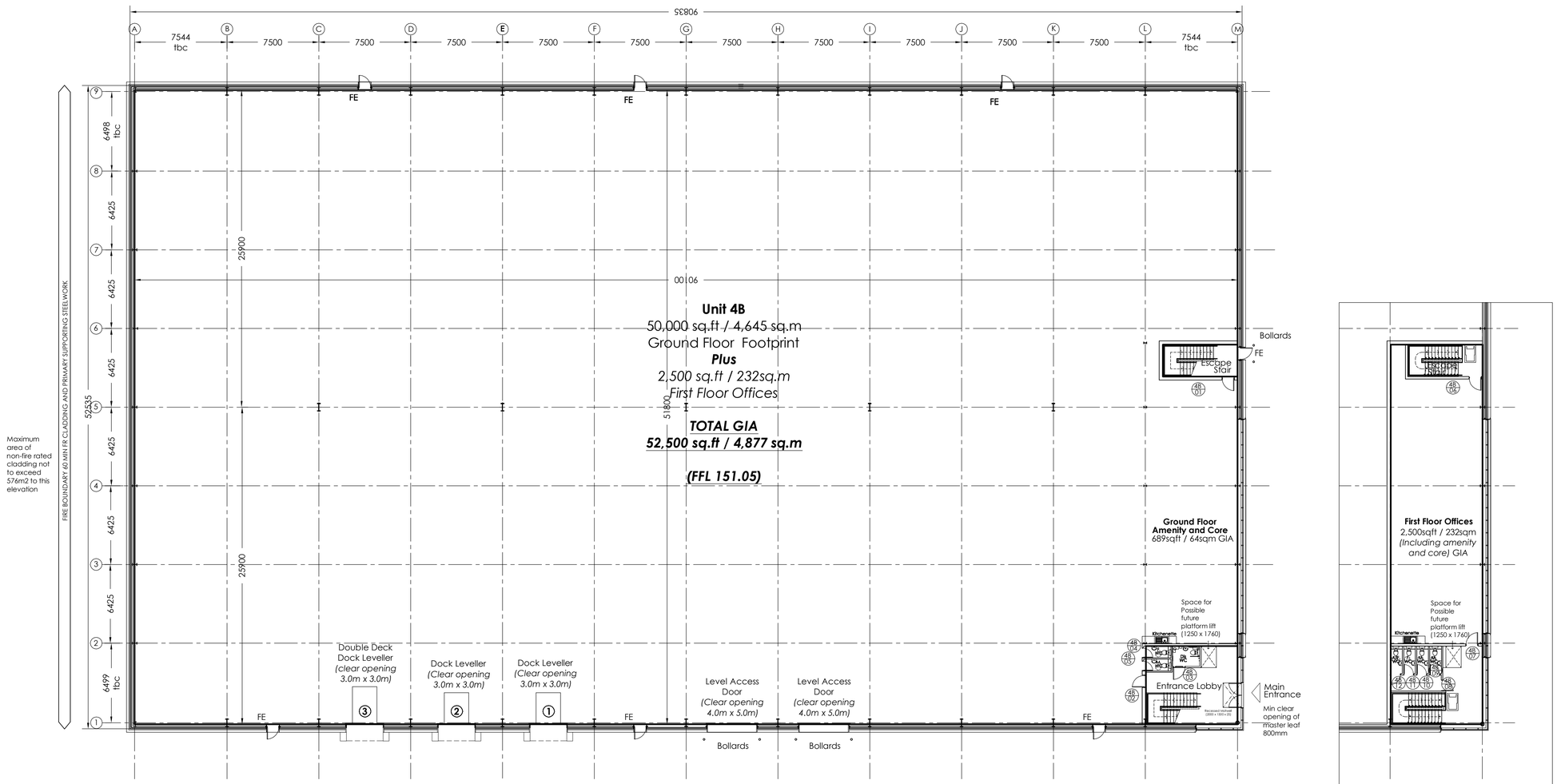

SPECIFICATION NOTES

This specification is to be read in conjunction with the Architects and Structural Engineers drawings, planning consent and discharge approvals.

This Specification also to be read in conjunction with the Site Investigation prepared by the Environmental Consultant. Comply with the requirements and recommendations of the Environmental Consultant and the Structural Engineer's proper interpretation of such requirements

TENDER SPECIFICATION
GENERAL

The works are to be in full accordance with all current and relevant current codes of Practice Building Regulations and British Standards and requirements of Statutory, Local and other Authorities including, amongst others:-

A. The Local Planning Authority
B. Local Fire-Lives
C. Environmental Health Officer
D. Environment Agency
E. Highways Authority
F. Building Control/Fire Officer
G. Loss Prevention Certification Board (LPCB)
H. Health & Safety CDM Regulations
I. Manufacturers Recommendations
J. Disability Discrimination Acts (DDA)
K. Institute of Electrical Engineers (IEE) Regulations
L. LPC Design Guide for the Fire Protection of Buildings 2000
M. Any other body which has jurisdiction with regard to the works or whose systems are connected to the works.

SUBSTRUCTURE

Allow for breaking up and disposal of any hard-standings including grubbing up kerb foundations where required, disconnection of any services present, removal of topsoil and vegetation, surplus soil and materials not required, re-levelling, re-grading and making up levels.

Any material deemed to be contaminated should be removed to a licensed disposal facility if required. Any contaminated material known to be present and not required to be removed shall be properly recorded for inclusion in the Health & Safety file.

Live services are to be verified with statutory authorities and made safe as necessary.

FOUNDATIONS:

Carry out all or any ground stabilisation works which may be required by the Engineer's design.
All foundations will be in accordance with the details prepared by the Structural Engineer and approved by the Local Authority to suit the ground conditions prevailing on the site, imposed loading and any relevant statutory requirements, with due margin for safety. All foundation designs and ground works are carried out in accordance with BS 8004.

Reinforced concrete foundations to external walls and piled foundations for all steelwork as indicated on the structural engineers drawings. Size/type/depth dependant on ground conditions and all to consulting engineers specification, detail and design.

STRUCTURAL STEELWORK:

The main building structure is to comprise a steel portal frame, designed to BS 5950 to Contractor Design in accordance with the structural engineer's design intent and steelwork specification. The frame loading to be assessed in accordance with BS 6399 and to be agreed with Structural Engineer. All steelwork to be shot blasted and primed prior to delivery to site. The primer paint specification is to be drawn from BS 5493, giving due consideration to local conditions. All exposed untreated steelwork will receive an approved primer drawn from BS 5493 giving due consideration to local conditions, light grey, prior to erection, touched up after erection. All steelwork encased within masonry and/or below dpc to be painted with 2 coats of bituminous paint. Dead, snow and wind loadings are to be determined from BS 6399 Part 1 and Part 3, including all current amendments (and taking due consideration of local snow build-up and hurricane conditions) and all relevant Building Research Establishment Papers.

Any projections of the structural columns into the unit beyond the internal face of the perimeter walls will be as detailed on the Architect's drawings.
All steelwork to be designed fabricated and erected to the approval of the Structural Engineer and to the satisfaction of the Building Control officer.
Structural steelwork to receive 2 no coats of bituminastic paint finish where encased in blockwork. All floor supporting steel work to receive fire protection to achieve a min of 1 hours fire resistance.

Where brickwork is to be constructed around sheeting rails, the rails are to be protected with 3no coats RIW LAC to extend 300mm to each side of the masonry.

EXTERNAL WALLS:

Blockwork to be max 20kg per block, all blockwork to be 7.0N/mm² crushing strength, unless otherwise specifically noted on the Structural Engineers drawings.

Low level comprising of:
100mm charcoal Engineering brickwork outer leaf to DPC with weak mix concrete fill and insulation to ground level, Kingspan Thermawall partial fill cavity wall insulation or similar with 50mm clear. All to achieve a min U value as required by SBEM calculations.

CAVITY WALL CONSTRUCTION:

Safety pattern stainless steel wall ties at max 750mm centre horizontally and max 450mm centres vertically. Ties to be space at 225mm vertically centres around opening and no further than 225mm away from un-bonded jambs. Wall ties to structural engineers specification and detail.
Universal insulation board retaining clip to be provided to restrain insulation as necessary.
All cavity walls to be closed at heads and around openings with Thermabate cavity closers as appropriate.
Isover or similar sleeved cavity barriers at 20mm centres and junctions of compartment walls, floors & stairs, vertically, & horizontally at compartment walls & tops of open cavities.
Movement joints to engineers specification, detail and design. Proprietary joint fillers and mastic sealant to movement joints. In designated fire compartment walls, all movement joints are to be sealed with intumescent sealant.
Weep holes to be provided above all openings and at base of cavity at 900mm centres, to current BS requirements.

DPC's:

DPC's to external walls to be 150mm min above external ground level. Horizontal and vertical DPC and cavity trays of 500-micron polythene to BS743 or reinforced insulated bitumen felt to BS747.
DPC's to have bonded insulation to avoid cold bridging.
Insulated DPC's/thermabate cavity closers to heads, sills and jambs of all openings as appropriate.
DPC trays above all openings in external walls.
DPC's to walls to tap with DPM at ground floor slab.

GROUND FLOOR SLAB:

Reinforced concrete ground floor slab to structural engineers design and specification, on rigid board insulation if required to achieve minimum 'U' value as required by SBEM calculations, on min. 1200g DPM (determined by eng.) with joints lapped and taped on a sand blinding. All on min 150mm thick consolidated hardcore fill to Engineers specification. DPM to lap with DPC's to walls.

CLADDING :

To comprise of a the following:-
- Kingspan K1090MR profile composite panel steel outer sheet with LPC approved insulation and bright white enamel coated internal sheet.
- 0.7mm thick sheet trapezoidal profile outer sheet with mineral wool insulation and 0.4mm thick sheet bright white liner panel.

All fixed in accordance with manufacturers details. Panels are to achieve a minimum 'U' value as required in SBEM calculations.

GUTTER FEATURE BEAM:

Integrated preformed polyester powder coated 'Feature Beam' by Metaline.

FLASHINGS:
HPS200/PVF2 coated 0.7mm thick purpose made pressed metal drip flashings.

ROOF CONSTRUCTION :

Roofs to be constructed 0.7mm thick galvanised, and Plastisol or HPS200 (or similar) coated steel outer sheet with mineral wool insulation and 0.4mm thick galvanised steel liner panel finished bright white polyester coating.
Fascia to be constructed from PVF2 polyester powder coated pressed metal (stiffened to avoid rippling).
Overall roof construction to achieve minimum 'U' value as required by SBEM calculations.

The cladding installations to be carried out in accordance with the Federation of Roofing Contractors' publication, "Profile Sheet Metal Roofing and Cladding, a Guide to Good Practice" and the British Steel Corporation publication "Strip Products Enhanced Performance Guide" and shall comply with the manufacturer's recommendations and instructions. The roofing system to be in accordance with BRE Report 262 - Thermal Insulation Avoiding The Risks.

PENETRATION THROUGH ROOF / FLASHINGS:

The following is to be included for accommodating any mechanical heating system. The roofing contractor is to fit roof cowls, pitch correction bends and flue terminals during a visit within the tenants fitting out period. The return visit by the roofing contractor is to be included. Supply and fix structural framing, 150mm high upstands and soaker sheets.

Note: These will be over and above the provision for all necessary holes and flashings to accommodate the office area ventilation, warehouse area openings etc. undertaken by the developer.

RAIN WATER SYSTEM:

Traditional gravity drainage system, galvanised steel external downpipes with coating to match cladding with rodding access 600mm above ground level. A sufficient number of weir overflows to be provided, to ensure that no excess water surge runs
Capacity of building as determined by the specialist cladding sub-contractor.
All RWP must include suitable leaf guards.
Refer to specialist sub-contractor for locations of outlets and overflows.

GUTTERS:

Polyester powder coated trimline gutter. Thickness to comply with BS 1091:1963 (1980) with joggle joints lapped sealed and concealed joints. Gutters are to be suitably supported.
The specialist system designer / installer must take account of gutter size, outlets and pipe work both above and below ground when designing the installation.

DOORS AND SCREEN :

All glazing to be high performance polyester powder coated with 50% gloss ± 10% selected from the standard RAL colour range.
Curtain walling to be thermally broken Technal MG 'frame' horizontal or similar and approved. Remaining glazing to be Polyester Powder Coated aluminium units. All glazing to be suitable to meet the local wind loading conditions, and minimum 'U' values as noted in the SBEM calculations. All to be double-glazed low E coated and Argon filled, and to be fully compliant with the requirements of the Building Regulations.
All glazing below 800mm in windows and 1500 in doors to be safety glass to BS6206: 1981 Class C.
Provide suitable manifestation to all glazing where required by Building Regs Part 'M'.
All windows and screens/doors should have flexible packing materials around its perimeter and should be painted externally and internally with one part polysulphide sealant.
To be complete with ironmongery, trickle vents as required to windows and accessible threshold to doors.
Entrance doors are to be manual with min clear width and max opening forces in accordance with Part 'M' of the Building Regs.
Mechanical fixings for windows and entrance door frames to be stainless steel to BS EN ISO 3506-1 and 2, Grade A2 generally (Grade A4 in severely corrosive environments) or hot dip galvanised mild steel to BS4190 or aluminium to BS1474 for brackets, rivets and shear pins. Appropriate separation means to be employed between fixings and aluminium framing sections where a reaction may occur.
The external paving in front of the entrance and service doors will be designed to fall away from the building to prevent ponding. Adequate precautions are to be taken to ensure the prevention of water ingress under all doorways.

WINDOW CLEANING:

Where glazing is not accessible internally, glazing to be cleaned from the outside using 'water' fed pole from ground level.

OVERHEAD SERVICE DOOR:

Electrically operated sectional overhead doors with manual chain override. Insulated with a minimum 'U' value as noted in the SBEM calculations, 4000 x 5000mm high clear opening. External finished in HPS200 plastisol. Inner skin polyester coated galvanised steel in stucco embossed finish.

FIRE EXIT DOORS:

The doors and frames shall be of steel construction to meet the requirements of LPS 1175 and shall be supplied to site pre-finished, and complete with all necessary weatherbars, door stays. Door thresholds shall be designed to prevent the ingress of water and with a maximum upstand of 13mm. Door frames shall be a min of 1.6mm zinc plated mild steel, fixed in accordance with manufacturer's specification. Doors shall be a min of 1.2mm zinc plated mild steel and shall be solid cored with fully welded construction.

Doors to include draught seals to all edges including meeting styles.

LINTELS:

Proprietary pre-cast reinforced concrete or galvanised steel insulated lintels to door and window openings to Engineers details with min end bearing of 150mm, lintel to bear on full brick, not half brick. Lintels should not cause cold bridging. Lintel detail to achieve minimum 'U' value as required by SBEM calculations. Include cavity trays, stop ends and weep holes @450mm c/c over lintels to masonry outer leaf.

LIGHTING PROTECTION:

The building shall include a complete lightening system supplied, installed, tested and commissioned in accordance with BS 6651 and the building specification.

ELECTRICAL INSTALLATION:

The electrical installation in respect of the design, construction, inspection and testing of the works, shall be carried out by competent persons, and authenticated by certification as required by BS7671 17th Edition and CEBSE guide.

DRAINAGE:

Soil & vent pipes to terminate 1000mm above any ventilation opening, tops to be fitted with balloon grates.
WC's to have min 75mm deep seal trap with 100mm dia. PVC soil pipes & traps. Wash basins to have min 75mm deep seal trap with 50mm PVC soil pipes & traps. Showers to have min 50mm deep seal trap and 40mm Ø PVC soil pipes & traps. Urinals to have min 75mm deep seal traps and 40mm Ø PVC waste pipes. All waste pipes to connect to soil & vent pipes.
Disabled WC's/showers to be laid out in accordance with Building Regulations 2004, Part 'M' operdular.
Internal pipe runs, where appropriate to be fully boxed (inclusive of achieving appropriate level of sound attenuation where required).
Appropriate fire stopping (1hr rating) to be accommodated for all service penetrations through compartment floors/walls.
Underground drainage to Engineers design detail and specification to accord with Local Authority specification. Size/gradients/direction as on drainage layout drawing by Structural Engineer. Vitrified clay ware of UPVC flexible jointed pipes on bedding to manufactures details. Drains below foundation level backfilled with weak mix concrete up to foundation level (45° rule).
Relieving lintels over sewer pipes passing through walls or flexible joints as diagram A1, document HA10. Ground floor waste to be fixed to proprietary waste adaptor with access for cleaning.

VENTILATION:

Mechanical or natural ventilation to all habitable/working areas to meet requirements of Building Regs.
Mechanical ventilation to all WC's, to give a min of 3 air changes per hour to sub-contractors spec. details & design.

FIRE PRECAUTIONS:

Compartment walls to be taken up to underside of roof and fire stopped unless otherwise stated.
All elements of structure to achieve the required fire resistance to meet Part B of the Building Regs, dependant on use, height, size and proximity to boundary.
All fire doors & frames shall be from an approved manufacturer & be fully certified under the BWF Certifire scheme and shall include vision panels required to doors to stair towers and corridors.
Level landings externally to all escape doors. Unobstructed pathway to be provided from rear escape doors to place of safety.
Emergency lighting to British standard 5266 to sub-contractors specification, details & design. Exit signs to B.S. 5499 Part 1 to all escape doors.
Fire alarm system to British Standard 5839 Part 1 to sub-contractors specification, design & detail.
Location, type and number of fire fighting equipment to British Standard 5425 to sub-contractors specification, design & detail to all areas and to the satisfaction of Building Control and the Local Authority Fire Prevention Officer. Include for installation of sprinkler tank & associated pump house. Size requirements TBC by M&E specialist.

FIRE BOUNDARY CONDITION:

All steel stanchions post on fire boundary condition to be treated with intumescent paint to give 1 hour fire resistance. The base fixings to be in accordance with structural engineers design. Cladding to be specified and fixed in with table 16 page 94 Part B BUILDING REGULATIONS 2000 edition.

STAIRCASE:

Staircase to be compliant with Building Regs Part K, M and B and BS5395 & BS6180. Rise of each step to be 150-170, going 250mm min with a min 2m headroom, measured above pitchline of stair. Landings to comply with current Building Regs. Ambulant stairs to have a minimum tread width of 1200mm and min clear width between handrails of 1000mm All nosings to be made apparent by means of a permanently contrasting material 55mm wide on both the riser and the treads.
Stairs to specialist Sub-Contractors design, structural support for stairs to be to Engineers design. All dimensions must be confirmed on site prior to manufacture.
Balustrade and handrail to specialist details. Both handrail and balustrade must be capable of resisting the horizontal force given in BS 6399:1996. Handrail to be a min of 900mm above pitchline of stair, balustrade to be a min of 1100mm high on landings and to extend 300mm beyond the top & bottom riser. Handrail must terminate in such a way as to reduce the risk of clothing being caught.

COMPLIANCE WITH PART L2 - BUILDING REGULATIONS

SHELL WORKS:

AIR TESTING:

An air-tightnes test is to be carried out by the contractor prior to P.C. this test is to be carried out by specialist sub-contractor and must conform to all current legislative requirements and Building Regulations. The air test should, comply with BS EN 13829 : 2001 and be to a minimum requirement of 7.5m3/h/m2 @ 50 Pa to comply with AD2 or to achieve the BER determined by the SBEM calculations, whichever is lower. Any defects, etc highlighted by the test are to be rectified by the contractor prior to Practical Completion. To aid the rectification of any defects when attending site to carry out the air-tightness test specialist sub-contractor are to bring with them all equipment to carry out a smoke test, this test if required can then be carried out on the same day as the air-tightness test and so cause minimum disruption to progress on site.

PLATFORM LIFTS

Provision to be made for future installation of platform lift by incoming tenant, if required.

PROPOSED GA PLANS
scale 1:200 @ A1

0 2 4 6 8 10m
SCALE 1:200

CAD file reference 14698B - 17.0 Drawings\200 Series-Tender

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE CONTRACTOR IN PREPARING A DESIGN AND BUILD TENDER AND IS NOT INTENDED TO BE A FINAL DRAWING FROM WHICH ACCURATE QUANTITIES CAN BE TAKEN. ALL DETAILS SHOWN ARE SUBJECT TO DESIGN DEVELOPMENT.

Rev	Date	Description	Rev By	Chkd By
A	26.07.18	Dock levellers amended.	SJB	-

Project Title	Proposed Development Unit 4B Ashroyd Business Park Junction 36 M1 Barnsley S74 9SB
Client	Network Space Ltd
Status	Tender
Scale	1:200 — Drawing Size A1
Date	05/18 — Drawn By SJB — Checked JMR
Drawing Title	Proposed Ground & First Floor Plan - Unit 4B
Job-Dwg No	14698B-208 — Rev A

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