pour rubber play surface
 - Proposed Lawn
 - Metal stud road demarcation every 1m, stainless steel
 - Steel vehicle bollard, 900mm high, circular section, powder coated in various colours
 - Lamp post
 - Cotinary lighting
 - Timber bench
 - Tree pit
 - Timber seating steps
 - Bespoke folded steel benches, powder coated: various colours, 500mm high
 - Feature artwork
 - Steel railing, powder coated: black, 900mm high
 - Bike Rack
 - Tactile Paving, 300x300x50mm, blue clay paver material to match adjacent paving
 - Ramp
 - Play equipment
 - In situ concrete slabs, brush finished in different directions, 10mm weathering steel edges
 - Bio-Diverse Roof
 - Brick bin store
 - Undercroft Parking Vent
 - Two tier cycle parking stand (32 spcs)
 - Proposed Tree

Tree Planting

Number	Abbreviation	Species	Height
9 No.	BEPE	Betula pendula	1.5-2.0m
2 No.	BET JAC	Betula utilis jacquemontii	4.0-5.0m
6 No.	AI	Amelanchier lamarckii	2.5-3.0m
2 No.	RHTY	Rhus typhina	2.5-3.0m
12 No.	PRU TIB	Prunus serrula tibetica	3.0m

Number	Abbreviation	Species	Height
7 No.	Gb	Ginkgo biloba	450-500cm

Street Planting Mix

Number	Abbreviation	Species	Density
114 No.	PAC TER	Pachysandra terminalis	5/m ²
39 No.	PeBS	Perovskia 'Blue Spire'	5/m ²

Number	Abbreviation	Species	Density
82 No.	ACH PAS	Achillea millefolium 'Summer Pastels'	5/m ²
60 No.	CARTE	Carex testacea	5/m ²
60 No.	ECH PUR	Echinacea purpurea	5/m ²
71 No.	ECHD	Euphorbia characias 'Humpty Dumpty'	5/m ²
60 No.	HEL ORI	Helleborus orientalis	5/m ²
39 No.	HeM	Heuchera 'Marmalade'	5/m ²
60 No.	SAL PUR	Salvia officinalis 'Purpurascens'	5/m ²
60 No.	SED HER	Sedum 'Herbstfreude'	5/m ²

Number	Abbreviation	Species	Density
114 No.	HED HEL	Hedera helix	5/m ²
60 No.	HED CRI	Hedera helix 'Parsley Crested'	5/m ²

Number	Abbreviation	Species	Density
16 No.	Alg	Allium giganteum	5/m ²

Number	Abbreviation	Species	Density
26 No.	DRY WAL	Dryopteris wallichiana	5/m ²

Number	Abbreviation	Species	Density
60 No.	HAK MAC	Hakonechloa macra	5/m ²
60 No.	LIMU	Liriope muscari	5/m ²
94 No.	She	Sporobolus heterolepis	5/m ²
114 No.	Ste	Stipa tenuissima	5/m ²

Native Plant Mix

Number	Abbreviation	Species	Density
68 No.	COR SAN	Cornus sanguinea	3/m ²
51 No.	Cav	Corylus avellana	3/m ²
51 No.	Csc	Cytisus scoparius	3/m ²
51 No.	Ia	Ilex aquifolium	3/m ²
51 No.	LIG VUL	Ligustrum vulgare	3/m ²
51 No.	ROS PIM	Rosa pimpinellifolia	3/m ²
51 No.	Rac	Ruscus aculeatus	3/m ²
51 No.	VIB OPU	Viburnum opulus	3/m ²

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12 No.	PRU TIB	Prunus serrula tibetica	3.0m

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60 No.	CARTE	Carex testacea	5/m ²
60 No.	ECH PUR	Echinacea purpurea	5/m ²
71 No.	ECHD	Euphorbia characias 'Humpty Dumpty'	5/m ²
60 No.	HEL ORI	Helleborus orientalis	5/m ²
39 No.	HeM	Heuchera 'Marmalade'	5/m ²
60 No.	SAL PUR	Salvia officinalis 'Purpurascens'	5/m ²
60 No.	SED HER	Sedum 'Herbstfreude'	5/m ²

Number	Abbreviation	Species	Density
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Number	Abbreviation	Species	Density
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60 No.	LIMU	Liriope muscari	5/m ²
94 No.	She	Sporobolus heterolepis	5/m ²
114 No.	Ste	Stipa tenuissima	5/m ²

Native Plant Mix

Number	Abbreviation	Species	Density
68 No.	COR SAN	Cornus sanguinea	3/m ²
51 No.	Cav	Corylus avellana	3/m ²
51 No.	Csc	Cytisus scoparius	3/m ²
51 No.	Ia	Ilex aquifolium	3/m ²
51 No.	LIG VUL	Ligustrum vulgare	3/m ²
51 No.	ROS PIM	Rosa pimpinellifolia	3/m ²
51 No.	Rac	Ruscus aculeatus	3/m ²
51 No.	VIB OPU	Viburnum opulus	3/m ²

NOT FOR CONSTRUCTION

Project
Chocolate Factory
Wood Green

Drawing Title
Detailed Landscape Masterplan
General Arrangement

Date
07.01.16

Scale
1:250@A0

Drawn by
JH

Check by
JH

Project No
18027

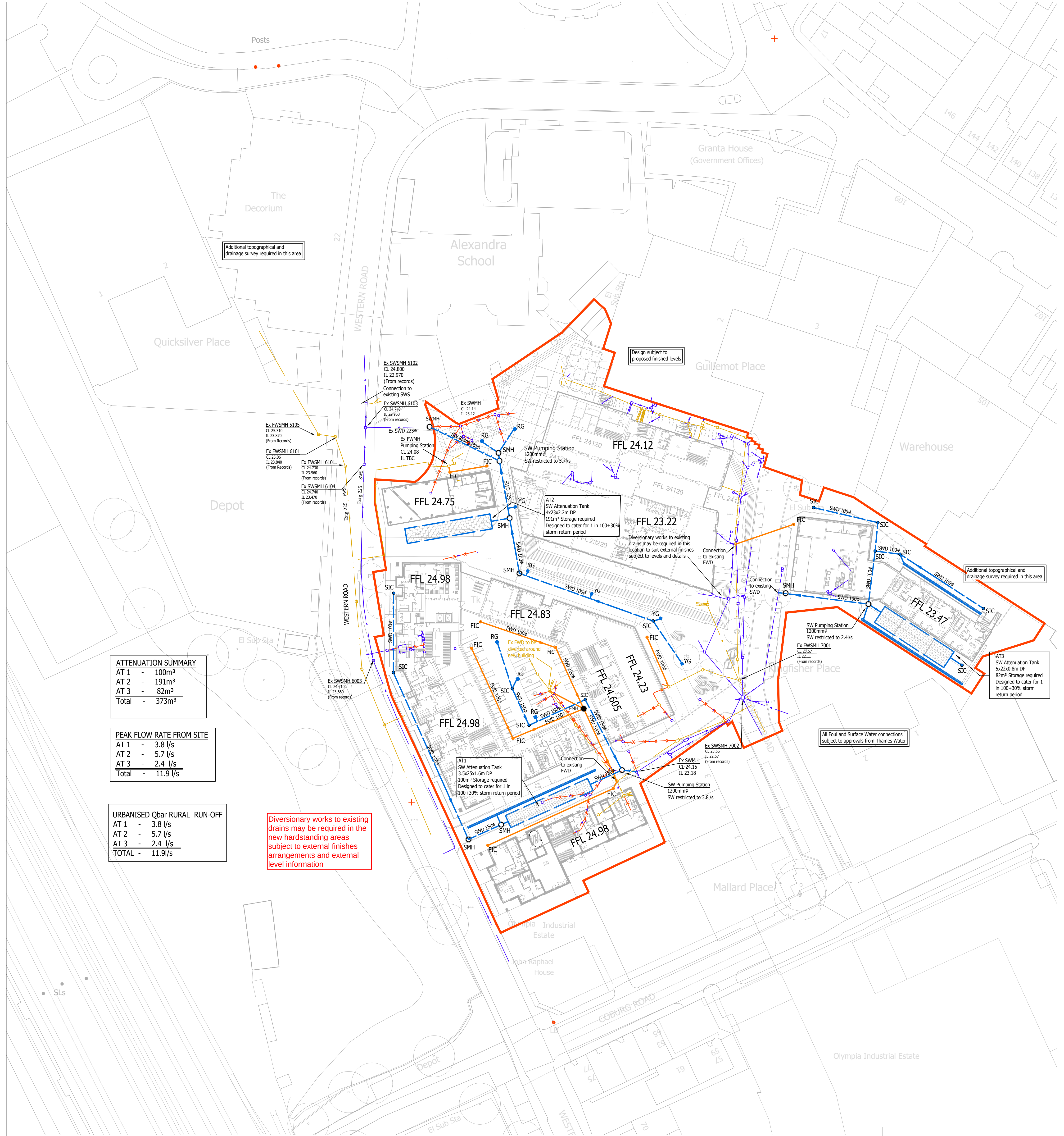
Drawing No
L33-06

Revision
A

BARTON WILLMORE

Planning • Master Planning & Urban Design
Architecture • Landscape Planning & Design • Project Services
Environmental & Sustainability Assessment • Graphic Design

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KEY

	PROPOSED SURFACE WATER DRAIN		PROPOSED SURFACE WATER INSPECTION CHAMBER
	PROPOSED FOUL WATER DRAIN		PROPOSED FOUL WATER INSPECTION CHAMBER
	EXISTING FOUL WATER SEWER/DRAIN		PROPOSED YARD GULLY
	EXISTING SURFACE WATER SEWER/DRAIN		PROPOSED ROAD GULLY
	EXISTING SEWER TO BE ABANDONED		PROPOSED CHANNEL DRAIN
	GEOCELLULAR ATTENUATION TANK		PROPOSED FOUL WATER MANHOLE CHAMBER
			PROPOSED SURFACE WATER MANHOLE CHAMBER

GENERAL NOTES

- The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. any discrepancies shall be notified to gta prior to works commencing.
- Tender or billing drawings shall not be used for construction or the ordering of materials.
- Do not scale. All dimensions and levels to be site confirmed.
- This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with H&S plan requirements
- Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
- All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made abortive due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

NOTE:

THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE FLOOD RISK AND DESIGN REPORT FOR MORE DESIGN INFORMATION

DESIGN NOTES

- STORAGE DESIGN BASED ON 1 IN 100 YR STORM + 30%.
- DRAIN POINTS AND LOCATIONS TO BE CONFIRMED BY ARCHITECT.
- CONTRACTOR TO ESTABLISH LOCATIONS OF ALL EXISTING SERVICES PRIOR TO COMMENCING.
- EXISTING TREES TO BE PROTECTED WHERE EXCAVATIONS RUN CLOSE.
- APPROVAL TO BE GAINED FROM TWU FOR CONNECTIONS TO SEWERS AND DISCHARGE RATES

D	UPDATED TO SUIT REVISED LAYOUT	05.05.17	CS	
C	NOTE REGARDING EXISTING DRAINS ADDED	18.11.16	CS	
B	TANK SIZES REDUCED	13.10.16	CS	
A	UPDATED TO SUIT REVISED SITE PLAN	07.09.16	CS	
-	INITIAL ISSUE	30.08.16	CS	
Rev	Amendments	Date	Dwn	Chk
Status	PRELIMINARY			
Client	FURNESS & PARTNERSHIP			
Architect				
Project	THE CHOCOLATE FACTORY WOOD GREEN, LONDON			
Title	SURFACE AND FOUL DRAINAGE STRATEGY			
Date	SEPTEMBER 2016	Scale @ A1	1:500	
Base Layout Ref.		CAD File ref.		
Clients Ref.		Project Ref.	6265	
 gta civils ltd CONSULTING ENGINEERS gloucester house, 66a church walk, burgess hill, west sussex, rh15 9as tel.01444 871444 fax.01444 871401 web: www.gtacivils.co.uk				
Drawing Number	6079/200			Rev.
				D

Appendix E

Drainage Calculations

GTA Civils Ltd		Page 1
66a Church Walk Burgess Hill West Sussex RH15 9AS		
Date 05/05/2017 13:57 File	Designed by CSLade Checked by	
Micro Drainage		Source Control 2015.1
<u>ICP SUDS Mean Annual Flood</u> Input Return Period (years) 100 Soil 0.500 Area (ha) 0.277 Urban 0.750 SAAR (mm) 667 Region Number Region 6 Results 1/s QBAR Rural 1.4 QBAR Urban 3.8 Q100 years 7.8 Q1 year 3.3 Q30 years 6.7 Q100 years 7.8		
©1982-2015 XP Solutions		

GTA Civils Ltd		Page 1
Gloucester House 66a Church Walk Burgess Hill RH15 9AS		
Date 10/10/2016 16:36 File AT2.srcx	Designed by jpakenham Checked by	
Micro Drainage Source Control 2013.1		

ICP SUDS Mean Annual Flood

Input

Return Period (years)	1	Soil	0.500
Area (ha)	0.411	Urban	0.750
SAAR (mm)	667	Region Number	Region 6

Results l/s

QBAR Rural	2.1
QBAR Urban	5.7
Q1 year	4.8
Q1 year	4.8
Q30 years	9.9
Q100 years	11.5

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GTA Civils Ltd		Page 1
Gloucester House 66a Church Walk Burgess Hill RH15 9AS		
Date 10/10/2016 16:37 File AT3.srcx	Designed by jpakenham Checked by	
Micro Drainage	Source Control 2013.1	
<u>ICP SUDS Mean Annual Flood</u>		
Input		
Return Period (years) 100 Soil 0.500 Area (ha) 0.170 Urban 0.750 SAAR (mm) 667 Region Number Region 6		
Results l/s		
QBAR Rural 0.9 QBAR Urban 2.4		
Q100 years 4.8		
Q1 year 2.0 Q30 years 4.1 Q100 years 4.8		

GTA Civils Ltd		Page 1
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 1	
Date 06.09.16 File AT1_A.srcx	Designed by CS Checked by	

Micro Drainage Source Control 2015.1

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 289 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.805	0.805	0.0	3.8	3.8	66.9	O K
30 min Summer	1.026	1.026	0.0	3.8	3.8	85.3	O K
60 min Summer	1.214	1.214	0.0	3.8	3.8	100.9	O K
120 min Summer	1.336	1.336	0.0	3.8	3.8	111.1	O K
180 min Summer	1.352	1.352	0.0	3.8	3.8	112.4	O K
240 min Summer	1.326	1.326	0.0	3.8	3.8	110.2	O K
360 min Summer	1.263	1.263	0.0	3.8	3.8	105.0	O K
480 min Summer	1.203	1.203	0.0	3.8	3.8	100.0	O K
600 min Summer	1.143	1.143	0.0	3.8	3.8	95.0	O K
720 min Summer	1.085	1.085	0.0	3.8	3.8	90.2	O K
960 min Summer	0.974	0.974	0.0	3.8	3.8	80.9	O K
1440 min Summer	0.774	0.774	0.0	3.8	3.8	64.3	O K
2160 min Summer	0.532	0.532	0.0	3.8	3.8	44.2	O K
2880 min Summer	0.359	0.359	0.0	3.8	3.8	29.8	O K
4320 min Summer	0.197	0.197	0.0	3.7	3.7	16.4	O K
5760 min Summer	0.159	0.159	0.0	3.0	3.0	13.2	O K
7200 min Summer	0.133	0.133	0.0	2.5	2.5	11.1	O K
8640 min Summer	0.115	0.115	0.0	2.2	2.2	9.6	O K
10080 min Summer	0.102	0.102	0.0	1.9	1.9	8.5	O K
15 min Winter	0.907	0.907	0.0	3.8	3.8	75.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	137.494	0.0	71.1	25
30 min Summer	88.809	0.0	91.9	39
60 min Summer	54.549	0.0	112.9	68
120 min Summer	32.365	0.0	134.0	124
180 min Summer	23.543	0.0	146.2	182
240 min Summer	18.683	0.0	154.7	230
360 min Summer	13.462	0.0	167.2	286
480 min Summer	10.666	0.0	176.6	348
600 min Summer	8.898	0.0	184.2	414
720 min Summer	7.671	0.0	190.5	482
960 min Summer	6.064	0.0	200.8	616
1440 min Summer	4.349	0.0	216.0	878
2160 min Summer	3.115	0.0	232.1	1240
2880 min Summer	2.456	0.0	244.0	1588
4320 min Summer	1.755	0.0	261.5	2212
5760 min Summer	1.381	0.0	274.5	2944
7200 min Summer	1.147	0.0	284.8	3672
8640 min Summer	0.985	0.0	293.5	4408
10080 min Summer	0.866	0.0	301.0	5136
15 min Winter	137.494	0.0	79.6	25

GTA Civils Ltd		Page 2
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 1	
Date 06.09.16 File AT1_A.srcx	Designed by CS Checked by	
Micro Drainage Source Control 2015.1		

Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	1.158	1.158	0.0	3.8	3.8	96.2	O K
60 min Winter	1.376	1.376	0.0	3.8	3.8	114.4	O K
120 min Winter	1.529	1.529	0.0	3.8	3.8	127.1	O K
180 min Winter	1.562	1.562	0.0	3.8	3.8	129.9	O K
240 min Winter	1.547	1.547	0.0	3.8	3.8	128.6	O K
360 min Winter	1.466	1.466	0.0	3.8	3.8	121.9	O K
480 min Winter	1.388	1.388	0.0	3.8	3.8	115.4	O K
600 min Winter	1.306	1.306	0.0	3.8	3.8	108.5	O K
720 min Winter	1.222	1.222	0.0	3.8	3.8	101.6	O K
960 min Winter	1.057	1.057	0.0	3.8	3.8	87.8	O K
1440 min Winter	0.756	0.756	0.0	3.8	3.8	62.9	O K
2160 min Winter	0.406	0.406	0.0	3.8	3.8	33.8	O K
2880 min Winter	0.210	0.210	0.0	3.8	3.8	17.4	O K
4320 min Winter	0.149	0.149	0.0	2.8	2.8	12.3	O K
5760 min Winter	0.118	0.118	0.0	2.2	2.2	9.8	O K
7200 min Winter	0.098	0.098	0.0	1.9	1.9	8.1	O K
8640 min Winter	0.084	0.084	0.0	1.6	1.6	7.0	O K
10080 min Winter	0.074	0.074	0.0	1.4	1.4	6.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	88.809	0.0	102.9	39
60 min Winter	54.549	0.0	126.5	68
120 min Winter	32.365	0.0	150.1	124
180 min Winter	23.543	0.0	163.7	180
240 min Winter	18.683	0.0	173.3	234
360 min Winter	13.462	0.0	187.3	330
480 min Winter	10.666	0.0	197.8	376
600 min Winter	8.898	0.0	206.3	452
720 min Winter	7.671	0.0	213.4	526
960 min Winter	6.064	0.0	225.0	672
1440 min Winter	4.349	0.0	242.0	940
2160 min Winter	3.115	0.0	260.0	1284
2880 min Winter	2.456	0.0	273.3	1536
4320 min Winter	1.755	0.0	292.9	2232
5760 min Winter	1.381	0.0	307.4	2944
7200 min Winter	1.147	0.0	319.0	3680
8640 min Winter	0.985	0.0	328.7	4408
10080 min Winter	0.866	0.0	337.1	5088

GTA Civils Ltd		Page 3
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 1	
Date 06.09.16 File AT1_A.srcx	Designed by CS Checked by	

Micro Drainage	Source Control 2015.1
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.700	Shortest Storm (mins)	15
Ratio R	0.438	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.276

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From:	To:	From:	To:	From:	To:
0	4	0.092	4	8	0.092
				8	12
					0.092

GTA Civils Ltd		Page 4
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 1	
Date 06.09.16 File AT1_A.srcx	Designed by CS Checked by	

Micro Drainage Source Control 2015.1

Model Details

Storage is Online Cover Level (m) 1.600

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	87.5	87.5	1.700	0.0	178.7
1.600	87.5	178.7			

Pump Outflow Control

Invert Level (m) 0.000

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.200	3.8000	1.800	3.8000	3.400	3.8000	5.000	3.8000
0.400	3.8000	2.000	3.8000	3.600	3.8000	5.200	3.8000
0.600	3.8000	2.200	3.8000	3.800	3.8000	5.400	3.8000
0.800	3.8000	2.400	3.8000	4.000	3.8000	5.600	3.8000
1.000	3.8000	2.600	3.8000	4.200	3.8000	5.800	3.8000
1.200	3.8000	2.800	3.8000	4.400	3.8000	6.000	3.8000
1.400	3.8000	3.000	3.8000	4.600	3.8000		
1.600	3.8000	3.200	3.8000	4.800	3.8000		

GTA Civils Ltd		Page 1
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 2	
Date 06.09.16 File AT2.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 286 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	1.137	1.137	0.0	5.7	5.7	99.4	O K
30 min Summer	1.446	1.446	0.0	5.7	5.7	126.4	O K
60 min Summer	1.708	1.708	0.0	5.7	5.7	149.3	O K
120 min Summer	1.870	1.870	0.0	5.7	5.7	163.5	O K
180 min Summer	1.884	1.884	0.0	5.7	5.7	164.6	O K
240 min Summer	1.838	1.838	0.0	5.7	5.7	160.7	O K
360 min Summer	1.739	1.739	0.0	5.7	5.7	152.0	O K
480 min Summer	1.647	1.647	0.0	5.7	5.7	143.9	O K
600 min Summer	1.559	1.559	0.0	5.7	5.7	136.2	O K
720 min Summer	1.474	1.474	0.0	5.7	5.7	128.9	O K
960 min Summer	1.315	1.315	0.0	5.7	5.7	114.9	O K
1440 min Summer	1.028	1.028	0.0	5.7	5.7	89.9	O K
2160 min Summer	0.680	0.680	0.0	5.7	5.7	59.4	O K
2880 min Summer	0.431	0.431	0.0	5.7	5.7	37.7	O K
4320 min Summer	0.201	0.201	0.0	5.7	5.7	17.6	O K
5760 min Summer	0.160	0.160	0.0	4.6	4.6	14.0	O K
7200 min Summer	0.134	0.134	0.0	3.8	3.8	11.7	O K
8640 min Summer	0.115	0.115	0.0	3.3	3.3	10.1	O K
10080 min Summer	0.102	0.102	0.0	2.9	2.9	8.9	O K
15 min Winter	1.281	1.281	0.0	5.7	5.7	112.0	O K
30 min Winter	1.634	1.634	0.0	5.7	5.7	142.8	O K
60 min Winter	1.939	1.939	0.0	5.7	5.7	169.5	O K
120 min Winter	2.147	2.147	0.0	5.7	5.7	187.6	O K
180 min Winter	2.185	2.185	0.0	5.7	5.7	191.0	O K
240 min Winter	2.156	2.156	0.0	5.7	5.7	188.4	O K
360 min Winter	2.028	2.028	0.0	5.7	5.7	177.3	O K
480 min Winter	1.910	1.910	0.0	5.7	5.7	166.9	O K
600 min Winter	1.789	1.789	0.0	5.7	5.7	156.3	O K
720 min Winter	1.666	1.666	0.0	5.7	5.7	145.6	O K
960 min Winter	1.428	1.428	0.0	5.7	5.7	124.8	O K
1440 min Winter	0.995	0.995	0.0	5.7	5.7	87.0	O K
2160 min Winter	0.493	0.493	0.0	5.7	5.7	43.1	O K
2880 min Winter	0.214	0.214	0.0	5.7	5.7	18.7	O K
4320 min Winter	0.148	0.148	0.0	4.2	4.2	13.0	O K
5760 min Winter	0.117	0.117	0.0	3.3	3.3	10.2	O K
7200 min Winter	0.098	0.098	0.0	2.8	2.8	8.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	137.494	0.0	106.0	25
30 min Summer	88.809	0.0	136.9	39
60 min Summer	54.549	0.0	168.1	68
120 min Summer	32.365	0.0	199.5	124
180 min Summer	23.543	0.0	217.7	182
240 min Summer	18.683	0.0	230.4	228
360 min Summer	13.462	0.0	249.0	284
480 min Summer	10.666	0.0	263.0	348
600 min Summer	8.898	0.0	274.3	414
720 min Summer	7.671	0.0	283.7	482
960 min Summer	6.064	0.0	299.1	616
1440 min Summer	4.349	0.0	321.8	876
2160 min Summer	3.115	0.0	345.6	1240
2880 min Summer	2.456	0.0	363.3	1584
4320 min Summer	1.755	0.0	389.4	2208
5760 min Summer	1.381	0.0	408.7	2936
7200 min Summer	1.147	0.0	424.2	3672
8640 min Summer	0.985	0.0	437.1	4408
10080 min Summer	0.866	0.0	448.2	5136
15 min Winter	137.494	0.0	118.7	25
30 min Winter	88.809	0.0	153.3	39
60 min Winter	54.549	0.0	188.3	68
120 min Winter	32.365	0.0	223.5	124
180 min Winter	23.543	0.0	243.8	180
240 min Winter	18.683	0.0	258.0	234
360 min Winter	13.462	0.0	278.8	328
480 min Winter	10.666	0.0	294.6	374
600 min Winter	8.898	0.0	307.2	450
720 min Winter	7.671	0.0	317.8	526
960 min Winter	6.064	0.0	335.0	670
1440 min Winter	4.349	0.0	360.4	938
2160 min Winter	3.115	0.0	387.1	1284
2880 min Winter	2.456	0.0	406.9	1532
4320 min Winter	1.755	0.0	436.2	2208
5760 min Winter	1.381	0.0	457.8	2936
7200 min Winter	1.147	0.0	475.1	3672

GTA Civils Ltd		Page 2
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 2	
Date 06.09.16 File AT2.srcx	Designed by CS Checked by	
Micro Drainage Source Control 2015.1		

Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
8640 min Winter	0.084	0.084	0.0	2.4	2.4	7.3	O K
10080 min Winter	0.074	0.074	0.0	2.1	2.1	6.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
8640 min Winter	0.985	0.0	489.6	4400
10080 min Winter	0.866	0.0	502.0	5136

GTA Civils Ltd		Page 3
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 2	
Date 06.09.16 File AT2.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.438	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	20.700	Cv (Summer)	0.750	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.411

Time (mins)			Time (mins)			Time (mins)		
From:	To:	Area (ha)	From:	To:	Area (ha)	From:	To:	Area (ha)
0	4	0.137	4	8	0.137	8	12	0.137

GTA Civils Ltd		Page 4
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 2	
Date 06.09.16 File AT2.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Model Details

Storage is Online Cover Level (m) 2.200

Cellular Storage Structure

Invert Level (m) 0.000 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	92.0	92.0	2.200	92.0	210.8	2.300	0.0	210.8

Pump Outflow Control

Invert Level (m) 0.000

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.200	5.7000	1.200	5.7000	2.200	5.7000	3.200	5.7000	4.200	5.7000	5.200	5.7000
0.400	5.7000	1.400	5.7000	2.400	5.7000	3.400	5.7000	4.400	5.7000	5.400	5.7000
0.600	5.7000	1.600	5.7000	2.600	5.7000	3.600	5.7000	4.600	5.7000	5.600	5.7000
0.800	5.7000	1.800	5.7000	2.800	5.7000	3.800	5.7000	4.800	5.7000	5.800	5.7000
1.000	5.7000	2.000	5.7000	3.000	5.7000	4.000	5.7000	5.000	5.7000	6.000	5.7000

GTA Civils Ltd		Page 1
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 3	
Date 06.09.16 File AT3.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 297 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.400	0.400	0.0	2.4	2.4	41.8	O K
30 min Summer	0.509	0.509	0.0	2.4	2.4	53.2	O K
60 min Summer	0.603	0.603	0.0	2.4	2.4	63.0	O K
120 min Summer	0.668	0.668	0.0	2.4	2.4	69.8	O K
180 min Summer	0.681	0.681	0.0	2.4	2.4	71.1	O K
240 min Summer	0.673	0.673	0.0	2.4	2.4	70.3	O K
360 min Summer	0.651	0.651	0.0	2.4	2.4	68.0	O K
480 min Summer	0.627	0.627	0.0	2.4	2.4	65.6	O K
600 min Summer	0.602	0.602	0.0	2.4	2.4	62.9	O K
720 min Summer	0.576	0.576	0.0	2.4	2.4	60.2	O K
960 min Summer	0.525	0.525	0.0	2.4	2.4	54.9	O K
1440 min Summer	0.432	0.432	0.0	2.4	2.4	45.2	O K
2160 min Summer	0.320	0.320	0.0	2.4	2.4	33.5	O K
2880 min Summer	0.243	0.243	0.0	2.4	2.4	25.4	O K
4320 min Summer	0.176	0.176	0.0	2.1	2.1	18.4	O K
5760 min Summer	0.144	0.144	0.0	1.7	1.7	15.1	O K
7200 min Summer	0.123	0.123	0.0	1.5	1.5	12.9	O K
8640 min Summer	0.108	0.108	0.0	1.3	1.3	11.3	O K
10080 min Summer	0.096	0.096	0.0	1.2	1.2	10.0	O K
15 min Winter	0.450	0.450	0.0	2.4	2.4	47.0	O K
30 min Winter	0.573	0.573	0.0	2.4	2.4	59.9	O K
60 min Winter	0.682	0.682	0.0	2.4	2.4	71.3	O K
120 min Winter	0.761	0.761	0.0	2.4	2.4	79.5	O K
180 min Winter	0.781	0.781	0.0	2.4	2.4	81.6	O K
240 min Winter	0.777	0.777	0.0	2.4	2.4	81.2	O K
360 min Winter	0.745	0.745	0.0	2.4	2.4	77.9	O K
480 min Winter	0.714	0.714	0.0	2.4	2.4	74.6	O K
600 min Winter	0.679	0.679	0.0	2.4	2.4	70.9	O K
720 min Winter	0.641	0.641	0.0	2.4	2.4	67.0	O K
960 min Winter	0.565	0.565	0.0	2.4	2.4	59.1	O K
1440 min Winter	0.425	0.425	0.0	2.4	2.4	44.5	O K
2160 min Winter	0.266	0.266	0.0	2.4	2.4	27.8	O K
2880 min Winter	0.191	0.191	0.0	2.3	2.3	19.9	O K
4320 min Winter	0.141	0.141	0.0	1.7	1.7	14.7	O K
5760 min Winter	0.113	0.113	0.0	1.4	1.4	11.8	O K
7200 min Winter	0.094	0.094	0.0	1.1	1.1	9.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	137.494	0.0	43.8	22
30 min Summer	88.809	0.0	56.6	36
60 min Summer	54.549	0.0	69.5	66
120 min Summer	32.365	0.0	82.5	122
180 min Summer	23.543	0.0	90.0	182
240 min Summer	18.683	0.0	95.2	224
360 min Summer	13.462	0.0	102.9	280
480 min Summer	10.666	0.0	108.7	344
600 min Summer	8.898	0.0	113.4	410
720 min Summer	7.671	0.0	117.3	478
960 min Summer	6.064	0.0	123.7	612
1440 min Summer	4.349	0.0	133.0	870
2160 min Summer	3.115	0.0	142.9	1236
2880 min Summer	2.456	0.0	150.3	1564
4320 min Summer	1.755	0.0	161.0	2252
5760 min Summer	1.381	0.0	169.0	2992
7200 min Summer	1.147	0.0	175.4	3680
8640 min Summer	0.985	0.0	180.8	4416
10080 min Summer	0.866	0.0	185.4	5144
15 min Winter	137.494	0.0	49.0	22
30 min Winter	88.809	0.0	63.4	36
60 min Winter	54.549	0.0	77.8	64
120 min Winter	32.365	0.0	92.4	122
180 min Winter	23.543	0.0	100.8	178
240 min Winter	18.683	0.0	106.7	232
360 min Winter	13.462	0.0	115.3	304
480 min Winter	10.666	0.0	121.8	372
600 min Winter	8.898	0.0	127.0	446
720 min Winter	7.671	0.0	131.4	522
960 min Winter	6.064	0.0	138.5	666
1440 min Winter	4.349	0.0	149.0	930
2160 min Winter	3.115	0.0	160.1	1276
2880 min Winter	2.456	0.0	168.3	1560
4320 min Winter	1.755	0.0	180.4	2292
5760 min Winter	1.381	0.0	189.3	3000
7200 min Winter	1.147	0.0	196.5	3744

GTA Civils Ltd		Page 2
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 3	
Date 06.09.16 File AT3.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
8640 min Winter	0.081	0.081	0.0	1.0	1.0	8.5	O K
10080 min Winter	0.072	0.072	0.0	0.9	0.9	7.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
8640 min Winter	0.985	0.0	202.5	4416
10080 min Winter	0.866	0.0	207.6	5144

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66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 3	
Date 06.09.16 File AT3.srcx	Designed by CS Checked by	
Micro Drainage	Source Control 2015.1	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.438	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	20.700	Cv (Summer)	0.750	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.170

Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)
0	4	0.085	4	8	0.085

GTA Civils Ltd		Page 4
66a Church Walk Burgess Hill West Sussex RH15 9AS	6079 The Chocolate Factory Attenuation Tank 3	
Date 06.09.16 File AT3.srcx	Designed by CS Checked by	
Micro Drainage Source Control 2015.1		

Model Details

Storage is Online Cover Level (m) 0.800

Cellular Storage Structure

Invert Level (m) 0.000 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	110.0	110.0	0.800	110.0	153.2	0.900	0.0	153.2

Pump Outflow Control

Invert Level (m) 0.000

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.200	2.4000	1.200	2.4000	2.200	2.4000	3.200	2.4000	4.200	2.4000	5.200	2.4000
0.400	2.4000	1.400	2.4000	2.400	2.4000	3.400	2.4000	4.400	2.4000	5.400	2.4000
0.600	2.4000	1.600	2.4000	2.600	2.4000	3.600	2.4000	4.600	2.4000	5.600	2.4000
0.800	2.4000	1.800	2.4000	2.800	2.4000	3.800	2.4000	4.800	2.4000	5.800	2.4000
1.000	2.4000	2.000	2.4000	3.000	2.4000	4.000	2.4000	5.000	2.4000	6.000	2.4000



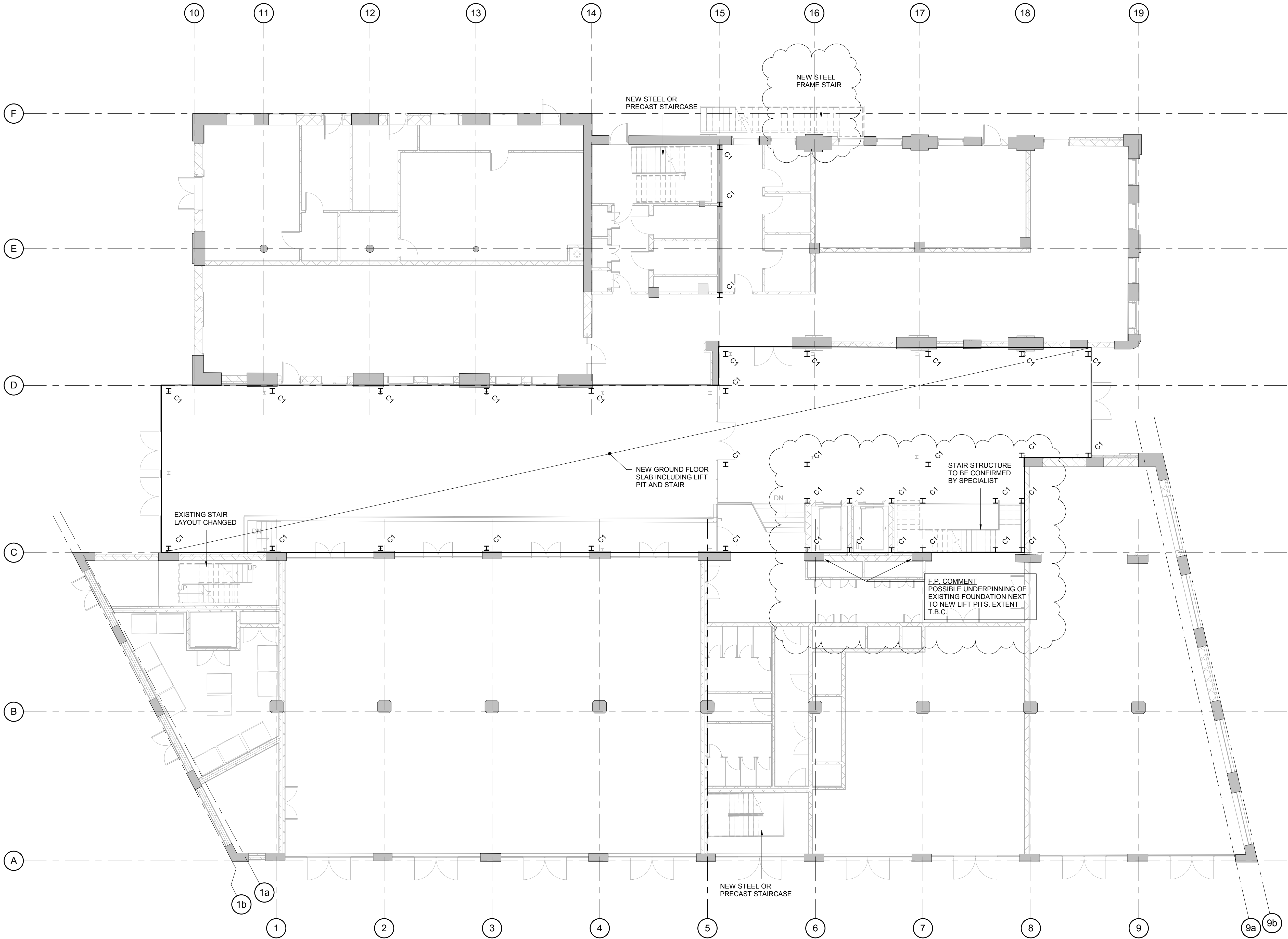
Drainage - Flood Risk - Highways - Transport

GTA Civils, Gloucester House, 66a Church Walk, Burgess Hill, West Sussex, RH15 9AS
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GTA Civils Limited, Registered in England No. 4192991. VAT Registration No. 777 5043 04



Appendix C– Preliminary Structural Drawings



GROUND FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES.
2. REFER TO DRAWING No. 4435(A)-S-001 FOR DEMOLITION PLANS

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By
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Drawing Status

PRELIMINARY

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Furness Partnership
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e-mail: mail@furnesspartnership.com

Project

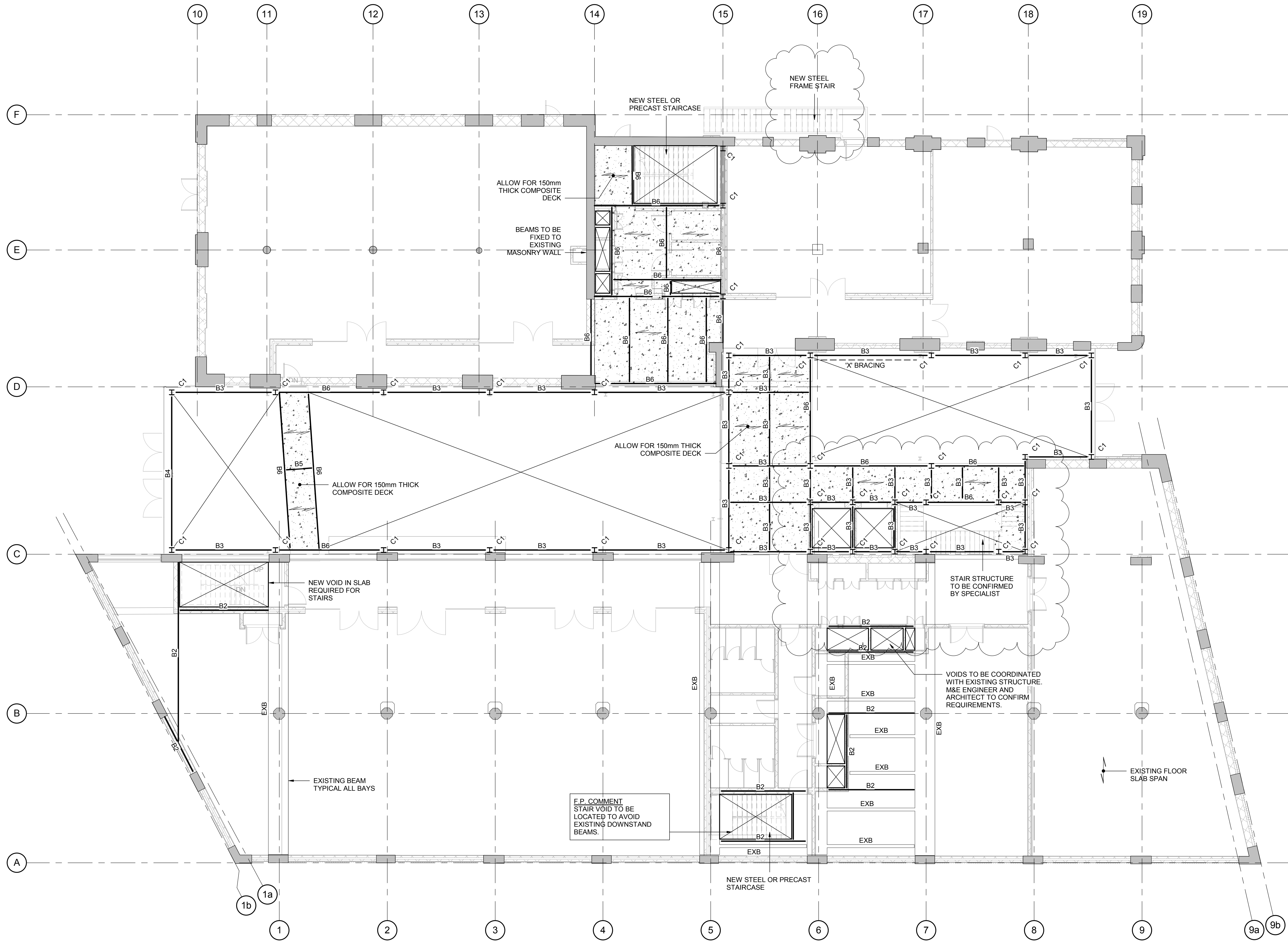
CHOCOLATE FACTORY

Drawing Title

BLOCK A
GROUND FLOOR

Drawn	Date	Checked	Scale @ A1
A.R.	MAY '17	R.M.	1 : 100

Drawing No.	Rev.
4435(A)-S-010	P4



1ST FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES
2. REFER TO DRAWING No. 4435(A)-S-002 FOR DEMOLITION PLANS

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By
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Drawing Status

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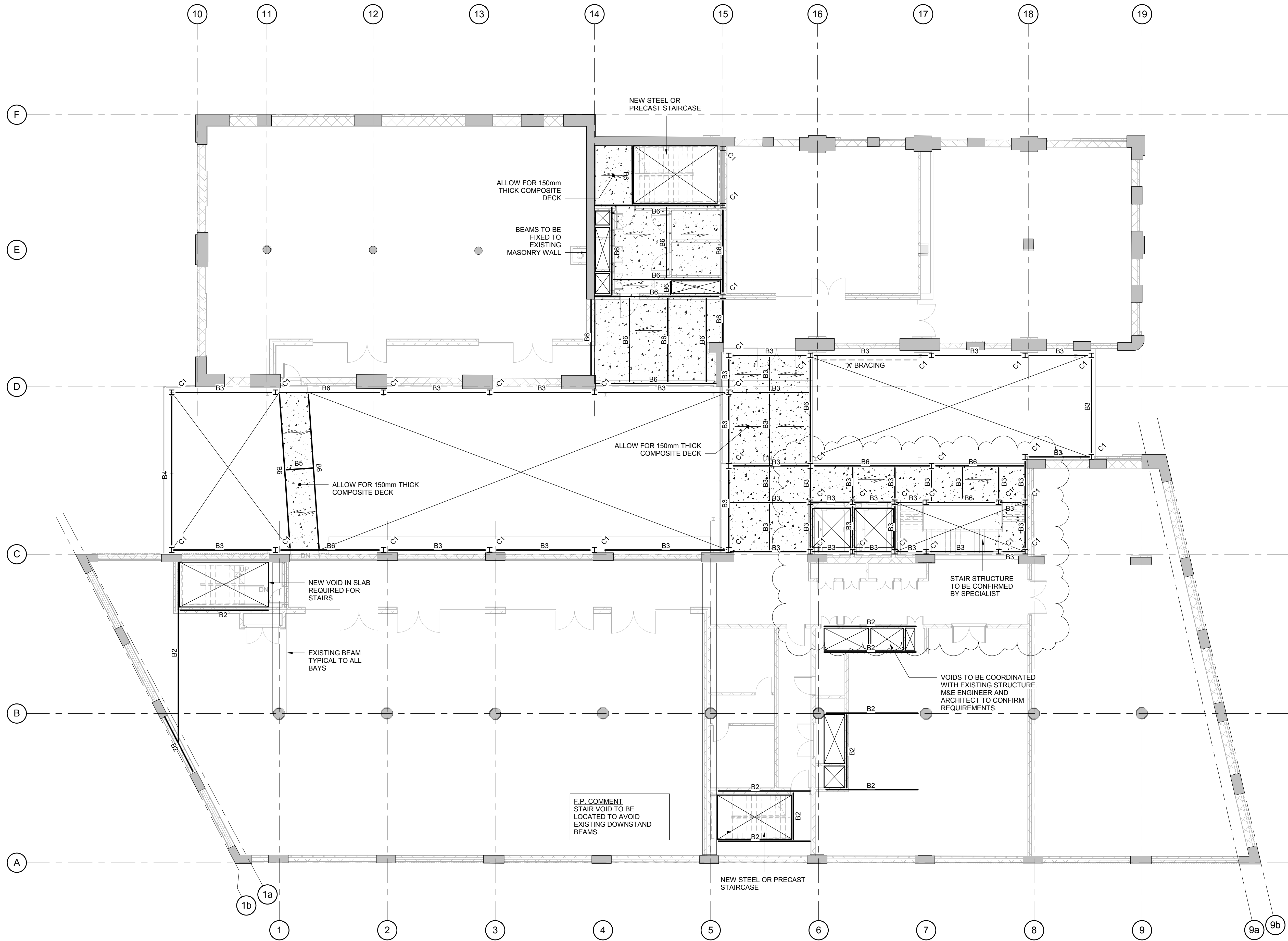
Bradford The Paper Hall, Annie Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
**BLOCK A
1ST FLOOR**

Drawn A.R.	Date MAY '17	Checked R.M.	Scale @ A1 1 : 100
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Drawing No. 4435(A)-S-011	Rev. P4
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2ND FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES
2. REFER TO DRAWING No. 4435(A)-S-002 FOR DEMOLITION PLANS

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By

Drawing Status

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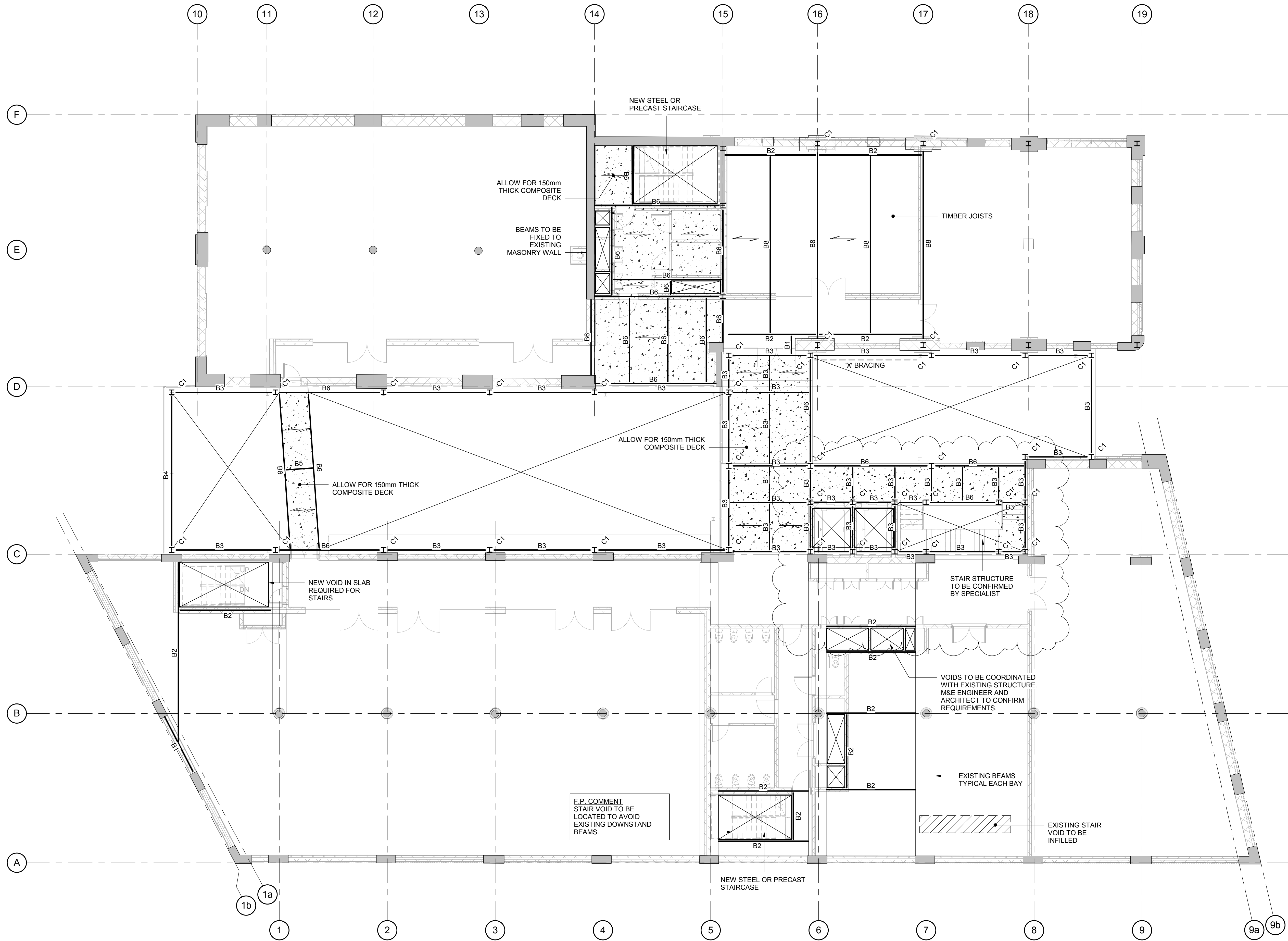
Bradford The Paper Hall, Annie Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
**BLOCK A
2ND FLOOR**

Drawn A.R.	Date MAY '17	Checked R.M.	Scale @ A1 1 : 100
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Drawing No. 4435(A)-S-012	Rev. P4
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3RD FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES.
2. REFER TO DRAWING No. 4435(A)-S-003 FOR DEMOLITION PLANS

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By
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Drawing Status

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tel: 020 7490 4353 fax: 020 7490 4354
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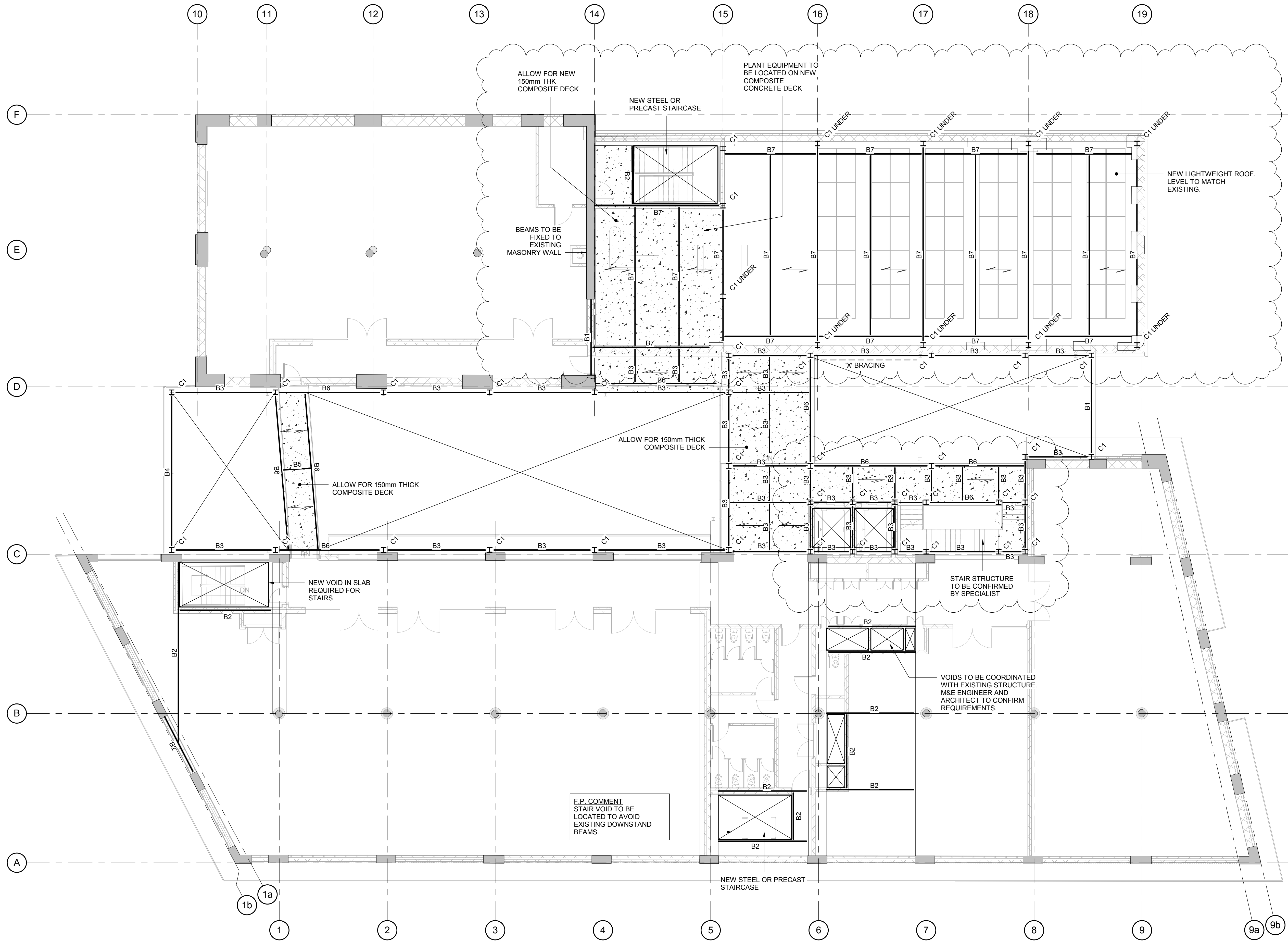
Bradford The Paper Hall, Annie Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
**BLOCK A
3RD FLOOR**

Drawn A.R.	Date MAY '17	Checked R.M.	Scale @ A1 1 : 100
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Drawing No. 4435(A)-S-013	Rev. P4
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4TH FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES.
2. REFER TO DRAWING No. 4435(A)-S-003 FOR DEMOLITION PLANS

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By
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Drawing Status

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tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project

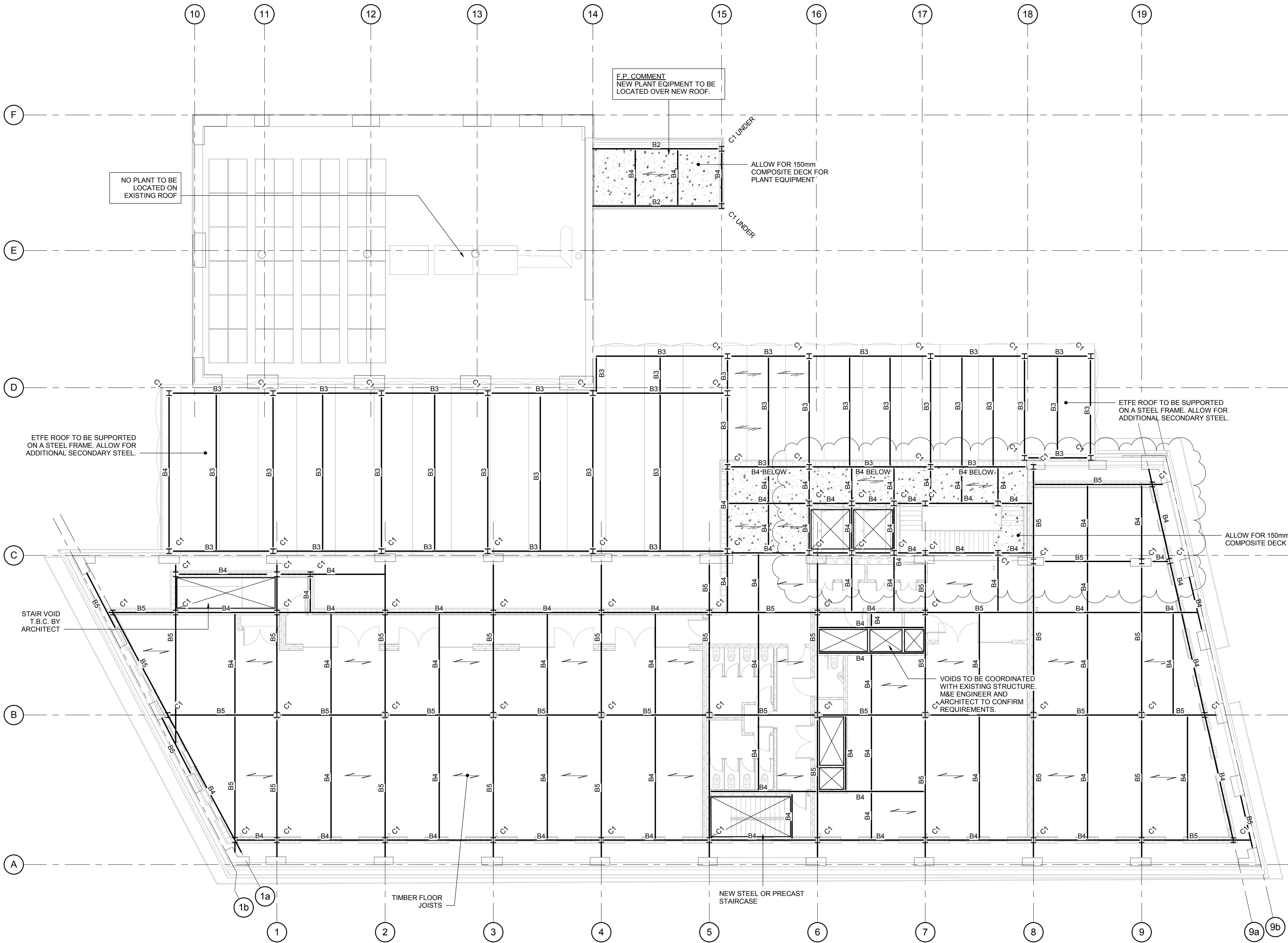
CHOCOLATE FACTORY

Drawing Title

BLOCK A
4TH FLOOR

Drawn	Date	Checked	Scale @ A1
A.R.	MAY '17	R.M.	1 : 100

Drawing No.	Rev.
4435(A)-S-014	P4



5TH FLOOR PLAN
SCALE 1 : 100

GENERAL NOTES

1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES.

COLUMN SCHEDULE

MARK	MEMBER
C1	254x254x73 UC

MEMBER SCHEDULE

MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

NOTE:

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO B COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF AL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.

P4	09.10.17	LAYOUT AMENDED	SF
P3	07.06.17	BEAM SIZES AMENDED	SF
P2	05.05.17	PRELIMINARY ISSUE	AR
P1	16.02.17	ISSUE FOR TENDER	PD

Rev	Date	Comment	By
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Drawing Status: PRELIMINARY

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tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project: CHOCOLATE FACTORY

Drawing Title: BLOCK A
5TH FLOOR

Drawn A.R.	Date MAY '17	Checked R.M.	Scale @ A1 1 : 100
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Drawing No. 4435(A)-S-015	Rev. P4
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1. REFER TO DRAWING 4435-S-000 FOR GENERAL NOTES.

MEMBER SCHEDULE	
MARK	MEMBER
B1	203x203x46 UC
B2	254x254x73 UC
B3	254x146x43 UB
B4	203x203x86 UC
B5	254x254x89 UC
B6	356x171x57 UB
B7	254x254x132 UC
B8	254x254x167 UC

- ALL STEEL COLUMNS IN THE NEW ATRIUM TO BE TIED BACK TO THE EXISTING STRUCTURE.
- LOCATION OF SERVICE PENETRATIONS TO BE COORDINATED WITH EXISTING STRUCTURE.
- POSITIONS/TYPES OF ALL EXISTING STRUCTURE T.B.C. ON SITE.
- ALL SERVICE VOIDS TO AVOID EXISTING STRUCTURE INCLUDING PRIMARY DOWNSTAND BEAMS.



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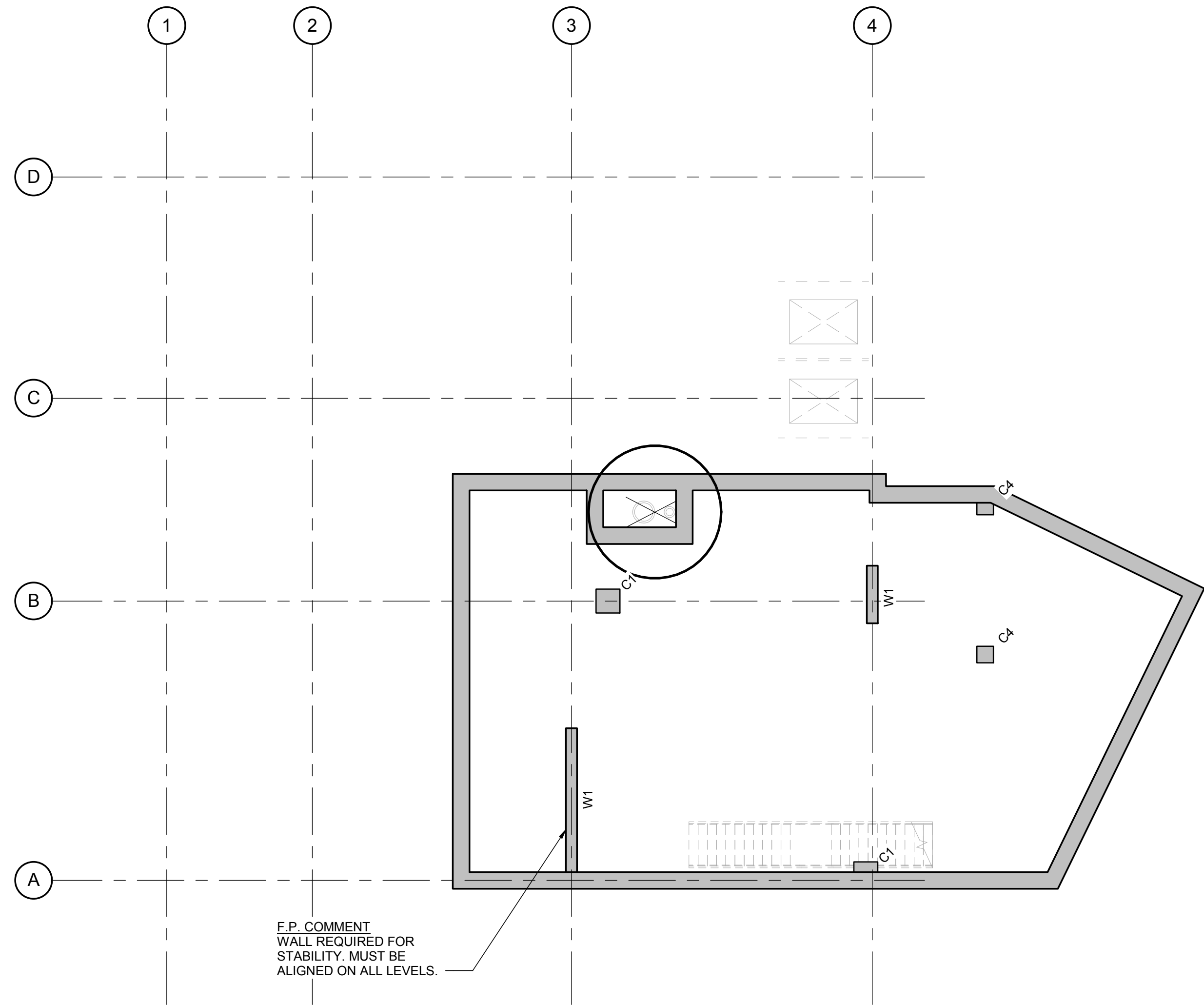
Consulting Structural/Civil Engineers

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 e-mail: info@furnesspartnership.com

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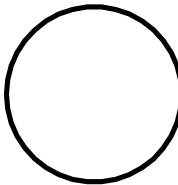
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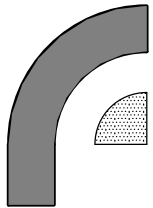
Drawn A.R.	Date MAY '17	Checked R.M.	Scale @ A1 1 : 100
Drawing No. 4435(A)-S-016			Rev. P4

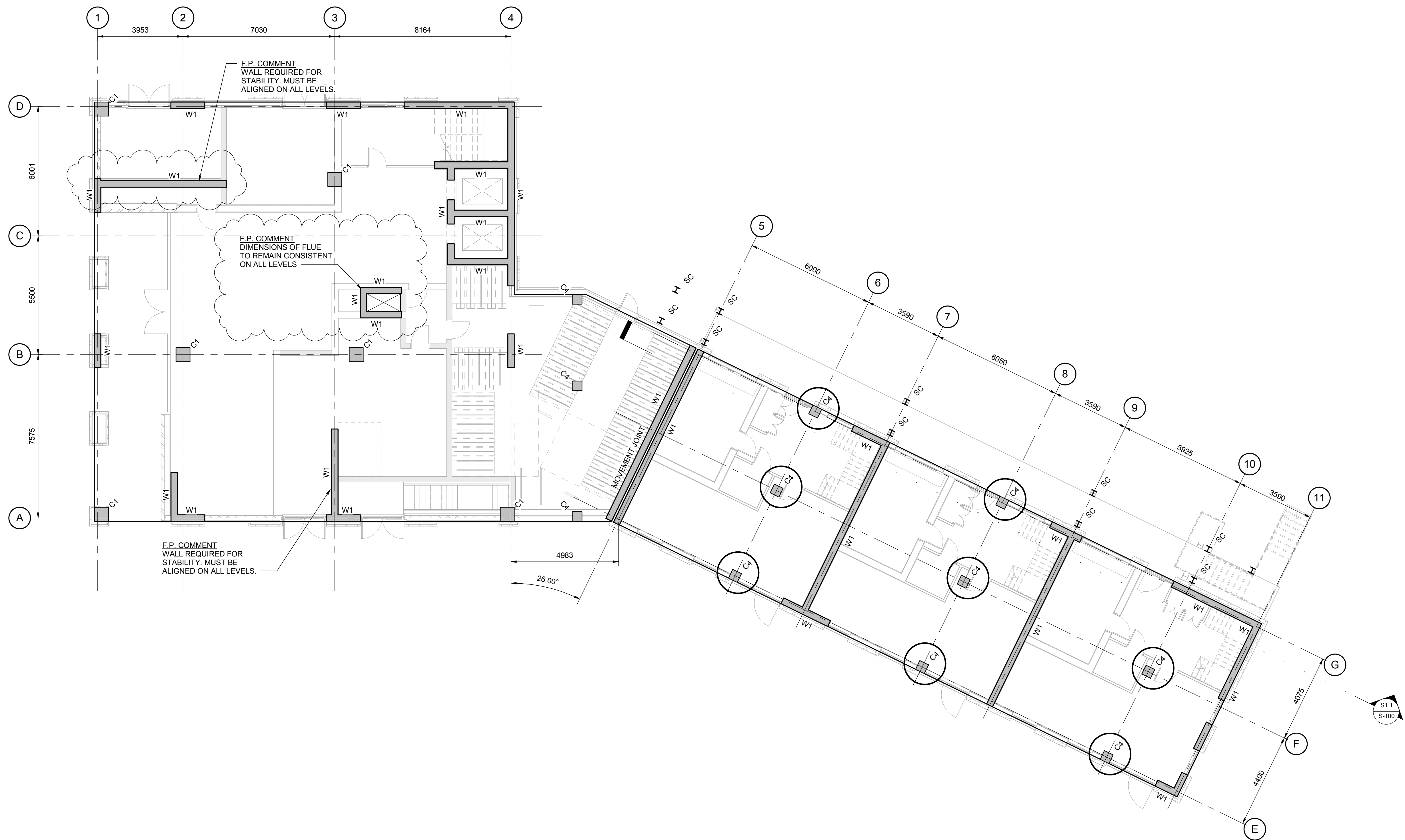


BASEMENT PLAN
SCALE 1 : 100

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

 AREAS REQUIRING
FURTHER COORDINATION

P1	09.10.17	PRELIMINARY ISSUE		SF
Re	Date	Comment		By
Drawing Status		PRELIMINARY		
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		Furness Partnership Consulting Structural/Civil Engineers		
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Project				
CHOCOLATE FACTORY				
Drawing Title				
BLOCK B BASEMENT PLAN				
Drawn	Date	Checked	Scale @ A1	
A.R.	MAY '16	R.M.	As indicated	
Drawing No.			Rev.	
4435(B)-S-000			P1	



GROUND FLOOR
SCALE 1 : 100

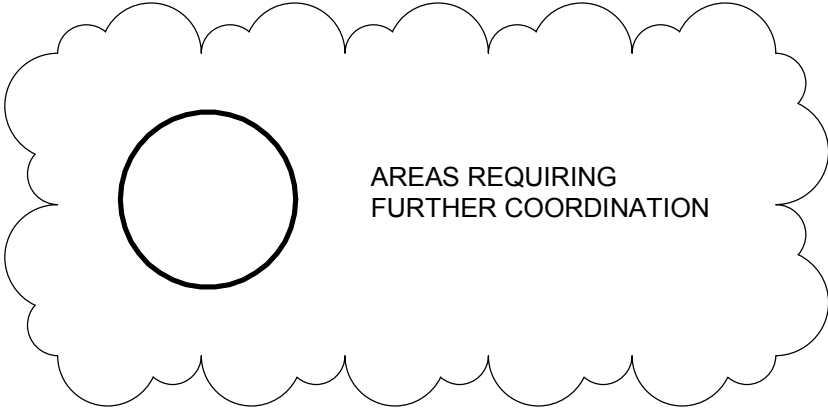
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



P3	09.10.17	STAIRS / WALLS AMENDED. NOTES ADDED	SF
P2	30.11.16	PRELIMINARY ISSUE	PD
P1	06.10.16	PRELIMINARY ISSUE	AR
Re	Date	Comment	By

Drawing Status
PRELIMINARY

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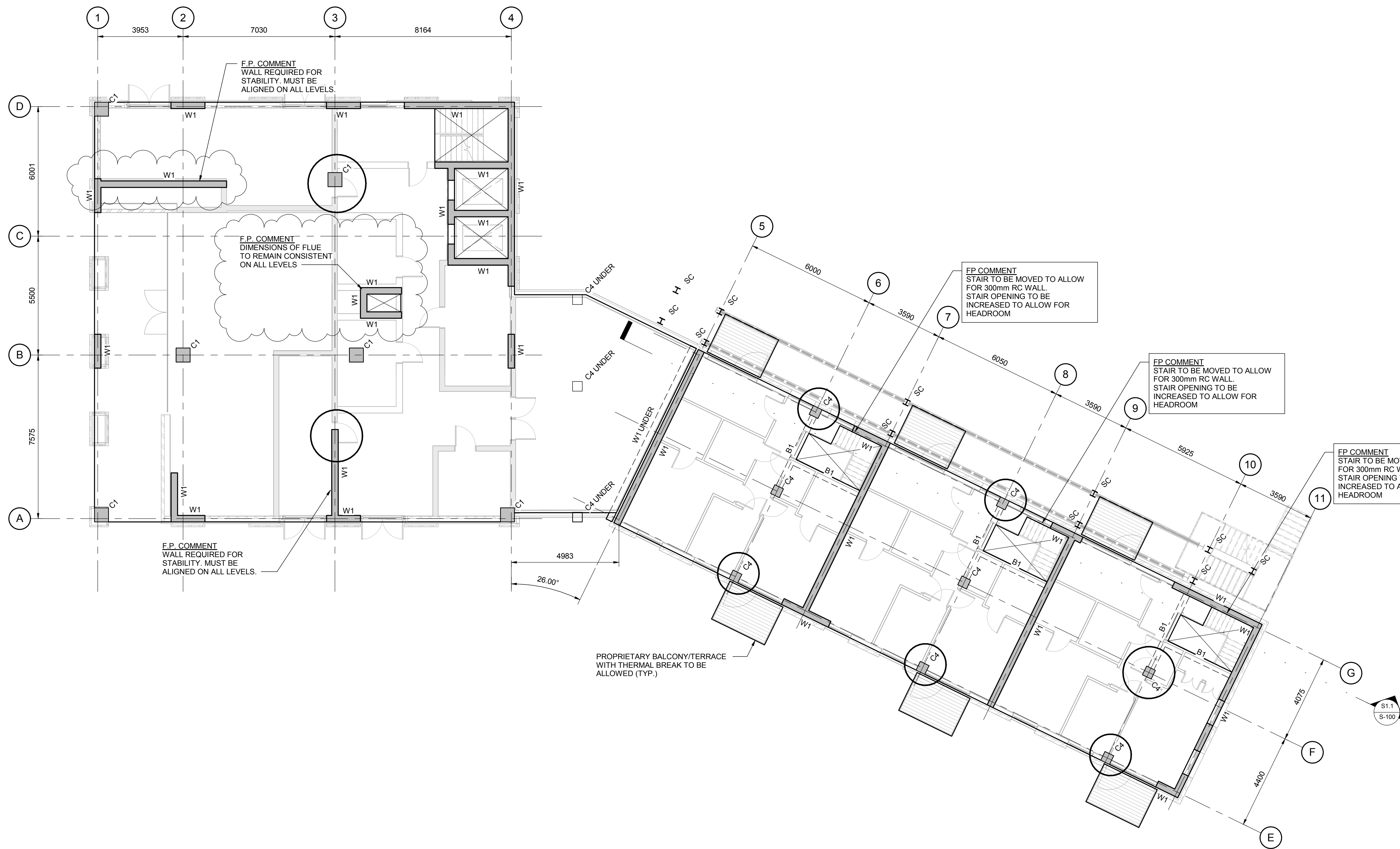
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e-mail: info@furnesspartnership.com
Bradford The Paper Hall, Anne Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
BLOCK B
GROUND FLOOR PLAN

Drawn AR	Date OCT '16	Checked LL	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-001	Rev. P3
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1ST FLOOR
SCALE 1 : 100

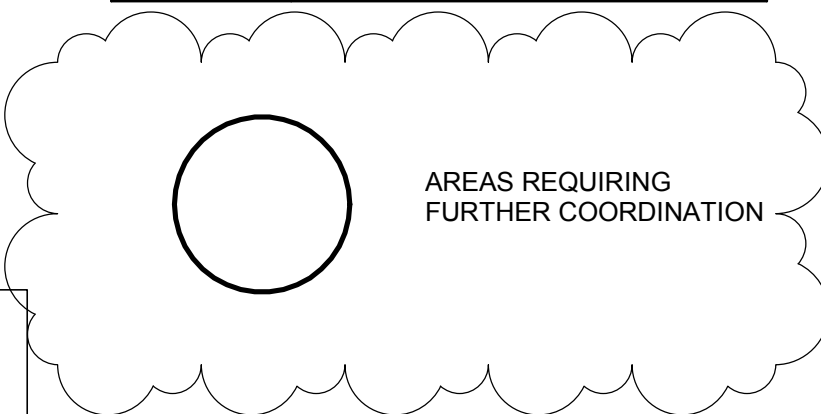
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



P3	09.10.17	STAIRS / WALLS AMENDED. NOTES ADDED	SF
P2	30.11.16	PRELIMINARY ISSUE	PD
P1	06.10.16	PRELIMINARY ISSUE	AR
Re	Date	Comment	By

Drawing Status: **PRELIMINARY**

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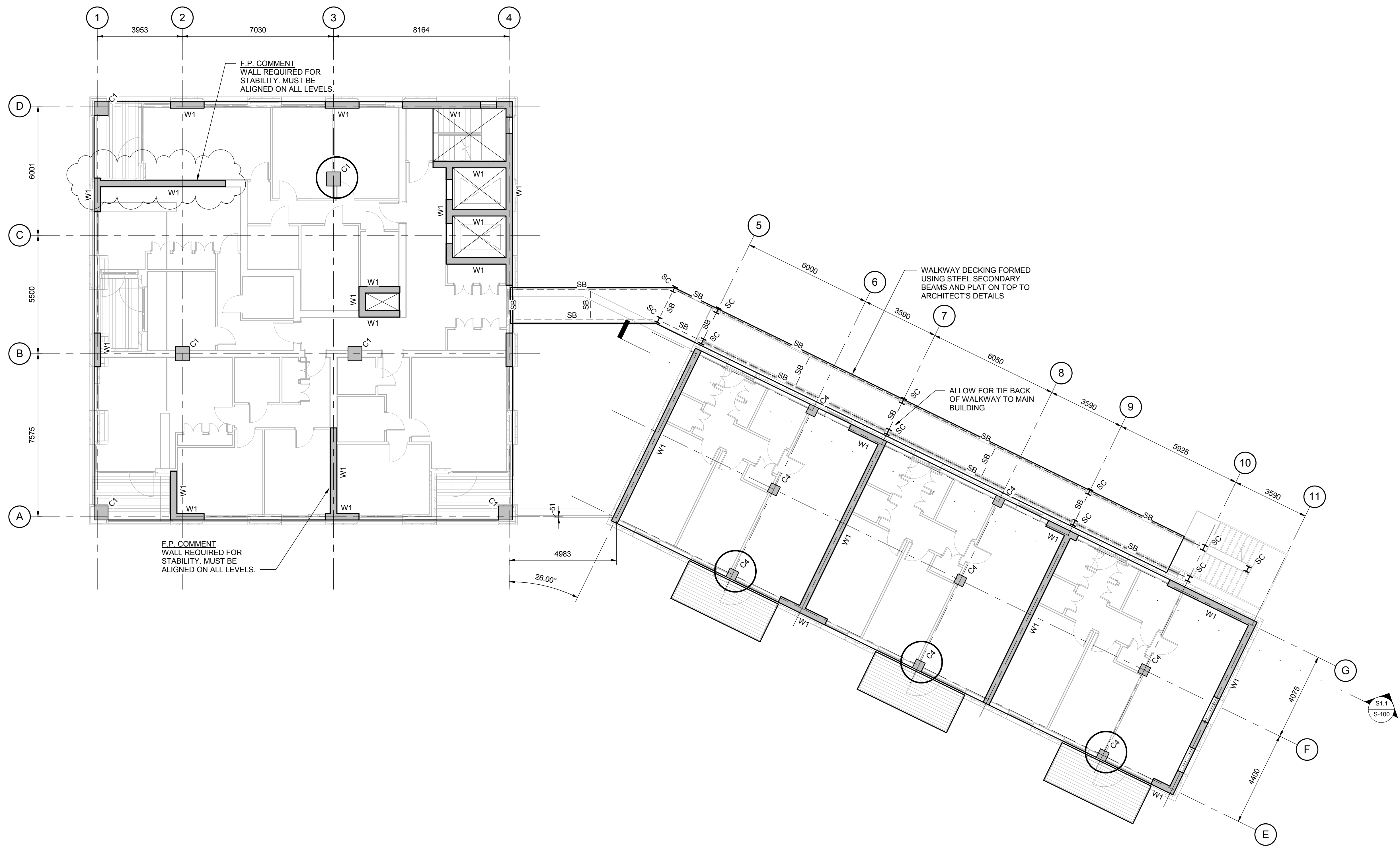
□ Bradford The Paper Hall, Anne Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project: **CHOCOLATE FACTORY**

Drawing Title: **BLOCK B
1ST FLOOR PLAN**

Drawn AR	Date OCT '16	Checked LL	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-002	Rev. P3
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2ND FLOOR
SCALE 1 : 100

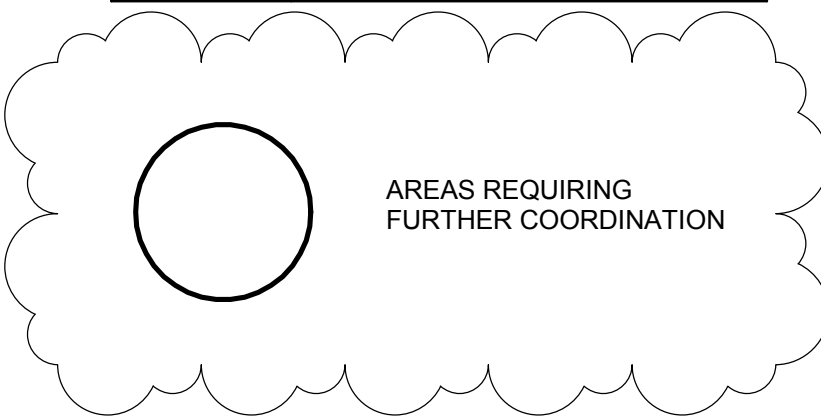
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



P3	09.10.17	STAIRS / WALLS AMENDED. NOTES ADDED	SF
P2	30.11.16	PRELIMINARY ISSUE. DRAWING RE-NAMED	PD
P1	06.10.16	PRELIMINARY ISSUE	AR
Re	Date	Comment	By

Drawing Status	PRELIMINARY
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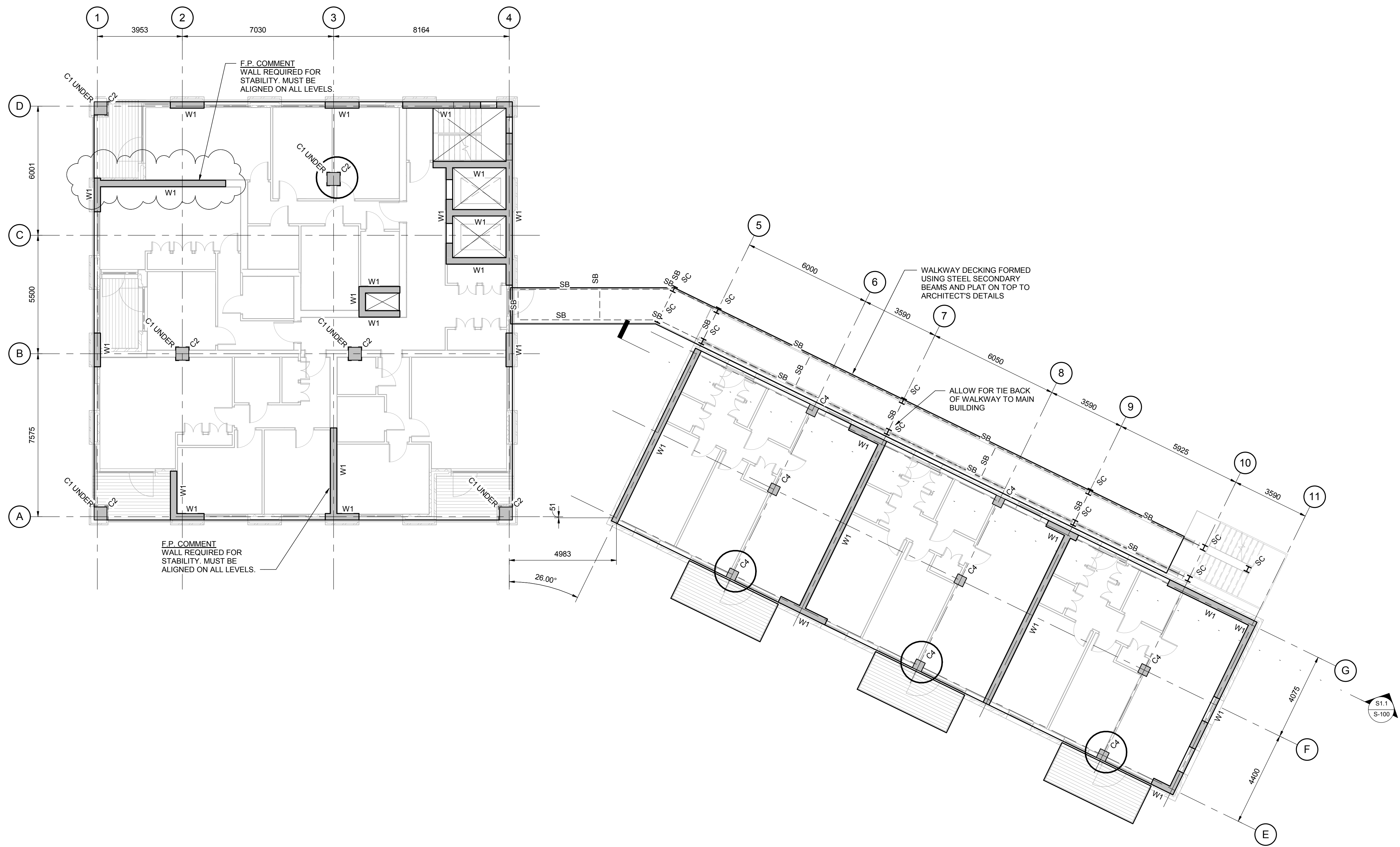
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tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
BLOCK B
2ND FLOOR PLAN

Drawn AR	Date OCT '16	Checked LL	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-003	Rev. P3
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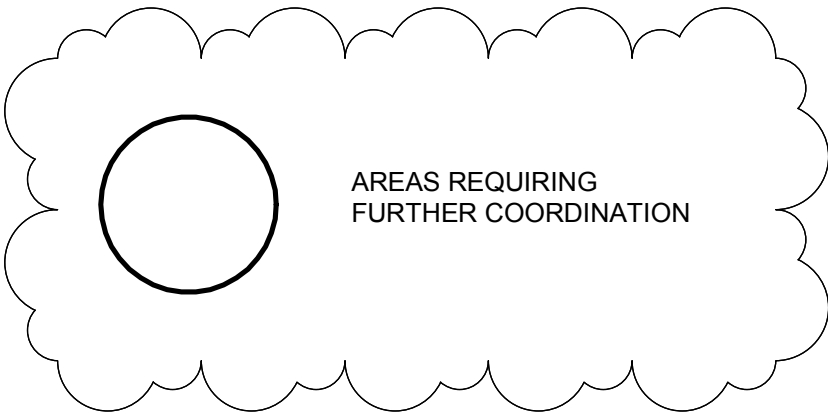
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



3RD FLOOR
SCALE 1 : 100

P3	09.10.17	STAIRS / WALLS AMENDED. NOTES ADDED	SF
P2	30.11.16	PRELIMINARY ISSUE. DRAWING RE-NAMED	PD
P1	06.10.16	PRELIMINARY ISSUE	AR
Re	Date	Comment	By

Drawing Status: **PRELIMINARY**

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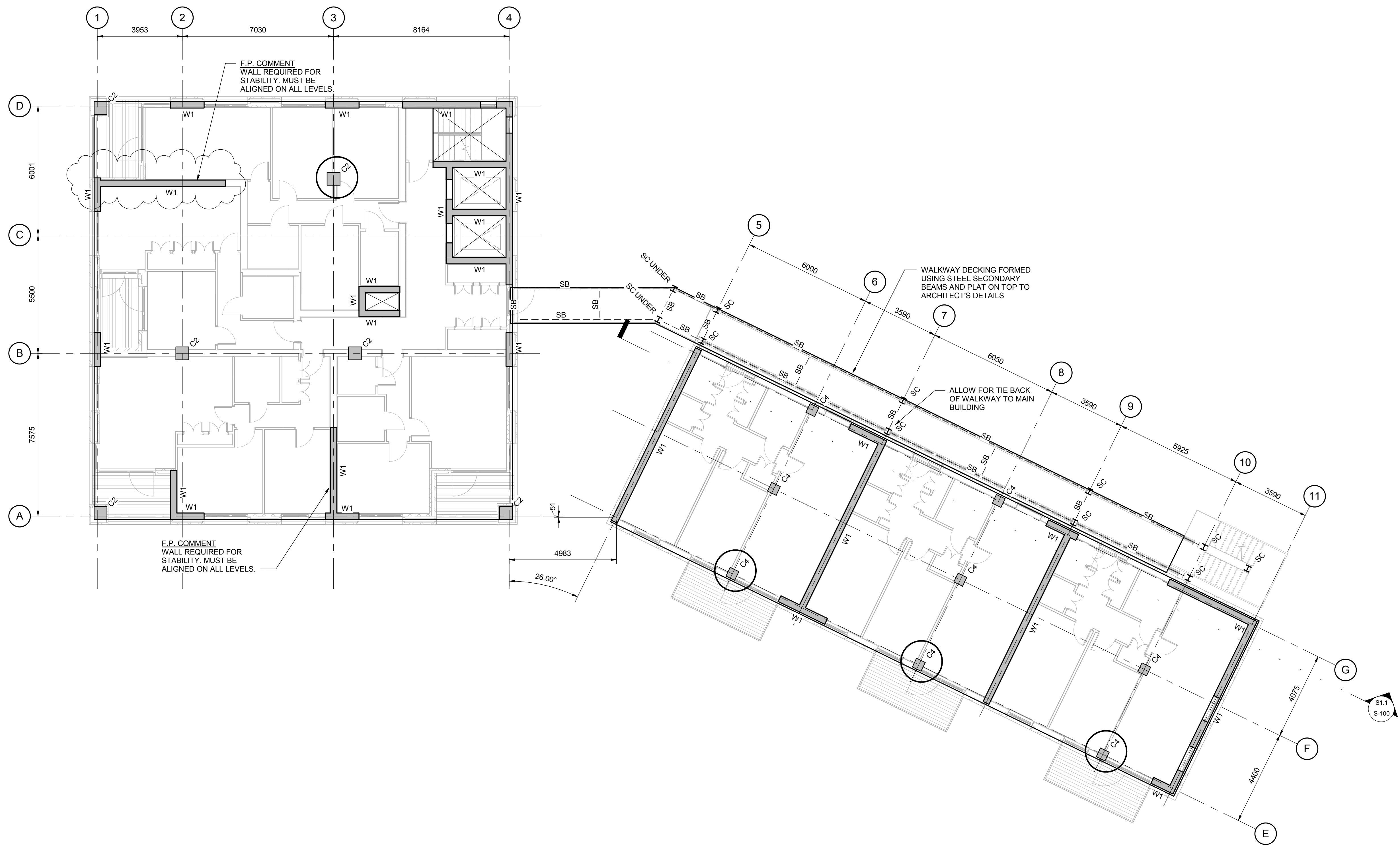
□ Bradford The Paper Hall, Anne Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project: **CHOCOLATE FACTORY**

Drawing Title: **BLOCK B
3RD FLOOR PLAN**

Drawn P.D.	Date NOV 2016	Checked R.M.	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-004	Rev. P3
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4TH FLOOR
SCALE 1 : 100

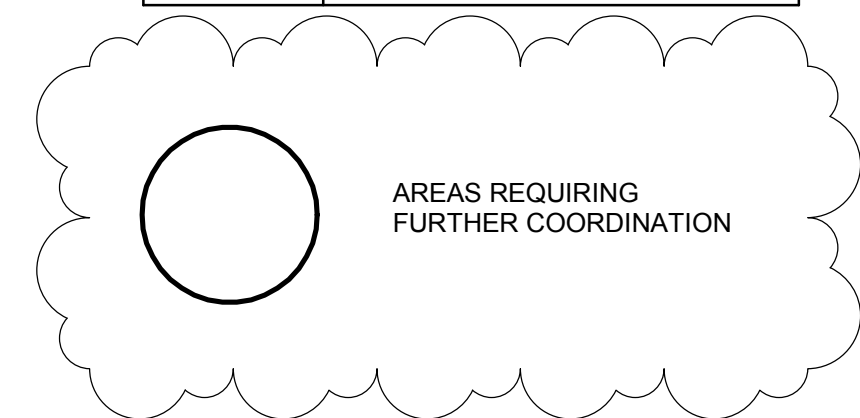
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

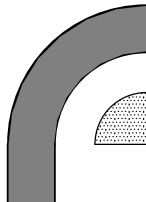
SLAB TO BE 275mm THICK RC SLAB

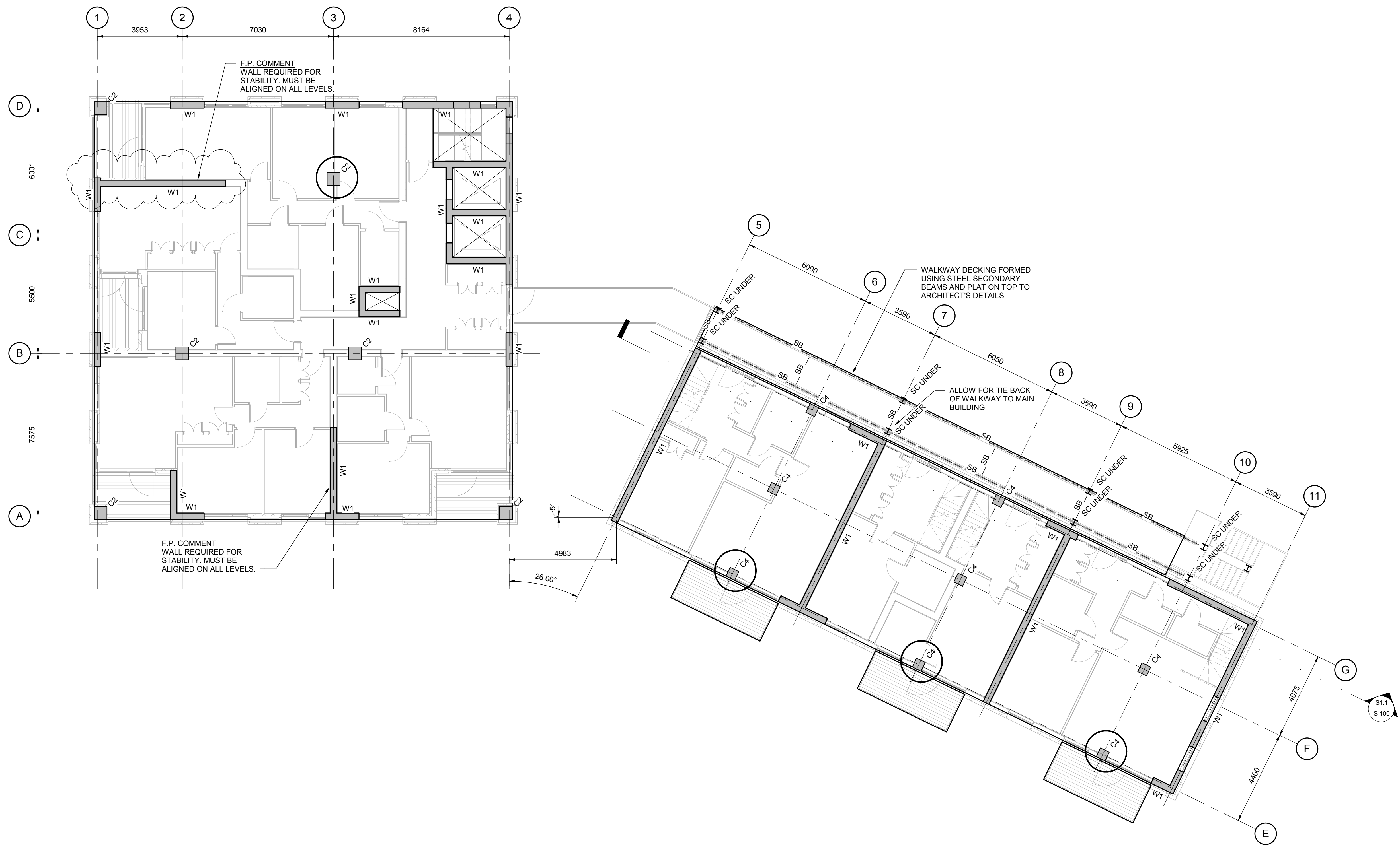
COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



P2	09.10.17	STAIRS / WALLS AMENDED, NOTES ADDED	SF
P1	30.11.16	PRELIMINARY ISSUE	PD
Re	Date	Comment	By
Drawing Status			
PRELIMINARY			
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		Furness Partnership Consulting Structural/Civil Engineers	
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☐ Bradford		The Paper Hall, Anne Gate, Bradford, BD1 4EQ tel: 01274 392092 e-mail: mail@furnesspartnership.com	
Project			
CHOCOLATE FACTORY			
Drawing Title			
BLOCK B 4TH FLOOR PLAN			
Drawn	Date	Checked	Scale @ A1
P.D.	NOV 2016	R.M.	As indicated
Drawing No.			Rev.
4435(B)-S-005			P2



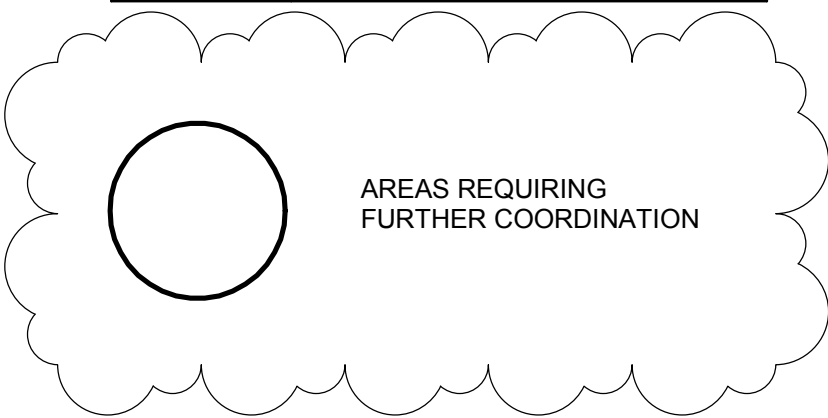
NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN



5TH FLOOR
SCALE 1 : 100

P2	09.10.17	STAIRS / WALLS AMENDED, NOTES ADDED	SF
P1	30.11.16	PRELIMINARY ISSUE	PD
Re	Date	Comment	By

Drawing Status	PRELIMINARY
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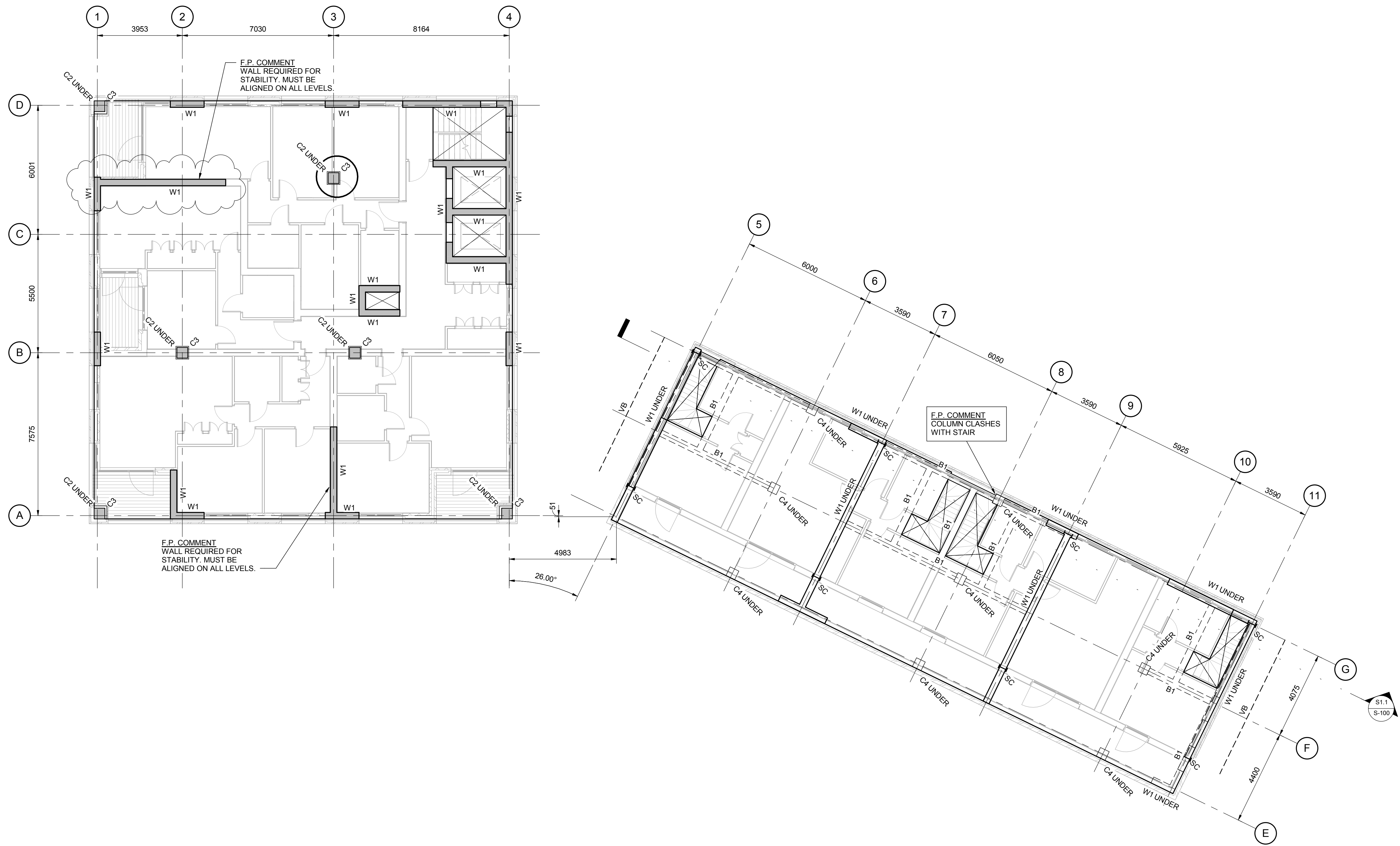
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e-mail: info@furnesspartnership.com
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e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
BLOCK B
5TH FLOOR PLAN

Drawn P.D.	Date NOV 2016	Checked R.M.	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-006	Rev. P2
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6TH FLOOR
SCALE 1 : 100

NOTE:
ALL PERIMETER
SLABS/COLUMNS/WALLS HAVE
BEEN SET-OUT SUCH THAT A 227mm
CLADDING ZONE IS
ACCOMMODATED

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN

MEMBER SCHEDULE	
MARK	MEMBER
B1	300 x 450mm DEEP RC BEAM

STEEL BEAM SCHEDULE	
MARK	MEMBER
SB	STEEL BEAM

BRACING SCHEDULE	
MARK	MEMBER
VB	10 X 150 VERTICAL CROSS BRACING

AREAS REQUIRING
FURTHER COORDINATION

P2	09.10.17	STAIRS / WALLS AMENDED, NOTES ADDED	SF
P1	30.11.16	PRELIMINARY ISSUE	PD
Re	Date	Comment	By

Drawing Status	PRELIMINARY
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Furness Partnership
Consulting Structural/Civil Engineers

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e-mail: info@furnesspartnership.com

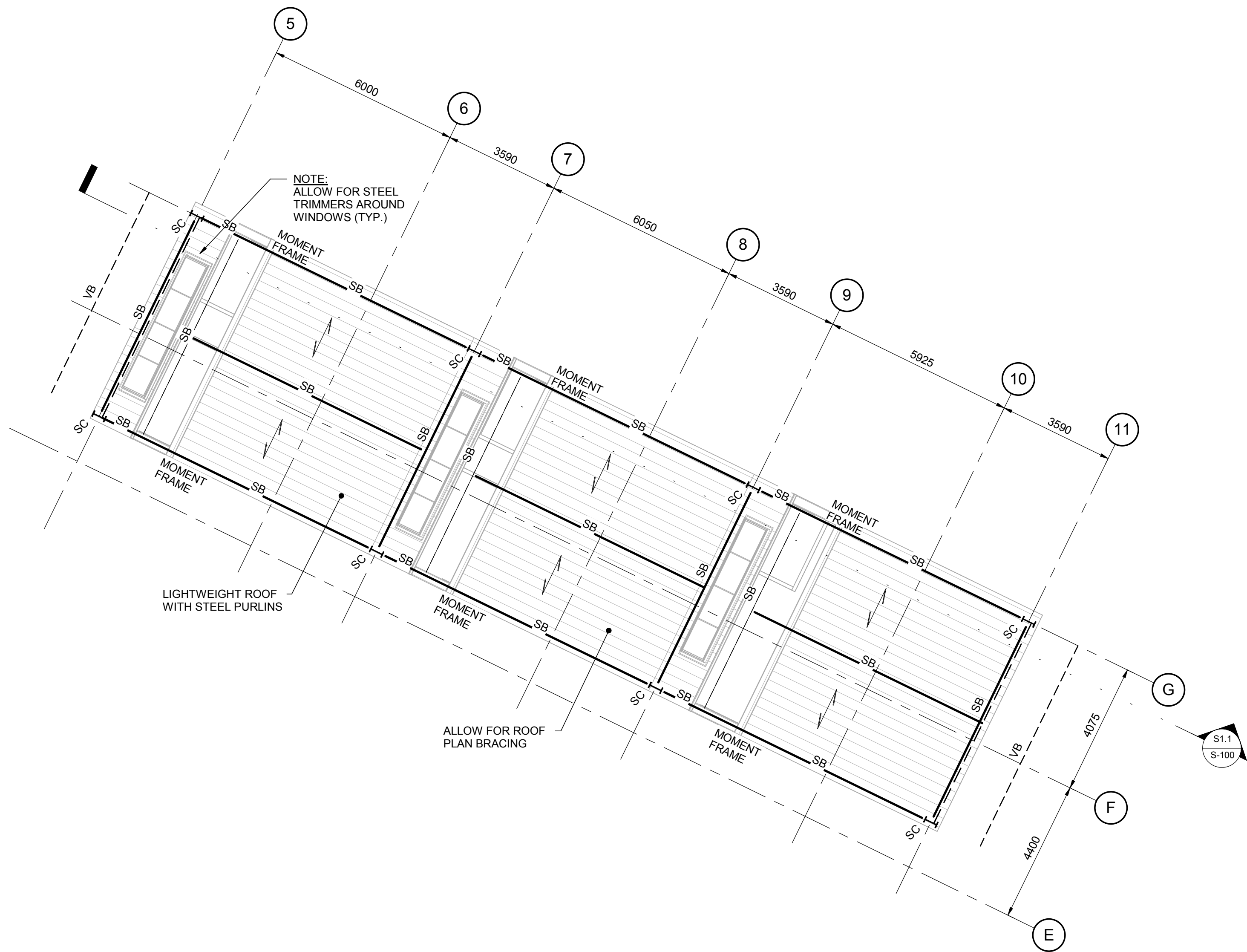
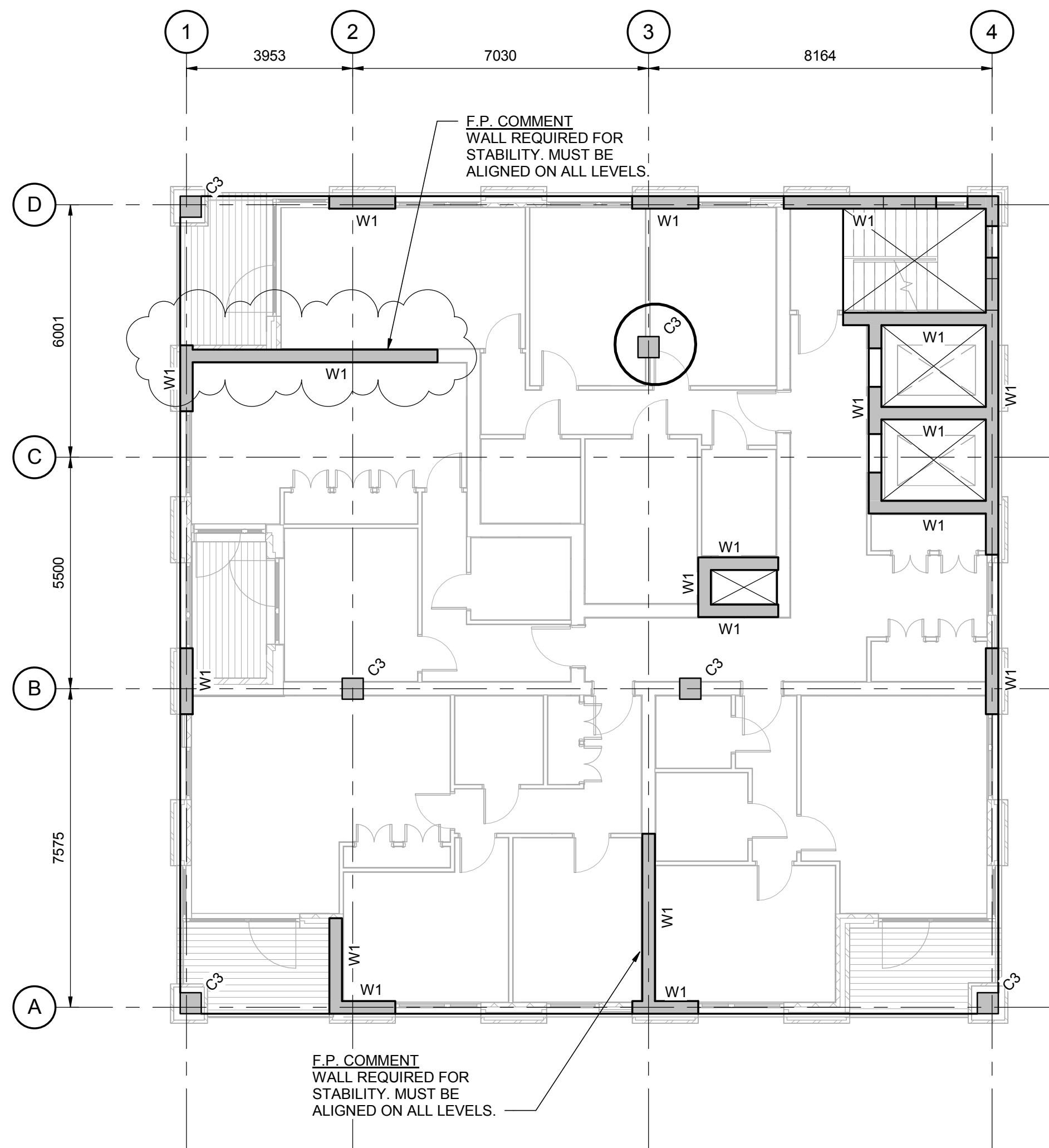
Bradford The Paper Hall, Anne Gate, Bradford, BD1 4EQ
tel: 01274 392092
e-mail: mail@furnesspartnership.com

Project
CHOCOLATE FACTORY

Drawing Title
BLOCK B
6TH FLOOR PLAN

Drawn P.D.	Date NOV 2016	Checked R.M.	Scale @ A1 As indicated
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Drawing No. 4435(B)-S-007	Rev. P2
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7TH FLOOR
SCALE 1 : 100

SLAB TO BE 275mm THICK RC SLAB

COLUMN SCHEDULE	
MARK	MEMBER
C1	650 x 650mm RC COLUMN
C2	600 x 600mm RC COLUMN
C3	500 x 500mm RC COLUMN
C4	450 x 450mm RC COLUMN

WALL SCHEDULE	
MARK	MEMBER
W1	300mm THK RC WALL

STEEL COLUMN SCHEDULE	
MARK	MEMBER
SC	STEEL COLUMN

MEMBER SCHEDULE	
MARK	MEMBER
B1	300 x 450mm DEEP RC BEAM

STEEL BEAM SCHEDULE	
MARK	MEMBER
SB	STEEL BEAM

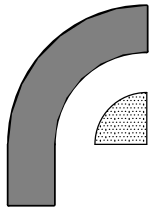
BRACING SCHEDULE	
MARK	MEMBER
VB	10 X 150 VERTICAL CROSS BRACING

AREAS REQUIRING
FURTHER COORDINATION

P2	09.10.17	STAIRS / WALLS AMENDED, NOTES ADDED	SF
P1	30.11.16	PRELIMINARY ISSUE	PD
Re	Date	Comment	By

Drawing Status: **PRELIMINARY**

This drawing may only be used for construction/manufacture if status is CONSTRUCTION



Furness Partnership
Consulting Structural/Civil Engineers

London

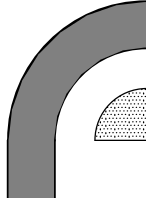
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Project CHOCOLATE FACTORY			
Drawing Title BLOCK B 7TH FLOOR PLAN			
Drawn P.D.	Date NOV 2016	Checked R.M.	Scale @ A1 As indicated
Drawing No. 4435(B)-S-008			Rev. P2



Drawing Status			
PRELIMINARY			
This drawing may only be used for construction/manufacture if status is CONSTRUCTION			
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