



Nearby Trees
Site lined with large trees. Site to fall within root zones. Contractor to follow guidance set out by Arboriculturist to ensure protection of roots. Contractor to avoid cutting any significant root systems and are to notify the Structural Engineer if roots impact proposals.

Root Protection for Buried Structure
Below ground structure to be lined in Root Barrier membrane by Safe Fence or similar approved

Cavity Wall on Suspended Beams
100mm block (7.3N), 100mm brick (20N)
Ties in accordance with general notes. Wall leaves to be supported on steel beams encased in concrete with 225mm heave board placed beneath. Beams to span between discrete pad footings.

Compressive Boards
50mm compressive boarding to be placed to internal face of mass concrete footings in accordance with NHBC guidance.

Suspended Timber Floor
New suspended timber floor to span between perimeter walls with masonry joist hangers. Minimum 300mm floor void with 50mm sand-cement blinding to cover formation level.

Beam to be supported over on existing wall below - 20mm non shrink bedding mortar.

Proposed Member Reference Table:

Beam Schedule
SB1 - 203x203x46 UC S355
SB2 - 152x89x16UB S355
SB3 - 203x102x23 UB S355
SB4 - 178x102x16 UB S355
SB5 - 152x152x23 UC S355
SB6 - 125x65 PFC S355
TB1 - 195x97 C24 Timber Beam
TB2 - 145x97 C24 Timber Beam

Lintel & Padstone Schedule
PS1 - 440x215x140 concrete padstone
PS2 - 330x100x140h concrete padstone
PS3 - 440x100x215h concrete padstone
PS4 - 215x215x140h concrete padstone
L1 - Standard Duty Catnic lintel - TS150/100
L2 - Naylor 140x100 precast lintel

Column and Wall Schedule
SC1 - 152x152x23 UC S355
SC2 - 100x100x5 SHS S355
SC3 - 200x100x5 RHS S355
SC4 - 120x80x8 RHS S355
TC1 - 95x95 C24 Timber Stud
TC2 - 145x95 C24 Timber Stud
W1 - Min 300mm thick RC retaining wall (C32/40)

Floor Schedule
J1 - 145x45 C24 timber joists @ 400mm centres
J2 - 170x45 C24 timber joists @ 400mm centres
All internal floor joists to have 18mm ply over.
All flat roof joists to have 12mm external grade ply over



Depth of footing to match depth of wall footing.

Ancon staxif starter bar to connect new masonry to existing. Ties 225mm verticle centres.

Column to have M12 resin anchors fixed into wall behind, 85mm embedment at 500mm centres. Recessed into wall by 50mm and surrounded with free flowing grout

NOTE ON FOUNDATIONS

- + All new foundations to not undermine existing footings.
- + Internal foundations to be a minimum of 1m deep UNO, and bearing on virgin ground - **expect Clay**.
- + Perimeter foundations to be cast below zone of influence of nearby trees - approx 2.5m BGL. (Based on ~20m high water demand tree noted within 2m of proposed external footings, with high plasticity soil). Depths to be agreed with and verified by Building Control on site.
- + Building Control officer to inspect excavation for foundations prior to Contractor casting.

Ancon staxif starter bar to connect new masonry to existing. Ties 225mm verticle centres.

Existing beam to be replaced with new beams. Existing joists to be connected to face with joist hangers

Proposed Ground Floor Plan

Oriel Window

Contractor to allow for new oriel window to be built off new cantilever steel base frame. Final details TBC following coordination with oriel window supplier. External steelwork to be galvanised. Assumed timber infill floor to be protected from moisture

Beam to be supported over line of existing wall below - 20mm non shrink bedding mortar below. Beam to concrete encased with 75mm surrounds. Existing joists to be resupported on beam where intersects.

Symbols Key	
	Denotes moment connection
	Denotes floor span
	Denotes rafter span
	Denotes cranked beam

Abbreviations

J"x" - Timber Joists
DJ - Double Joists bolted together
TrJ - Triple Joists bolted together
TB"x" - Timber Beam
TC"x" - Timber Column
W"x" - Wall type
SB"x" - Steel Beam
SC"x" - Steel Column
L"x" - Lintel over
PS"x" - Concrete padstone
CU - Column Under

Notes:

- Do not scale from these drawings
- All dimensions to be checked on site by contractor
- Drawing to be read in conjunction with general notes drawing
- Where discrepancy occurs between specification and drawing, Engineer to be notified immediately
- Temporary words design, method statement and construction sequence to be determined by contractor
- Where discrepancy occurs between drawings and findings on site, Engineer to be notified immediately
- Contractor may allow for splicing of steelwork to aid erection if necessary, final design by contractor, to be coordinated with BC Structural Design.
- Refer to architects details for fire protection of all elements.
- All foundations assumed to be founded a minimum of 1.0m BGL on natural undisturbed ground - to be checked by Building Control or an Approved Inspector - assumed bearing capacity - 100kN/m2. If adjacent to existing foundation, excavation to be stepped at 45degrees to avoid undermining. Foundations to be 450mm deep MC and a minimum of 450mm wide UNO.
- All setting out to Architects information

Chimney Removal Making Good Works

Existing masonry to be made good, cracked or broken brickwork replaced and mortar re-pointed where chimney breasts are to be removed

Load Bearing Timber Wall

97mmx45 timber studs C24 @400mm centres. 12mm ply to face of studs to be installed directly below existing load bearn stud wall at 1st Floor

Load Bearing Timber Wall

Existing load bearing stud wall to be strengthened with 95mmx95 timber studs at edges of openings. Secured at head and base with Simpson Strong Tie Reinforced Angle Bracket

Timber beam to bear min 100mm onto pier

New stud wall formed of 100x50 C24 studs at 400mm centres rebuilt directly below wall above. Wall to be packed tight to existing.

Beams to be supported centred over existing wall below. Provide 140mm thick concrete padstone below beam bearing. Existing beams to be resupported on beam where intersects.

Flue Recess

Channel recessed through chimney breast at high level to fit new chimney flue. Refer to architects information for setting out. New steel beam above - see 1st Floor Plan for beam size.

Lateral Ties

Beam to be tied across joists with 1.2m long 30x5mm galvanised restraint straps at 1.2m centres along length. Blocking installed where across joists.

Column to have M12 resin anchors fixed into wall behind, 85mm embedment at 500mm centres. Recessed into wall by 50mm and surrounded with free flowing grout