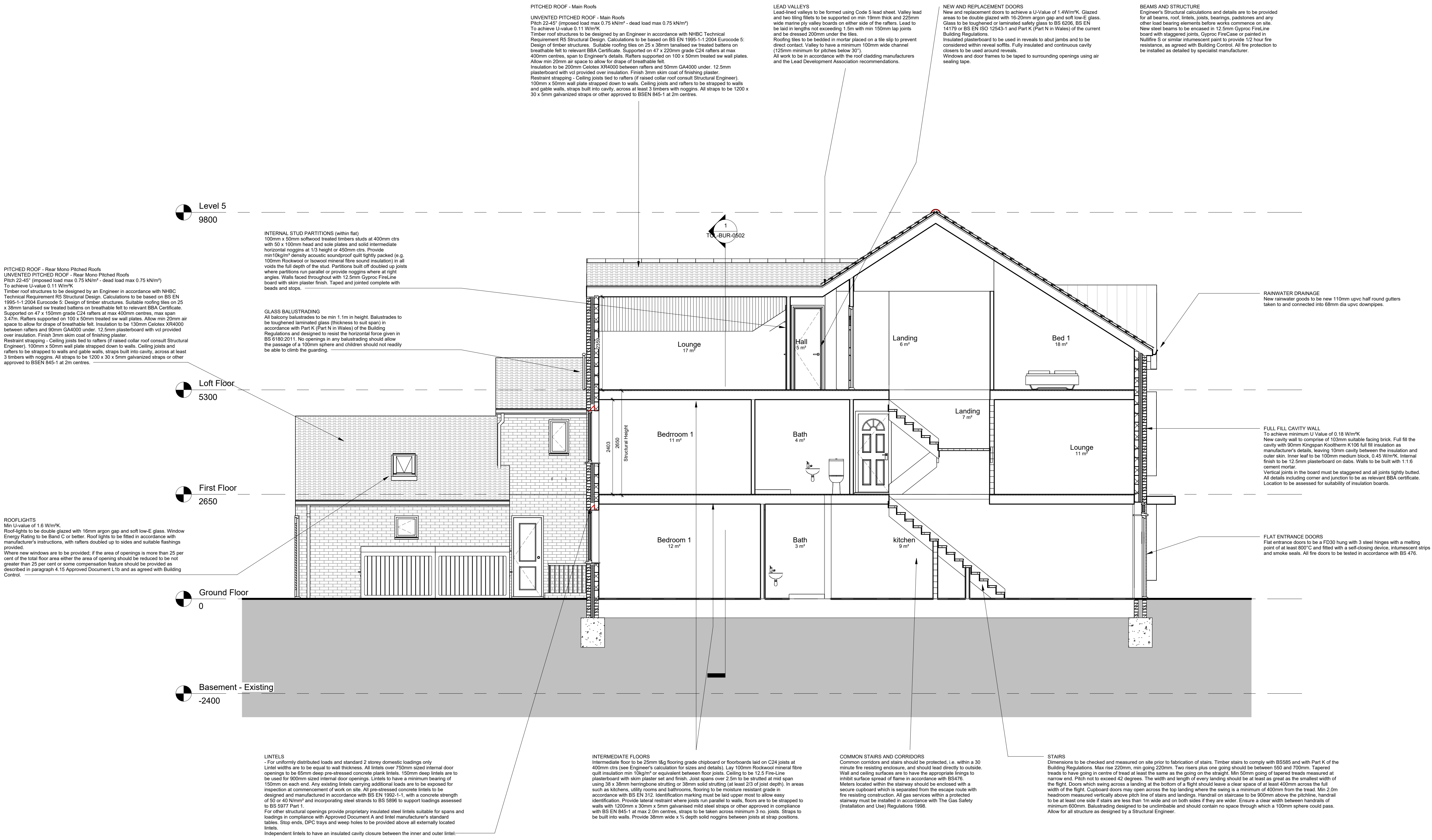
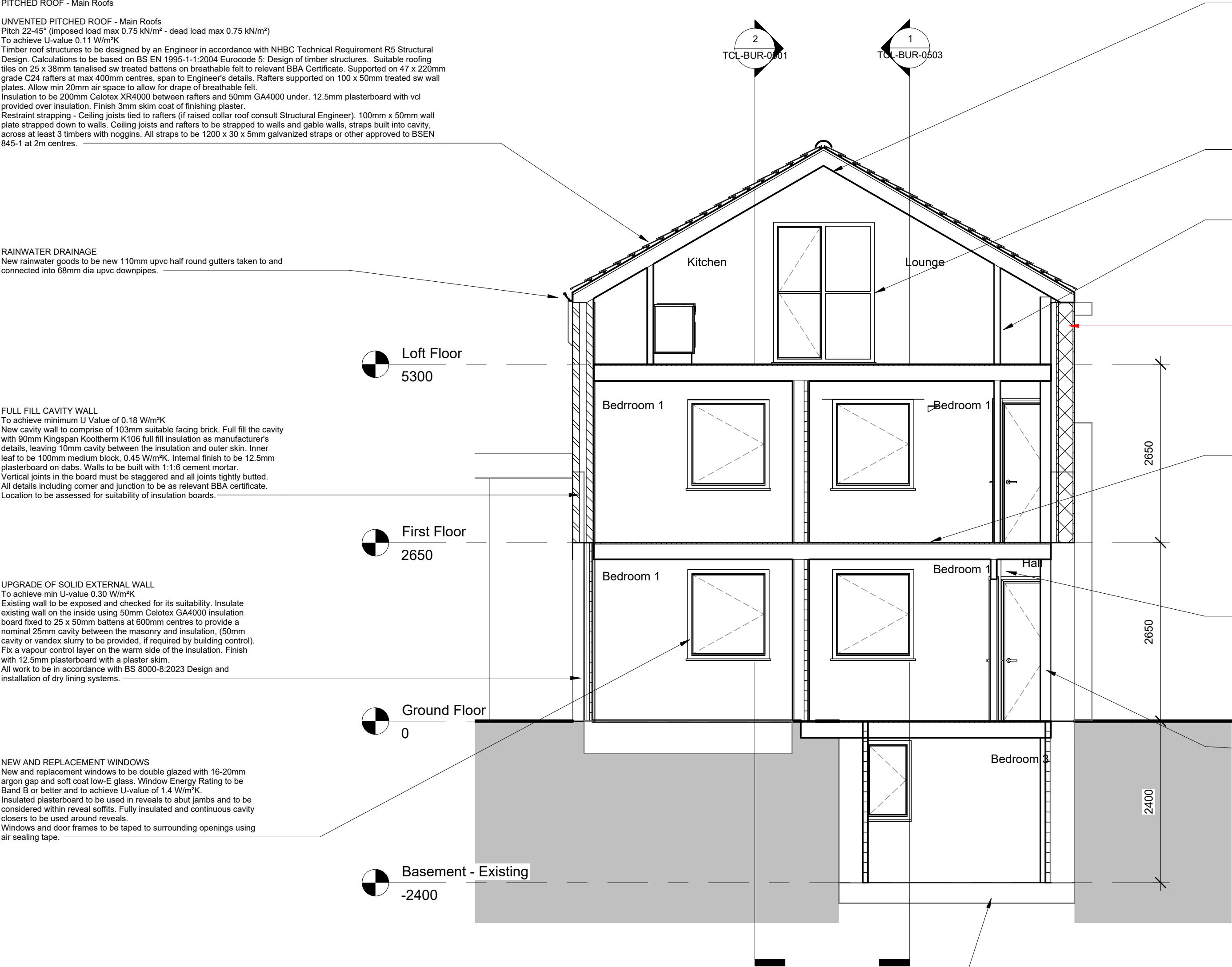






BEAMS AND STRUCTURE

Engineer's Structural calculations and details are to be provided for all beams, roof, lintels, joists, bearings, padstones and any other load bearing elements before works commence on site. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance, as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

LEAD VALLEYS

Lead-lined valleys to be formed using Code 5 lead sheet. Valley lead and two tiling fillets to be supported on min 19mm thick and 225mm wide marine ply valley boards on either side of the rafters. Lead to be laid in lengths not exceeding 1.5m with min 150mm lap joints and be dressed 200mm under the tiles. Roofing tiles to be bedded in mortar placed on a tile slip to prevent direct contact. Valley to have a minimum 100mm wide channel (125mm minimum for pitches below 30°). All work to be in accordance with the roof cladding manufacturers and the Lead Development Association recommendations.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes.

NEW AND REPLACEMENT WINDOWS

New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape.

INTERMEDIATE FLOORS

Intermediate floor to be 25mm t&g flooring grade chipboard or floorboards laid on C24 joists at 400mm ctrs (see Engineer's calculation for sizes and details). Lay 100mm Rockwool mineral fibre quilt insulation min 10kg/m³ or equivalent between floor joists. Ceiling to be 12.5 Fire-Line plasterboard with skim plaster set and finish. Joist spans over 2.5m to be strutted at mid span using 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). In areas such as kitchens, utility rooms and bathrooms, flooring to be moisture resistant grade in accordance with BS EN 312. Identification marking must be laid upper most to allow easy identification. Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1200mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¾ depth solid noggins between joists at strap positions.

ESCAPE WINDOWS

Where escape windows are required. The window should have an unobstructed clear openable area that is at least 0.33m² and have no clear dimension less than 450mm high or 450mm wide. The bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.

NEW AND REPLACEMENT DOORS

New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape.

STAIRS

Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Cupboard doors may open across the top landing where the swing is a minimum of 400mm from the tread. Min 2.0m headroom measured vertically above pitch line of stairs and landings. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

INTERNAL STUD PARTITIONS (within flat)

100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm ctrs. Provide min10kg/m² density acoustic soundproof quilt tightly packed (e.g. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm Gyproc FireLine board with skim plaster finish. Taped and jointed complete with beads and stops.

DRAINED CAVITY WATER PROOFING SYSTEM

Type C drained protection in accordance with BS 8102: 1990 - RIW Cavity Drain System as BBA certificate for use in new constructions. Ensure that all materials and products are compatible. Assess structure for suitability of tanking system. The surface must be examined for defects and repaired in accordance with manufacturer's details if required. All retaining elements are to be detailed by a Structural Engineer. All materials and products to be installed by a competent contractor strictly in accordance with the manufacture/recommendations, BS 8102 and BBA certificate.

Prepare wall by cleaning with a stiff brush. Provide a high density polythene (HDPE) cavity drain membrane, e.g. RIW Cavity Drain, fixed using RIW brick plugs to wall and floor slab staggered at 1m centres. Fixings to be sealed using RIW Sealing Rope. The horizontal and vertical sheets should be butt jointed at the base of the wall and the joint covered with a pre-formed RIW Wall/Floor Junction piece and sealed with proprietary sealing tape. The floor membrane is to be covered by reinforced concrete or screed at least 65mm thick. Provide a suitable drainage channel, e.g. RIW Aqua Channel within the slab around the perimeter of the floor and install a sump and mechanical pump as manufacturer's details with suitable access if required. Drainage channel to be provided with an adequate fall to a suitable soakaway. Ensure suitable access points and rodding eyes at every 10m and every change of direction. Penetrations through waterproofing to be kept to a minimum and filled with RIW flexible sealant or sealing rope detailed by RIW specialist waterproofing manufacturer where unavoidable. In very high water table area an additional moisture barrier may be required. Construct an independent timber frame with preservative treated timber studwork using 100mm x 50mm treated timbers with head and sole plates and noggins at 400mm ctrs ensuring an adequate clear cavity between wall and new stud for cavity drain membrane.

Level 5
9800

Loft Floor
5300

First Floor
2650

Ground Floor
0

Basement - Existing
-2400

TCL-BUR-0505

TCL-BUR-0601

1
TCL-BUR-0002

PITCHED ROOF - Main Roofs

UNVENTED PITCHED ROOF - Main Roofs

Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
To achieve U-value 0.11 W/m²K
Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures. Suitable roofing tiles on 25 x 38mm tanalised sw treated battens on breathable felt to relevant BBA Certificate. Supported on 47 x 220mm grade C24 rafters at max 400mm centres, span to Engineer's details. Rafters supported on 100 x 50mm treated sw wall plates. Allow min 20mm air space to allow for drape of breathable felt. Insulation to be 200mm Celotex XR4000 between rafters and 50mm GA4000 under. 12.5mm plasterboard with vcl provided over insulation. Finish 3mm skim coat of finishing plaster. Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult Structural Engineer). 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.

STUD ASHLARD/DWAF WALL

To achieve minimum U Value of 0.18 W/m²K
Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to Structural Engineer's details and calculations. Insulation to be 90mm Celotex GA4000 between studs with 50mm Celotex GA4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.

LINTELS

- For uniformly distributed loads and standard 2 storey domestic loadings only
Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS EN 1992-1-1, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1. For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturer's standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels. Independent lintels to have an insulated cavity closure between the inner and outer lintel.

ROOFLIGHTS

Min U-value of 1.6 W/m²K
Roof-lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions, with rafters doubled up to sides and suitable flashings provided. Where new windows are to be provided; if the area of openings is more than 25 per cent of the total floor area either the area of opening should be reduced to be not greater than 25 per cent or some compensation feature should be provided as described in paragraph 4.15 Approved Document L1b and as agreed with Building Control.

PITCHED ROOF - Rear Mono Pitched Roofs

UNVENTED PITCHED ROOF - Rear Mono Pitched Roofs
Pitch 22-45° (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
To achieve U-value 0.11 W/m²K
Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1:2004 Eurocode 5: Design of timber structures. Suitable roofing tiles on 25 x 38mm tanalised sw treated battens on breathable felt to relevant BBA Certificate. Supported on 47 x 150mm grade C24 rafters at max 400mm centres, max span 3.47m. Rafters supported on 100 x 50mm treated sw wall plates. Allow min 20mm air space to allow for drape of breathable felt. Insulation to be 130mm Celotex XR4000 between rafters and 90mm GA4000 under. 12.5mm plasterboard with vcl provided over insulation. Finish 3mm skim coat of finishing plaster. Restraint strapping - Ceiling joists tied to rafters (if raised collar roof consult Structural Engineer). 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.

FULL FILL CAVITY WALL

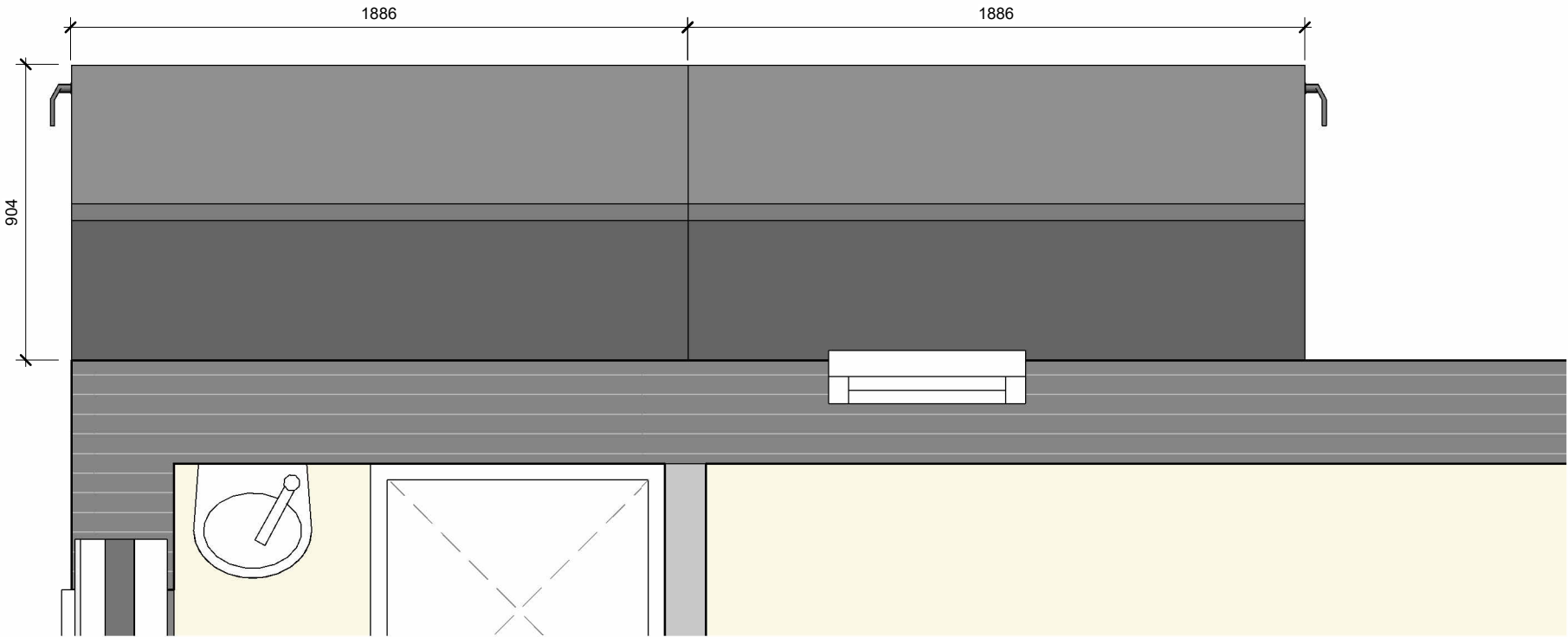
To achieve minimum U Value of 0.18 W/m²K
New cavity wall to comprise of 103mm suitable facing brick. Full fill the cavity with 90mm Kingspan Kooltherm K106 full fill insulation as manufacturer's details, leaving 10mm cavity between the insulation and outer skin. Inner leaf to be 100mm medium block, 0.45 W/m²K. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.5 cement mortar. Vertical joints in the board must be staggered and all joints tightly butted. All details including corner and junction to be as relevant BBA certificate. Location to be assessed for suitability of insulation boards.

TRENCH FOUNDATION

Provide 750mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A12 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found, or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a Structural Engineer should be sought.



Cycle Storage Location
1 : 100

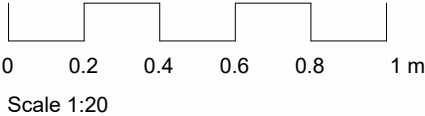


Cycle Storage Plan
1 : 20

Notes:

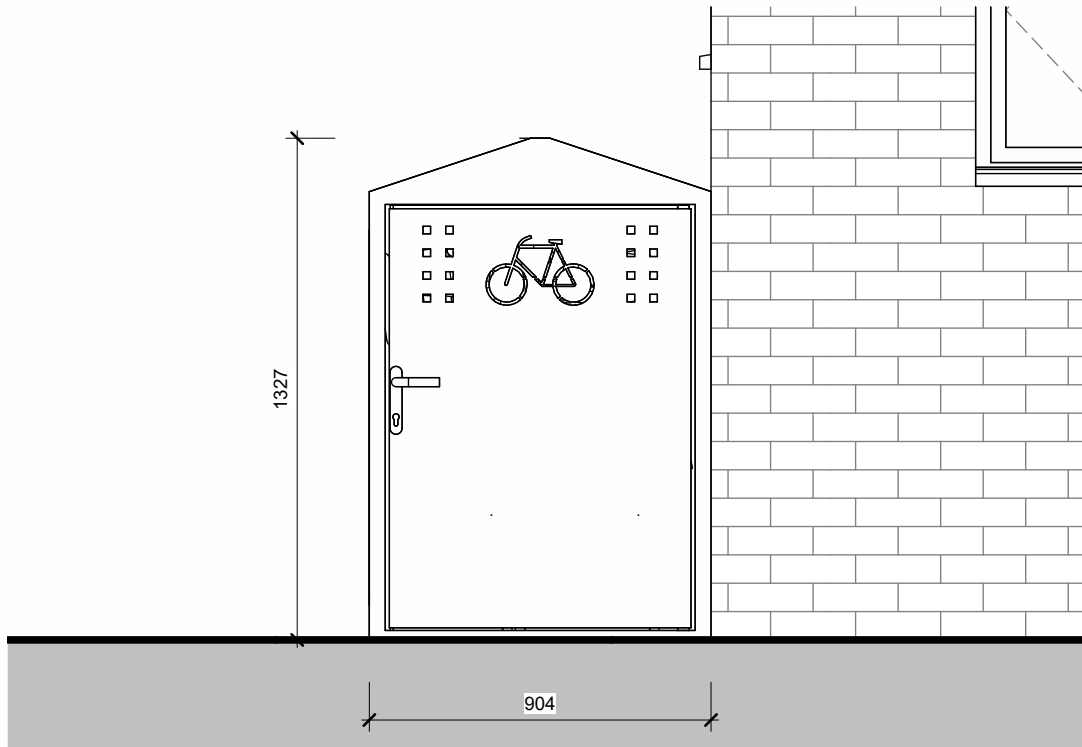
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This drawing is to be read in conjunction with all the relevant consultants and/or specialists drawings/documents, and any discrepancies or variations are to be notified to Team Consult before work commences.

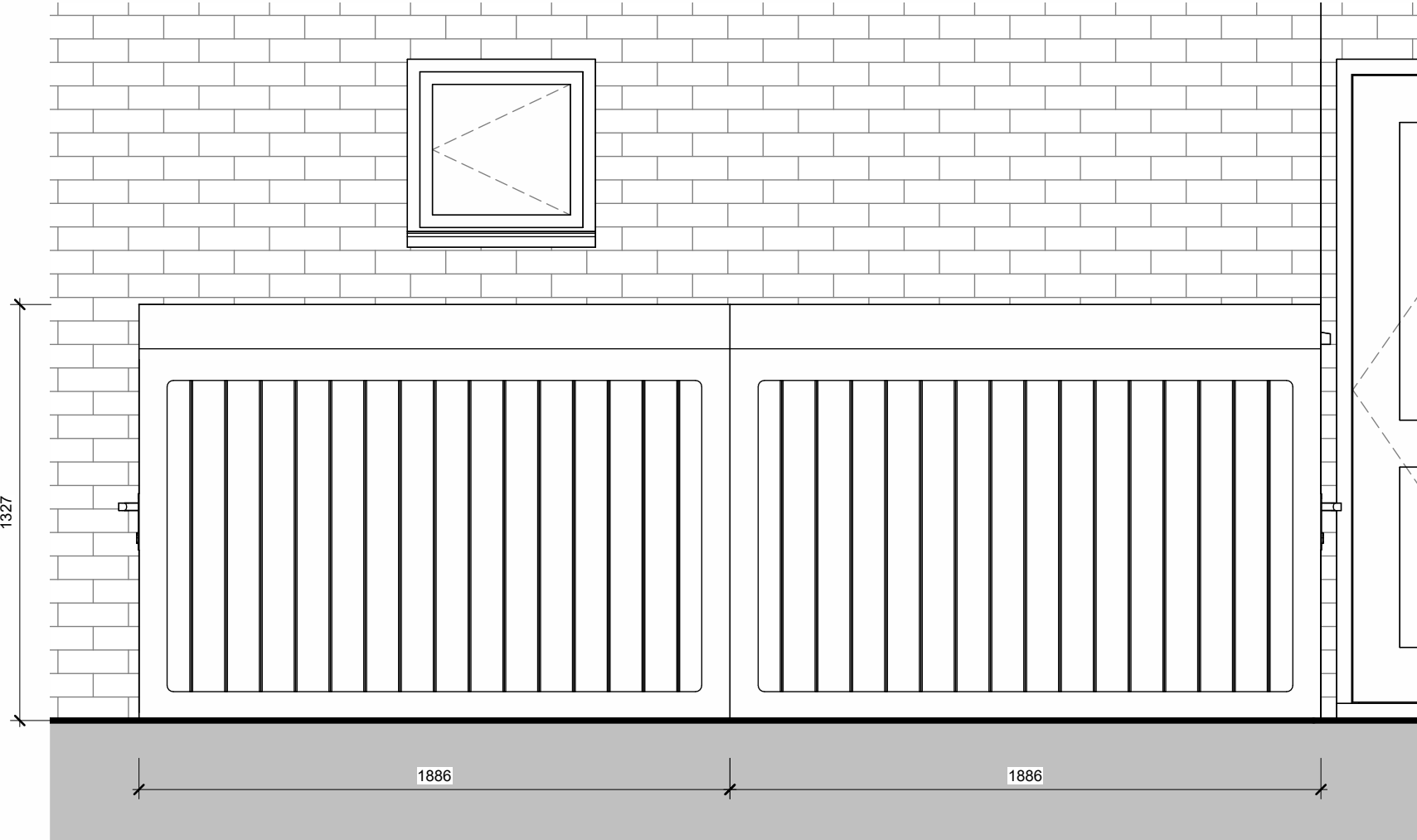


PLANNING

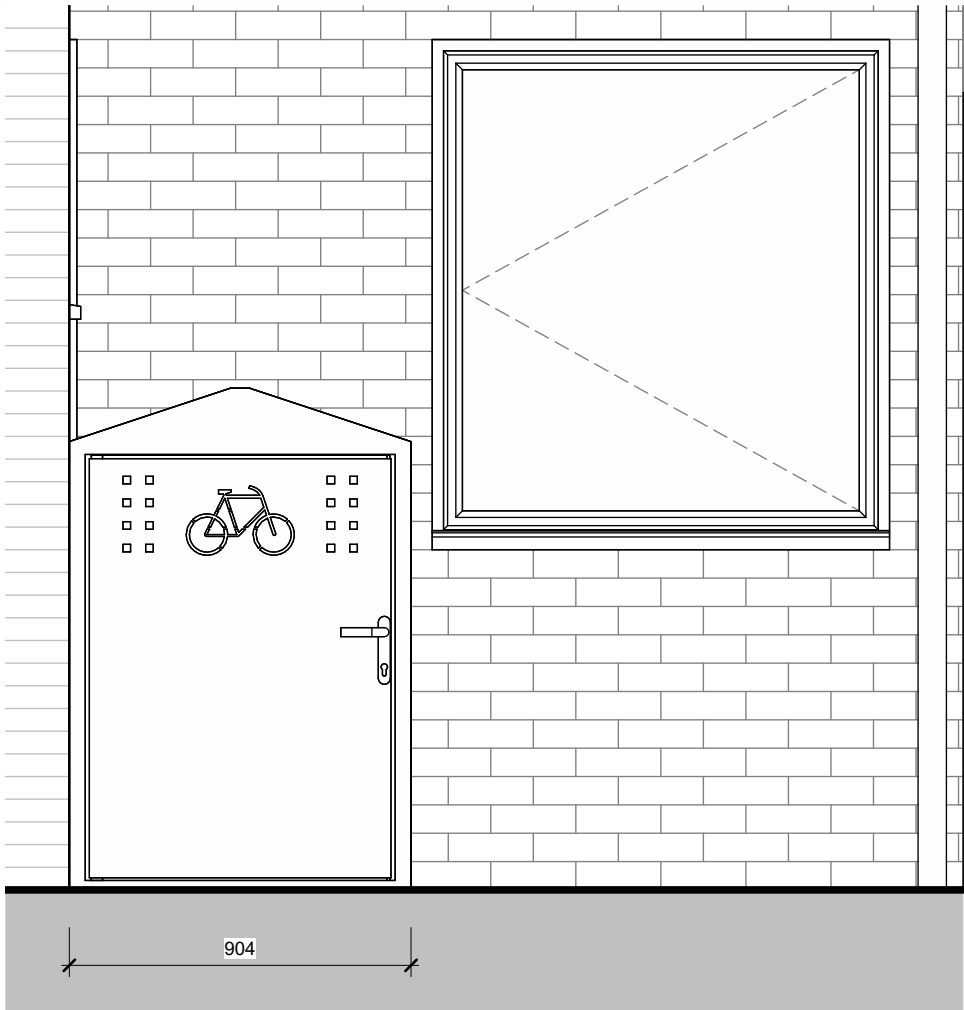
No.	Seq.	Description	Date
A	1	Updtaed structures/insulation	5/3/24
B	2	Cycle Storage Revised	25/3/24



Cycle Storage - Side Elevation
1 : 20



Cycle Storage - Front Elevation
1 : 20



Cycle Storage - Side Elevation.
1 : 20

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Project Title

FLAT CONVERSION

Client

**DHH BURNAGE LANE
MANCHESTER LTD**

Project Address

**185 BURNAGE LANE
MANCHESTER
M19 1FE**

Cycle Storage Details

Drawn by	Scale	Date
T.O.	As indicated @A1	MARCH 2024
Project No.	TCL708/12/23	

Sheet No. **TCL-BUR-0506**