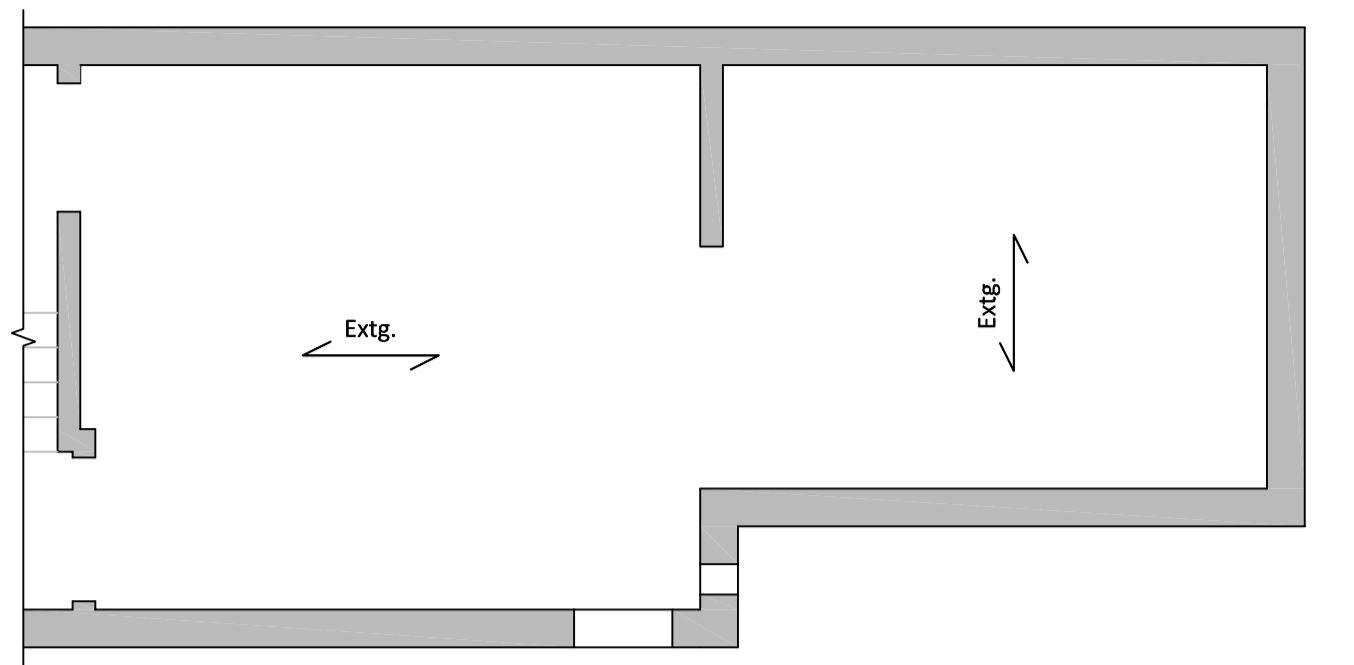


PROJECT CONTACT:	EMAIL: olly@dbstructural.co.uk
OLLY MORGAN	OFFICE: 01525 643043
	MOBILE: 07581 736139

DESIGN ASSUMES EXISTING WALL CONSTRUCTION
IS SOLID 9" - THIS IS TO BE CONFIRMED ON SITE
PRIOR TO ORDERING OF MATERIALS



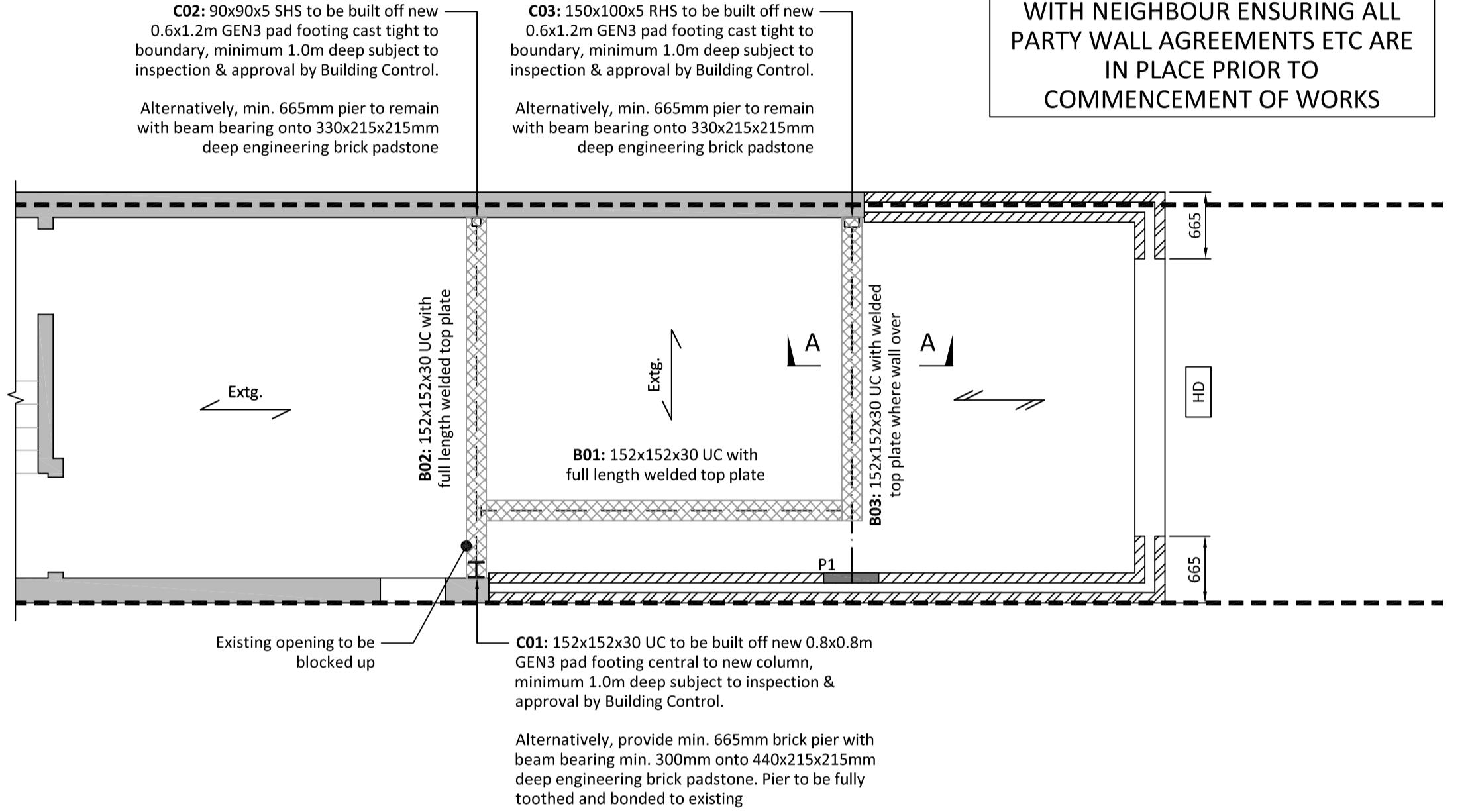
FOUNDATIONS ANTICIPATED TO BE 0.6x1.0m DEEP SUBJECT TO INSPECTION AND APPROVAL BY BUILDING CONTROL.
FOUNDATION AND GROUND FLOOR SPECIFICATION IS BASED ON SANDY SOILS BEING ENCOUNTERED. IT IS RECOMMENDED THAT TRIAL PITS ARE EXCAVATED PRIOR TO THE MAIN WORKS COMMENCING TO CONFIRM SOIL TYPE. IF FOUND BE DIFFERENT, REPORT FINDINGS BACK TO THE ENGINEER AND ARCHITECT TO ASSESS IF FURTHER ENGINEERING INPUT IS REQUIRED.

Existing Ground Floor Plan Extract
Showing Structure Over
(Scale 1:50)

C02: 90x90x5 SHS to be built off new 0.6x1.2m GEN3 pad footing cast tight to boundary, minimum 1.0m deep subject to inspection & approval by Building Control.
Alternatively, min. 665mm pier to remain with beam bearing onto 330x215x215mm deep engineering brick padstone

C03: 150x100x5 RHS to be built off new 0.6x1.2m GEN3 pad footing cast tight to boundary, minimum 1.0m deep subject to inspection & approval by Building Control.
Alternatively, min. 665mm pier to remain with beam bearing onto 330x215x215mm deep engineering brick padstone

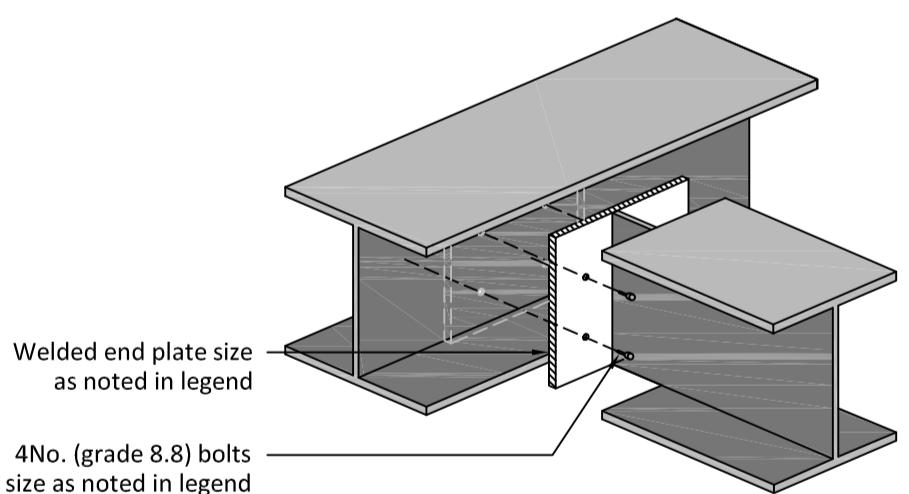
PROPOSED WALL AND FOUNDATION IS SHOWN AS PER THE ARCHITECTS DRAWING ENCROACHING THE SITE BOUNDARY. THIS IS TO BE AGREED WITH NEIGHBOUR ENSURING ALL PARTY WALL AGREEMENTS ETC ARE IN PLACE PRIOR TO COMMENCEMENT OF WORKS



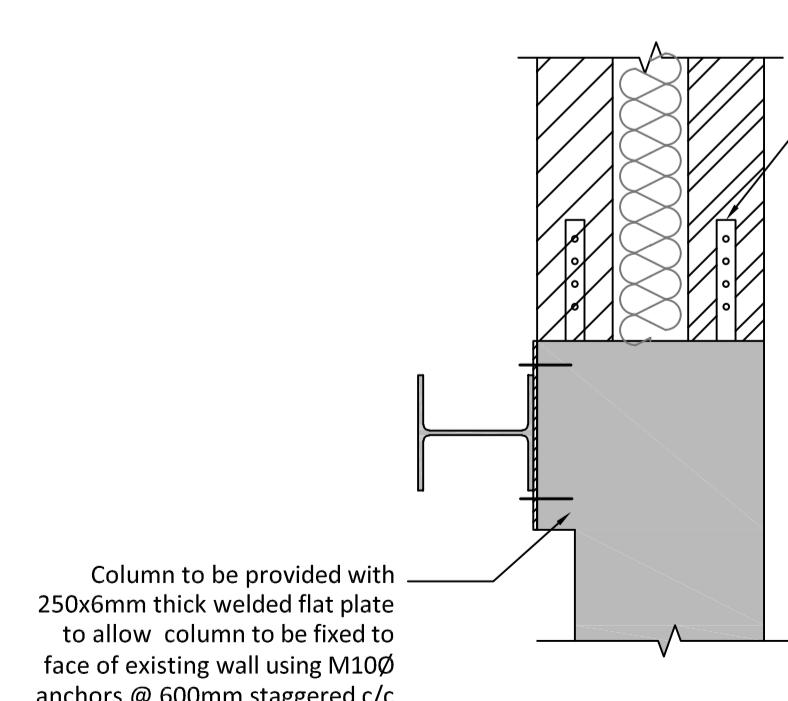
Proposed Ground Floor Plan
Extract Showing Structure Over
(Scale 1:50)

Existing opening to be blocked up

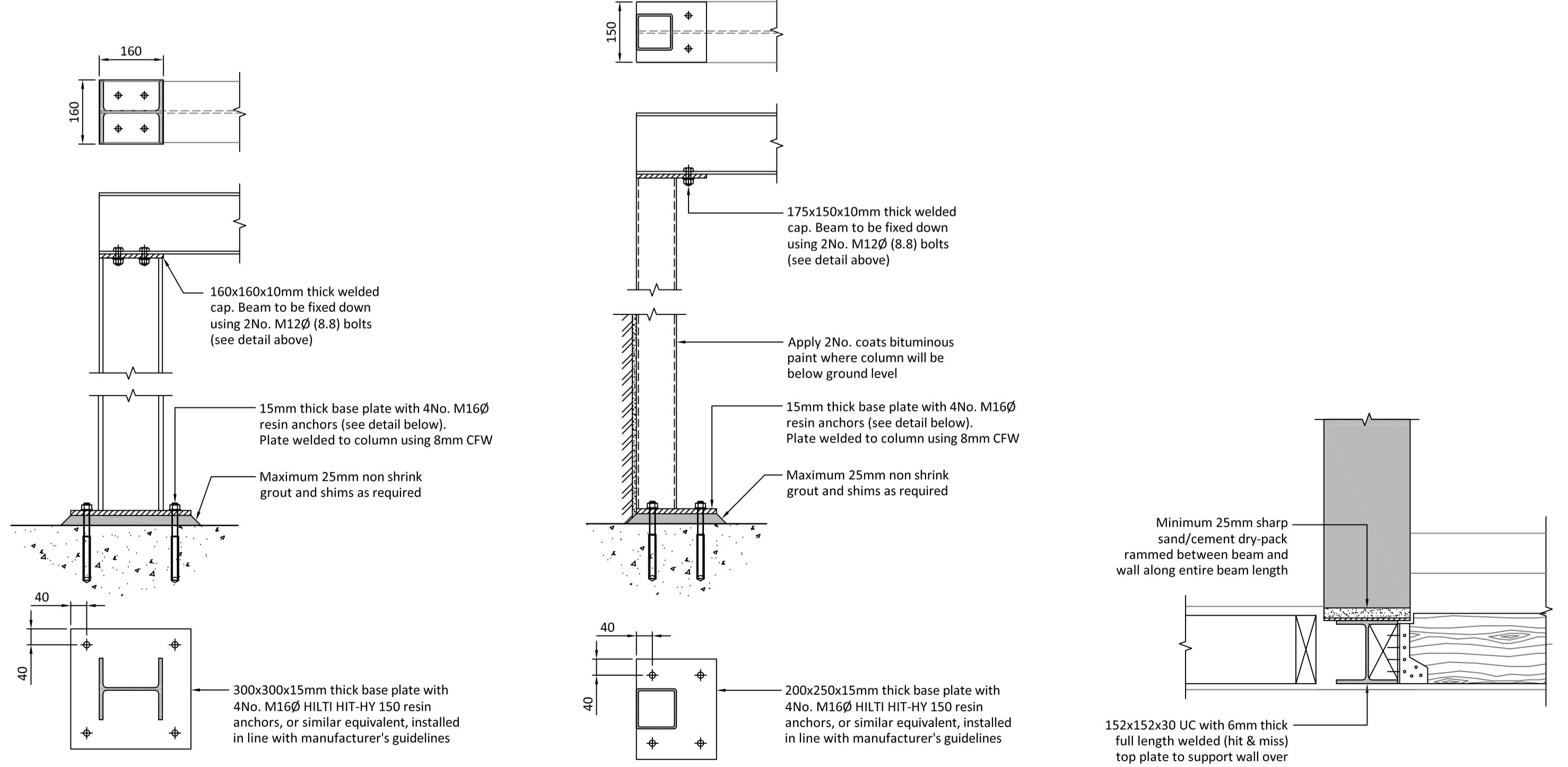
Alternatively, provide min. 665mm brick pier with beam bearing min. 300mm onto 440x215x215mm deep engineering brick padstone. Pier to be fully toothed and bonded to existing



Indicative Steel Beam Connection Detail
(N.T.S)



Plan On Wall to Column Tie Detail
C02/C03 Similar
(Scale 1:10)



Column C01 Cap & Base Plate Details
(Scale 1:10)

Column C02 Cap & Base Plate Details
(C03 Similar)
(Scale 1:10)

Section A-A
(Scale 1:10)

STRUCTURAL NOTES

Health & Safety

- All works are to be carried out in accordance with current Health & Safety Regulations; which means that all demolition, dismantling and structural alteration should be carefully planned and carried out by competent practitioners. A competent person experienced in the type of works detailed on this drawing must be in charge of the works at all times.
- The Contractor must ensure that all reasonable checks for Asbestos or other contaminating materials have been carried out prior to any demolition or opening up works. If in doubt the Contractor must notify the client to ensure that they have met their obligations in this respect.
- The Contractor will be fully responsible for temporary works and temporary stability of the structure at all times.

General

- All setting out information is to be obtained from the Architect's drawings and site taken measurements. The structural drawings and calculations should not be relied upon for dimensional accuracy or completeness.
- Unless explicitly stated otherwise, the design anticipates that the existing foundations are traditional strip footings and the existing building is of traditional load bearing masonry construction. This is to be confirmed by the Contractor prior to commencement of works. If found to be different, contact the Engineer for further input.
- All excavations for new foundations shall be inspected and approved by Building Control prior to pouring concrete. All excavations for concrete shall be kept free from water, loose material and rubbish and the founding level shall not be exposed until the day of pouring concrete.
- Where partition walls are to be removed, care must be taken to ensure that all parts of the wall are non-loadbearing before removal. If in doubt, contact the Engineer for inspection prior to removal.
- If damage to the structure or poor construction details are uncovered during the works, the Engineer must be notified and the area left exposed to allow inspection.

Steelwork

- All structural steelwork to be minimum grade S275 and all bolts to be minimum grade 8.8. Where HSFG bolts are specified they are to be provided with load indicating washers.
- All steelwork is to be CE marked conforming with BS EN 1090-1 & 2. Steelwork execution class for the project: EXC 2.
- All structural steelwork and fixings to be supplied and installed in accordance with current British and European standards. Hollow sections to be sealed with min. 4mm welded end plates and welded spacer tubes are to be provided at all bolted through connections.
- All welding to be carried out in accordance with current British and European standards and good practice by a properly certified welder. All welds to be 6mm continuous unless noted otherwise. Site welding is not to be carried out without approval from the Engineer and Building Control. Electrodes are to be consistent with the grade of steel.
- All double beams to be bolted together using M12Ø bolts and spacer tubes at maximum 600mm centres.
- Minimum beam end bearings as follows:
100mm where perpendicular to padstone/bearing plate
150mm in plane of padstone/bearing plate
- Steelwork finishes -
Corus System B3
Shop applied Zinc phosphate epoxy primer 80µm
Where in contact with external leaf of masonry, steelwork is to be protected by an additional 2 coats of high build bituminous paint.
- Unless a detail has specifically been provided on the drawing, the steel beams are not to be spliced without prior input from the Engineer.
- Fire protection to be provided in accordance with Building Regulation requirements. Two layers of 12mm plasterboard are required to achieve half hour fire resistance.

Masonry

- All new blockwork to be minimum compressive strength 3.6N and all new brickwork to be minimum compressive strength 20N, all in class (iii) mortar designation above dpc level.
- All openings in existing masonry walls shall be formed by disc cutting.
- Any new beam or lintel supporting existing masonry shall have a minimum of 25mm sharp sand/cement dry-pack rammed between the beam/lintel and wall along its entire length. This shall be allowed to cure a minimum of 48hours before any propping is removed.
- All new masonry shall be tied to existing in accordance with current British Standards.
- Provide movement joints in unbroken lengths of blockwork exceeding 6.0m, in accordance with manufacturer's recommendations unless non-structural shrinkage cracking is considered acceptable. Alternatively provide bedjoint reinforcement, installed in line with manufacturer's recommendations & guidelines.

Timber

- All softwood timber to be grade C24 to BS 5268 U.N.O. maximum moisture content at time of erection to be as follows: Internal use 20%, External use 24%.
- All multiple joists/rafters are to be bolted together using M10Ø bolts at maximum 600mm staggered c/c.
- Where timber components are required to be treated with a preservative to resist fungal and wood borer insect attack this shall be in accordance with Local Authority guidelines.
- Joist hangers to be galvanised pressed steel by 'BAT' or similar approved erected in strict accordance with the manufacturer's instructions and to be suitable for load and purpose.
- All fixing nails, screws and bolts to have galvanised finish (unless noted otherwise) or similar approved which should be compatible with the timber preservative and installed in pre-drilled holes not exceeding 0.8 times their diameter.
- Spacing of fixings are to be in strict accordance with BS5268 Part 2.
- Galvanised mild steel restraint straps and noggin to be in accordance with Building Regulation guidelines. Straps to be located as near as possible to the centre of an un-cut block or brick. Wall plates to be provided with galvanised steel straps at 1.80m centres.
- Notches and holes to be in accordance with Building Regulation guidelines. All other holes and notches shall be referred to the Engineer.

HEALTH, SAFETY & ENVIRONMENT

It is the responsibility of the client to ensure that those undertaking the works are competent and experienced in the type of work to be undertaken.

In addition to the hazards usually associated with the types of work detailed on this drawing, the following specific hazards have been identified through design risk assessment. The planning and execution of the works should take into account all usual and specific hazards.

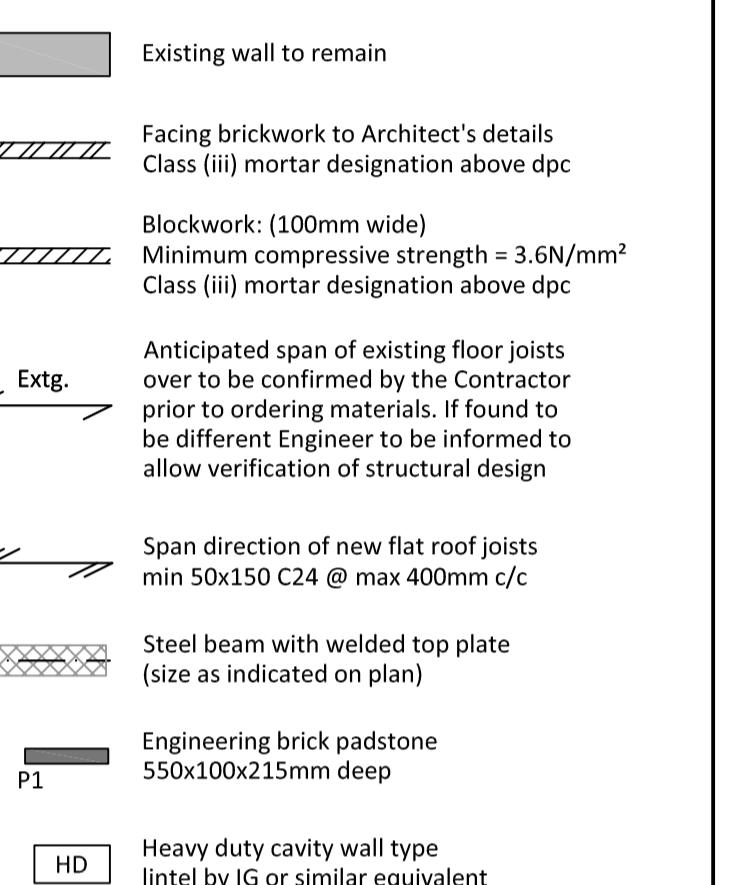
Hazards should also be taken into account in the maintenance, operation, decommissioning and demolition of the works.

Responsibility for temporary works lies with the Contractor at all times

NOTES

- All dimensions are in millimetres (mm) and levels in metres Above Ordnance Datum (mOD) unless noted otherwise.
- Do not scale from this drawing.
- The copyright in this drawing belongs to dbstructural; the designs and details may not be used on any project other than that indicated in the titleblock.
- This design assumes that any applicable planning applications, building regulation applications and Party Wall agreements are approved and in place prior to the commencement of works.

LEGEND



02.02.23	FIRST ISSUE	JM	OM
Rev. Date	Description	Drawn	Checked
FOR APPROVAL			
123 HILLIARD ROAD, NORTHWOOD			
PROPOSED EXTENSION SUPERSTRUCTURE DETAILS			
1:50 @ A1 U.N.O.	JANUARY 2023		
Dwg No: 7653-001			
dbstructural			
ENGINEERING FOR TOMORROW			
info@dbstructural.co.uk - 01525 643043			