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DEVELOPMENT SPECIFICATION

for

Hillarys Developments (No5) LLP

at

Suite I and J
The Wetmore Maltings
Burton Upon Trent

June 2014

Odin
ESTATES LTD

PROJECT PARTICULARS

THE PROJECT

The refurbishment and conversion of the existing Grade Two Listed Maltings buildings to provide new residential apartments for letting and including car parking, external landscaping and associated works.

EMPLOYER
Hillarys Developments (No5) LLP
Rolleston Manor
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NG23 5SE.

ARCHITECT
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CONSULTING ENGINEER
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PROJECT MANAGER
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ACOUSTIC CONSULTANT
Environmental Noise Solutions Limited
Doncaster Business Innovations Centre
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CDM COORDINATOR
PRLC Limited
45 Rockingham Gardens
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West Midlands
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APPROVED INSPECTOR
Building Consents Limited
School Cottage
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SBEM AND ENERGY CERTIFICATE CONSULTANT
Ashby Energy Assessors Limited
The Stables
Hill Top Farm
Croxton Kerrial
Grantham
NG32 1QJ

EMPLOYER'S GENERAL REQUIREMENTS

INTERPRETATION OF SPECIFICATION

This specification shall be read in conjunction with the Architect's design drawings. The Architects design drawings shall take precedence over this specification in the event of a conflict between them.

STANDARDS

All elements of the Works, materials and workmanship shall be designed, constructed and completed generally in accordance with the latest editions of the following "Standards" where relevant, applicable and current at the date of this document.

- ☐ The Building Regulations and current amendments.
- ☐ The British Standards and Codes of Practice.
- ☐ Requirements of the selected Building Control Officer.
- ☐ Specific requirements of the Utility Supplies, Local Authorities and Local Planning Authorities.
- ☐ Current Health and Safety at Work Etc Act.
- ☐ Local Acts of Parliament and Local Authority Bye-laws and/or Regulations.
- ☐ The Clean Air Act.
- ☐ The Factories Act.
- ☐ Construction (Design and Management) Regulations.
- ☐ The Regulatory Reform (Fire Safety) Order (RRO).
- ☐ The local Fire Officers Requirements.
- ☐ The Building Act.
- ☐ The Gas Safety (Installation and Use) Regulations.
- ☐ The Construction Products Regulations.
- ☐ The Disability Discrimination Act.
- ☐ The Water Industry Act.
- ☐ The Environmental Protection Act.
- ☐ The Electricity Supply Act.
- ☐ BS 7671 Requirements for Electrical Installations.
- ☐ The CIBSE Guides.
- ☐ The Energy Performance of Buildings Regulations.
- ☐ LABC New Homes Warranty

PROPRIETARY NAMES

The term “or equal approved by the Employer” is deemed to be implied where proprietary products are specifically mentioned by name and the term “Employer” shall be deemed to mean “Employer or Employers Agent”.

FINISHES

Prior to finalising colour schedules, all paintwork, wall finishes, floor finishes and suchlike the Contractor shall agree the finishes schedule with the Architect and then provide the sample boards to the Employer with finishing samples prior to installation and for approval.

FIRE REQUIREMENTS

The building shall be designed and constructed or altered generally in compliance with the requirements of The Regulatory Reform (Fire Safety) Order (RRO) as far as reasonably possible with respect to means of escape, internal fire spread, external fire spread and access and facilities for the fire service.

The building in occupation shall require the Landlord or their appointed Management Company to evolve this preliminary stage of the RRO to a more detailed plan in compliance with the Regulations and which requires details of how the building shall be occupied and operated and the Tenants shall be notified by the Landlord or their appointed Management Company.

THERMAL INSULATION REQUIREMENTS

The building shall have SBEM calculations carried out by the Contractor. Where SBEM calculations have already been provided to the Contractor then the Contractor shall recalculate the SBEM calculations as and when any assumptions in the calculations are superseded by design development or as appropriate in accordance with the Building Control Regulations Part L.

The SBEM calculations and recalculations shall determine what thermal insulation requirements the Contractor shall provide in addition to those requirements specified herein and detailed within the Architects drawings.

The insulation strategy shall be chosen by the Contractor and the proposed strategy and materials shall be approved by the Architect and Engineer.

- ☐ The building shall be tested for air tightness / air permeability in accordance with Part L

The Employer shall provide the Occupiers with all the necessary Energy Performance Certificates and the Contractor shall advise requisite details to the Employer.

ACOUSTIC REQUIREMENTS

The construction of the Building shall be adequate to provide the requisite protection against both impact and air-borne sound transfer between adjoining units (both commercial and residential) all in accordance with Approved Document E of the Building Regulations.

The Contractor shall ensure that the adopted construction details, quality of materials used and the standard of workmanship shall meet the sound insulation requirements of the Building Regulations. Compliance will also need to be demonstrated by passing the sound insulation testing as required in the Building Regulations Approved Document E.

The acoustic performance of the building shall also meet the requirements of the Employer as detailed below and whichever is the greater:

☐	Demise walls and floors:	To achieve a minimum Sound Insulation of DnT,w + Ctr 48dB. To achieve an impact sound insulation of DnT,w + Ctr 45 dB and a maximum value of L'nT,w 62dB.
☐	Separating walls:	(between bathrooms / non-associated en-suites and bedrooms) To achieve a minimum Sound Insulation of DnT,w + Ctr 43 dB.
☐	Soil vent pipes:	To be sound insulated to prevent sound breakthrough.

Provide acoustic absorbent materials to the satisfaction of the Approved Inspector to all common areas.

The electric installations shall be designed to avoid the installation of electric sockets on demise walls wherever possible and where necessary plasterboard back box surrounds shall be provided within separating walls to achieve the requisite noise reduction.

FLOOR AREAS

The approximate habitable areas shall be:

- ☐ As detailed within the Architects Accommodation Schedule

Measured in accordance with the RICS Code of Measuring Practice

HEIGHTS

The minimum clear designed heights from finished floor to underside of suspended ceiling or ceiling finishes shall be as shown on the Architects drawings.

LOADINGS

The Consulting Engineer shall advise the anticipated loading categories of the ground floor and upper floors and roof structure.

CONSERVATION OFFICER

All works falling under the jurisdiction of the Conservation Officer shall be subject to the Conservation Officers review and approval.

FINAL BUILDERS CLEAN

The Contractor shall carry out the builders clean at completion which shall present the building clean and free from dust and debris and rubbish with hard surfaces polished and clean.

Manufacturer's stickers and labelling shall be removed except where required as part of the occupiers operation of the unit.

EMPLOYER'S PARTICULAR REQUIREMENTS

DEMOLITION AND ENABLING WORKS

Undertake demolition of redundant timber fire escape stair and stair enclosure in south west corner between first and second floors.

Form new window openings in external façade to receive new windows and doors, setting aside existing bricks for future use.

Form new apertures in internal party wall between Units I and J as required and including the closing and making good of existing redundant apertures.

SUBSTRUCTURES AND FOUNDATIONS

The development envelope was originally refurbished and with foul, storm, gas water and electrical services all located under the block paving for the full length of the building. The Contractor shall co-ordinate the new drainage and services ducts works to minimise the area of existing ground floor disturbed when bringing in these drains and services from the mains connections and make good the ground floor slab as recommended by the Consulting Engineer.

Substructure foundations for the new communal staircase shall be constructed and completed to the Consulting Engineers design.

The structural alterations shall be designed in such a manner that all loads are safely transmitted to the substructure foundations. Provision shall be incorporated into the design to accommodate thermal and shrinkage movements in the structure.

STRUCTURAL ALTERATIONS

The Consulting Engineer shall design the structural alterations required to deliver the Architects design drawings including but not limited to the third floor construction, trimming and forming openings at third floor level and trimming and forming openings in the roof for the installation of new roof lights.

The basic parameters of the steel work or timber engineering shall not be altered from the Architect and Consulting Engineers design, without the prior approval of the Employer.

The Consulting Engineer shall inspect the existing structures generally for signs of structural movement or structural settlement or deterioration and where necessary include these within an updated Engineers Structural Report. Where necessary the Consulting Engineer shall include any works or remedial works deemed required within the Report to overcome structural movement or settlement or deterioration.

The recommendations of the Consulting Engineers Report shall be implemented and then inspected by the Consulting Engineer prior to enclosure or first occupation of the building, whichever is the sooner.

SECONDARY STEELWORK

Secondary brickwork, masonry support or restraint steelwork shall be designed by the Consulting Engineer if required and with due regard to the situation, appearance and specific feature requirements of the Employer.

FIRE PROTECTION STRATEGY

The fire protection strategy shall be designed in accordance with Part B of the Building Regulations and to the requirements of the relevant Fire Officer or Approved Inspector.

Specifically fire protection of the steelwork shall be to the required resistance utilising:

- ☐ Fire protection board or intumescent paint to steelwork generally.
- ☐ Plasterboard or fire protection board casing to steelwork in areas to receive plaster finish.
- ☐ Plasterboard or fire protection board casing to internal isolated columns.
- ☐ Where the existing cast iron supporting columns are to be visible within the finished layouts they shall be fire protected (to a one hour rating) with intumescent paint designed and applied in accordance with Part B of the Building Regulations. The existing cast iron shall require the removal of existing paint finish and all loose material and coatings and if required blast clean in dry atmospheric conditions using abrasive of suitable type and size, free from fines, moisture and oil. Continue blasting until finish complies with BS 7079: Part A1, preparation grade SA 2.5, with an average anchor profile of 75 microns. Remove abrasive residues and all traces of moisture by blowing with clean, dry, oil free air (see clause 315). Prime immediately following blast cleaning or before any rust bloom appears or rust rashing occurs with Nullifire Carbomastic 15 LT primer to a thickness of 75 microns or similar approved. The primer shall be clean, dry and ready to accept the intumescent coating. Intumescent Coat shall be Nullifire System S707-60 or similar approved, applied to meet the requirement for the fire rating specified, The finish will be off white and textured (not smooth).

The Contractor shall provide to the Employer copies of application certificates for all intumescent paint applications prior to closing up any such applications.

GROUND FLOOR

The ground floor slab shall generally be retained.

A 2000 gauge polythene damp proof membrane laid continuous with joints sealed shall be set a minimum of 150mm above external levels and continuous with the damp proof course or injected damp proof course to the manufacturer's recommendations.

The ground floor slab shall have 60mm Kingspan Kooltherm insulation over 65mm sand / cement screed, (or 50mm flow screed) screed as detailed on the Architects section drawings. The proposed screed is to be approved by the Architect.

Under-slab drainage and other services ducts shall be kept to a minimum and shall be located and approved by the Employers Agent prior to installation and have new reinforced concrete slab in-fill to the Consulting Engineers design.

UPPER FLOORS

The existing upper concrete and timber floor structures shall be generally retained.

The existing timber upper floors within the retained buildings shall remain and the Contractor shall:

- ☐ make good any holes or openings due to removal of stairs or damaged timber in a construction to generally match existing to the approval of the Consulting Engineer;
- ☐ insulate between floor joists with sound resisting plasterboard between joists and apply resilient flooring system over as shown on Architects drawings;
- ☐ provide floor strengthening as detailed by the Consulting Engineer;
- ☐ provide any necessary levelling medium as required to suit proposed floor finishes.

Provide for all necessary structural trimmers or support for the new staircases and openings within the existing structures as required by the Consulting Engineer.

Remove the existing floor construction in the proposed service riser locations shown on the Architects drawings and provided for all necessary structural trimmers or support as required by the Consulting Engineer.

Provide first floor make up construction to Unit J, to match floor level in Unit I in accordance with the Architects and/or Consulting Engineers details.

All penetrations through the upper floor construction shall be sealed to prevent passage of sound and water.

COMMUNAL STAIRS

The communal stairs shall be provided in pre-fabricated metal work with metal pans in-filled with concrete such that the stairs can be more easily assembled on site and rather than precast concrete stairs. Timber stairs shall not be used in the communal area.

The stairs shall be detailed by the Architect and riser heights shall make allowance for any alterations to the floor construction build ups.

RESIDENTIAL STAIRS

Stairs within the apartments shall be in timber and including any required trimming and structural support and note that the riser heights shall make allowance for any alterations to the floor construction build ups.

Stairs, staircases and balustrading shall be supplied to be painted in white full gloss finish and with handrails and newel caps in a clear matt lacquered finish.

- ☐ Handrails shall be supported off chrome support brackets, bolted into walls.

Generally the stairs shall achieve thirteen risers and twelve goings at a maximum pitch of 42 degrees, a headroom clearance of at least 2,000mm shall be achieved throughout the flight. Landings shall have a minimum clear width of 800mm (between wall and handrail). Winders shall have minimum going of 50mm.

Balustrades shall have a gap of no less than 100mm clearance and shall be designed in such a way that a child would not easily climb them. Balustrades to landings shall have a minimum height of 900mm and a maximum height of 1,000mm above adjacent finished floor level.

Staircases shall be sufficiently robust such that foot impact noise is not transmitted out with the stair well.

The underside of the stair shall be fully enclosed and finished to the requirements of the formed space beneath.

WORKS TO EXTERNAL BRICKWORK FAÇADE

Provide new openings to existing brickwork walls where shown on Architects Drawings and with lintels and supports as per the Consulting Engineers details. Lintels as required over openings and shall be to the Consulting Engineer's requirements to the design and detail of the specialist supplier. Lintels shall be designed and supplied with due regard to the situation, appearance and specific feature requirements of the Employer.

Construct new apertures to façade of building reclaiming the removed bricks for trimming openings and for the closing up of internal openings to the east wall of Unit I.

All methods of works and materials used shall be agreed with the Architect and Conservation Officer prior to proceeding.

The Architect has identified those areas of external façade requiring further improvement and making good and as required by the Architect (and Conservation Officer) to be repaired. These areas include:

- ☐ missing or damaged brickwork to be replaced using bricks reclaimed when forming new openings;
- ☐ redundant fixtures and fittings to be removed from the elevations and repointed / repaired;
- ☐ missing or loose mortar requiring raking out and pointing in matching mortar;
- ☐ mortar eroded by damaged rainwater goods requiring raking out and pointing in matching mortar.

BRICK/BLOCK/MASONRY WALLING

Existing openings that are required to be in filled shall be made good by using flush pointed blockwork.

Openings between Suite I and J shall be blockwork including acoustic/thermal insulation to achieve rating described elsewhere in this specification.

Internal walls to form core area and stair structure shall be constructed in flush pointed solid concrete blockwork and suitable to receive the relevant applied wall finish.

Provide new openings to existing brickwork walls where shown on Architects Drawings and with lintels as required over openings shall be to the Consulting Engineer's requirements to the design and detail of the specialist supplier. Lintels shall be designed and supplied with due regard to the situation, appearance and specific feature requirements of the Employer.

Window sills and heads and any feature bands shall be repaired and made good where required and to the approval of the Architect.

EXTERNAL CANOPIES

An external canopy shall be provided over the main entrance doors to match those other external canopies already fitted to the development, face fixed Arkoni AL-SKY or similar approved having a curved profile, stainless steel wall brackets and tie bars with a toughened / laminated clear glass canopy.

ROOF AND RAINWATER GOODS

The existing roof has already been re-roofed in its entirety and with new rainwater goods.

Provide new timber roof lights (Keylite centre pivot CW-CP-03-T) as shown on the Architects drawings and to the approval of the Conservation Officer and trim in accordance with the Consulting Engineers specification and details. The existing slate roof tiles shall be carefully removed and set aside for re-use with tiles not suitable for re-use being removed from site when forming the new roof light openings.

New soil and vent pipe penetrations shall be formed centrally through single tiles and provided with lead slate dressing or alternatively terminated with sloping vent tiles where approved by the Architect.

New flashings and trims shall be in lead and in strict accordance with the recommendations of the Lead Sheet Association and as detailed within their "LSA Installers Pocket Guide".

The existing metal truss bracing shall be cleaned down and prepared to receive paint finish and re-fixed to provide an architectural feature.

WINDOWS/GLAZING

The majority of existing windows are new windows fitted in 2008.
New windows generally shall incorporate opening lights as indicated on the Architects drawings, colour to match existing. All windows shall have easy clean hinge system and be capable of having the external glazing cleaned from the inside.

- ☐ Windows generally shall be a thermally broken polyester powder coated aluminium system incorporating opening lights as indicated. The minimum exposure category under BS 6375 Part 1 shall be 1200Pa/m2. The window shall be Class A under BS6375 Part 2.
- ☐ Opening lights shall have locking handles and friction stays. Restrictors shall be fitted to opening vents at upper floors.
- ☐ Trickle vents shall be fitted to window heads.
- ☐ Glazing shall be Low E 4mm glass with 16mm argon cavity and 4mm inner glazing.
- ☐ Glazing shall be tinted.
- ☐ Toughened glazing shall be provided in accordance with the Building Regulations and as shown on the Architects drawings.
- ☐ SAA or Polished Chrome ironmongery shall be provided with single handles to each opening light.
- ☐ Glazing shall have an obscured outer pane to toilet or WC areas where required, all to match existing.

Window frames shall be sealed to adjacent brickwork in colour to match windows polysulphide mastic to the external perimeter.

EXTERNAL DOORS

Aluminium framed fully glazed main entrance doors shall be fitted within and to the main entrance with an Adamsrite lock, d-handles and overhead door closers.

- ☐ Aluminium framed fully glazed doors and screen shall be fitted to each entrance and to match the windows generally.
- ☐ The external door to the core area to serve the apartments shall have the locks fitted with an electronic override operable from each apartment and by an electronic vandal resistant brushed aluminium key pad located adjacent to the door. The apartment override is detailed in the service installations of this specification. The main entrance door shall therefore be equally capable of being opened by key or key pad.
- ☐ The key pad access system shall be programmable.
- ☐ The Employer shall be handed six spare keys to each main entrance door prior to practical completion and in addition to access code numbers.
- ☐ Colour of powder coating to external doors to be selected by Architect..

INTERNAL WALLS

Internal load bearing walls shall be in concrete blockwork.

Internal face of existing external walls shall have metal studs (or timber) fixed at recommended centres with Kingspan K18 insulated plasterboard and to receive plaster skim finish. The dry lining to the ground floor shall utilise a ventilated membrane system to all ground floor external walls. The fixing of the framework for

the dry lining system shall utilise the approved fixings so as not to affect the damp proofing warranty to these units.

New metal stud and track partitioning (as per Architects details) shall be formed with 12.5mm Gyproc wall board (8.5kgm2) fixed each side and with additional layers and thickness as required by the Architects details for acoustic purposes, the plasterboard shall receive a further 2mm Thistle Multi finish or Thistle Board Finish skim finish prior to decoration, whichever is the Contractors preferred finish.

- ☐ All plasterboards shall be finished with plaster skim finish where visible.
- ☐ Moisture resistant plasterboard shall be used in wet areas.
- ☐ The acoustic performance of the party wall partitioning and internal partitions shall be in accordance with the Sound Reduction section of this Specification.
- ☐ The existing steel columns within Unit I of the building shall be encapsulated within the internal walls as shown on the Architect's drawings.
- ☐ The existing feature cast iron columns within Unit J shall be as described elsewhere.
- ☐ Penetrations through acoustically treated walls shall have their acoustic integrity maintained by encasing the penetrating fittings in plasterboard with joints and holes sealed with mastic, all to the Approved Inspectors satisfaction.
- ☐ Provide boxings to soil vent pipes where shown on the Architects drawings. The SVPs shall be constructed with metal frame and 2 layers of 15mm GTEC dB board with 25mm glass mineral wool density 16kg/m3 to provide sound attenuation.
- ☐ Provide 12.5mm plywood patrices within the wall construction to allow the direct fixing of the kitchen wall cupboard fittings as shown on the Architects plans. The plywood shall be fitted within the plasterboard wall.
- ☐ Construct the side wall of the bedroom wardrobes and wardrobe head to accept sliding gear door mechanism.
- ☐ All internal walls under the mezzanine floors to the first and second floor forming rooms and wardrobes as shown on the Architects plans shall be constructed to full height to the underside of the mezzanine floor.
- ☐ All internal walls to the third floor forming rooms and wardrobes as shown on the Architects plans shall be constructed to full height to the underside of the roof.
- ☐ Where wardrobes are not located under a mezzanine floor, they shall be constructed to ceiling height.

DRY LINING / PLASTER

Internal face of existing external walls shall have metal studs (or timber) fixed at recommended centres with Kingspan K18 insulated plasterboard and to receive plaster skim finish. The dry lining to the ground floor shall utilise a ventilated membrane system to all ground floor external walls. The fixing of the framework for the dry lining system shall utilise the approved fixings so as not to affect the damp proofing warranty to these units.

- ☐ Moisture resistant plasterboard shall be used in wet areas.

- ☐ Internal face of party wall between unit H and unit I shall be acoustically insulated to prevent acoustic transfer between the commercial usage of unit H and the residential usage of unit I.
- ☐ Window and door reveals shall be similarly formed to inside face of external walls including insulation.

SUSPENDED CEILINGS

Suspended ceilings shall be provided to the communal core areas and communal corridors, Armstrong Prima Dune Supreme 600mm x 600mm in 24mm white lay-in grid.

- ☐ Complete with w trim edge profile.
- ☐ Tile edge shall be Tegular.
- ☐ Tiles shall be clipped in lobby near entrance door to avoid wind uplift.

Cavity barriers shall be provided within suspended ceiling voids as required by applicable legislation.

One pack of suspended ceiling tiles shall be provided as spare at Completion.

PLASTERBOARD CEILINGS

Provide plasterboard ceilings throughout other areas to the Architects details.

Provide plasterboard boxings to down stand steel beams to provide a feature beam within the ceiling construction. These boxings shall be constructed to comply with the acoustic criteria of this specification.

- ☐ Plasterboard downstand ceilings and bulkheads to kitchen areas as detailed in the Architects drawings.
- ☐ Moisture resistant plasterboard shall be used in wet areas.

HARDWOOD /SOFTWOOD/ MDF ITEMS

MDF shall be low formaldehyde MDF.

- ☐ Architraves shall be 50mm x 25mm MDF pencil rounded.
- ☐ Skirting shall be 140mm x 18mm MDF pencil rounded.
- ☐ Window boards shall be 25mm MDF rounded.
- ☐ Three fully slated shelves shall be fitted to cloak room / utility room cupboard.

INTERNAL DOORS

Communal Area Doors:

Communal area doors shall be provided in light oak veneer with a seven vertical panel feature to mimic the apartment entrance doors:

- ☐ Opaque glazed full height single vertical panel on handle side;
- ☐ Meter cupboard doors to be solid seven vertical panel feature.

Ironmongery shall be Eurospec 316 stainless steel 19mm diameter SW19 designer lever on 6mm sprung rose brushed stainless steel with kick plates, three hinges and a latch.

Meter cupboard lock shall be suited to apartment keys to allow access using an apartment entrance door key. The Developer shall require 6 spare keys to any locks fitted to communal area doors.

Communal doors shall have brushes fitted to dampen noise of door closing against frame and shall have door stops fitted to match ironmongery.

Entrance Doors to Apartments:

Internal entrance doors to residential apartments shall be in light oak veneer with a seven vertical panel feature:

- ☐ To provide a minimum acoustic performance of 33dB, with seals fitted.

Ironmongery shall be Eurospec 316 stainless steel 19mm diameter SW19 designer lever on 6mm sprung rose brushed stainless steel:

- ☐ Overhead door closer.
- ☐ Door chain, fixed through architrave to frame.
- ☐ Door viewer.
- ☐ Oval shielded floor door stop.
- ☐ Ball race butt hinges, three number per door.
- ☐ 75mm high brushed stainless steel door numerals

Doors within Apartments:

Doors within residential apartments shall be in light oak veneer with a seven vertical panel feature to mimic the apartment entrance doors and a solid core depending upon local fire officer or Approved Inspectors' requirements:

- ☐ Doors shall be neatly undercut to allow adequate clearance for carpets.

Ironmongery shall be Eurospec 316 stainless steel 19mm diameter SW19 designer lever on 6mm sprung rose brushed stainless steel:

- ☐ Hush Latch.
- ☐ 3no Ball race butt hinges.
- ☐ Oval shielded floor door stop.
- ☐ Concealed hydraulic jamb closer (only to internal fire door conditions).
- ☐ Standard thumb-turn and emergency release concealed fixing (bathroom only).
- ☐ Twin matching robe hooks (bathroom only).

CERAMIC FLOORS

Kitchen areas shall be tiled with tiles from the H & R Johnson Tiles range to be selected by the Architects and approved by the Employer or similar approved (PC Sum £15/m2 supplied only).

Bathrooms and en-suites shall be tiled with tiles from the H & R Johnson Tiles range to be selected by the Architect and approved by the Employer or similar approved (PC Sum £16/m2 supplied only).

- ☐ Transition threshold strips shall be required at interface of dissimilar floor finishes.

The Contractor is reminded of the acoustic transfer requirements, and shall ensure that the necessary resilient layer is incorporated if required.

CERAMIC TILING

Wall tiling shall be H & R Johnson Tiles (PC Sum £18/m2 supplied only) to be selected by Architect or similar approved;

- ☐ Full height in shower areas and to all bath walls.
- ☐ Provide tiled boxing for WCs with lift off 20mm thick bullnose laminate lid to provide access to concealed cisterns and a 100mm tiled upstand shall be provided to all interfaces with lid and walls.
- ☐ Lid to be secured to vanity construction with dome head screw to match lid, with mastic pointing to all edges where interfaced with tile upstand.
- ☐ Matching stop and end beads shall be used, flush to tile width.

BALUSTRADES / HANDRAILS / ESCAPE STAIR

Handrail to core area staircase shall be provided with a 50mm diameter brushed stainless steel tubular handrail on stainless steel wall brackets.

- ☐ Handrails shall be continuous and compliant to Part M building regulations.

Internal apartment balustrades shall be self-finished timber with lacquer.

PAINTING

The Architect shall select paint colours and generally:

- ☐ Plastered walls shall be matt vinyl emulsion painted.
- ☐ Plastered concrete soffit of stairs and ceilings generally shall be emulsion painted.
- ☐ Exposed copper pipe work shall be full gloss painted.
- ☐ MDF items shall be full gloss painted.
- ☐ Cut edges of self-finish doors shall be matt lacquered.
- ☐ Primer, undercoat and gloss paint finish to existing exposed steelwork at roof level.
- ☐ Clear matt sealer to be applied to any areas of exposed shot blasted internal brickwork. The sealer should cover all brickwork areas including all mortar joints to seal in place all dust and loose materials.

CORE ENTRANCE MATTING

Entrance matting shall be dirt barrier type matting to the area indicated on the floor finishes drawing, colour from standard Burmatex Grimebuster 50 range.

- ☐ To full area of ground floor lobby.

FLOOR FINISHES

Carpet tiling shall be provided to communal areas, stair and core from the Tessera 'Teviot' range, colour from standard range available.

- ☐ Nosings shall be provided to stairs in proprietary PVC with anti-slip contrasting inserts and shall be Ferodo or similar, fixed with adhesive and screwed, colour from standard range available.

The existing Maltings tiled floor shall be examined and as necessary overlaid in a material, system or manner suitable to receive the new carpet tiles but so as to avoid damage to the listed building floor tiles.

Provide 1 box of spare carpet tiles at Completion.

Kitchens and bathrooms shall have non-slip ceramic floor tiles, colour and type to Architects approval.

- ☐ Ceramic tiles shall be from the H&R Johnson range, to be selected by the Architect or similar approved (PC Sum £20/m2 supplied only).

All other areas and staircases shall have heavy duty carpets fitted throughout on underlay colour and type to Architects approval.

- ☐ Neutral colour 40oz 80/20 carpets.

- ☐ Transition threshold strips required at interface of dissimilar floor finishes and under a door where necessary.

FIXTURES AND FITTINGS

The bedroom wardrobes shall be provided with a pair of full height sliding mirrored doors framed in white and with tinted mirrors.

- ☐ Provide robe hanging rail to 2/3^{rds} width and remaining third with full depth and height shelving.

Pipe boxing shall be kept to a minimum and finished to match surrounding walls.

An almost full height mirror shall be mounted over each wash hand basin and wc vanity unit fixed with chrome domed fixings.

The postal strategy shall be established by the Contractor and agreed with the local Post Office. Lockable post boxes shall be located in the entrance lobby areas one per apartment and one spare for the use of the management company.

The waste management strategy shall be established by the Contractor for the approval of the Employer to manage the waste removal from individual apartments to the Bin Store on a regular basis.

SIGNAGE

Signage shall be brushed stainless steel with black lettering.

- ☐ The entrance door shall be signed to show those apartments generally accessed from that entrance.

The Contractor shall provide signage to all designated areas in addition to statutory signage requirements.

Each floor shall be signed to show apartments on that floor and the ground floor lobby signed to show apartments numbers and floor they are located on.

WINDOW BLINDS

Supply and install vertical louvre blinds to all external windows, colour and specification from standard range available for the Employers approval.

SANITARY APPLIANCES / FITTINGS / BRASSWARE

The following sanitary appliances shall be provided from the Ideal Standard Concept range unless otherwise noted;

- ☐ 1700 x 700 bath c/w side and end panels as required.
- ☐ Arc 550 basin, single tap hole, c/w pedestal.
- ☐ Back to wall wc pan, floor mounted c/w concealed cistern and dual pneumatic flush.
- ☐ 900 x 900 Idealite low profile shower tray to apartment 2.6.
- ☐ 1000 x 800 Idealite low profile shower tray to apartments 2.4 and 2.5.

Brassware from Grohe Eurodisc Cosmopolitan range unless otherwise stated:

- ☐ Bath mixer tap shall be deck mounted bath filler 25 140 002.
- ☐ Shower shall be Grohtherm 2000 thermostatic mixer with Power & Soul 130 shower head, rail and flex.

Shower screen to baths shall generally be a pivoted rectangular clear shower screen including seals to bath edge.

- ☐ Bi-fold clear glazed screen to Apartment 2.6.
- ☐ Tapering panel to fit sloping ceiling of Apartments 2.4 and 2.5.

All bathrooms and shower rooms shall have a wall mounted chrome full height ladder towel rail to provide heat for the applicable area.

KITCHEN FITTINGS

The kitchen units and fittings shall be designed, supplied and installed via Howdens Kitchens or equal approved by the Employer. Wall units shall be fitted for the full length of all base unit. All drawers and doors shall be soft close.

The finish of kitchen unit doors shall be Tewkesbury painted solid timber Shaker style with curved corner units and each Apartment to have colour from standard range selected by Architect. The unit containing the extractor hood shall be usable as storage space with any ductwork concealed behind formed boxing in material to match wall unit carcass.

Work tops shall be high gloss 38mm bullnose edge laminate with cut and scribed joints at corners. Colour from standard colour range Caringorm.

- ☐ Work top upstand to walls shall be full height to underside of wall units over made from 3mm black slate tile effect backboard (small tile).
- ☐ Ends of worktops shall have upstand return to height of adjacent wall units.
- ☐ Junction of worktop to upstand to be sealed with mastic sealant to match worktop colour.

The Contractor shall be deemed to have allowed elsewhere for fused electrical spurs above the wall units for the low voltage lighting and cooker hood; and for fused electrical spurs, waste pipes terminated to a capped trap and hot and cold water pipes terminated with a stop valve all as required for the kitchen sink, fridge, oven, hob and dishwasher and washer/dryer spaces.

Kitchen Appliances shall be Zanussi is included in the tender sum analysis for the supply and installation of the following:

- ☐ electric induction cooker hob reference ZEV6940FBA.
- ☐ electric integrated double oven reference ZOD35561XK.
- ☐ extract hood reference ZHG51260GA.
- ☐ integrated fridge freezer.
- ☐ combined washing machine and tumble dryer reference ZWT71201WA where integrated (installed in kitchen – as detailed on Architects drawings)
- ☐ combined washing machine and tumble dryer reference ZKH7146J where not integrated (installed in under stairs / utility cupboard – as detailed on Architects drawings)
- ☐ dishwasher (slimline) reference ZDV12001FA

Inset single bowl Lamona black granite composite sink with drainer, complete with Lamona black and chrome swan neck monobloc tap. Note that tap is not to flex sink setting under lateral pressure.

DRAINAGE ABOVE GROUND

Plastic pipework for WC connections, soil and vent pipes and wastes shall be grey where concealed within voids and white where visible with manufacturers markings concealed.

Provide new soil and ventilation stacks to all sanitary ware to BS4514 vented to air complete with fire stops through floor penetrations including drain connectors and builders work holes through floor/walls. Where the apartment layout does not allow then air admittance valves shall be permitted to vent the system subject to Building Regulation compliance.

DRAINAGE BELOW GROUND

Generally to the Consulting Engineers drawings and specification.

Private drainage systems shall be designed and constructed to meet the requirements of the ‘Building Regulations Part H’ latest revision.

The use of flexible drainage systems (e.g. UPVC) are permitted subject to compliance with the above mentioned documents and manufacturer’s recommendations.

Manholes shall be avoided within buildings, heavy circulation areas and adjacent main entrances.

Recessed manhole covers shall be used to all finished and paved areas inlaid with reclaimed or to match surrounding surface finishes.

Drainage system shall be jetted and flushed and a CCTV survey shall be provided prior to Practical Completion and including the existing private drainage retained for re-use

NEW FOUL DRAINAGE

Provide new foul drainage system as shown on the Engineers drawing including connection and new manhole(s) as required to existing mains drainage.

Provide all new manhole constructions and spurs as shown on the Engineers drawings.

EXTERNAL WORKS

All works within the external works shall be made good to match that removed.

SERVICE DUCTS AND BWIC

Install all incoming services within ducts under the existing ground floor slab to the meter cupboard at ground floor level.

- ☐ All distribution shall be concealed and will utilise the common part corridor ceilings.
- ☐ Water supplies shall have emergency cut of isolation within the common part corridor ceilings above the apartment entrance door, mounted behind access hatch.
- ☐ Remote reading of water meters is to be provided within the common area meter cupboard.

MECHANICAL AND ELECTRICAL SERVICES

SERVICES INSTALLATIONS

PREAMBLE

Generally:

Water and electrical services shall be designed such that the residential management company can isolate individual supplies from outside of the apartments in the event of an emergency should a leak or fault occur.

Hot and cold water pipes shall be concealed except where expressly approved to be surface mounted by the Employer.

The services to the ground floor apartments shall be surface fixed to the ceilings and run in galvanised conduit and trunking where exposed.

The services to the second floor ceiling area shall be hung from the underside of the roof structure where they are positioned within the open plan living / kitchen areas.

Performance:

The heating installations shall be designed by the specialist subcontractor to maintain the following minimum internal room temperatures when the external ambient temperature is -1°C with an assumed 1.5 air changes per hour.

- ☐ Generally: 21°C
- ☐ Bathrooms: 22°C
- ☐ Communal Areas: Background heater only.

The hot water system shall be sized to provide hot water to the following temperature at outlet points with only a 25% reduction in flow rate with three taps open:

- ☐ Showers (min. pressure 2 bar): 43ºC
- ☐ Taps: 60ºC

Mechanical ventilation shall be provided to allow the following minimum air changes per hour:

- ☐ Communal areas: as required by Building Control
- ☐ Apartment Cooker Hood: as required by Building Control
- ☐ Apartment Bathrooms: as required by Building Control
- ☐ Utility cupboard as required by Building Control

NATURAL GAS SUPPLY

Apartments:

A mains incoming gas service shall be provided to an individual meter serving each unit mounted externally and together with external stop valve within a suitable cupboard housing.

The new supply shall be metered by British Gas and the meter shall be ordered, supplied, paid for and installed by the Contractor via the **Provisional Sum** allowance.

WATER

COLD WATER SERVICE

The local water authority shall advise of metering strategy to the units although wired externally mounted touch pad are most likely and preferred together with external stop tap.

The new supply shall be metered by the local water authority and the meter shall be ordered, supplied, paid for and installed by the Contractor via the **Provisional Sum** allowance.

The mains incoming water service shall be extended to serve all domestic requirements detailed within this specification and including all cisterns, basins, sinks, water heaters and the like, as necessary.

The incoming main shall be provided with a main isolation valve, sterilisation injection point, drain cock, check valve/DRV/RPZ valve, drain cock and isolation valve, all devices shall be provided with unions or flat seats for easy maintenance.

The cold water service shall be installed in copper pipework with soldered copper fittings unless otherwise agreed with the Employer.

Water connections shall be provided with the relevant back flow prevention valves for the water category of outlets being connected. Draw-off points shall be fitted with chrome plated Ballofix valves for maintenance.

HEATING

Apartments:

The boilers shall be Ideal Standard Logic with:

- ☐ A combination boiler to each apartment.

Full central heating to comply with NHBC Standards

- ☐ Pipework shall be polybutylene ' Polyplumb' pipework with push-fittings by Polypipe.
- ☐ Clearly identify valves with labels.
- ☐ Provide immersion heaters.
- ☐ Suitable controls required to provide two separate heating zones to the townhouse.
- ☐ Delayed start thermostats
- ☐ Delonghi 'Compact' Radiators with TRV's throughout.
- ☐ Ferroli Towel Rails (chrome) to bathrooms.

All heating installations to be in accordance with the current Building Regulations Part L1A and the Domestic Heating Compliance Guide 2010.

VENTILATION

Communal Areas (including residential cores):

Mechanical extract ventilation shall be provided, where required, to ensure environmental conditions within the individual areas are in accordance with the building regulations. The ventilation system shall be suitable for incorporation into the fire protection strategy if required.

Apartments:

Mechanical extract ventilation shall be controlled via the light switch for bathrooms and en-suites using an in line fan with an automatic but programmable run-on for 5 minutes after the lights are turned off.

Mechanical extract ventilation shall be provided to the kitchen area via the above hob extract hood.

- ☐ Ventilation to be all in accordance with Building Regulations Part F1 2010.
- ☐ Total trickle ventilation to be compliant with 2010 equivalent as specified on house type specific external door and window schedules.
- ☐ All habitable rooms shall have ventilation openings equal to not less than 5% of the floor area of the room. Windows shall be fitted with trickle vents having a total area not less than 5,000mm2 in all habitable rooms with an external wall.
- ☐ Kitchens shall have an opening window or door, minimum 2,500mm2 background ventilation, and mechanical extract ventilation capable of extracting at a rate not less than 60 litres/sec. (or incorporated within a cooker hood and capable of extracting at a rate not less than 30 litres/sec.).
- ☐ Bathrooms and En-suites shall have an opening window, minimum 2,500mm2 background ventilation and mechanical extract ventilation, capable of extracting at a rate not less than 15 litres/sec. If the bathroom does not have an openable window, the extract fan must be light switch operated with 15 minute overrun.

SMOKE EXTRACT

Provide smoke extract ventilation to the requirements of the Approved Inspector.

ELECTRICAL

MAINS DISTRIBUTION ELECTRICITY SUPPLY

The new supply shall be metered by British Gas and the meter shall be ordered, supplied, paid for and installed by the Contractor via the **Provisional Sum** allowance.

The common areas including core areas and external lighting shall be supplied via a separate electric meter dedicated to the Landlord / Management Company.

Located at the service position will be the Landlord's meter, distribution board and the apartment meters with sub-main isolating switch fuses. Electrical risers will be required from the ground floor to the upper floors for the sub mains to each building, landlord's lighting, power, background heating, fire alarms, telephone and television cables.

Electricity supplies to the apartments shall be terminated in a meter position within the designated meter room and fed to the dwelling via cable located within the ceiling voids.

The meters shall be ordered, supplied and installed by the Employer but installations shall be co-ordinated by the electrical contractor.

SMALL POWER

Landlords / Management Company:

Supply, wire and install a 3-phase distribution system including but not limited to the following equipment:

- ☐ Access control system.
- ☐ Communal area internal and external lighting.
- ☐ Communal fire alarm system.

Communal Areas (including residential cores):

White switched double socket outlets shall be located in communal areas at no more than 10m apart for cleaning purposes and taken off the Landlords power supply.

Apartments:

Provide small power installations to best suit the Architects furniture layout drawings and to include:

White switched double socket outlets shall be located to the Employers approval and shall comprise not less than the following:

- ☐ Living Room — 4no (equidistant with 2 No adjacent TV point).
- ☐ Bedrooms — 5no (2 each side of bed and 2 opposite bed in corner) 1 No to be mounted on wall at high level for wall mounted TV.
- ☐ Hall — 1no.
- ☐ Kitchen — 3no above worktops.
- ☐ Provide fused connection units to serve all kitchen appliances. The one piece isolation switches to serve the appliances shall be located above the kitchen worktop and shall be clearly labelled.

- ☐ Provide fused switched spurs and illuminated LED connection units to serve all appliances and boilers located elsewhere and including those within cloakroom / cupboard.

- ☐ A white shaver spur shall be fitted adjacent to the wash basin mirror in each bathroom and en-suite.

The feature brickwork walls have yet to be determined but where sockets or switches are located on exposed brickwork walls, then these shall be provided in surface mounted galvanised trunking and back box and face plate.

LIGHTING

Communal Areas (including residential cores):

The entrance lobby, stairs and apartment lobbies shall be provided with PIR operated light fittings and shall be a combination of wall lights and feature ceiling lights all at appropriate centres.

- ☐ Low energy efficient light fittings shall be provided throughout in accordance with Building Regulations Part L1A 2010 4.13.

Apartments:

Provide lighting installations to best suit the Architects furniture layout drawings.

All switches within rooms to be positioned close to doors and to facilitate ease of use. They must not be positioned so as to be obscured when doors are open.

Where possible all living area lighting is to be provided by mini recessed ceiling downlighters with chrome finish located evenly along peripheral length of two elevations in straight lines to maximise sense of space rather than dotted over ceiling area. All living area and kitchen lighting to be operated by dimmer control switch in chrome finish.

- ☐ Lounge: chrome ring downlighters with warm LED bulbs. In areas where 2 storey ceiling, install brush stainless steel and glass wall lights at lower level.

- ☐ Bedrooms: white ceiling mounted suspended pendant in centre of room.

- ☐ Bathroom: 4No chrome ring downlighters with warm LED bulbs + mirror fittings – 1 No fitting to be positioned above bath/ shower. Externally switched.

- ☐ En-Suite: 4No chrome ring downlighters with warm LED bulbs + mirror fittings – 1 No fitting positioned above shower.

- ☐ Hall: chrome ring downlighters with warm LED bulbs

- ☐ Cupboard: Batten light fitting in utility room / cupboards.

EXTERNAL LIGHTING

External lighting shall be supplied via the separate electric meter dedicated to the Management Company.

Surface mounted high frequency fluorescent batten lighting with anti-vandal protectors shall be used to illuminate the external areas and fitted with PIR movement detector and variable timer to:

- ☐ One unit either side of entrance doors.

- ☐ Generally at higher level but below external windows to illuminate car park area but to give general background lighting.

PROTECTIVE INSTALLATIONS

Emergency/Fire/Escape Lighting and Alarm Systems:

Lighting and alarm systems shall be installed as required to fully satisfy the local Fire Officer or Approved Inspector.

Except where otherwise required by the local Fire Officer or Approved Inspector the system shall be fully addressable system to BS 5839:L2. Detection shall be provided by means of smoke and heat detectors within each apartment and smoke detectors and manual call points within the corridors, staircases and communal area rooms. Audible warning shall be provided via electronic sounders which shall be positioned within each apartment and as reasonably required in communal areas.

Mains and battery backup smoke detector shall be installed to meet BS5446. Where more than one is required in an apartment, they shall be inter-linked together.

COMMUNICATIONS INSTALLATIONS

Provide a British Telecom line installation to each dwelling to enable final connection of telephone line by occupier.

- ☐ Located adjacent to TV position for satellite system / internet TV / telephone point.
- ☐ Double spur.

Apartment Intercom and Entry System:

The installation shall comprise an audio only system whereby each residential main entrance door shall have a vandal resistant call panel to enable each apartment to be individually called and the callers' voice to then be heard in the apartment.

The occupier shall be able to answer the caller from a unit within the hallway of each apartment to converse with the caller and to then open the entrance door remotely.

The panel located at the communal entrance door shall be brushed stainless steel including a keypad, microphone and speech unit. The key pad shall be capable of dialling each apartment and also of entering a programmable code and to allow the entrance doors to be opened electronically and with a manual over ride key.

The unit in the hallway of each apartment shall be a white wall mounted entry phone unit.

Television and Cable:

Provide a digital communal television system (amplified if necessary). Contractor to provide test certification for the system.

- ☐ The aerial positions shall be agreed
- ☐ Provide a television aerial point in the lounge and each bedroom, locations shall be agreed with the Employer.
- ☐ Provide virgin digital television with communal satellite dish to each apartment living area.

The supply, installation, testing and commissioning shall be carried out by a Sky Homes approved contractor and be installed in accordance with the latest Sky Specification.

INTRUDER ALARM

Excluded.

BUILDERS WORK

The Contractor shall include for all builders work in connection with services in all instances including for occupiers fitting out through those works carried out by the Contractor.

OPERATING AND MAINTENANCE MANUAL

Except as provided for elsewhere, a Home Owners Pack for the electrical and mechanical services will be provided by the Contractor on the Date of Practical Completion.

The Pack shall contain all user guides and instructions for equipment fitted.

A copy of the pack shall be provided to the Employer for record.