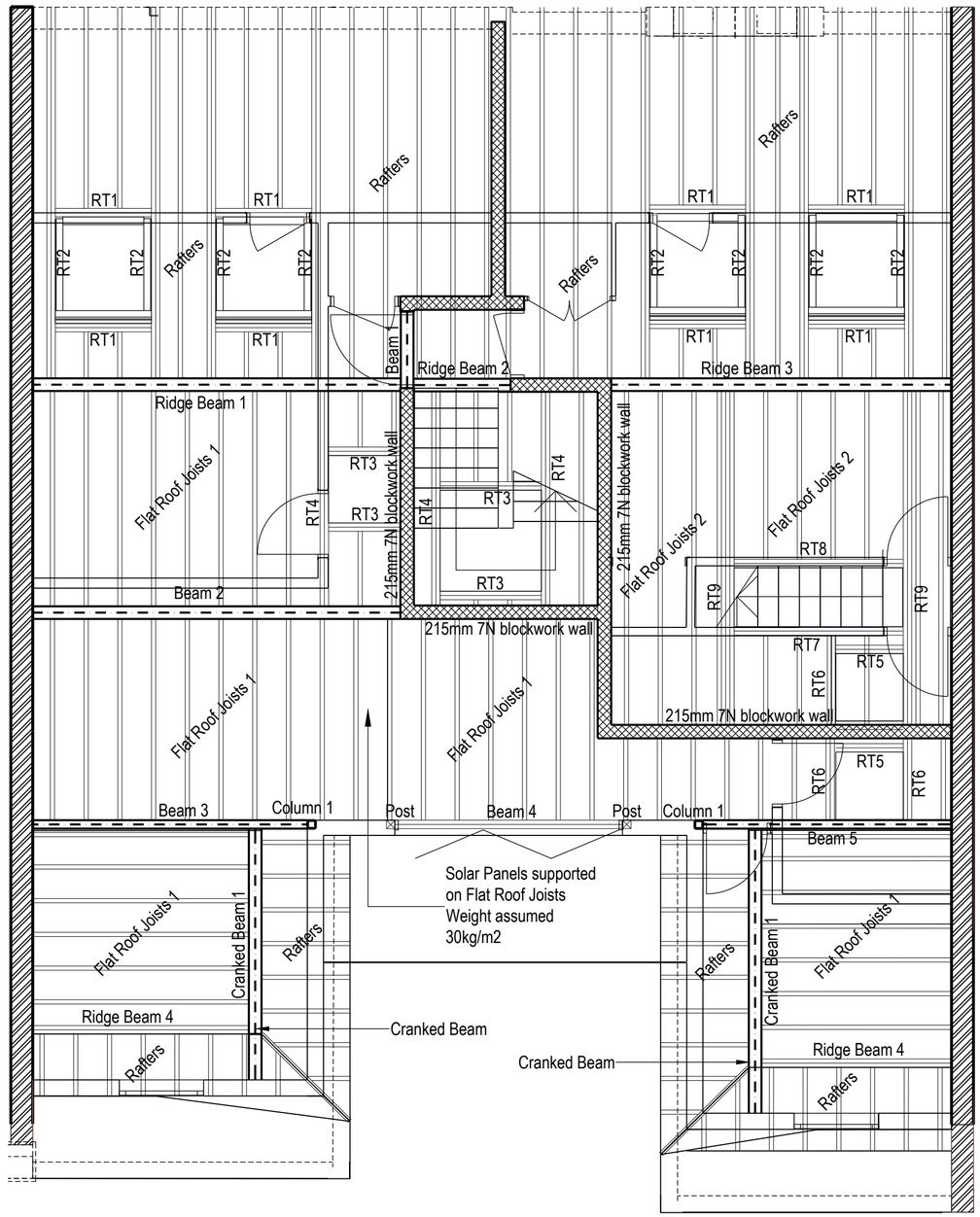

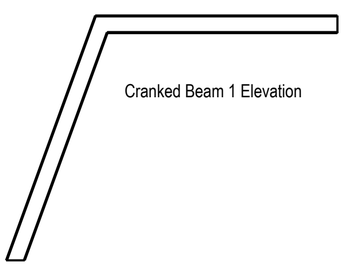

Design Summary

Roof Structure

1.	Rafters:	Minimum of 150x50 C24 rafters @ 400mm centres.
2.	RT1:	2/150x50 C24 joists bolted together.
3.	RT2:	2/150x50 C24 joists bolted together.
4.	Flat Roof Joists 1:	175x50 C24 joists @ 400mm centres
5.	Flat Roof Joists 2:	200x50 C24 joists @ 400mm centres
6.	RT3:	2/175x50 C24 joists bolted together.
7.	RT4:	2/175x50 C24 joists bolted together.
8.	RT5:	2/200x50 C24 joists bolted together.
9.	RT6:	2/200x50 C24 joists bolted together.
10.	RT7:	2/200x50 C24 joists bolted together.
11.	RT8:	2/200x50 C24 joists bolted together.
12.	RT9:	4/200x50 C24 joists bolted together.
13.	Ridge Beam 1:	152x152x30UC beam bearing 100mm into the party wall and on to a 300x100x15mm bearing plate at one end. At the other end beam to bear fully across beam 1 and be bolted down. Beam 1 is to be positioned below ridge beams and above door.
14.	Ridge Beam 2:	152x152x23UC beam which is to fix end to end to ridge beam 1. End plates welded on each end of beam and bolted with 4M12 bolts. At the other end beam to bear 150mm onto new masonry wall.
15.	Ridge Beam 3:	152x152x30UC beam bearing 100mm into the party wall and on to a 300x100x15mm bearing plate at one end. At the other end beam to bear 200mm onto a 250x215x150mm padstone on new blockwork wall.
16.	Beam 1:	152x152x23UC beam bearing 150mm at one end and bearing 300mm at the ridge beam ends on to a 350x215x20mm bearing plate.
17.	Beam 2:	Either provide a 152x152x30UC beam or a 203x133x30UB beam bearing 100mm onto party wall on to a 300x100x15mm bearing plate and bearing 150mm onto new wall at the other end.
18.	Beam 3:	203x133x30UB beam which is to bear 100mm into party wall on to a 350x100x15mm bearing plate. At the other end beam supported by column 1.
19.	Beam 4:	2/200x50 C24 joists bolted together supporting by timber posts
20.	Beam 5:	203x133x30UB beam which is to bear 100mm into party wall on to a 350x100x15mm bearing plate. At the other end beam supported by column 1.
21.	Ridge Beam 4:	2/175x50 C24 joists bolted together fixed to cranked beam 1 and bearing onto party wall.
22.	Cranked Beam 1:	203x133x30UB beam which is cranked down the mansard roof and is supported by beam within the floor. At the flat roof end beam fixed to steel beam at roof level.
23.	Column 1:	100x100x5.0 SHS column fixed to beam in the floor below.

GENERAL SPECIFICATIONS

Structural Steelwork

1. All Materials and workmanship to be in accordance with BS5950
2. Structural Steelwork sections to be Grade S275JR for internal steel and S275J2 for external steel in accordance with EN10025: Part 2:2004
3. Bolts to be Grade 8.8 unless noted otherwise
4. Welds to be 6mm continuous fillet, unless noted otherwise
5. Contractor to verify all dimensions on site before commencing any work or making fabrication drawings which are to be issued to the engineer for approval. No dimensions are to be taken from drawings. Discrepancies are to be reported to the engineer prior to proceeding. The engineer requires 7 working days to check and make comments on any fabrication drawings.
6. Steel fabricator to design all connections for maximum moments and reactions indicated on drawings or within the calculation document issued to the contractor unless part of the engineers design brief.
7. Steelwork which is not required to be galvanised or encased in concrete to be blast cleaned/wire brushed free from mill scale, rust and other contaminants and painted with two coats of approved primer as soon as possible but no longer than 4 hours after cleaning.
8. Uncased columns and beams located within an external wall to have a minimum gap of 40mm from face of external or alternately 25mm minimum impermeable insulation from the face of the steel the external wall, unless galvanised.
9. All steel encased in concrete to be unpainted.
10. All pockets formed in brickwork or blockwork for steel beams to be made good in C35 Concrete.
11. Steels to have a minimum bearing of 100mm
12. External Steelwork and where otherwise noted to be galvanised to a minimum of 140 microns thickness unless noted otherwise and in accordance with BS728.
13. HSFG bolt connections are to be metal to metal and painted on site after the connection has been completed and load indicating washers are in their final position
14. Steel members to have adequate protection against fire, the following gives different options for plasterboard or intumescent paint depending on the time resistance required the plasterboard are based on using the GypLyner ENCASE system .

Time Required	Fireline (mm)	Glasroc F Firecase (mm)	Intumescent Paint
30 mins	12.5	15	Specialist Advice
60 mins	12.5 , 15 or (2 x 12.5)	15	Specialist Advice
90 mins	(2 x 12.5) or (15 + 12.5)	15	Specialist Advice

Masonry

1. All Materials and workmanship to be in accordance with BS5628 Code of Practice for the Structural Use of Brickwork
2. Brickwork to have average crushing strength of 20.5N/mm2 unless noted otherwise
3. Blockwork belowground to be high density concrete blocks with a minimum compressive strength of 10N/mm2, above ground provide aerated lightweight blocks with a minimum compressive strength of 7.3N/mm2 unless otherwise
4. Mortar to be Class ii below ground and Class iii above ground unless noted otherwise.
5. 'Hyload' DPC or similar approved to all walls.
6. Wall ties to be stainless steel vertical twist type ties to comply with BS EN 845-1:2013+A1:2016 at a maximum spacing of 900mm horizontally and 450mm vertically where the least thickness of masonry leaf is 90mm . Minimum embedment length of 50mm in the mortar joints of both leaves unless noted otherwise. Where one or both masonry leaves are <90mm ties to be placed 450mm vertically and horizontally. Additional ties to be provided at the sides of all openings or movement joints so that there is at least one tie at 300mm c/c maximum
7. Wall ties shall not slope inwards
8. Brickwork restraints to be in accordance with BS5628 PT 1 at 1200mm c/c restraints to brickwork and 1200mm c/c for vertical straps.
9. Movement Joints: To be installed in clay brickwork walls which exceed 12m length or blockwork walls exceeding 6m length. This applies to any straight length of wall without returns. For brickwork a 16mm joint is required, for blockwork a 10mm joint is required. The movement joint should not be located within the first or last 550mm of the wall. Movement joints should be applied in full height masonry between openings. Movement joints to be installed in accordance with BS5628-3:2005
10. At brick/block junctions, brickwork is to be block bounded into blockwork unless noted otherwise.
11. Where blocks are laid flat they are to be solid concrete blocks.
12. Lintel Bearings to be in accordance with manufacturers recommendations.
13. Where new masonry abuts existing provide ancon wall starter system in accordance with their specifications or similar approved.

Timber

1. All Materials and workmanship to be in accordance with BS5268: Part 2 - Structural Use of Timber
2. Roof Trusses and bracing to be designed and detailed by specialist subcontractor. Trusses to be designed and fabricated in accordance with BS5268: Parts 2 & 3
3. All timbers to have a minimum grade of C16 (unless noted otherwise) and to have maximum moisture content of 18%
4. Joists to have a minimum end bearing of 50mm
5. Ends of joists built into cavity walls should not project into the cavity, and should be painted with two coats of bituminous primer
6. Multiple timber members to be bolted together at 600c.c. with M12 Bolts and 50x50x3mm washers unless noted otherwise.
7. No notches, holes or rebates etc. to be cut in any member without the written consent of the engineer
8. All structural timber to be adequately protected against adverse weather conditions during stacking and after erection
9. All structural timber to be treated by vacuum pressure impregnation of organic or waterborne preservative, to a dry salt retention in accordance with the manufacturer's recommendations. Type of treatment may be: - 'Tanalith', 'Celcure', 'Promtim', or other only with the prior approval of the Architect.
10. All fixings in the roof space are to be galvanised unless noted otherwise
11. Strutting Requirement
    a. <2.5m non required
    b. 2.5m - 4.5m at mid-span
    c. >4.5m at 1/3 span points
12. Where strutting is required provide solid strutting with a minimum thickness of 38mm and a depth no less than ¾ of the joist depth.
13. Strutting should be blocked solidly to perimeter walls
14. Strutting or blocking should not block the ventilation space in cold deck flat roofs
15. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1200 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres, in accordance with CP111 Part 2.
16. Where purlins are designed to support the rafters, rafters are to be birds mouthed to the purlin.

NOTES

ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION and ANY DISCREPANCY REPORTED TO THE ARCHITECT and ENGINEER

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTS and OTHER ENGINEERS DRAWINGS TOGETHER WITH THE SPECIFICATION

DO NOT SCALE OFF OF THIS DRAWING

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CDM DESIGNERS RISK ASSESSMENT

1. All Excavations to be shored to prevent collapse.
2. All Excavations to be covered or barriers provided to prevent falling into the excavation.
3. For the removal or opening up of load bearing walls provide adequate temporary support such as props. Ensure props are installed by a competent person.
4. All ladders and platforms to be checked before use by a competent person.
5. All on site personnel to wear adequate PPE as advised by main contractor.
6. For the erection of steelwork consideration must be given to the lifting of all beams.
7. Mechanical handling of steelwork into buildings should be considered.

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Job

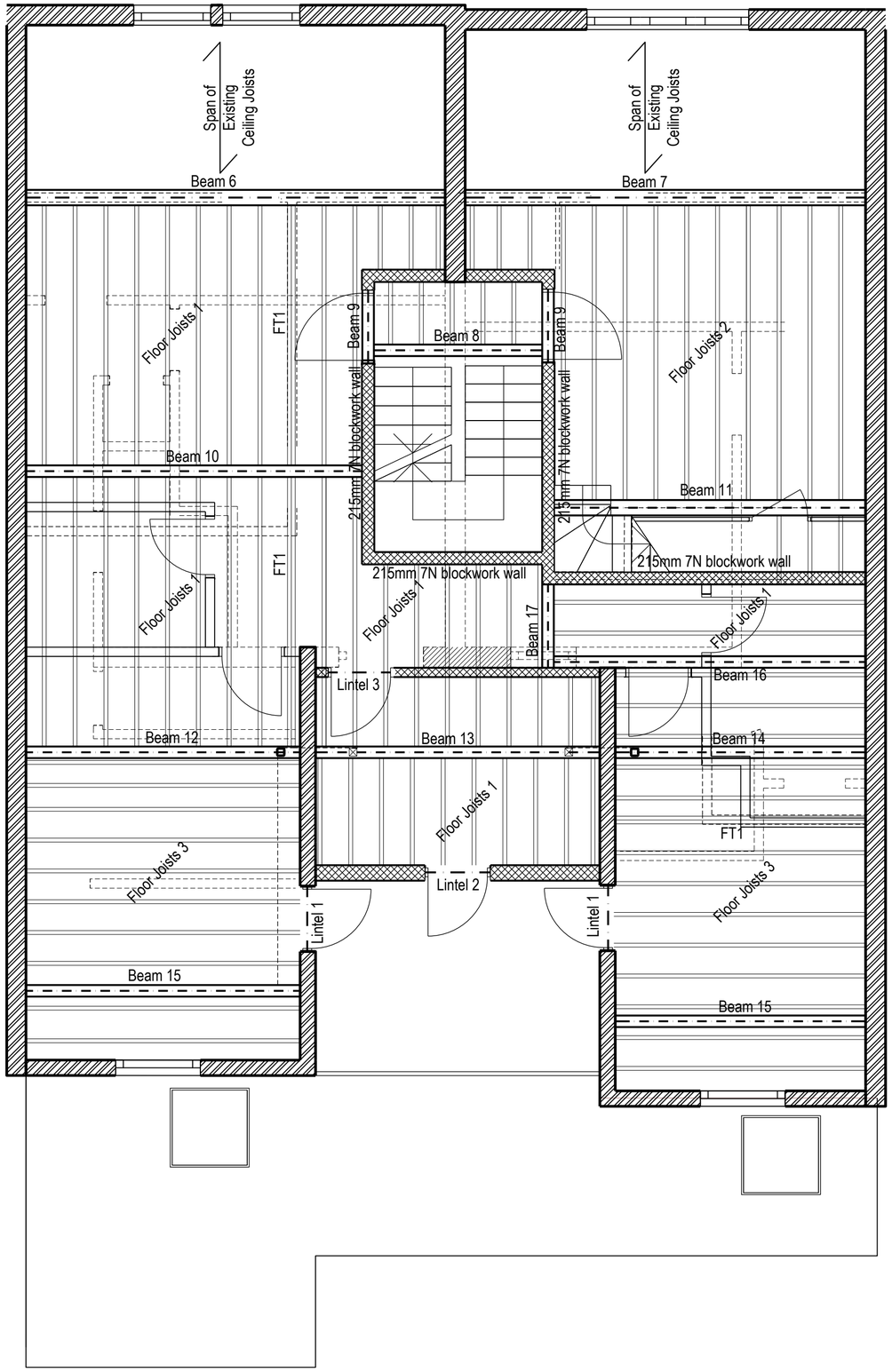
834-836 Garratt Lane,
Tooting
London
SW17 0NA

Subject

Building Regulations
Loft Floor Plan Showing Structure Above

Scale	Date
1:50 @ A2	Februrary 2025

Drawn	Drawing Number	Revision
SH	10277/S/01	
Checked		
WGR		



Design Summary

Loft Floor Structure

1. Floor Joists 1: 175x50 C24 joists @ 400mm centres
2. Floor Joists 2: 200x50 C24 joists @ 400mm centres
3. Floor Joists 3: 175x50 C24 joists @ 300mm centres
4. FT1: Timber Flitch beam with 2/175x50 C24 joists and a 175x8mm steel plate bolted in between using M12 bolts at 400mm centres with 2M12 bolts at the bearings.
5. Beam 6: 203x203x52UC beam which is to bear 100mm at both ends on to a 400x100x25mm bearing plate.
6. Beam 7: 203x203x52UC beam which is to bear 100mm at both ends on to a 400x100x25mm bearing plate.
7. Beam 8: 152x152x23UC beam which is to bear 100mm at both ends on to the top of beam 9 and be fixed down with m12 bolts.
8. Beam 9: 152x152x23UC beam which is to bear 200mm at beam 8 end onto masonry wall and bear 150mm at the opposite end.
9. Beam 10: Either a 152x152x37UC or a 203x203x46UC beam which is to bear 100mm onto a 400x100x25mm bearing plate on the party wall and bear 100mm onto a 400x100x215mm padstone on new blockwork wall.
10. Beam 11: Either a 152x152x30UC or a 203x133x30UB beam which is to bear 100mm onto a 400x100x25mm bearing plate on the party wall and bear 100mm onto a 400x100x215mm padstone on new blockwork wall.
11. Beam 12: 203x133x25UB beam bearing 100mm at both ends onto a 400x100x25mm bearing plate. Or provide a 152x152x23UC beam instead.
12. Beam 13: 203x133x25UB beam bearing 100mm at both ends onto a 400x100x25mm bearing plate. Or provide a 152x152x23UC beam instead.
13. Beam 14: 203x133x25UB beam bearing 100mm at both ends onto a 400x100x25mm bearing plate. Or provide a 152x152x23UC beam instead.
14. Beam 15: 152x152x30UC beam which is to bear 100mm at both ends on to a 400x100x25mm bearing plate.
15. Beam 16: 152x152x37UC beam which is to bear 100mm at one end on to a 400x100x25mm padstone and fix to beam 17 at the other
16. Beam 17: 152x152x30UC beam which is to bear 300mm at beam 16 end on to a 350x215x25mm bearing plate. A the other end beam is to bear 100mm on to a 400x100x25mm bearing plate.
17. Lintel 1: S/k keystone lintel or a box- K 200 lintel
18. Lintel 2: S/k keystone lintel or a box- K 200 lintel

GENERAL SPECIFICATIONS

Structural Steelwork

1. All Materials and workmanship to be in accordance with BS5950
2. Structural Steelwork sections to be Grade S275JR for internal steel and S275J2 for external steel in accordance with EN10025: Part 2:2004
3. Bolts to be Grade 8.8 unless noted otherwise
4. Welds to be 6mm continuous fillet, unless noted otherwise
5. Contractor to verify all dimensions on site before commencing any work or making fabrication drawings which are to be issued to the engineer for approval. No dimensions are to be taken from drawings. Discrepancies are to be reported to the engineer prior to proceeding. The engineer requires 7 working days to check and make comments on any fabrication drawings.
6. Steel fabricator to design all connections for maximum moments and reactions indicated on drawings or within the calculation document issued to the contractor unless part of the engineers design brief.
7. Steelwork which is not required to be galvanised or encased in concrete to be blast cleaned/wire brushed free from mill scale, rust and other contaminants and painted with two coats of approved primer as soon as possible but no longer than 4 hours after cleaning.
8. Uncased columns and beams located within an external wall to have a minimum gap of 40mm from face of external or alternately 25mm minimum impermeable insulation from the face of the steel the external wall, unless galvanised.
9. All steel encased in concrete to be unpainted.
10. All pockets formed in brickwork or blockwork for steel beams to be made good in C35 Concrete.
11. Steels to have a minimum bearing of 100mm
12. External Steelwork and where otherwise noted to be galvanised to a minimum of 140 microns thickness unless noted otherwise and in accordance with BS728.
13. HSFG bolt connections are to be metal to metal and painted on site after the connection has been completed and load indicating washers are in their final position
14. Steel members to have adequate protection against fire, the following gives different options for plasterboard or intumescent paint depending on the time resistance required the plasterboard are based on using the GypLyner ENCASE system .

Time Required	Fireline (mm)	Glasroc F Firecase (mm)	Intumescent Paint
30 mins	12.5	15	Specialist Advice
60 mins	12.5 , 15 or (2 x 12.5)	15	Specialist Advice
90 mins	(2 x 12.5) or (15 + 12.5)	15	Specialist Advice

Masonry

1. All Materials and workmanship to be in accordance with BS5628 Code of Practice for the Structural Use of Brickwork
2. Brickwork to have average crushing strength of 20.5N/mm2 unless noted otherwise
3. Blockwork belowground to be high density concrete blocks with a minimum compressive strength of 10N/mm2, above ground provide aerated lightweight blocks with a minimum compressive strength of 7.3N/mm2 unless otherwise
4. Mortar to be Class ii below ground and Class iii above ground unless noted otherwise.
5. 'Hyload' DPC or similar approved to all walls.
6. Wall ties to be stainless steel vertical twist type ties to comply with BS EN 845-1:2013+A1:2016 at a maximum spacing of 900mm horizontally and 450mm vertically where the least thickness of masonry leaf is 90mm . Minimum embedment length of 50mm in the mortar joints of both leaves unless noted otherwise. Where one or both masonry leaves are <90mm ties to be placed 450mm vertically and horizontally. Additional ties to be provided at the sides of all openings or movement joints so that there is at least one tie at 300mm c/c maximum
7. Wall ties shall not slope inwards
8. Brickwork restraints to be in accordance with BS5628 PT 1 at 1200mm c/c restraints to brickwork and 1200mm c/c for vertical straps.
9. Movement Joints: To be installed in clay brickwork walls which exceed 12m length or blockwork walls exceeding 6m length. This applies to any straight length of wall without returns. For brickwork a 16mm joint is required, for blockwork a 10mm joint is required. The movement joint should not be located within the first or last 550mm of the wall. Movement joints should be applied in full height masonry between openings. Movement joints to be installed in accordance with BS5628-3:2005
10. At brick/block junctions, brickwork is to be block bounded into blockwork unless noted otherwise.
11. Where blocks are laid flat they are to be solid concrete blocks.
12. Lintel Bearings to be in accordance with manufacturers recommendations.
13. Where new masonry abuts existing provide ancon wall starter system in accordance with their specifications or similar approved.

Timber

1. All Materials and workmanship to be in accordance with BS5268: Part 2 - Structural Use of Timber
2. Roof Trusses and bracing to be designed and detailed by specialist subcontractor. Trusses to be designed and fabricated in accordance with BS5268: Parts 2 & 3
3. All timbers to have a minimum grade of C16 (unless noted otherwise) and to have maximum moisture content of 18%
4. Joists to have a minimum end bearing of 50mm
5. Ends of joists built into cavity walls should not project into the cavity, and should be painted with two coats of bituminous primer
6. Multiple timber members to be bolted together at 600c.c. with M12 Bolts and 50x50x3mm washers unless noted otherwise.
7. No notches, holes or rebates etc. to be cut in any member without the written consent of the engineer
8. All structural timber to be adequately protected against adverse weather conditions during stacking and after erection
9. All structural timber to be treated by vacuum pressure impregnation of organic or waterborne preservative, to a dry salt retention in accordance with the manufacturer's recommendations. Type of treatment may be: - 'Tanalith', 'Celcure', 'Promtim', or other only with the prior approval of the Architect.
10. All fixings in the roof space are to be galvanised unless noted otherwise
11. Strutting Requirement
    a. <2.5m non required
    b. 2.5m - 4.5m at mid-span
    c. >4.5m at 1/3 span points
12. Where strutting is required provide solid strutting with a minimum thickness of 38mm and a depth no less than ¾ of the joist depth.
13. Strutting should be blocked solidly to perimeter walls
14. Strutting or blocking should not block the ventilation space in cold deck flat roofs
15. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1200 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres, in accordance with CP111 Part 2.
16. Where purlins are designed to support the rafters, rafters are to be birds mouthed to the purlin.

NOTES

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CDM DESIGNERS RISK ASSESSMENT

1. All Excavations to be shored to prevent collapse.
2. All Excavations to be covered or barriers provided to prevent falling into the excavation.
3. For the removal or opening up of load bearing walls provide adequate temporary support such as props. Ensure props are installed by a competent person.
4. All ladders and platforms to be checked before use by a competent person.
5. All on site personnel to wear adequate PPE as advised by main contractor.
6. For the erection of steelwork consideration must be given to the lifting of all beams.
7. Mechanical handling of steelwork into buildings should be considered.

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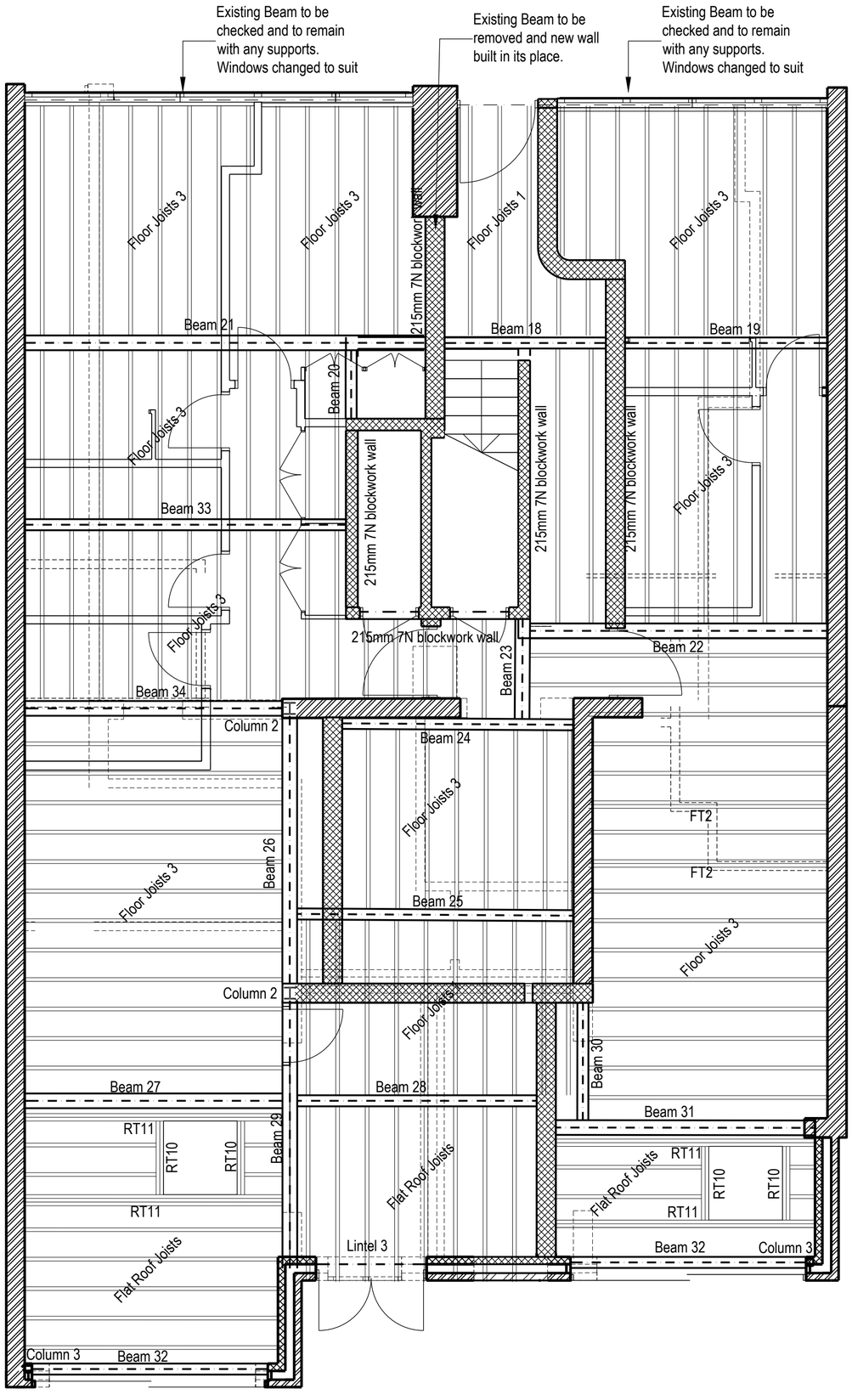
Subject
Building Regulations
First Floor Plan Showing Structure Above

Scale	Date
1:50 @ A2	Februrary 2025

Drawn	Drawing Number	Revision
SH	10277/S/02	
Checked		
WGR		



Design Summary

Ground Floor Ceiling Structure

1.	Floor Joists 3:	200x50 C24 joists @ 400mm centres
2.	FT2:	2/200x50 C24 joists bolted together.
3.	Flat Roof Joists:	200x50 C24 joists @ 400mm centres
4.	RT10:	2/200x50 C24 joists bolted together.
5.	RT11:	3/200x50 C24 joists bolted together.
6.	Beam 18:	203x102x23UB beam which is to bear 100mm at both ends onto a 250x100x15mm bearing plate on the existing wall and a 250x100x150mm padstone on shared blockwork wall.
7.	Beam 19:	203x133x25UB beam which is to bear 100mm at both ends onto a a 250x100x150mm padstone on shared blockwork walls at each end. Beam will require a top plate to support the wall width.
8.	Beam 20:	Either 152x152x23UC beam or a 203x102x23UB with a top plate which is to bear 150mm at onto a 200x215x150mm padstone on the blockwork wall. At the other end beam is fixed to beam 21.
9.	Beam 21:	203x203x46UC beam which is to bear 100mm at both ends onto a 400x100x25mm bearing plate on the existing wall and a 450x100x150mm padstone on shared blockwork wall.
10.	Beam 22:	203x203x46UC beam which is to bear 100mm onto the external wall and on to a 800x100x40mm bearing plate, at the other end beam to fix to beam 23.
11.	Beam 23:	203x203x46UC beam which is to bear 350mm onto a 400x215x150mm padstone at one end and fix to beam 24 at the other.
12.	Beam 24:	203x203x46UC beam which is to bear fully across the wall at each end on to 500x215x150mm padstone.
13.	Beam 25:	203x203x46UC beam which is to bear fully across the wall at one end onto a 500x215x150mm padstone and fix to beam 26 at the other. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm thick a top plate will be required.
14.	Beam 26:	203x203x60UC S355 grade beam which is fix to column 2 at both ends. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm thick a top plate will be required.
15.	Beam 27:	152x152x37UC S355 grade beam which is fix to beam 29 at one ends and bear 100mm onto a 400x100x25mm bearing plate at the other. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm upgrade to a 203x203x46UC with a top plate.
16.	Beam 28:	152x152x37UC S355 grade beam which is fix to beam 29 at one ends and bear 100mm onto a 400x100x25mm bearing plate at the other.
17.	Beam 29:	203x203x60UC S355 grade beam which is fix to column 2 at one ends and bear 100mm onto a 500x100x215mm padstone at the other end. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm thick a top plate will be required.
18.	Beam 30:	152x152x37UC S355 grade beam which is fix to beam 31 at one ends and bear 250mm onto a 300x215x25mm bearing plate at the other. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm upgrade to a 203x203x46UC with a top plate.
19.	Beam 31:	152x152x37UC S355 grade beam which is bear 100mm onto a 400x100x215mm padstone at the new wall end and bear 300mm onto a 350x215x25mm bearing plate at the other. Wall above assumed to be solid 215mm. If wall is a cavity wall greater than 250mm upgrade to a 203x203x46UC with a top plate.
20.	Beam 32:	152x152x30UC beam which is to have a bottom plate to support external leaf. Beam is to supported by column 3 at one end and bear 150mm onto padstone at the other end.
21.	Beam 33:	203x133x30UB beam which is to bear 100mm at both ends, on to a 400x100x25mm bearing plate at the party wall end and onto a 400x215x150mm padstone at the new wall end.
22.	Beam 34:	203x133x30UB beam which is to bear 100mm at one end, on to a 400x100x25mm bearing plate at the other is to fix to column 2.
23.	Column 2:	203x203x60UC S355 column fixed to foundation below.
24.	Column 3:	100x100x8.0 SHS column fixed to foundation below.
25.	Lintel 3:	S/K keystone lintel to suit cavity width,

GENERAL SPECIFICATIONS

Structural Steelwork

1. All Materials and workmanship to be in accordance with BS5950
2. Structural Steelwork sections to be Grade S275JR for internal steel and S275J2 for external steel in accordance with EN10025: Part 2:2004
3. Bolts to be Grade 8.8 unless noted otherwise
4. Welds to be 6mm continuous fillet, unless noted otherwise
5. Contractor to verify all dimensions on site before commencing any work or making fabrication drawings which are to be issued to the engineer for approval. No dimensions are to be taken from drawings. Discrepancies are to be reported to the engineer prior to proceeding. The engineer requires 7 working days to check and make comments on any fabrication drawings.
6. Steel fabricator to design all connections for maximum moments and reactions indicated on drawings or within the calculation document issued to the contractor unless part of the engineers design brief.
7. Steelwork which is not required to be galvanised or encased in concrete to be blast cleaned/wire brushed free from mill scale, rust and other contaminants and painted with two coats of approved primer as soon as possible but no longer than 4 hours after cleaning.
8. Uncased columns and beams located within an external wall to have a minimum gap of 40mm from face of external or alternately 25mm minimum impermeable insulation from the face of the steel the external wall, unless galvanised.
9. All steel encased in concrete to be unpainted.
10. All pockets formed in brickwork or blockwork for steel beams to be made good in C35 Concrete.
11. Steels to have a minimum bearing of 100mm
12. External Steelwork and where otherwise noted to be galvanised to a minimum of 140 microns thickness unless noted otherwise and in accordance with BS728.
13. HSFG bolt connections are to be metal to metal and painted on site after the connection has been completed and load indicating washers are in their final position
14. Steel members to have adequate protection against fire, the following gives different options for plasterboard or intumescent paint depending on the time resistance required the plasterboard are based on using the GypLyner ENCASE system .

Time Required	Fireline (mm)	Glasroc F Firecase (mm)	Intumescent Paint
30 mins	12.5	15	Specialist Advice
60 mins	12.5 , 15 or (2 x 12.5)	15	Specialist Advice
90 mins	(2 x 12.5) or (15 + 12.5)	15	Specialist Advice

Masonry

1. All Materials and workmanship to be in accordance with BS5628 Code of Practice for the Structural Use of Brickwork
2. Brickwork to have average crushing strength of 20.5N/mm2 unless noted otherwise
3. Blockwork belowground to be high density concrete blocks with a minimum compressive strength of 10N/mm2, above ground provide aerated lightweight blocks with a minimum compressive strength of 7.3N/mm2 unless otherwise
4. Mortar to be Class ii below ground and Class iii above ground unless noted otherwise.
5. 'Hyload' DPC or similar approved to all walls.
6. Wall ties to be stainless steel vertical twist type ties to comply with BS EN 845-1:2013+A1:2016 at a maximum spacing of 900mm horizontally and 450mm vertically where the least thickness of masonry leaf is 90mm . Minimum embedment length of 50mm in the mortar joints of both leaves unless noted otherwise. Where one or both masonry leaves are <90mm ties to be placed 450mm vertically and horizontally. Additional ties to be provided at the sides of all openings or movement joints so that there is at least one tie at 300mm c/c maximum
7. Wall ties shall not slope inwards
8. Brickwork restraints to be in accordance with BS5628 PT 1 at 1200mm c/c restraints to brickwork and 1200mm c/c for vertical straps.
9. Movement Joints: To be installed in clay brickwork walls which exceed 12m length or blockwork walls exceeding 6m length. This applies to any straight length of wall without returns. For brickwork a 16mm joint is required, for blockwork a 10mm joint is required. The movement joint should not be located within the first or last 550mm of the wall. Movement joints should be applied in full height masonry between openings. Movement joints to be installed in accordance with BS5628-3:2005
10. At brick/block junctions, brickwork is to be block bounded into blockwork unless noted otherwise.
11. Where blocks are laid flat they are to be solid concrete blocks.
12. Lintel Bearings to be in accordance with manufacturers recommendations.
13. Where new masonry abuts existing provide ancon wall starter system in accordance with their specifications or similar approved.

Timber

1. All Materials and workmanship to be in accordance with BS5268: Part 2 - Structural Use of Timber
2. Roof Trusses and bracing to be designed and detailed by specialist subcontractor. Trusses to be designed and fabricated in accordance with BS5268: Parts 2 & 3
3. All timbers to have a minimum grade of C16 (unless noted otherwise) and to have maximum moisture content of 18%
4. Joists to have a minimum end bearing of 50mm
5. Ends of joists built into cavity walls should not project into the cavity, and should be painted with two coats of bituminous primer
6. Multiple timber members to be bolted together at 600c.c. with M12 Bolts and 50x50x3mm washers unless noted otherwise.
7. No notches, holes or rebates etc. to be cut in any member without the written consent of the engineer
8. All structural timber to be adequately protected against adverse weather conditions during stacking and after erection
9. All structural timber to be treated by vacuum pressure impregnation of organic or waterborne preservative, to a dry salt retention in accordance with the manufacturer's recommendations. Type of treatment may be: - 'Tanalith', 'Celcure', 'Promtim', or other only with the prior approval of the Architect.
10. All fixings in the roof space are to be galvanised unless noted otherwise
11. Strutting Requirement
    a. <2.5m non required
    b. 2.5m - 4.5m at mid-span
    c. >4.5m at 1/3 span points
12. Where strutting is required provide solid strutting with a minimum thickness of 38mm and a depth no less than ¾ of the joist depth.
13. Strutting should be blocked solidly to perimeter walls
14. Strutting or blocking should not block the ventilation space in cold deck flat roofs
15. Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1200 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres, in accordance with CP111 Part 2.
16. Where purlins are designed to support the rafters, rafters are to be birds mouthed to the purlin.

NOTES

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CDM DESIGNERS RISK ASSESSMENT

1. All Excavations to be shored to prevent collapse.
2. All Excavations to be covered or barriers provided to prevent falling into the excavation.
3. For the removal or opening up of load bearing walls provide adequate temporary support such as props. Ensure props are installed by a competent person.
4. All ladders and platforms to be checked before use by a competent person.
5. All on site personnel to wear adequate PPE as advised by main contractor.
6. For the erection of steelwork consideration must be given to the lifting of all beams.
7. Mechanical handling of steelwork into buildings should be considered.

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Job

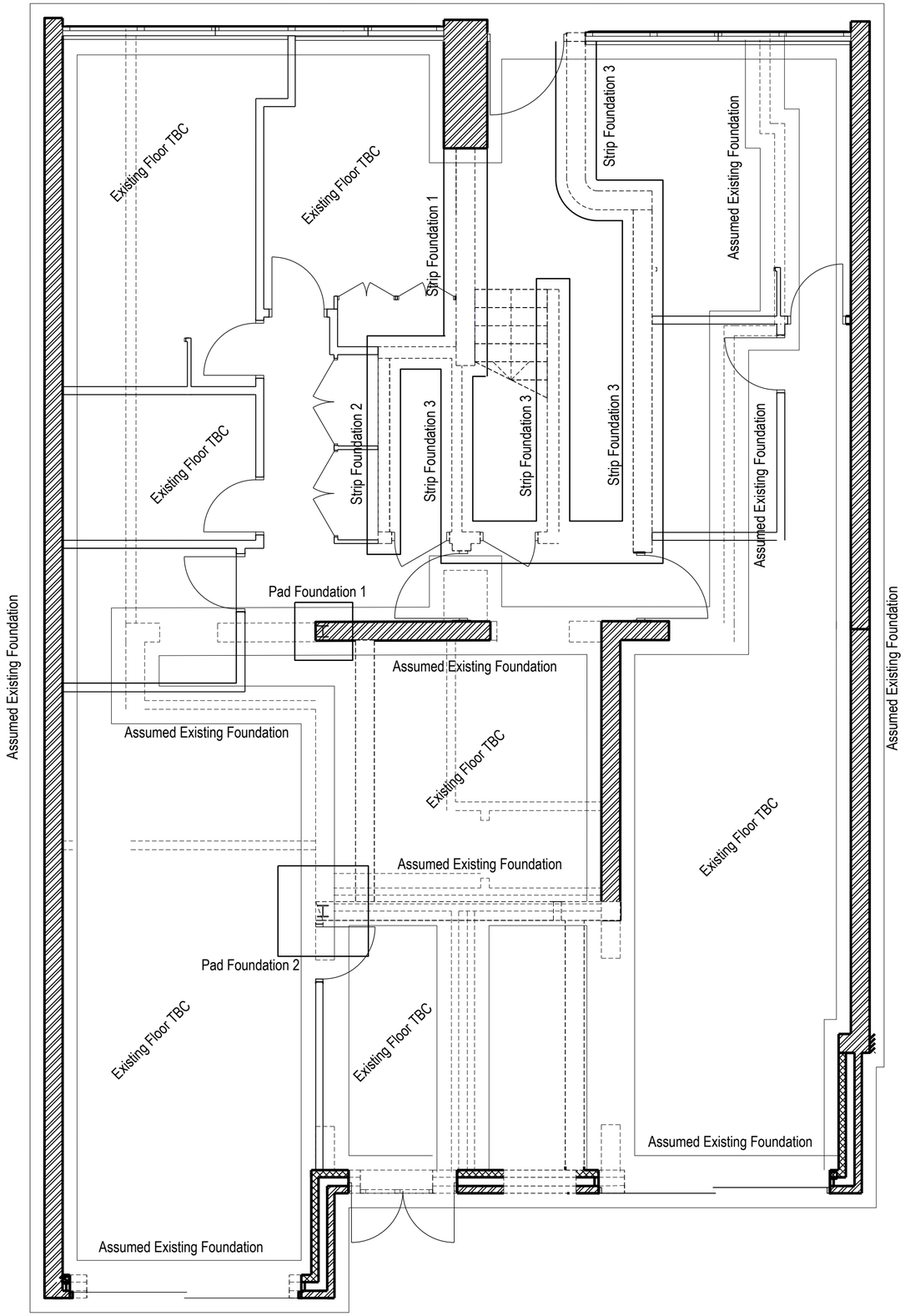
834-836 Garratt Lane,
Tooting
London
SW17 0NA

Subject

Building Regulations
Ground Floor Plan Showing Structure Above

Scale	Date
1:50 @ A2	Februrary 2025

Drawn	Drawing Number	Revision
SH	10277/S/03	
Checked WGR		



Design Summary

Foundation Structure

1. Strip Foundation 1: 700mm wide C25 concrete strip foundation founded onto good ground bearing strata to be agreed by building control. Ground conditions appeared to be a sandy gravel. Bottom of existing foundation is around 1.0m below ground level.

2. Strip Foundation 2: 600mm wide C25 concrete strip foundation founded onto good ground bearing strata to be agreed by building control. Ground conditions appeared to be a sandy gravel. Bottom of existing foundation is around 1.0m below ground level.

3. Strip Foundation 3: 450mm wide C25 concrete strip foundation founded onto good ground bearing strata to be agreed by building control. Ground conditions appeared to be a sandy gravel. Bottom of existing foundation is around 1.0m below ground level.

4. Pad Foundation 1: 750x750mm C25 concrete pad foundation founded onto good ground bearing strata to be agreed by building control. Ground conditions appeared to be a sandy gravel. Bottom of existing foundation is around 1.0m below ground level.

5. Pad Foundation 2: 1250x1250mm C25 concrete pad foundation founded onto good ground bearing strata to be agreed by building control. Ground conditions appeared to be a sandy gravel. Bottom of existing foundation is around 1.0m below ground level.

GENERAL SPECIFICATIONS

Concrete

1. All Materials and workmanship to be in accordance with BS8110 parts 1 & 2 - The structural use of concrete
2. Concrete quality to be 35N/mm2 at 28 Days unless noted otherwise, Max aggregate to be 20mm, Min Cement content 330kg/m3, max water to cement ratio 0.6
3. Reinforcement to be placed in accordance with BS8110
4. Concrete cubes to be taken at 7 & 28 Days to obtain required crushing strengths
5. Concrete quality for mass concrete foundations in non aggressive soils to be 25N/mm2
6. No reinforcement to be cut displaced or omitted without prior written agreement of the engineer.
7. Cover to reinforcement to be in accordance with BS8110 Part 1 tables 3.3 & 3.4
8. Ground Slab to be blinded into 50mm of lean mix prior to reinforcement being placed in position, blinding concrete mix to be 1/10 to all reinforcement bases except for water resisting structures.
9. If no soil investigation and been carried out then sulphate - resisting cement should be used within the ground.
10. For below ground structures provide waterproof concrete installed and detailed to specialist specifications.

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