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REVISIONS
 10.04.24 roof light size amended, umbrella detail and position added, internal blockwork and pointing indicated, mechanical extraction detail amended, notes added in bold for b reg compliance

REV A 20.05.24 due diligence ground bearing slabs incorporated 100mm FULL radon measures added, MJ's added counter batten to external timber boarding added metal roof liner amended (no longer perforated) due diligence notes added

REV B 30.07.24 contract drawing amendments roof build up description amended

REV C 01.08.24 contract drawing amendments acoustic insulation within A7 description amended

REV D 28.08.24 FOR CONSTRUCTION

B REG COMPLIANCE NOTES:

ALL EXTERNAL DOORS TO BE FITTED WITH SIMPLE FASTENINGS THAT ARE ALL OF THE FOLLOWING:
 1) EASY TO OPERATE (CLEAR & APPARENT)
 2) OPERABLE FROM THE SIDE APPROACHED BY PEOPLE ESCAPING
 3) OPERABLE WITHOUT A KEY
 4) OPERABLE WITHOUT REQUIRING PEOPLE TO MANIPULATE MORE THAN ONE MECHANISM

THE USE OF THE BUILDING IS CONSIDERED 'NORMAL HAZARD' MAX TRAVEL DISTANCE = 16.6M

ALL INTERNAL WALLS TO BE POINTED BLOCK WORK

EUROCLAD ELITE ROOF SHEETING TO BE INSTALLED AS ARRANGEMENT 'A' WHEREBY BOTH LAYERS OF THE INSULATING LAYER MAKE CONTACT WITH THE INNER AND OUTER SKINS OF THE ROOF CLADDING

ALL SEPARATING WALLS ARE TO EXTEND TO THE UNDERSIDE OF THE ROOF COVERING - PROVIDING 60 REI AND ALL STEELWORK WITHIN 1500 MM OF SEPARATING WALL TO BE PROTECTED BY 'UMBRELLA' DETAIL (AS SUPPLIED BY BE BOYS) GIVING 60MIN FR

ALL TIMBER CLADDING TO ACHIEVE B-s3,D2

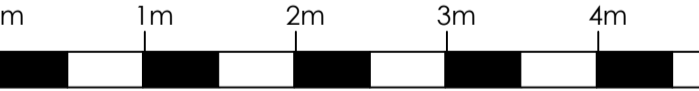
EUROCLAD ELITE ROOFING TO ACHIEVE Broof(t4)

ALL COLUMNS, BEAMS, PURLINS & RAFTERS TO AND BETWEEN GRID LINES A / B AND 1 / 2 & 3 ARE TO BE PAINTED WITH INTUMESCENT PAINT TO GIVE 60 MIN FIRE RESISTANCE & INTEGRITY

ALL ROOF LIGHTS ARE TO BE POSITIONED AT LEAST 1500MM AWAY (MEASURED HORIZONTALLY) FROM ANY & ALL SEPARATING WALL BETWEEN UNITS

THE FIRST FLOOR MEZZANINE POSITION IS INDICATIVE ONLY SO THE STEEL WORK CAN BE DESIGNED FOR THE LOADING IF INSTALLED AT LATER DATE - THIS LATER ADDITION WOULD BE SUBJECT TO FURTHER BUILDING CONTROL APPROVAL

RADON - FULL RADON PROTECTION REQUIRED - SEE C3



Original Drawn By	Date
EW	MAY 2024

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Client	The Duchy of Lancaster		
Contact	Root Farm Dunsop Bridge		
Drawing title	INDUSTRIAL UNITS PROPOSED ELEVATIONS 2 of 2 (working drawing)		
Scale	Job No.	Dwg No.	D
1:50	HB105	IU 06	

A STRUCTURE

A1 Foundations

- All concrete strips and pad foundations to SE's design and detail, laid in prepared trenches and excavations refer to drawing 23120-DR-S-ZA-0200
- The minimum depth of cover to all foundation positions to be 650 mm cover for frost protection. Steps in foundations are to be no greater than thickness of foundation (150mm) with a lap of twice the thickness. All foundations are to be to the satisfaction of the local authority building inspector on site.

A2 Floors

- Ground floor concrete slab construction - to SE's design and detail with power float finish, laid over visqueen radon R400 (RED) membrane to provide full radon membrane/DPM (see C2 & C3) in accordance with manufacturer's instructions and sheets to be lapped, taped and re-enforced at weak points as recommended. DPM to be laid over 120mm Kingspan Greenguard GG500 insulation (0.3 perimeter / Area) Insulation to be laid over sand blinding over 150mm well compacted DOT type 1 hardcore.
- Concrete slab construction to bin store area - to SE's design and detail with brush finish with trowelled edges, laid over 1200 gauge visqueen membrane in accordance with manufacturer's instructions and sheets to be lapped, taped and re-enforced at weak points as recommended. DPM to be laid over sand blinding over 150mm well compacted DOT type 1 hardcore.
- Flooring over WC units - 18mm OSB fixed over 15mm fire line board onto 50 x 100mm C16 floor joists at 400mm centres. OSB to be fixed with 3.1 x 50mm round shank nails at 150mm max centres. Underside of joists to be finished with 15mm fire line board and 3 mm plaster skim finish

A3 External Walls

- Stone Faced Walls**
 200mm natural stone outer facing leaf (below 50mm below ground level, outer facing may be block laid flat). Stonework to be faced onto 100mm concrete backing block with a 125mm cavity incorporating 75mm Kingspan Kooltherm K108 cavity insulation. 100mm dense block inner leaf (min 7KN/mm) paint grade finish. Steel frame to be incorporated into internal leaf as per SE's design, details and specifications. Internally, the block work walls are to be pointed finished. Externally, stonework to 1200mm is to be finished with a cut stone coping detail featuring a chamfered top edge and 25mm projection over the face of the stonework. MJ's and masonry ties as SE's details.
- Larch Boarded Walls**
 125 x 25mm square edge unfinished larch boarding (pre treated for fire protection) fixed, at recommended centres using fixings as recommended by specialist suppliers, vertically to 25 x 50mm horizontal tanalised slate batten on 25 x 50 mm vertical counterbatens, with 10mm gap between boards, fixed on 100mm concrete block leaf, with a 125mm cavity incorporating 75mm Kingspan Kooltherm K108 cavity insulation, with 100 dense block inner leaf (min 7KN/mm) paint grade, pointed finish. Steel frame to be incorporated into internal leaf as per SE's design, details and specifications. Internally, the block work walls are to be pointed finish, externally the timber boards are to be left unfinished to silver with age Ventilation detail to be provided to bottom edge of cedar boarding incorporating fly mesh to cill detail. MJ's and masonry ties as SE's details.

A4 Internal Walls

- Load-bearing walls - New 140mm paint grade blockwork walls will be built up from foundations designed and detailed by SE's. Pointed finish to internal blockwork walls.
- Non-loadbearing walls - Non load bearing walls to be 100 x 50mm studs at 400mm centre with sole plates and head plates and noggins between studs as necessary. Rockwool insulation min. 45kg density packed between studs. 12.5mm plasterboard to either side with a skim finish.

A5 Lintels and Beams

- Beams as indicated on plans and sections to SE's design.
- Lintels to openings within load bearing wall construction to be Naylor pre-stressed lintels (or equal approved). Sized by manufacturer with minimum end bearing of 150mm. Generally: Openings up to 900mm to have 100 x 70mm; Openings up to 1800mm to have 100 x 150mm high

A6 Roofs

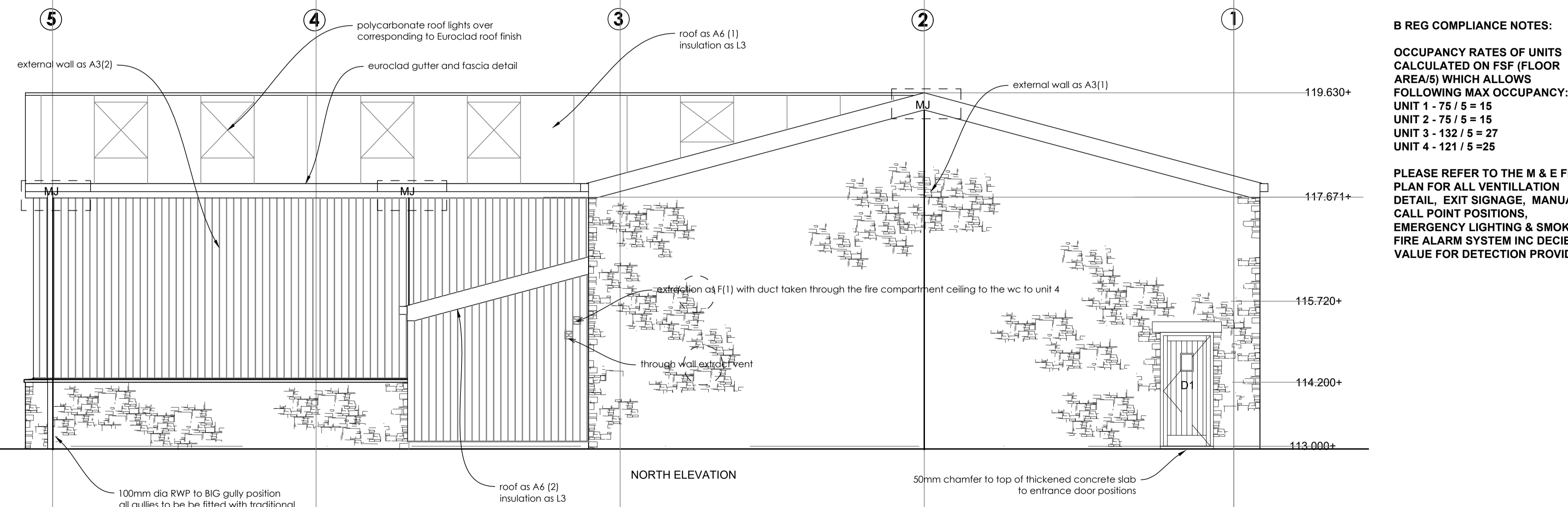
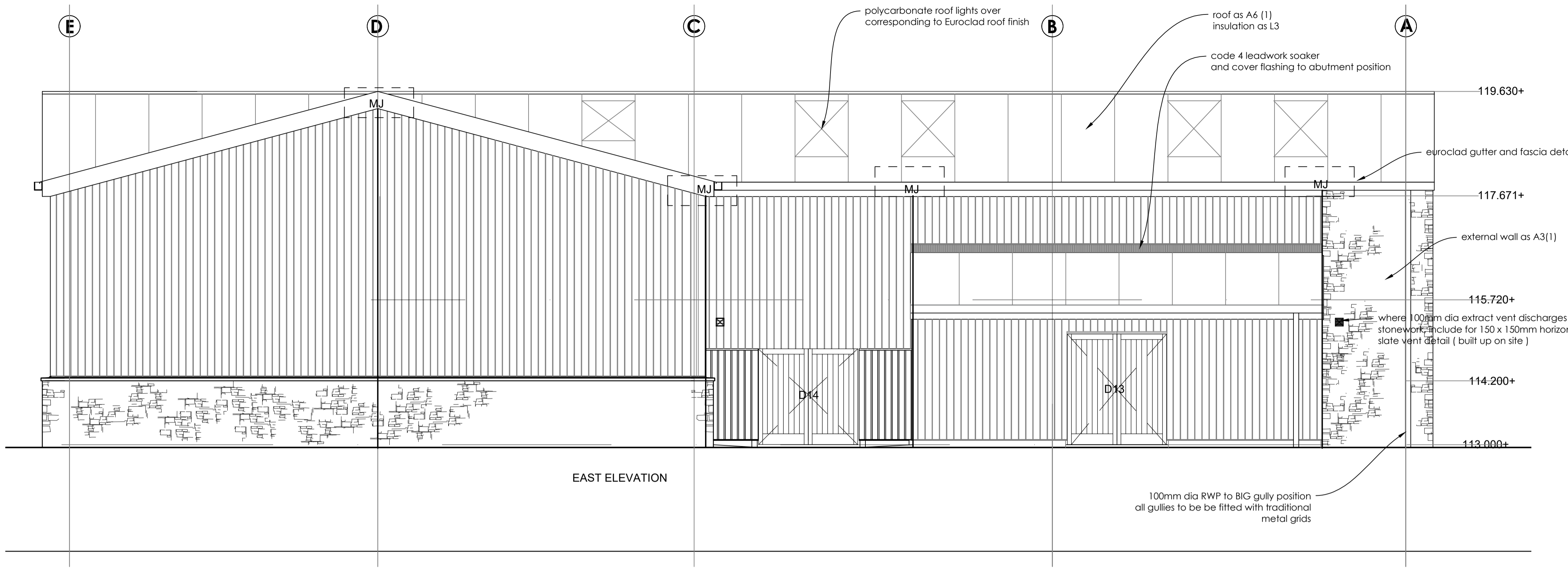
- All roofs are set to a 15 degree pitch.
 (1) Main roof to industrial units
 Roof to be finished in Euroclad Elite System 2 roofing system to incorporate a Euroclad EC 32 - 200 - 1000 Liner MWS (non perforated), a fully taped VCL (providing air tightness layer) 260mm Quattro bars and brackets, Euroclad EC 32 - 167 - 1000 Roof (BROOF(T4)) top sheet, finished in Colourcoat HPS200 Ultra. Roof build up to include 260mm Knaff insulation, giving a U Value of 0.18W/mK. Rooflights where indicated to be multi wall polycarbonate. Corresponding Euroclad fascia to eaves and verge positions as indicated. Roof panels to be fixed to Metsec 202.Z.20 purlins at max 1.5m centres fixed to steel frame as per SE's design and detail.
 (2) Roof to Plant Room
 Roof to be finished in Euroclad Elite System 2 roofing system to incorporate a Euroclad EC 32 - 200 - 1000 Liner MWS (non perforated), a fully taped VCL (providing air tightness layer) 260mm Quattro bars and brackets, Euroclad EC 32 - 167 - 1000 Roof (BROOF(T4)) top sheet, finished in Colourcoat HPS200 Ultra. Roof build up to include 260mm Knaff insulation, giving a U Value of 0.18W/mK. Roof panels to sit over 18mm OSB board laid over 50 x 150mm C24 timber rafters (15 degrees) at 400mm centres. Rafters to be supported and birdsmouth cut over 65 x 100mm timber wall plate to inner leaf of blockwork and onto a 50 x 150 C24 bearer bolted to masonry wall at 400mm centres with M16 bolts.
General
 - All roofs to be supplied with corresponding ridge, eaves and verge detail as necessary.

A7 Ceilings

- Euroclad liner to form ceiling finish to industrial units.

B FIRE SAFETY

- Smoke Detection**
 Full fire alarm system to be installed throughout building. Alarm system including smoke and heat detectors as per M&E consultants specification.
- 'Break Glass' actuation points provided in positions indicated on fire plan provided by M&E consultants.
- Fire Protection**
 (1) Fire collars are to be provided to any service passing through any compartmentation walls.
 (2) Cavity fire stops to be provided.
- Emergency Lighting**
 Emergency lighting to be provided to all exit doors and exit routes as per M&E consultants details
- Fire Extinguishers**
 Powder and water fire extinguishers to be provided in positions indicated, as per M&E consultants details.
- Fire Exit Notices**
 Will be provided in positions indicated as per M&E consultants details.



C SITE PREPARATION / MOISTURE

- C1 Dpcs and Cavity Trays**
 (1) At openings provide insulated vertical and horizontal dpcs to cills - Damcor or similar approved, built in as work proceeds.
 (2) Above openings provide cavity tray dpcs with stop ends to project min. 150mm beyond openings / jamb.
- C2 DPM**
 (1) Visqueen radon R400 (RED) membrane to provide DPM and provide full radon proof barrier, properly designed and installed as per manufacturer's instructions including all internal / external pre formed visqueen products and tapes.
- C3 Radon**
 (1) Full Radon protection to be provided.
 (2) Radon barrier to be laid in accordance with manufacturer's instructions and sheets to be lapped, taped and re-enforced at weak points as recommended.
 (3) Barrier to be lapped up at perimeter of new external walls and tapped to DPC to provide a continuous gas membrane through the external wall construction. All joints between membranes to be sealed. Cavity tray to be provided above DPC in all positions.
 (4) All joints between membranes to be sealed.
 (5) Where services are to pass through Radon barrier airtight seals must be provided in accordance with manufacturer's instructions.
 (6) Underground sumps to be formed within the building footprint under each separate slab position. Sumps to be proprietary gas sumps with concrete slab (reinforced) cast over. Sumps to be interlinked with pipe work as detailed to de-pressurisation pipe position which will extend to external position and turned to finish at finished ground level - fitted with suitable cap

C4 Leadwork

- At wall/roof/flashing abutments provide code 4 soakers and cover flashings.
- F VENTILATION**
 (1) WC to have extract ventilation of 15 litres / second wired back to lights switch.
- G HYGIENE**
G1 Cold water supply
 (1) Wholesome water, suitable for drinking purposes must be provided to all new cold water tap positions.
G3 Hot Water Supplies and Systems
 (1) Hot water provision to be provided at point of source and is to be designed and installed to resist the effects of temperature and pressure.
 (2) All hot and cold-water installation must be carried out by a self certified competent person.
- H DRAINAGE**
H1 Foul Drainage
 Drainage as per specialist detail and design 100mm diameter foul drain to be provided to each space as indicated
H3 Rainwater Drainage
 (1) Rainwater to be discharged deep flow min 100mm half round cast iron gutters and corresponding rain water down pipes, in positions indicated. RWP's to be fitted directly over gullies fitted with grate covers, connected to 100mm diameter drains as indicated on drainage layouts and as described above.
 (2) Drains to connect to sw drainage system. Pipework as H1/2 gullies - vertical back inlet gullies with rodding access installed to manufacturer's instructions with seal plates/ grilles.

K PROTECTION FROM FALLING, COLLISION AND IMPACT

- K2 Guarding**
 (3) All glazing to glazed doors and glazed screens within 300mm of doors, also to windows with cills less than 800mm above floor level or external ground level, provide toughened safety glazing to BS6206.
- L CONSERVATION OF FUEL AND POWER**
NOTE All industrial units and plant room are not to be heated. Insulation provided to improve working conditions within units
L1 Floors
 (1) 120mm Kingspan green guard GG500 insulation to achieve a max U value of 0.18 W/m K. with 25mm perimeter insulation to act as a thermal break. (based on 0.3 Perimeter / Area M2)
(2) L2 Walls
 Cavity wall insulation in masonry construction (75mm Kingspan Kooltherm K108) to achieve a maximum U-value of 0.19 W/m K. Jambas at openings in walls to have 'Damcor' insulated dpc.
L3 Roof
 (1) 15 degree pitch roofs formed with Euroclad build up roofing system Elite System 2 incorporating 260mm rockwool insulation, to achieve a max U value of 0.18 W/m K.
L5 Doors
 Doors to achieve max U-value 1.8 W/m K.
L5 Lighting
 (1) 75% of all light fittings must be low energy fittings to accept only low energy light bulbs.
 (2) External lights to have maximum lamp capacity of 150 watts per fitting and be fitted with controls which automatically switch off when (i) there is enough daylight; (ii) when light is not required.

DUE DILIGENCE NOTES:

SE'S TO ORGANISE ALL TEMPORARY WORKS DETAILS

REFER TO SE'S DETAILS FOR FULL FOUNDATION, CONCRETE SLAB, MOVEMENT JOINTS AND ALL STEELFRAME / WORK DETAIL AND INFORMATION

REFER TO SE'S DRAINAGE DESIGN FOR ALL FOUL AND SURFACE WATER DRAINAGE DETAIL

REFER TO M&E DETAILS FOR FULL BUILDING PERFORMANCE SPECIFICATION

M ACCESS FOR DISABLED PEOPLE

- All entrance doors have min 900mm clear opening width
- Door handles to be fitted between 900 - 1100mm.
- All internal doors have min. clear opening width of 850mm.
- All light switches and sockets are to be provided min 450mm above floor level and max 1200mm above floor level.

P ELECTRICAL SAFETY

- All electrical work will be carried out to meet the requirements of Part P by a person competent to do so. Prior to completion the Council are to be provided with a copy of either:
 - An electrical installation certificate issued under a Competer Person Scheme
 - An electrical installation certificate signed by a person competent to do so.

B REG COMPLIANCE NOTES:

OCCUPANCY RATES OF UNITS CALCULATED ON FSF (FLOOR AREA/5) WHICH ALLOWS FOLLOWING MAX OCCUPANCY:
 UNIT 1 - 75 / 5 = 15
 UNIT 2 - 75 / 5 = 15
 UNIT 3 - 132 / 5 = 27
 UNIT 4 - 121 / 5 = 25

PLEASE REFER TO THE M & E FIRE PLAN FOR ALL VENTILLATION DETAIL, EXIT SIGNAGE, MANUAL CALL POINT POSITIONS, EMERGENCY LIGHTING & SMOKE / FIRE ALARM SYSTEM INC DECIBEL VALUE FOR DETECTION PROVIDED

FOR CONSTRUCTION