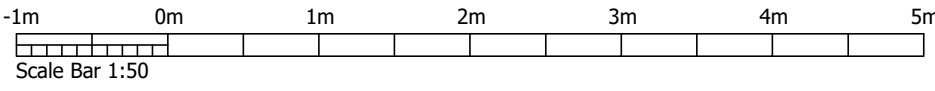
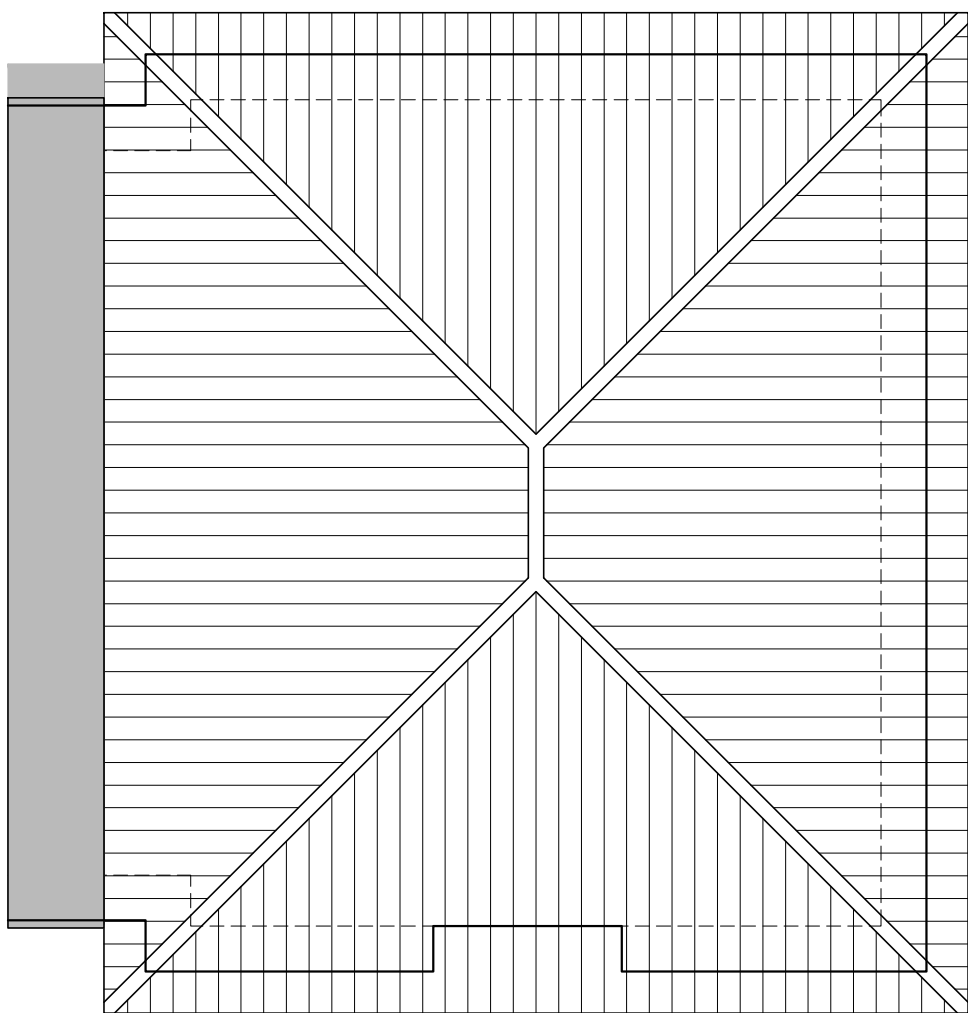
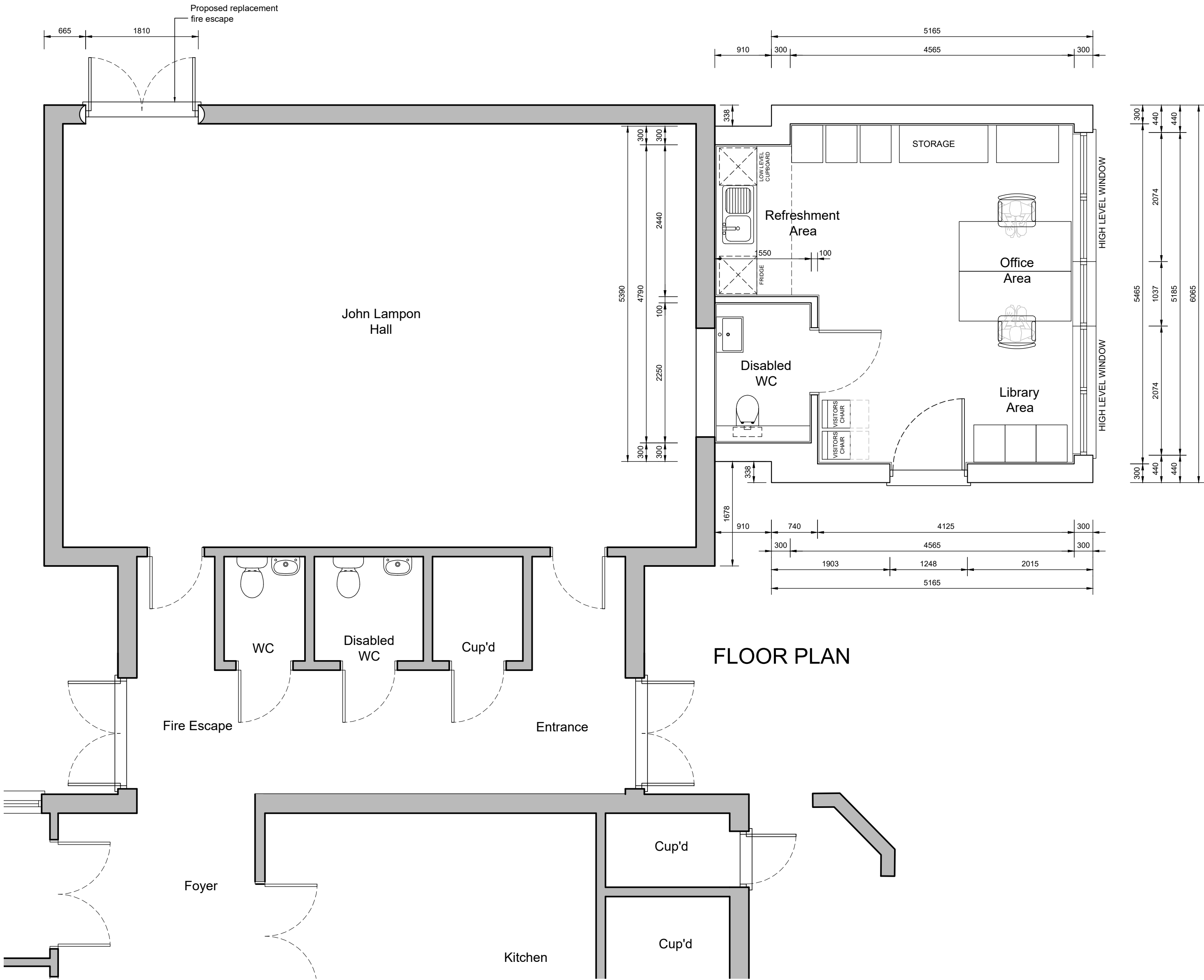


SECTION A-A



If you require clarification of any dimensions please contact:
McLean Architectural Limited

NOTE:
When printing from PDF, ensure print scaling is set to none.
(File —> Print —> Page Handling —> Page Scaling —> None)

AI
SHEET

CONSTRUCTION & FINISHES NOTES

FOUNDATIONS
Foundations to be 450x450mm wide Mass concrete trench, on piled foundations in accordance with Structural Engineers design. Foundations to be inspected and approved by the building control inspector.
Ready mixed concrete as - Concrete grade C40/50 and BS EN 206-1.
Site mixed concrete as - Concrete grade S72 to BS-8000 and BS EN 206-1.
Any combined waste pipes to be at least 50mm diameter

GROUND FLOOR (Pre-cast suspended slab)
Floor construction to give U value no worse than 0.18 W/m² deg C.
Ground floor construction to be 75mm thick sand/cement screed reinforced with D49 steel mesh fabric on 1200 gauge polythene dpm on 150mm thick Rectisol Eurothane GP insulation with taped joints and turned up at perimeter on 1200 gauge polythene dpm on 150mm ground bearing concrete slab with A193 reinforcement mesh. Underfloor Heating pipes to be laid within screed to specialist design.
Cavity Walls below ground to have cavities filled with lean mix concrete up to Finished Ground Level.
Perpend to be omitted in outer leaf at approximately 1500mm centres.
All walls below d.p.c. to be in FL quality brickwork (BS-3921) including flashings in external walls or dense concrete foundation blocks.

EXTERNAL WALL - CAVITY WALLS
Cavity wall construction to give U value no worse than 0.28 W/m² deg C.
300mm cavity wall comprising 102.5mm Brickwork outer leaf to match existing, 100mm Cavity comprising of 100mm RECTACIL Eurowool® (K value 0.022 W/mK), 100mm Celcon Standard (3.6N/m²) block inner leaf.
D.p.c.'s to comply with BS 743 and laid in accordance with CP. 102 and set a minimum of 150mm above finished ground.
Cavities to be closed around window/door jambes with Thermabate 100mm Cavity Closers to prevent cold bridging to jambes.

Vertical twist type stainless steel wall ties spaced 750mm centres horizontal, 450mm centres vertical and 300mm centres around windows and doors. Ties to be of adequate size to provide 50mm bed minimum in each leaf.
Walls finished internally with 15mm Gyproc wallboard on plaster dabs (25mm O/A thickness) with skim coat finish.

INTERNAL WALLS
100mm blockwork with 25mm hardwall plaster and skim coat finish.
Cathric CN100 linets to be used unless within loadbearing walls where Cathric CNSX should be used.
Svp ceilings to be formed in timber frame and packed with mineral fibre insulation. Ducts will be finished in 15mm Gyproc Plank and shall be lined with 25mm unfaced mineral fibre.

ROOF CONSTRUCTION - PITCHED - TRUSSED RAFTERS
Roof construction to give U value no worse than 0.16 W/m² deg C.
Roof tiles (fixed in accordance with BS-5534) on roofing felt type 1F to BS-747 on trussed rafters supplied by roof manufacturer in accordance with BS-5268-2.
Trussed rafters to have max 600mm c/c spacing and connected to wall plate with proprietary truss clips.
Wall Plates to be half lapped at joints and tied with 30x2.5mm thick galvanised ms straps at max 1600mm c/c plugged and screwed to inner wall face (30x50mm x 10 gauge screws). Softwood nogginns fixed at 600mm c/c between trussed rafters as necessary for support to stud partitions.
400mm thick mineral wool insulation quilt to roof space comprising 1no layer 200mm thick laid between ceiling joists and 1no layer 200mm thick cross laid.

Roof void ventilation in accordance with detail drawing to achieve equivalent of 10mm or 25mm continuous gap at eaves as appropriate.
All roof access doors are to be insulated and draught stripped.
Roof pitch as noted on detail drawings.
40mm min gap between trussed rafters and masonry. 100x25mm bidders, rafter and ceiling bracing to BS5058-2:2002. Walls parallel to trussed rafters tied with 30x25mm thick galvanised ms straps at 2000mm max c/c at ceiling and rafter level built into cavity face of inner leaf min 150mm and screw or nail fixed over 3no trussed rafters to solid nogginns. Minimum 6no fixings to trussed rafters and nogginns.

ROOF CONSTRUCTION - FLAT - GRP - LIQUID APPLIED
Roof construction to give U value no worse than 0.18 W/m² deg C.
Refer to engineers details for structural information.
All timber to be Stress Graded when 'dry' or 'kila dry' (moisture content below 20%) and stamped accordingly unless specified otherwise on drawings.
All structural, external and embedded timbers to be treated in accordance with BS-1282 recommendations.
High performance liquid applied roofing membrane fixed in accordance with manufacturers recommendations over RECTACIL 'Powerdeck F120' comprising of 120mm insulation with 5.5mm ply on treated softwood fixing pieces on 63x125mm C24 grade joists at 400mm centres.
15mm plasterboard and skim to all ceilings.

WASTE PLUMBING
All waste fittings to be UPVC with minimum 75mm deep seal traps.
Basin waste to be:
32mm (up to 1.7m max length)
40mm (up to 3m max length)
50mm (up to 4m max length)
Anti-siphonic traps will be installed where waste runs are in excess of above dimensions.
Any combined waste pipes to be at least 50mm diameter
S.V.P.s to be 100mm reducing to not less than 75mm in roof space and discharge through 'ROOF' TILE vents. Base of stack to have easy bend 450mm minimum below lowest connection. Access plates to be fitted to stack 300mm above FFL and above highest connection. Suitable access points to be fitted to waste plumbing.
All plumbing to comply with relevant Water Authority Regulations for supply and storage.

DOMESTIC DRAINAGE NOTES
Drains are to be 100mm nominal diameter laid at a gradient not flatter than 1:80, unless otherwise shown.
Lateral drain connectors beneath accessible highway are to have a minimum diameter of 100mm. Foul drains serving more than nine dwellings are to be 150mm nominal diameter laid not flatter than 1:150. Foul drains without at least one WC connected are to be laid not flatter than 1:40.
Drains are to be constructed using vitrified clay pipes to BS-85 or uPVC pipes to BS-4660, all with flexible joints, bedded and backfilled in accordance with the manufacturers recommendations and BS-EN-752 100mm rigid pipes with less than 300mm cover or pipes of 150mm or greater diameter with less than 600mm cover, are to be surrounded by 150mm of concrete with movement joints provided at every pipe joint. Flexible pipes with less than 600mm of cover are to be surrounded with concrete or to have concrete paving slabs laid as bridging above the pipe. Pipes under buildings are to be surrounded with 100mm of granular material. Pipes with less than 1.2m cover beneath access drives or roads are to be surrounded by 150mm of concrete as above.

Access to drains may be provided by vitrified clay, GRP or polypropylene inspection chambers to BS-7158, or manholes constructed using class B engineering bricks to BS-3921, or precast concrete sections to BS-5911, surrounded with 150mm of C20/25 concrete. Minimum dimensions to conform to table 6 of BS-EN-752. Covers and frames for manholes/inspection chambers must comply with the appropriate loading grade of BS-497 or BS-5911. Manholes within buildings shall be fitted with sealed bolt down covers and frames.

A ventilating pipe should be provided at or near the head of each main drain, any branch longer than 6m serving a single appliance or 12m serving a group of appliances. Elsewhere, discharge stacks may be terminated with air admittance valves. Gullies and rainwater pipes should be provided with roddable access.
If any visible oil contaminated soils are encountered to sides of excavations or service trenches, they are to be removed and replaced with clean approved material.

Foul drainage to be connected to sewer via existing on site connection.
Surface water drainage shall discharge to soakaway.
Stone filled soakaway 6m from any building. Soakaway to be in accordance to current guidelines and regulation and capable of taking roof surface area of 50m². Minimum size of stone filled soakaway to be 20x1m in size.

ELECTRICS
All switches, electrical sockets, TV sockets and telephone points will be set between 450mm and 1200mm above finished floor level.
External light fittings shall incorporate daylight switches or infra red detectors.

PART P
All Electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a registered competent person to do so.
Prior to completion the council should be satisfied that Part P has been complied with. This may require an appropriate BS-7671 electrical installation certificate to be issued for the work by a person competent to do so.

HEATING AND HOT WATER - GAS
Heating system and associated work to be in accordance with the 'Domestic Building Services Compliance Guide'.
Connected to existing system.

ROOM VENTILATION
All windows to be provided with trickle ventilation.
System 3 continuous mechanical extract (MEV) to be installed with background ventilators having a minimum equivalent area of 2500mm² fitted to each room. Except wet rooms from which air is extracted.
Greenwood Unity CV2GIP system to be provided to wet rooms, set to relevant speed based on room use. Extract route to discharge through external wall or vented roof ROOF TILE as indicated on plan.

A 10mm gap should be maintained under all internal doors to provide adequate air transfer.
WINDOWS AND GLAZING
All window frames to be set back 30mm minimum within cavity
All Doors and Windows to be double glazed with 4-16-4 LOW E glass and ARGON filled cavity to achieve U-Value of 1.6 W/m² deg C.
Toughened or laminated type glazing complying with BS-6206 to be applied to the following:
Windows below 800mm from finished floor level. Doors 1500mm above finished floor level and within 300mm either side of doors.

ALL ROOFLIGHT GLASS TO RECEIVE SOLAR REFLECTIVE AND THERMAL EMITTANCE COATINGS
SMOKE AND HEAT DETECTORS
Smoke detectors shall be installed at each floor level and interlinked, as shown on the floor layouts.
Where Kitchen/dining area is provided, heat detector to be used.
All alarms permanently wired into a separately fused circuit and to incorporate mains power failure backup in accordance with an L2 system as described in BS-5839 part1 (standby electrical supply is not required) or a Grade A type L22 system as described in BS-5839 part6.

Alarms positioned maximum 7000mm from kitchen or lounge doors, maximum 3000mm from bedroom doors and minimum 300mm from any light fitting.

PRELIMINARY ISSUE

Project: Orpen Hall, Lexden Road, West Bergholt, Colchester, Essex, CO6 3BW

Drawing title: West Bergholt Community Hub and Office Floor Plan and Elevations

Scale: 1:50

Date: April 2023

Drawing no: 1649/C/02

Drawn by: SMc

Checked:

Revisions:

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