Project:
809 **Kidderpore Avenue**

Work Section: **External Windows, Doors and Louvres**

Incorporating the following work section sub-elements:

WIN: External Window Systems
EDR: External Door Systems
LVR: External Louvre Systems

To be read in conjunction with the Project General Requirements Section of this Specification.

Specification Status: Stage 4 (Technical Design)

Issue number:	Date:	Reviewed by:	Checked by:
T1 Clauses 5xx, 6xx and 7xx only	24.07.2015	AS	JC

Terms: **Specification Types**

Prescriptive Specification:
Where items are to be consultant designed, the specification is in prescriptive form. All paragraphs are prescribed requirements.

Descriptive Specification:
The contractor shall complete the design complying with the Functional, Visual and Performance Requirements recorded in this specification and the contract documents. Where a particular material, product or supplier is referenced, this shall be deemed to be indicatively representing the design intent only. The contractor remains fully responsible for the detailed design whether or not indicative products within the specification are incorporated into the detailed design.

Tag Ref.	External Door Systems – Scope Summary	Spec. Type
EDR-600	External single leaf, timber faced metal entrance door with timber cladding and fixed glass side panels	Descriptive
EDR-601	Basement entrance doorset	Descriptive
EDR-710	Core access door FD30S	Descriptive
EDR-711	Core access door FD60S	Descriptive
EDR-715	Car park access door	Descriptive
EDR-721	Plant Room Door – metal single door set FD30S	Descriptive
EDR-722	Plant Room Door – metal single door set FD60S	Descriptive
EDR-723	Plant Room Door – leaf and a half door set FD30S	Descriptive
EDR-730	Cycle store door	Descriptive
EDR-731	Bin Store Door - external metal louvred double door	Descriptive
EDR-732	Bin Store Door - external metal double door from car park	Descriptive
Tag Ref.	**External Louvre Systems – Scope Summary**	**Spec. Type**
LVR-600	External metal louvres to basement lobby	Descriptive
LVR-700	External metal louvres	Descriptive
LVR-701	External metal louvres at car park entrance	Descriptive
Tag Ref.	**External Window Systems – Scope Summary**	**Spec. Type**
WIN-300	Fixed window to stair core with metal panels	Descriptive
WIN-301	Fixed window with metal panel and power assisted secondary entrance door (including canopy)	Descriptive
WIN-310	Casement and fixed window	Descriptive
WIN-311	Casement and fixed widow with upper level fixed window with metal panel	Descriptive
WIN-320	(Concertina/bifold) Folding sliding door4 leaf and power assisted entance door (including canopy)	Descriptive
WIN-321	(Concertina/bifold) 6 leaf, sliding-folding doors to basement	Descriptive
WIN-340	Roof light	Descriptive
WIN-350	Curtain wall with metal panels	Descriptive
WIN-500	Metal single window with opening upper light and fixed panel	Descriptive
WIN-501	Metal single window with opening light and fixed panel	Descriptive
WIN-502	Metal double terrace entrance door	Descriptive
WIN-503	Metal two bay window assembly with opening light and 2 no. fixed lights	Descriptive
WIN-504	Metal two bay window assembly with opening light and 2 no. fixed lights	Descriptive
WIN-505	Communal entrance door assembly	Descriptive
WIN-506	Metal three bay window with terrace door and two fixed lights	Descriptive
WIN-507	Metal two bay window assembly with terrace door and fixed light	Descriptive
WIN-508	Metal single fixed light to balcony	Descriptive
WIN-509	Metal two bay window assembly with terrace door and fixed light	Descriptive
WIN-510	Metal single fixed light to balcony	Descriptive
WIN-511	Metal three bay window with terrace door and two fixed lights to wheel chair unit	Descriptive
WIN-512	Metal three bay window with terrace door and two fixed lights	Descriptive

WIN-513	Metal two bay window assembly with terrace door and fixed light	Descriptive
WIN-514	Metal three bay window with terrace door and two fixed lights	Descriptive
WIN-540	Rectangular fixed rooflight	Descriptive
WIN-600	Metal picture window	Descriptive
WIN-601	Metal double bay window assembly with opening and fixed lights	Descriptive
WIN-602	Metal triple bay assembly with double doors and purging vent side light	Descriptive
WIN-603	Metal window with opening upper light and fixed lower panel	Descriptive
WIN-604	Metal picture window	Descriptive
WIN-605	Feature window	Descriptive
WIN-606	Metal picture fixed window	Descriptive
WIN-607	Metal picture fixed window	Descriptive
WIN-640	Rectangular fixed rooflight	Descriptive
WIN-641	Round rooflight	Descriptive
WIN-642	Rectangular openable - access rooflight	Descriptive
WIN-700	Metal two bay window assembly with opening light and 2 no. fixed lights and overhead panel	Descriptive
WIN-701	Metal triple window assembly to balcony with double door, fixed light and overhead panel	Descriptive
WIN-702	Metal triple bay window assembly to balcony with double door, fixed light and overhead panel	Descriptive
WIN-703	Paired metal window assembly with opening light and fixed light, infill panel and overhead panel	Descriptive
WIN-704	Metal double door assembly to balcony with 2 fixed lights and overhead panel	Descriptive
WIN-705	Metal single window with opening light, fixed light and overhead panel	Descriptive
WIN-706	Metal double sliding door to dormer	Descriptive
WIN-707	Metal single window with opening light and fixed light and overhead panel	Descriptive
WIN-708	Metal double door to balcony	Descriptive
WIN-709	Paired metal window assembly with opening light and fixed light, infill panel and overhead panel	Descriptive
WIN-710	Metal private entrance door assembly	Descriptive
WIN-711	Metal communal entrance door	Descriptive
WIN-712	Metal double sliding door to dormer balcony	Descriptive
WIN-713	Paired metal window assembly with opening light and fixed light, infill panel and overhead panel	Descriptive
WIN-714	Metal single window with opening light and fixed light	Descriptive
WIN-715	Private entrance door assembly	Descriptive
WIN-716	Metal single terrace entrance door	Descriptive
WIN-717	Metal double terrace entrance door	Descriptive
WIN-740	Rectangular fixed rooflight	Descriptive
WIN-741	Combined AOV and rooflight	Descriptive
WIN-742	Small square fixed roof light	Descriptive

WIN/EDR/LVR EXTERNAL WINDOWS, DOORS & LOUVRES: SYSTEM GENERAL REQUIREMENTS

REQUIREMENTS FOR PERFORMANCE

General:

- All systems to be square, true and accurately positioned in relation to adjacent elements.
- Systems shall be consistent from module to module and unit to unit, without variation in colour, gloss levels, texture or shade.
- Systems shall not fracture, peel, delaminate, corrode, rattle, deform, vibrate or generate noise in end use occupation (i.e. from door closure, or Design Load application).
- Systems shall be secure, free-draining and weather tight. The works shall be designed and installed such that cavity drainage, weathering and water shedding shall not cause unsightly stains on visible elements.
- Moveable systems, such as doors, windows and opening roof lights must operate smoothly and not drop, warp, fracture or foul linings or adjacent systems.
- Finishes shall not significantly change colour, tone, gloss level or pattern under anticipated environmental conditions during the Design Life of the Works.
- Windows, doors, roof lights and elements within openings in adjacent construction shall form a seal to the adjacent construction equal to the performance of the window, door, roof light or element in question.
- The system and/or components within the system shall comply with the European Product Regulations in respect of testing, declaration and marking products applicable to the regulations.
- Unless stated otherwise in the Services Engineer's Report or the Project General Requirements section of this specification, the service temperatures assumed shall be as listed in CWCT Standard for Systemised Building Envelopes.
- Comply with the current issue of the NHBC Standards as a minimum standard. Where the specification requirements exceed those standards, the specification shall take precedence.

Definitions:

Doors:
- is a generic term for door leaves, door frames, doorsets, door assemblies or door kits within this Specification.

Doorset:
- is defined as a complete unit consisting of a door frame and a door leaf or leaves, supplied with the essential hardware and weatherseal, as a product from a single source, in accordance with BS EN 1192.

Door Assembly:
- is defined as a complete assembly as installed, comprising door frame and one or more leaves, together with its essential hardware supplied from separate sources, in accordance with BS EN 1192.

Building Hardware:
- Small components, usually metal, used mainly for the operation or support of doors.

Essential Building Hardware:
- Items vital to achieve the fire-resisting performance of a fire door assembly when incorporated into a building.

Non-essential Building Hardware:
- Items that are not required to achieve the fire resistance performance of a fire door assembly, but which if fitted might affect performance

Power Operated Pedestrian Doorset:
- Doorset for pedestrian passage only with one or more leaves that is moved, at least in one direction, by an external energy supply (eg electricity) instead of manual or stored mechanical energy.

Systemised Elements:
- are defined as those constructed from finished components and assemblies. These include windows, curtain walls, assembled backing walls, doors, cappings, flashings, parapet assemblies, louvres

Traditional Elements:
- are defined as those requiring wet trades or fabrication from traditional materials on site.

High Usage Entrance Doors:

- 'High-usage entrance door' means a door to an entrance primarily for the use of people that is expected to experience large volumes of traffic, and where robustness and/or powered operation are the main performance requirement. To qualify as a 'high-usage entrance door' the door should be equipped with automatic closers and, except where operational requirements preclude it, be protected by a lobby.

Security:

- Building envelope components shall provide security to standards as defined below.
- Residential Entrance Door sets (Front Doors) including 'side' or 'back doorsets,' 'sliding patio' or 'bi-fold' door sets not designated as the primary access/egress route shall be certified to the latest version of:
  - BS PAS 24 if within the scope of the standard, or
  - BS EN 1627 Resistance Class 3 with additional tests as described in Annex D of the 'UK Police Service Secured by Design (SBD) Interpretive Document for BS EN 1627, BS EN 1628, BS EN 1629 and BS EN 1630 latest edition, or
  - STS 201, or
  - LPS 1175 Security Rating 2, or
  - STS 202 Burglary Rating 2, or
  - LPS 2081 Security Rating B
- Fixing Sizes: Minimum frame fixings sizes shall be as LPS 1175 Issue 7:2010, Table 1
- All internal ground floor doors, accessible doors or entrance doors with glazed vision panels shall be fitted with laminated glass tested in accordance with BS EN 356.
  - Code designation for category of resistance: To EN 356 P1A where not stated otherwise in the System Specific Requirement work sections.
  - Glass shall remain intact after breakage.
- Letter plate apertures to be installed and tested to PAS 24:2012 or STS 201 Issue 4:2012
- For door entry and access control systems refer to building Services Engineers information.
- Windows shall be certified to the latest version of:
  - BS PAS 24 if within the scope of the standard, or
  - BS EN 1627 Resistance Class 2(N) with additional tests as described in Annex D of the 'UK Police Service Secured by Design (SBD) Interpretive Document for BS EN 1627:2011, BS EN 1628, BS EN 1629 and BS EN 1630' latest edition.
  - LPS 1175 Security Rating 2
- Low level components accessible from pedestrian areas shall be secured against unauthorised removal.
- All components or systems associated with security shall be certified by the Loss Prevention Certification Board (LPCB), and listed in the BRE Red Book

Structural and Mechanical:

- The completed works shall accommodate loading requirements in accordance with the relevant European and national code requirements.
- The contractor shall assess the use class of the building as defined in BS EN 1991-1-1, and design the elements and guardings in compliance with the loading and structural requirements in BS EN 1991-1-1, guidance in PD 6688-1-1 and BS 6180.
- The works shall be capable of accommodating movement and tolerances associated with any element and adjacent elements without degradation of performance, tolerance limits, operability or aesthetics to either. Movements may include: Elastic deformation induced by dead/live loads and/or excessive temporary loads, axial shortening, ground movement/differential settlement, shrinkage, moisture movement, creep, thermal movement, movement due to chemical action and movement due to the expansion of absorbed or retained moisture caused by freezing. Movement in this context includes both reversible and irreversible movement. The design and detailing of the works including fixings shall prevent degradation due to locked-in stresses.
- The contractor shall take full account of all the anticipated building movements including those arising with the supporting structure to the works as described in the Building Movement and Tolerances report, prepared by the Structural Engineer. The works shall perform without adverse effects under such movements.
- Where guarding is provided by windows or moveable panels on restrictors, they shall provide guarding performance in their open position.
- Systemised elements:

- In addition to the requirements above, the loading requirements of the CWCT Standard for Systemised Building Envelopes shall be met.

- Deflections:
- Systemised elements:
    - Allowable deflections for all components shall be as listed in Part 3 of CWCT Standard for Systemised Building Envelopes and shall ensure maintenance of visual criteria, support for related components and infill, performance of the envelope at interfaces and effectiveness of seals.

Robustness and Impact:

- The contractor shall design the system to resist applied or transferred impacts that occur during normal use and maintenance of the system, without degradation.
- Opening elements shall be secure, operate smoothly and not drop, foul adjacent linings or finishes and operate without noise, rattle or vibration.
- Vertical building envelope systems shall resist the impact values in accordance with the CWCT Technical Note 75. Refer to Appendix A of TN75 to determine relevance of tests to particular components and materials. Table 3 of TN 75 shall be used to interpret the impact loading requirement of each area of facade. Particular care shall be made to ensure all facades within 1.5m of public accessible pedestrian levels shall resist loads of at least exposure category B. Locations for soft and hard body test impacts for glass shall be as EN 14019 for curtain wall glazing and EN 13049 for window glazing. Acceptable failure modes for serviceability: not worse than class 1 for all elements up to 5m above pedestrian level; not worse than class 2 for all elements over 5m above pedestrian level. No other failure modes shall be acceptable.
- Sloped glazing shall withstand impacts as Class 2 roofs CWCT Technical Note 66. The contractor shall use guidance in CWCT TN 68 when designing overhead glazing and may utilise the advice given in TN92 about achieving Class 2 safety and robustness.
- Special consideration shall be given to hail impact resistance on surfaces exposed to potential hail.
- Windows shall resist soft body impacts as in BS EN 13049 Class 4.
- Doors shall resist hard and soft body impacts as PAS 24
- Curtain walls shall resist soft body impacts as in BS EN 14019 Class E4.
- Accommodation of horizontally applied loads arising from maintenance equipment (e.g. ladder, maintenance cradle) to CWCT Standard for Systemised Building Envelopes requirements: Any part of the cladding surface of the works shall sustain safely and without permanent deformation to any component, a static 500N horizontally applied load through a square of 100mm sides on any part of the building envelope. Should maintenance cradles impart larger loads than the one stated herein, the contractor to liaise with cradle trade contractor and ensure the envelope shall sustain these impacts without any reduction in performance.
- The impact performance of transparent glass shall be as required by the Building Regulations plus additional performance as required under 'Security' in this Specification.

Fire:

- Refer to Fire Strategy Report by Fire Engineer.
- External surface reaction to fire shall be as the classifications in Approved Document B of the Building Regulations. The contractor shall ensure these provisions are met taking into account building class, building height above ground and proximity to the relevant boundary. The contractor shall also take note of any uplift in these requirements or guidance contained in the Fire Strategy Report and in system specific requirements within this specification.
- Fire rating of doors, windows, curtain walls, roof light and other glazed systems: See system specific requirements in this specification, plus the fire strategy drawings and report.
- Fire and smoke stopping: To BS 476-22.
- Cavity barriers shall achieve minimum 30 minutes integrity and 15 minutes insulation, when exposed to fire from each side separately, and be installed at no greater intervals than the ones stipulated in Table 13 of Approved Document B, unless the system complies with paragraph 9.10. Cavity barriers shall also be installed at compartment interfaces with the facade and around openings as required in the Approved Document B. The final strategy shall meet the approval of the building control body.
- Cavity barriers around openings may be formed by the window or door frame so long as it is consistent with the requirements of section 9.13 of AD B Volume 2 of the Building Regulations.
- Fire stopping shall be installed around penetrations through any facade that has a fire rating for boundary purposes and shall be of equal performance to wall through which they are penetrating.
- Fire stopping and cavity barriers at compartment lines shall equal the resistance of the compartment

separation as defined on the fire strategy drawings or report.
- Fire and smoke stops shall be positively supported. All fire and smoke stopping shall be capable of accommodating all structural, settlement, drying shrinkage, creep, thermal, and moisture movements of the building frame and/or the façade without dislodging.
- Composite components shall not delaminate while performing for specified fire resistance periods.
- The installation of fire and security doors, door sets, shutters and active smoke/fire barriers shall be certified by LPS registered contractors in accordance with LPS 1271 (Requirements for the LPCB Approval and Listing of Companies installing fire and security doors, door sets, shutters and active smoke/fire barriers).
- Provide certified evidence, in the form of a product conformity certificate. Such certification by an approved third party certification or testing body must cover all materials and their installation.
- For doors and door sets comply with the specified requirements for fire resistance tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- Ironmongery: All door furniture shall demonstrate its ability to be suitable for the intended purpose, by inclusion in satisfactory fire tests to BS476: Part 22 or EN1634-1, on a type of door set and configuration in which it is proposed to be used. This evidence shall be provided by an approved third party certification or testing body.
- Fire stopping systems shall suit location and application conditions, shall be certified by the Loss Prevention Certification Board (LPCB) or equivalent UKAS accredited third party product certification body, and listed in the BRE or the Association for Specialist Fire Protection (ASFP) Red Book latest editions.
- Cavity barriers shall suit location and application conditions. Proprietary cavity barrier systems shall be certified by the Loss Prevention Certification Board (LPCB) or equivalent UKAS accredited third party product certification body, and should be listed in the BRE or the Association for Specialist Fire Protection (ASFP) Red Book latest editions.

Light and Solar Transmission:
- Photometric performance of glazing as calculated in BS EN 410:
- Light transmittance (LT): see System Specific Requirements
- Solar factor (g value): see System Specific Requirements

Condensation:
- The contractor is to ensure that surface condensation does not form on the works when used under temperature and humidity conditions referred to the Services Engineer's Report or the Project General Requirements of the architectural specification.
- No interstitial condensation shall form in non-breathing construction under the same environmental conditions as above.
- Interstitial condensation shall not build-up in breathing construction under the same environmental conditions as above. Short term accumulations of interstitial condensation shall not cause staining, rotting, corrosion or any detriment to performance or aesthetics of the works, as determined by BS EN ISO 13788.
- The contractor shall evaluate the risk of interstitial and surface condensation forming on the works by using acceptable risk analysis calculation methods stipulated under 'Post Contract Submittals 'in this specification.
- Special consideration shall be given to thermal bridges in the construction, in order to predict the risk of surface or interstitial condensation (see Thermal clauses herein). The contractor shall ensure that thermal bridging is eliminated, or where this is not possible thermal bridging shall be limited to ensure no degradation to performance or risk of condensation forming within or on the surface of the works.
- The guidance in BS 5250: Code of practice for control of condensation in buildings and 'Thermal Insulation: Avoiding the Risks', BRE 2002 shall be used to reduce condensation risks.

Water Ingress:
- Any systemised building envelope, including curtain walling, sloped glazing, window walling, sealed composite cladding and rain screen cladding is meet the requirements of the CWCT Standard for Systematised Building Envelopes, i.e. no leakage onto the internal surfaces up to peak pressure 600Pa
- Stand alone windows (punched windows) water tightness class to BS EN12208: see System Specific Requirements in this specification.
- Stand alone fully rebated doors (punched doors) water tightness class to BS EN12208: see System

Specific Requirements in this specification.
- Any stand alone roof lights shall resist water ingress equal to sloped glazing.
- Any non rebated, high usage doors where not part of a systemised building envelope are not subject to water ingress test requirements; however the contractor is to ensure that the completed works resist water ingress when in the closed position. This should be equal to that achieved by the incorporation of perimeter gasket seals or brushes to the top and sides; brush type seals to the bottom of the door. Perimeter seals shall not create significant drag so which would unduly restrict the operation of the door.
- Weather performance louvres shall have test certification for prevention of water ingress through louvres at the worst case intake velocity stated in the Mechanical Services Specification by the services engineer or HEVAC class C, whichever has the latest water ingress.
- Movement and other fixed joints shall remain sound and accommodate all thermal, building structure or other movements and any applicable loads without compromising watertightness.

Ventilation:
- Louvres shall be performance tested in accordance with BS EN 13030.
- Total physical free area when openable vents are fully open: see System Specific Requirements sections of this specification.
- Physical free area of weathered ventilation louvre system or air bricks: see System Specific Requirement sections of this specification.
- Visual free area of weathered ventilation louvre system: see System Specific Requirements sections of this specification.
- Equivalent free area of trickle vents: see System Specific Requirements sections of this specification.
- Discharge loss coefficient of weathered ventilation louvre systems: Refer to Mechanical Services Specification by the services engineer if not stated in System Specific Requirement sections of this specification.
- HEVAC rain exclusion rating of louvers: see water ingress above.
- Insect and vermin mesh to rain screen facades: mesh size to be sufficient to exclude infestation from nest building insects, and mesh size to ventilation louvers to exclude all airborne insects.

Earth Bonding:
- Any exposed metal components shall be earth bonded in accordance with BS EN 62305, BS 7430, and BS 7671 and the latest IEE Regulations
- Refer to Mechanical Services Specification.

Infestation:
- The works shall be constructed to prevent insect, bird and vermin infestation arising in inaccessible cavities using guidance contained in BRE Digest 415. See requirements for size of insect mesh under Ventilation.

Accessibility:
- Doors on inclusive access routes shall be designed to allow access in accordance with BS 9266, Lifetime Homes and Wheelchair housing design guide, latest editions.
- Where applicable, visual contrast to BS 9266: Design of accessible and adaptable general needs housing. Code of practice
- Window and roof light controls shall meet the accessibility requirements of BS 9266 and Lifetime Homes, including type, location and opening.
- Operating forces for controlled door closing devices, panic exit devices, emergency exit devices, keys and cylinder turns, refer Appendix Z40.

Health and Safety:
- In completing the design, the contractor shall assess hazards associated with the construction, maintenance and demolition of the works and risk of such shall be eliminated, or where not possible minimised and communicated to the Designated Contact.
- The contractor shall ensure performance of the system whilst discharging designer's duties under the CDM Regulations 2015.
- In addition, the contractor shall assess the hazards to building users and the public arising from the works throughout the service life of the building and risk of such shall be eliminated, or where not possible minimised and communicated to the designated contact.
- Where doors, windows and moving parts are included in the system, risks of injury to fingers and

limbs shall be prevented.
- For pivoting and power operated doors and associated components, the guidance within BS EN 16005, BS 7036 and in the document 'Guide to gate safety legislation and standards' published by the DHF Powered Gate Group latest edition, shall be incorporated in the design, installation and operation of automated or automatic doors and gates.
- Windows shall be designed in accordance with the minimum requirements of BS 6375 Part 2.
- In the instance where the external face of the façade is to be cleaned by via an open window, the contractor shall produce a risk assessment in accordance with BS 8213 Part 1 to assess the risk of somebody falling out of an open window when in use.
- For outward opening windows with opening gap restricted to prevent falling and where the base of the opening vent is below the minimum barrier height cited in the Building Regulations; the window in combination with the restrictors shall resist the required barrier loads.
- Window restrictors: where they are designed to be over-ridden for cleaning or maintenance reasons, they shall be released by security key, not a simple button.
- Glazed roof access: Loads and failure modes in accordance with CWCT TN 66 and TN 67 Class 2: Roofs where people are not intended to walk on the glass, but which are required to be non-fragile to protect people: when maintenance personnel walking adjacent to the glass could fall, trip or drop objects onto the glass surface; when maintenance personnel working on the glass roof could fall or drop objects onto the glass surface from crawler boards or other access equipment.
- Glazing is being utilised to act as a barrier and shall be designed to meet the requirements of BS 6180, BS 8200 and BS 6262 relevant parts and the Building Regulations. All safety glazing shall be marked in accordance with BS 6262 Part 4.
- The contractor shall mitigate against specific risks of nickel sulphide failure in toughened glass, thermal shock in annealed glass and delamination in laminated glass. The performance level of mitigation against thermal shock shall be equal to that provided by heat soak testing to BS EN 14179 Part 1.
- The contractor shall produce a glass risk assessment to justify the choice of glazing for each location. This shall include the possible failure modes, probability of failure and consequence of failure i.e. degree of containment and the risk of injury due to this consequence. It shall also consider non-safety related failure modes to justify commercial drivers in glass selection.
- The contractor shall take account of guidance given in CIRIA C632 Guidance on Glazing at Height, CWCT TN63, 65, 66, 67, 68, 69 and other current guidance from relevant industry bodies. See also requirements for mitigation of thermal shock under Thermal requirements.
- Manifestation of glazing to be applied in accordance with the Building Regulations.

Acoustic:
- External sound insulation: Refer to Acoustic Report reference: 'External Building Fabric Assessment Report 6015/EBF'
- External sound reduction: refer to acoustic specification.
- Horizontal flanking transmission: refer to acoustic specification.
- Vertical flanking transmission: refer to acoustic specification.
- Rainfall noise: The completed works are to incorporate damping on horizontal or sloping light metal surfaces. Where the performance target or prescriptive means of achieving rainfall reduction is not stated in the acoustic report, assume performance equal to resilient plasto-elastic material of 6kg/m² bonded to underside of any outer lightweight cladding, sills etc. Where the interior space is intended as a room for study, performance or sleeping, target to be equal to resilient plasto-elastic material of 10kg/m². Note resilient material and bond to be heat and freeze resistant with design life equal to that of the components to which it is attached.
- Noise arising from thermal movement of the works shall not be detectable from the interior.
- Where thin linear components are required on the facades, the contractor shall carry out a risk assessment for likelihood of wind generated noise and mitigate risks of drumming, humming and whistling within the completed works. Particular attention shall be paid to open ended tubes and hollow components.

Thermal:
- Maximum U value target for windows and curtain walls, including brackets, framing and spandrel members: See System Specific Requirements.
- Glazing unit centre panel transmittance: See System Specific Requirements.
- Non repeating linear and point thermal bridges shall have equal or better thermal resistance than the equivalent Accredited Construction Detail for any interface, junction or corner.
- Thermal calculations are to be provided by the Contractor in accordance with BR 443 and all

standards referred to therein. The Contractor shall take account of 1, 2 and 3 dimensional heat flow, including thermal bridges through the construction in accordance with EN ISO 6946, BR443, BS EN ISO 10211-1, BRE IP 1/06 and BR497.
- Window and door U value calculations shall be in accordance with BS EN ISO 10077-1 and BS EN ISO 10077-2.
- Curtain walling and metal window walling is to be calculated as one area including transparent and opaque areas together with framing members.
- For sloped or inclined glazing: The Contractor is to calculate the average weighted U-value of the glazed areas utilising glazing centre pane U-values as stated by the manufacturer in accordance with BS EN 673 for the vertical plane. This is in accordance with The Building Regulations Part L1A clause 36b and Part L2A table 4; note 2.
- Glass shall be designed, manufactured and installed to reduce the likelihood of thermal shock arising in any pane. Guidance from CWCT TN 65 shall be taken into account. The glass risk assessment mentioned under requirements for Health and Safety shall take thermal shock into account.
- The contractor shall carry out a thermal risk assessment to identify any key areas of thermal bridging in the works and shall mitigate against risks of concentrated heat loss.

Air-tightness:
- Refer to the Project General Requirements of the architectural specification for the whole building air tightness target and means of achieving it. The works are to be designed, fabricated and installed so as to contribute to the achievement of this target.
- Systems and interfaces with adjacent systems are to form continuous barrier against uncontrolled air leakage.
- Air infiltration rates for systemised building envelopes are to meet the requirements of the CWCT Standard for Systematised Building Envelopes and BS EN 12152 as follows: for curtain walling, sloped glazing, window walling, sealed composite cladding, rendered systemised backing walls, masonry in front of systemised backing walls and rain screen cladding on systemised backing walls: maximum 1.5m³/h/m² at 600Pa infiltration and corresponding infiltration for lower pressures as per the standard. Any joints within opening vents, windows and doors (excluding high usage access doors with low or flush thresholds, or low exposure entrance doors) as part of a systemised walling system are to meet the requirements of the CWCT Standard for Systematised Building Envelopes, i.e. max 2.0m³/h/m at 600Pa infiltration and leakages for lower pressures as per the standard.
- Exfiltration shall be limited to values equivalent to infiltration at 100Pa as above.
- Any stand alone (punched) windows and fully rebated (punched) doors (excluding high usage access doors) are to meet Class 4 performance to BS EN 12207. At peak test pressure 600Pa the permissible air infiltration rate through the opening joints of punched windows and fully rebated doors shall not exceed 2.5m³/h/m in accordance with BS EN 12207.
- High usage doors are to meet Class 3 performance to BS EN 12207. In cases where this cannot be technically achieved without compromising safety, access, functionality and security the contractor shall use best endeavours to reduce air leakage without compromising the performance requirements.
- Doors on spring or motorised closers are to remain in the closed position in high winds, whilst meeting the opening force requirements of BS 8300.

Service life, Durability and Degradation:
- Atmospheric conditions in accordance with:
  - BS EN ISO 12944-2: Paints and varnishes - Corrosion protection of steel structures by protective paint systems. Classification of environments.
  - BS EN ISO 14713: Zinc coatings - guidelines and recommendations for the protection against corrosion of iron and steel in structures
  - BS EN 10169: Continuously organic coated (coil coated) steel flat products.

External: C3 i.e. urban industrial, coastal low salinity.
Internal: C1 i.e. internal heated and C2 i.e. internal unheated.
- Building Service Life: Refer to Project General Requirements.
- System Service Life: Refer to table below
- Single source product and installation warranties shall be provided for the works and its components from date of practical completion in accordance with the contract, and where appropriate as the following table:

System Component	Service Life	Warranty

Curtain walling	40 years	12 years
Door and window framing (excluding timber), panels and brackets	40 years	12 years
Door and window timber framing, panels & brackets	Species dependant minimum xx years	12 years
Door and shutter motors, closers, pivots, moving parts and control gear	25 years	12 years (or longer under a service contract)
Door ironmongery	25 years	5 years
Glass units (excluding NiS breakage where heat soak tested)	40 years	12 years
Other glass types	40 years	12 years
Powder coating gloss retention and colour fastness	60 years	25 years (or less if including consequential loss clauses)
Powder coating adhesion	60 years	12 years
Paint coatings (except timber)	60 years	5 years
Anodizing	60 years	12 years
Gaskets and dry seals (except moving swipe seals and brushes)	40 years	12 years
Wet seals accessible for maintenance *	25 years	12 years
Insulation and fire stopping	60 years	12 years
AVCL/ VCL membranes, in accordance with BS 5250 requirements	60 years	12 years
Breather/ Weather Membranes	50 years	12 years
* For generic life expectancy of sealants refer to Table 2.2 of CIRIA, Sealant joints in the external envelope of buildings: a guide on design, specification and construction and Table 1 of CWCT TN19		

- The system and all parts thereof shall be serviceable for the design life required above. No parts shall suffer significant degradation or failure during the service life required above.
- The works shall be designed and installed to weather effectively. Water running off or within cavities in the system shall be managed and directed in such a way that waterborne pollutants are not leached out onto either adjacent cladding or surrounding structure in a manner likely to cause staining, long term dampness or algae growth.
- The completed works shall resist abrasion from cleaning methods specified in the works manufacturers' maintenance information without any discernible change in appearance.
- Resistance to repeated opening and closing for doors to BS 6375-2: See System Specific Requirements.
- Lever handles are to be in accordance with BS EN 1906 to achieve the performance requirements and test methods (i.e. durability, static strength, operating torque, corrosion, safety, etc.) for sprung and un-sprung lever handles and for doors on back plates or roses.
- All door hardware is to in accordance with BS EN 1670: Corrosion Resistance requirements and test methods (i.e. durability, static strength, operating torque, corrosion, safety, etc.)
- Unless specified otherwise, select ironmongery components to suit minimum use as defined in BS 7352.
- Where material or system performance reduces or erodes during the course of its service life, such as in the case of vacuum insulated products, the predicted performance at the end of the service life shall be used as the basis for the design.
- The contractor shall ensure that electrolytic corrosion between dissimilar metals does not occur under the environmental conditions expected to prevail during the life of the building. This shall include prevention of electrolytic corrosion due to the following:
    - direct contact of dissimilar metals
    - water runoff from electrolytically dissimilar metals
- The works shall be designed to prevent the occurrence of crevice corrosion by avoiding details and interfaces where water may be trapped over long periods of time. Narrow openings between metal components in contact with other metal or non metal components in locations prone to wetting shall be avoided. Particular attention shall be given to fasteners where crevices may be formed under bolt,

screw or rivet heads or within the thread. Appropriate sealing shall be carried to avoid crevice corrosion.
- Corrosion resistance of items that have a structural or load bearing function, whether accessible or inaccessible for inspection and repair, shall have a life to first maintenance equal that the entire system service life stated in the Service Life and Durability section of this specification above.
- The Life to First Maintenance of ferrous metal items shall be Very High (VH) as defined in Table 2 of BS EN ISO 14713-1 Zinc coatings – Guidelines and recommendations for the protection against corrosion of iron and steel in structures, Part 1: General principles.
- All externally visible ferrous metal surfaces shall have corrosion resistance of equal performance to hot dipped galvanised steel with a minimum average coating thickness of 85 um to ISO 1461 or stainless steel grade 1.4401 to BS EN 10088-2 or, where not visible, develop natural patination to meet service life of the components, equal to steel grade 304. This also applies to components or parts of components within rain screen. All cavity fixings supporting or restraining masonry, stone any other porous material shall be stainless steel.
- Where fixings connect dissimilar metals, the fixings shall be made of a material which is at least as noble of the noblest material fixing being fixed. Ie. an aluminium to mild steel bracket should be fixed with stainless steel screws.
- The works shall be designed to prevent the risk of corrosion or staining by direct contact of metal components with timber.
- Water runoff:
    -The works shall be designed to prevent the risk of corrosion by water run-off from timber onto electrolytically dissimilar metal surfaces.
    -The works shall be designed to prevent the risk of acidic corrosion by water run-off from bitumen onto metal surfaces such as copper and zinc.
    -The completed works shall ensure that water runoff from metals, such as copper, bronze, brass etc, shall not result in staining of porous materials below.
    - Water runoff from concrete, stone or other materials containing lime shall not affect the performance or degrade the appearance of adjacent materials, such as metals particularly anodised aluminium, stone and glass surfaces/assemblies or finishes to components.
- Where wood preservatives are used, the contractor shall eliminate the risk of any adverse reaction with metals, polymers and other materials.
- Sealant systems shall not bleed, discolour or cause staining of any facing materials which they are likely to come into contact.
- Timber components shall not be used in areas where they cannot be readily inspected and replaced without disturbing the system.
- Durability of sealants:
    -Sealants selected to seal a joint shall be able to maintain their performance while accommodating variations in joint sizes due to manufacturing and erection deviations, and repeated building movements induced by mechanical and environmental stresses. They shall withstand climatic conditions and any specific environmental conditions to which they are subjected.
- Alkali damage:
    - Aluminium components shall not suffer alkali corrosion or staining from cement based materials.
    - Glass components shall not suffer visual or performance degradation arising from waterborne alkalis from components above.
- UV and IR resistance:
    - All materials that are sensitive to UV/ IR shall maintain their integrity, visual appearance and performance over the service life of the element of the works in which they are incorporated.

Maintainability:
- The design of the works shall take account of the requirements for maintenance after completion of the works. Components which require cyclical maintenance shall be accessible, either directly, or indirectly following removal of associated components.

Environmental

Responsible Sourcing Generally:
- Materials forming joinery items shall be responsibly sourced from manufacturers who are independently third party certified to BS EN ISO 14001/EMS or equivalent standard or who have a

structure that is in compliance with BS 8555:2003 and has reached phase four of the implementation stage, 'implementation and operation of the environmental management system', and has completed phase audits one to four, as defined by BS 8555 as a minimum to meet the Project Environmental Assessment Method requirements (refer Project General Requirements) and shall have certified manufacturer's Environmental Product Declarations for:

- Aluminium Framed Systems: Accreditations must cover the aluminium metal product manufacturing plant and the aluminium ingot production plant.
- Steel Framed Systems: Accreditations must cover steel product production and electric arc furnace or basic oxygen furnace.
- For Timber and Timber-based Products/Components: Refer Project General Requirements
- Glass: Accreditations must cover the glass production and sand extraction or soda lime production or extraction.
- Plastics and rubbers (including EPDM): Accreditations must cover plastic/ rubber product manufacture and main polymer production.
- Products with 100% recycled content: Accreditations must cover product manufacture and recycled input by default
- Products with lower % of recycled content: Accreditations must cover product manufacture, supply chain process(es) for any virgin material and recycled input by default.

Responsible Sourcing of Insulation:

- Insulation products shall be A or A+ rated by the BRE Green Guide to Specification or a manufacturer's independently certified Environmental Product Declaration and be sourced from manufacturers who are independently third party certified to BS EN ISO 14001/EMS or equivalent standard or who have a structure that is in compliance with BS 8555:2003 and has reached phase four of the implementation stage, 'implementation and operation of the environmental management system', and has completed phase audits one to four, as defined by BS 8555 as a minimum to meet the Project Environmental Assessment Method requirements and shall have certified manufacturer's Environmental Product Declarations for both the insulation manufacturing plant and the raw material suppliers to the manufacturing plant.
- Insulation blowing agents shall have zero Ozone Depletion Potential (ODP), be CFC and HFC free and have a Global Warming Potential (GWP) of <5.
- All insulation products shall be 100% recyclable and manufacturers should be operating or participating in a recognized off-cut collection and/or recycling scheme.

Recycled Content:

- To BS EN ISO 14021

Volatile Organic Compounds (VOCs):

- Wood and wood-based panels shall be compliant with BS EN 13986:2004 Annex B for formaldehyde E1 and the manufacturer must verify that regulated wood preservatives are absent as defined.

Additional Requirements for Performance: Sealant Joint Design

- The design of joints shall be in accordance with the requirements set out in BS 6093. For systemised elements, the contractor should follow the guidance in CWCT TN 16.
- All sealed joints shall be designed in consultation with the sealant manufacturer and shall comply with the requirements and guidance provided in:
  - BS 6093
  - BS 6213
  - CIRIA, Sealant joints in the external envelope of buildings: a guide on design, specification and construction
  - For systemised elements, the contractor should follow the guidance in CWCT TN 20.
- Sealant joints shall provide durable, weathertight seals, and shall be able to accommodate variations in joint sizes arising from induced deviations (tolerances) and inherent deviations (movement).
- Sealed joints shall allow the relative movement between the structure and the cladding to take place without overstressing cladding units and fixings.
- Sealed joints shall be capable of accommodating the accumulated tolerances of both the structure and cladding units, whilst maintaining the joint width within the acceptable deviation limits.
- Sealants between porous materials shall not migrate into or discolour adjacent materials.

- The design and installation of sealant joints is required to mitigate against mechanical and aesthetic failure of the sealed joints. Unacceptable failure modes are as follows:
- Mechanical failure:
    - Loss of adhesion
    - Loss of cohesion (splitting)
- Aesthetic failure:
    - Poor workmanship (mixing, masking, gunning, tooling, unevenness, discolouration)
    - Surface deterioration (cracking, discoloration, chemical attack)
    - Staining of adjacent surfaces

Additional Requirements for Performance: External Windows and Doors

- General Standards:
    - NHBC Standards
    - PAS 24, if the assembly falls within the scope of the standard
    - BS 6375 (all parts)
    - BS 8213-1
    - BS EN 14351-1
    - BS EN 16361
- Aluminium alloy windows and doorsets: To BS 4873
- Timber windows and doorsets: To BS 644

- Doorsets and windows shall be certificated to PAS 24, latest issue.
- Door and window impact resistance, as required under 'Robustness and Impact' in this Specification.
- Operating forces of fully finished door assemblies: To comply with BS 6375-2 requirements, when tested to BS EN 12046-2, with the following exception:
    - Operating forces to comply with BS 8300 or BS 9266 requirements

- Classification of additional performance characteristics: To BS 6375-3
- Safety in use requirements: To BS 8213-1
- Weatherseals performance requirements: To BS EN 12365-1
- All window weatherseals and gaskets shall be abrasion, UV/IR resistant and shall not be degradable by moisture, extreme temperatures, water vapour or frost. The plasticity, elasticity, shore hardness, colour and dimensional profile of gaskets shall remain within manufacturer's tolerance for the service life of the assembly under the anticipated service conditions.
-Push–in or wedge gaskets shall not be stretched during installation. Gaskets shall not shrink or recede following the installation.
Gaskets shall be manufactured from extruded EPDM and comply with the requirements of BS 4255-1. PVC compound gaskets shall not be used.
- Glazing: Windows and doors shall be glazed in accordance with the recommendations given in BS 6262, BS 8000-7 and the NHBC standards relevant clauses.
- Notwithstanding BS 8000-7, timber setting blocks shall not be used in any window glazing.
- Insulating glass units (IGUs) shall conform to BS EN 1279, all parts.
- Drainage to window frames shall be by other means than face mounted weepholes.
- Movement accommodation: Where movement joints in surrounding construction are located along the masonry/mullion interface at the jambs, window or door frame fixing lugs shall accommodate movement of adjacent masonry without adversely affecting the visual, functional and performance requirements for the window or door and surrounding construction.
- The completed works shall ensure that all joints between window or door frames and their surrounds shall be fully weather-tight, airtight and there shall be no thermal bridging.
- The works shall ensure that adequate clearance between window or door frame and surround is provided to allow for building tolerance, efficient airtight weather-sealing and insertion of adequate insulation to prevent thermal bridging.

Aluminium Windows:
- Windows shall be designed in accordance with the recommendations of the system supplier.
- The windows shall be manufactured from thermally broken sections, fully pressure equalised, aluminium alloy hollow box sections, sized and rebated profiles with no visible or other mechanical fixings on exposed surfaces of the window except where shown on the design intent drawings, all to

specialist design.
- Aluminium window extrusions: To BS EN 755-1, BS EN 755-9, BS EN 12020-1 & BS EN 12020-2
- Thermal barrier requirements: To BS EN 14024

Timber Windows:
- Windows shall be designed in accordance with the recommendations of the system supplier and the guidance provided in TRADA publications.
- The window manufacturer shall be registered under a third party quality assurance scheme, such as BM Trada Q Mark High Performance Timber Window, or equivalent.
- The windows shall be manufactured from fully pressure equalised, suitably sized timber sections, sized and rebated profiles with no visible or other mechanical fixings on exposed surfaces of the window except where shown on the design intent drawings, all to specialist design.

Window Frame:
- Exposed arrises: All coated timber frames shall incorporate round arrises to a radius of at least 3mm to maintain a consistent thickness of coating around the edges of profiles.
- All exposed top surfaces of horizontal frame members shall have a minimum slope of 1:8 (7 degrees) to ensure that water will drain away from external surfaces.
- When either mortice and tenon or comb joints are proposed, the contractor shall ensure that the end grain of any wood member is properly sealed against moisture take-up.
- Adhesives used to bond window joints shall be strong, durable, have gap filling properties to ensure joints are fully filled and sealed and shall meet the requirements of BS EN 204.

- Drainage and Pressure Relief:
  - All timber windows shall be designed to incorporate drainage and pressure relief in accordance with the guidance in TRADA publication Wood windows: designing for high performance.
  - No water shall accumulate within the window profile rebates.
  - Design of drainage and pressure relief channels shall comply with the requirements of in TRADA publication Wood Windows: designing for high performance

- Weather-seals:
  - Window frames shall incorporate double weather-seals, i.e inner and outer seals.
  - All opening windows shall close against continuous weather-seals that are not interrupted by latches, bolts or hinges.
  - The weather-seals shall be suitably located out of the wetted area of the window frame to eliminate the risk of water being 'pumped' through the sealed joint due to wind pressure.
  - All weather-seals shall be fitted into slots or kerbs in window profiles.

Additional Requirements for Performance: Louvres

- Louvres shall be designed in accordance with the recommendations of the system supplier.
- Movement accommodation: Where movement joints in surrounding construction are located along the masonry/mullion interface at the jambs, louvre frame fixing lugs shall accommodate movement of adjacent masonry without adversely affecting the visual, functional and performance requirements for the louvres and surrounding construction.
- The completed works shall ensure that all joints between louvre frames and their surrounds shall be fully weather-tight, airtight and there shall be no thermal bridging.
- The works shall ensure that adequate clearance between louvre frame and surround is provided to allow for building tolerance, efficient airtight weather-sealing and insertion of adequate insulation to prevent thermal bridging.

Additional Requirements for Performance: Sloped Glazing

Sloped Glazing:
- Sloped glazing shall be designed in accordance with the recommendations of the system supplier.
- The sloped glazing shall be manufactured from thermally broken sections, fully pressure equalised, aluminium alloy hollow box sections, sized and rebated profiles with no visible or other mechanical fixings on exposed surfaces of the sloped glazing except where shown on the design intent drawings, all to specialist design.
- Sloped glazing systems shall incorporate pressure equalised cavities incorporating a minimum of two layers of defence against water leakage – an outer layer of seals to prevent water ingress and an

inner layer of properly designed drainage channels to remove water that passes the first line of defence.
- Glazing shall be incorporated into the frames in accordance with BS 6262 (drained cavity glazing systems)
- Glazing setting blocks shall have a minimum width of that equal to the thickness of the glazing unit to ensure that all panes within the unit are fully supported. Setting blocks shall be positioned no less than 30mm or a maximum of 50mm from the corner of the glazing unit or in accordance with the manufacturer's recommendations. Setting blocks shall not block drainage water paths or ventilation routes to the perimeter of the glazing.
- The glazing or infill panels shall be positioned centrally within the frames, a clearance gap of 6mm shall be accommodated between the frame and the glazing/ infill panel.
- All glazing rebates shall be designed in such a way that no residue water will be trapped anywhere within the glazing system. In particular, water shall not be able to remain in contact with the edge seals of the insulating glazing units.
- The sloped glazing is to include for external drainage. Water draining down the internal drainage channels of the mullion (via the transoms) must be discharged into a suitable and pre-designated gutter (consideration shall be given to any additional water run-off from adjacent constructions onto the said sloped roof area).
- Sloped glazing mullion/transom joints must be formed by over-lapping the transom onto the mullion sections and jointing with a compressed sealing material between the two sections.
- The minimum pitch of the sloped glazing shall be not less than 15 degrees or that recommended by the systems manufacturer (whichever is the lesser).
- Provision shall be made to drain condensation forming on the underside of the sloped roof glazing (due to extreme conditions caused by night-time radiation) into the main mullion bars via the transom bars. This condensation shall then be drained via the internal drainage channels of the mullion bars to the exterior of the façade, into a suitable and pre-designated gutter.
- The sloped glazing shall have moisture/vapour resistance secondary weather membranes mechanically fixed and sealed to the perimeter of the grid and to the structure to maintain the air tightness of the system and provide a second line of defence against water penetration. Where necessary, secondary weather membranes should be mechanically fixed to the structure by means of aluminium clamp angles and suitable fasteners.

Sloped Glazing Capless:
Type: Aluminium Stick, Fully Framed
- Sloped glazing shall be constructed with no external pressure plates or decorative caps. Externally all the glass to glass joint shall be silicone butt sealed. To achieve rear gasket compression along the edges of the infill panel the unit shall be fixed with concealed toggles at centres.
- IGU's shall be fixed to the mullion rafters with concealed toggle fixings. Either securing the IGU directly, or by securing an appropriately finished extruded aluminium carrier frame (which has been structurally silicone bonded to the unit) to the mullion.
- Glazing and infill panels shall be dry pressure glazed into suitably sized rebates to suit the glazing as dictated by the performance requirements outlined in this document, the rebate shall offer a minimum edge cover to the glass or panel of 15mm. The system shall incorporate gasket seals to the internal.
- The sloped glazing system shall be designed to avoid 'ponding' of water on the glass due to the back-fall created by dead load deflection of the glazing unit.

Punched Hole Rooflight, 4-Sided Capped:
Type: Punched Hole Rooflight, Fully Framed, Externally Capped
- Sloped glazing shall be constructed with an external pressure plate fixed at centres to achieve the performance requirements as outlined in this document.
- The system shall incorporate clip-on decorative extruded aluminium capping pieces. Longitudinal caps (running with the slope) shall be mechanically fixed to the pressure plate near the top of the profile to datum thermal expansion and prevent slippage of the cap.
- Glazing and infill panels shall be dry pressure glazed into suitably sized rebates to suit the glazing as dictated by the performance requirements outlined in this document, the rebate shall offer a minimum edge cover to the glass or panel of 15mm. The system shall incorporate gasket seals to the internal and external faces of the glazing and infill panels.
- The roof light shall be secured to a suitable insulated weathered kerb upstand within a flat roof construction.
- The sloped glazing system shall be designed to avoid 'ponding' of water either behind the transom

pressure plate/ caps and on the glass due to the back-fall created by dead load deflection of the glazing unit.

Rooflight Within a Flat Roof Construction:
Type: Punched hole rooflight, fully framed, no external caps
- The stand alone glazed rooflight shall be constructed utilising a four sided perimeter extruded aluminium frame to which a glazing unit is structural silicone bonded. The rooflight shall be a 'face sealed' system. The rooflight shall not incorporate any external capping sections. The rooflight shall be positioned above a suitable weathered kerb upstand within a flat roof construction.
- No visible screws or other mechanical fixings shall be permitted on all exposed surfaces of the sloped glazing except where design intent allows, these areas shall be identified at the tender stage.
- The size of structural sections will be determined by the Contractor based on the specified dead and live loading requirements as outlined in this document.
- The minimum pitch of the sloped glazing shall be not less than 5 degrees or that recommended by the systems manufacturer (whichever is the lesser).
- The sloped glazing shall have moisture/vapour resistance secondary weather membranes mechanically fixed and sealed to the perimeter of the frame and to the structure to maintain the air tightness of the system and provide a second line of defence against water penetration. Where necessary, secondary weather membranes should be mechanically fixed to the structure by means of aluminium clamp angles and suitable fasteners.
- Indicative insulating glazing unit configurations (in accordance with CWCT recommendations) shall have an appropriate inner safety laminated pane and an outer heat soaked toughened pane all in accordance with Appendix Z25 Glass and Coatings.

REQUIREMENTS FOR SAMPLES, SUBMISSIONS, MOCK-UPS AND TESTING

Submissions Generally:
- Submit for approval in accordance with the protocol detailed in the Project General Requirements.

Pre-Contract Submittals:
- Provide manufacturer's product and test data for all materials in this specification, including manufacturer's installation instructions and maintenance data, components, assemblies, products that meet the requirements of the Design Intent.

Post-Contract Submittals:
- The following technical submittals are required:
    - Wind load /snow load calculations
    - Barrier calculations
    - Impact load calculations
    - Structural calculations, test data and technical literature for framing members, brackets, architectural feature connections, fixings, etc, to demonstrate compliance with Specification and BS EN standards.- Glass stress calculations
    - U Value calculations
    - Condensation risk analysis calculations:
        - Systemised and non breathing wall constructions, containing elements such as framing members that may form thermal bridges, shall be assessed using the methods described in BS 5250 and CWCT 'Standard for specifying and assessing for condensation risk',
    - G Value assessments
    - Manufacturing and installation tolerances document
    - Detailed installation checklists
    - CWCT testing certificates
    - Quality plan in accordance with BS 5750, BS EN ISO 9001
    - Written confirmation from sealant manufacturer that the seal design is in accordance with their recommendations to meet the service life requirements.

Post Contract Samples:
- In accordance with the Project General Requirements, submit post contract control and product samples that meet the requirements of the design intent and as defined in each work section.

Fabrication/ Working Drawings:
- In accordance with the Project General Requirements, submit fabrication drawings for comment to demonstrate compliance with the Functional, Visual/Detailed descriptions and Performance requirements respectively.

Samples:
- 1no of each type of ironmongery
- 300mm long samples of each profile used
- Range of compliant 200 x 200mm glazing samples for assessment and selection
- Any other samples listed in the System Specific Requirements

Mock Ups:
- In accordance with the Project General Requirements, submit full scale mock ups that meet the requirements of the design intent and as defined in each System Specific Requirement work section.

Quality Benchmarks:
- Provide notice of the first installed/ completed external door assembly/ doorset and walling installation of each type of door installation to form the Quality Benchmark in accordance with the protocol set out in the Project General Requirements.

Testing:

Systemised Building Envelope Testing:
- Including the following systems:
    - Curtain walls without ventilated cavities.
    - Curtain walls with decorative panels and ventilated cavities
- Where the contractor designs and installs proprietary pre-tested constructions systems to function within the performance envelope of their original type testing, the contractor shall supply copies of test results and proof that the installed elements are within the environmental, spatial and performance parameters of the type tests. Where the contractor designs and installs bespoke or untested solutions, or proprietary construction systems to function outside their original type testing parameters, the contractor shall undertake project specific testing, as follows:
- CWCT Standard for Systemised Building Envelopes laboratory test Sequence B as follows:
    - Air permeability – Infiltration & exfiltration: To CWCT Test Method Clause 5
    - Watertightness – static: To CWCT Test Method Clause 6
    - Wind resistance – serviceability: To CWCT Test Method Clause 11
    - Repeat air permeability – Infiltration & exfiltration: To CWCT Test Method Clause 5
    - Repeat watertightness – static: To CWCT Test Method Clause 6
    - Watertightness – dynamic: To CWCT Test Method Clause 7
    - Watertightness – hose: To CWCT Test Method Clause 9
    - Wind resistance – safety: To CWCT Test Method Clause 12
    - Impact tests: Refer to Appendix A of CWCT Technical Note 75 to determine required test methods to particular components and materials.
    - Rainscreen panels - wind load test: Open jointed rainscreen panels, which are not subjected to differential pressures of CWCT Test Methods 11 and 12, shall be tested to CWCT Test Method Clause 13

- Additional testing required:
    - Site hose test – In accordance with CWCT TN 41 and AAMA. Minimum 5% of critical joints within each system and interfaces between system shall be tested.
    - Equipotential testing: To CWCT Test Method Clause 20
    - Doors hard and soft body impact test: To PAS 24
    - Windows soft body impact test: To BS EN 13049
    - Windows mechanical load test, if within the scope of PAS 24 : To PAS 24
    - Security rating testing of doors and windows
    - Acoustic– laboratory testing: To BS EN ISO 10140, relevant parts. Test results reported in accordance with BS EN ISO 717.
    - Acoustic- site testing: Refer Acoustic Engineers information.
    - Safety anchor tests in accordance with the standard governing such anchors.
    - Off site and site testing of fixings: To CWCT Test Method Clause 19, BS 5080 Parts 1 and

2, and Construction Fixings Association guidance note 'Procedure for site testing construction fixings'.
- Finishes: The window/ door contractor shall supply certificates together with the production sampling test reports, verifying the alloy and the coated finish complies with the specification and to the requirements of BS 6496 prior to work being transported and delivered to site.

External Punched Door and Window Testing:
- Where the contractor designs and installs proprietary pre-tested door and/or window systems, the contractor shall supply copies of test results and proof that the installed elements are within the environmental, spatial and performance parameters of the type tests. Where the contractor designs and installs bespoke or untested door and/ or window solutions, or proprietary door and/ or window systems to function outside their original type testing parameters, the contractor shall undertake project specific testing sequence, as follows:
  - Air permeability– infiltration & exfiltration: To BS EN 1026
  - Watertightness: To BS EN 1027
  - Wind resistance – serviceability (P1 and P2 test pressures: Classified in accordance with BS EN 12210 when tested to BS EN 12211
  - Repeat air permeability: To BS EN 1026
  - Repeat watertightness – static: To BS EN 1027
  - Watertightness – hose: To CWCT Test Method Clause 9
  - Wind resistance – safety (P3 test pressure): Classified in accordance with BS EN 12210 when tested to BS EN 12211

- Additional testing required:
  - External doors: Hard and soft body impact testing to PAS 24
  - External windows: Soft body impact testing to BS EN 13049
  - Windows mechanical load test, if within the scope of PAS 24 : To PAS 24
  - Security rating testing of doors and windows: To LPS 1175
  - Acoustic - Laboratory testing: To BS EN ISO 10140, relevant parts. Test results reported in accordance with BS EN ISO 717.
  - Acoustic - site testing: Refer Acoustic Engineers information.
  - Site hose test – In accordance with CWCT TN 41 and AAMA. Minimum 5% of critical joints within each system and interfaces between system shall be tested.
  - Finishes: The window/ door contractor shall supply certificates together with the production sampling test reports, verifying the alloy and the coated finish complies with the specification and to the requirements of BS 6496 prior to work being transported and delivered to site.

Materials Testing

Testing of Sealants:
- Stain testing on each type of stone/ precast concrete unit in contact with sealant. Refer relevant masonry sections of this Specification.
- Quality control site adhesion testing: Non-destructive site adhesion test in accordance with guidance provided in paragraph 5.4 of CIRIA publication 'Sealant joints in the external envelope of buildings: a guide on design, specification and construction'.
- Properties of sealants to be measured using the test methods listed in BS EN ISO 11600
- Additional test procedures recommended by the sealant manufacturer shall be conducted in order to verify satisfactory sealant cure and / or adhesion to joint surfaces.

Fire Stopping Inspection Generally:
- Comply with ASFP Technical Guidance Document – TGD 17: Code of practice for the installation and inspection of fire stopping systems in buildings: Linear joint seals, penetration seals, small cavity barriers.
- Visually examine 100% of each penetration seal for proper installation, adhesion and curing as appropriate for respective seal materials for evidence of compliance with this Specification.
- Critical thicknesses and other dimensions should be recorded and checked against specification.
- Re-examine the penetration seals immediately prior to concealment by other construction to ensure that no damage has occurred since the initial inspection.
- Submit installation certifications of conformity in accordance with the procedures in the Project General Requirements. Photographic evidence may be used in reports of inspections.

- Inspections shall be undertaken during installation (pre-handover inspections) and at installation completion (final inspection) by FIRAS or similar third party Accredited Installers. If an independent inspection is required, then third party inspectors may be used.

Certificates:
- Submit data substantiating manufacturer and installer qualifications and where requested, details of operative experience.
- Submit certified data attesting fire rated materials comply with specifications.
- Submit certificates of conformity and marking in accordance with the project environmental assessment method requirements.
- Fire resisting doors: Submit certified evidence, in the form of a product conformity certificate, directly relevant fire test report or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements for fire resistance if tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- Non fire resisting doors: Submit certified evidence, in the form of a product conformity certificate or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements to BS EN 14351-1. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.

Operation and Maintenance Manual:
- Submit information in accordance with the Project General Requirements.

REQUIREMENTS FOR WORKMANSHIP AND MATERIALS

Fabrication Tolerances:
Curtain walls, rain screens, rooflights, windows and doors
- Tolerances shall be limited to:
    - Length/ width: maximum allowed deviation +0/-1mm up to 3 metres; +0/-2mm over 3 metres.
    - Straightness/ flatness: Any surface or edge shall not deviate more than 2mm from a straight edge of length 2 metres placed against it.
    - Twist: No section shall twist more than ± 1° over the length of the section.

Glass units under 2m²:
- Tolerances shall within limits as follows:
    - Annealed glass: EN 572
    - Toughened glass: EN 12150
    - Heat strengthen glass: EN 1863

Glass units over 2m² or within planar glazing or planar curtain walling or with highly reflective coating shall have tighter tolerances as follows:
- Roller wave maximum 0.1mm at 300mm centres in panel middle and 0.15mm at edges.
- Edge dip maximum 0.3mm.
- Overall bow maximum 2mm/m or 0.2% of panel dimension.
- Measurements in accordance with EN 12150; EN 1863 and BS EN 14179 Part 1.
- Note that toughened glass shall be installed such that any discernible roller wave shall be horizontal.

Normal flat glass:
- Maximum bow: 0.2% of pane dimension.
- Maximum roller wave:
    - 3 to 5 mm thick glass: 0.5 mm.
    - 6 to 10 mm thick glass: 0.3 mm.
    - 12 mm and thicker glass: 0.15 mm.
- Maximum edge dip:
    - 3 to 5 mm thick glass: 0.8 mm
    - 6 to 10 mm thick glass: 0.5 mm.
    - 12 mm and thicker glass: 0.25 mm.
- Measurements shall be in accordance with EN 12150; EN 1863 and BS EN 14179 Part 1.

- Tolerances and quality of edge work shall be as required to mitigate the risk of thermal shock.

Aluminium and door frames:
- Framing tolerances in accordance with BS 4873:
    - Assembled frame size shall be within ±1.5mm of the documented work size in any dimension.
    - The difference between the diagonals of the assembled frame shall be not more than 4 mm.
- Mitre frame joints:
    - Step in plane of face between profiles: ±0.3mm
    - Step in elevation (overrun at corners): ±0.3mm
    - Distance between profiles: ±0.2mm

Door Leaf Manufacturing Tolerances:
- Manufacturing tolerances shall be in accordance with BS 5277, BS 5278 and BS EN 951.

- Timber windows and door frames
    - Overall height and length of finished window or door frame shall not differ from the work size by more than ±2mm in accordance with BS 644. Work size is the overall size of the frame measured at the factory gate and at a moisture content of (16 ± 3) %.
    - Window or door frame head, jambs, sill, transoms and mullions shall not deviate from straightness in either the plane of the window or door, or at right angles to the plane by more that the following:
        - lengths not greater than 1200mm: ±1.5mm
        - lengths between1200mm and 2400mm: ±2.5mm
        - lengths greater than 2400mm: ±3mm
    - The maximum difference in length of the diagonals of the outer frames shall not exceed:
        - Frame width plus height not greater than1800mm: ±1.5mm
        - Frame width plus height over1800mm up to 3000mm: ±2.5mm
    - Door leaf tolerances shall be in accordance with BS 644 requirements and standards referred to therein.

Cross Section Dimensions of Non-structural Softwood:
- Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
- Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1:
    - Clause 6 for sawn sections.
    - Clause NA.2 for further processed sections.

Cross Section Dimensions of Non-structural Hardwood:
- Dimensions: In this specification and shown on the design intent drawings are finished sizes.
- Maximum permitted deviations from finished sizes: As BS EN 1313-2:
    - Clause 6 for sawn sections.
    - Clause NA.3 for further processed sections.

Installation Tolerances:
- In order to ensure good fit and compliance with performance requirements, allowance shall be made for in-plane tolerance of preceding adjacent elements by others, eg. primary structure. The specified tolerance allowances of such elements shall be consulted to ascertain spatial zones required. In particular, the Structural Movement and Tolerance Report shall be consulted in respect of primary structural tolerance zones. In the case where insufficient data is available for primary structural tolerances, assume a zone of 25mm beyond the designed surface plane of the structural element, however, this shall be verified as sufficient by the structural engineer.
- All parts of any designed surface plane, cut-out, edge or feature shall be constructed and installed within ±2mm, and ± 5mm cumulative, of the designed setting out location in line, level, plumb and plane.
- Steps between adjacent panels or components designed to be in the same plane shall not exceed 2mm mm between any two adjacent sections.
- The bow of any flat surface shall not exceed more than ± 3mm from a 2000mm straightedge placed against it in any direction.
- Joint width: The width of an individual joint between components should not vary by more than 10% of nominal design width.
- Joint consistency: Within the length of any joint (including in-line continuations across transverse joints)

the greatest width shall not exceed the least width by more than 5% plus 1mm. Any variation shall be evenly distributed with no sudden changes in width.
- Joints: The offset in elevation between nominally in-line edges across a transverse joint shall not be more than 5% of the width of the transverse joint plus 1mm.
- Joints: The offset in plan or section between flat surfaces of adjacent panels across any joint shall not be more than 5% of the width of the joint plus 1mm.
Louvre blades: After installation, tolerances on individual louvre blades shall not exceed the following values:

- Length of louvre blade: ± 1.0 mm
- Position of louvre blade in plan and elevation: ± 1.5 mm
- Bow of louvre blade: ± 1.5 mm
- Maximum deviation between each individual louvre blade in elevation and in plane: ± 1.5 mm

Materials

General:
- Materials used in the manufacture of the envelope, or its components, shall not be liable to reduction of their service life by infestation or attack by micro-organisms, fungi, insects or other vermin.
- The contractor shall take into account applicable UV/IR exposure limits, set by manufacturers, for all materials during construction.

Sealant Systems:
- Selection of construction sealants: To BS 6213.
- Classification and requirements for sealants: To BS EN ISO 11600
- The contractor should follow the guidance in:
    - BASA Industry Guide to the Professional Application of Construction Sealants on Site, prepared by the British Adhesives and Sealant Association.
    - CIRIA, Sealant joints in the external envelope of buildings: a guide on design, specification and construction
    - CWCT TN 19 and TN 20
- All sealants shall comply with the test procedures listed in BS EN ISO 11600 and BS 3712 Parts 1, 2, 3 and 4.
- Weatherproofing sealants shall be high performance grade, low modulus, neutral cure sealants suitable for the purpose intended and tested for special requirements.
- Where providing a primary line of defence, weatherproofing seals shall comprise a minimum of two sealant lines.
- Substrate compatibility: Sealants and primers shall be compatible with the materials with which they are likely to come into contact.
- Adhesion: Sealant systems shall achieve good adhesion to the substrates to which they are applied. The adhesion shall be sufficient to survive the mechanical and environmental stresses to which the sealed joint is likely to be exposed.
- When recommended by the sealant manufacturer, primers shall be used to :
    - enhance adhesion between sealant and substrate
    - strengthen or consolidate weak or friable materials
    - provide a barrier film between the substrate and the sealant to prevent staining of the sealant or the substrate.
- Where dissimilar surfaces form the joint, two different primers may be required.
- Sealant shall be applied against a compatible back up material that can provide sufficient resistance so that it is forced against the sides of the joint substrates during application and tooling.
- Sealants used in movement joints shall not adhere to the backup material and three sided adhesion shall be avoided.
- Back up materials, joint fillers and bond breakers shall be tested for sealant compatibility.

DPCs and Cavity Trays:
- DPCs and cavity trays systems including all associated preformed cloaks/ stop ends and jointing accessories shall hold BBA certification.
- They shall provide a free draining and watertight installation. They shall prevent rising damp from the ground, and moisture or water passing from one part of a construction to another.
- DPCS and cavity trays shall be formed from materials that are compatible with adjoining materials

and that will not degrade and stain wall finishes.
- DPCS and cavity tray shall have adequate strength to resist accidental damage during construction, and they shall have good workability at temperatures typically encountered during building operations.

Storage of DPCs/ Cavity trays:
- In accordance with manufacturer's written instructions.
- Flexible bitumen/ pitch polymer DPC rolls: Store level, on their ends, under cover in dry area and protect against damage. Ensure that DPCs are not contaminated by exposure to organic solvents.

Sill DPCs:
- Form and placement: In one piece and turned up at back when sill is in contact with inner leaf.

Vertical DPCs:
- Form In one piece wherever possible.
- Upper part overlapping lower not less than 100mm.

Jamb DPCs at openings:
- Joint with cavity tray/ lintel at head: Full under-lap.
- Joint with sill/ horizontal DPC at base: Full overlap.
- Projection into cavity: Not less than 25mm.
- Relationship with frame: In full contact.

Sealing DPCs:
- DPCs joint treatment shall comply with the requirements set in Table 1 of PD 6697
- Overlaps and junctions shall be sealed with adhesive recommended by DPC manufacturer
Gas resistant DPCs/ Cavity trays:
Joint treatment: Use unjointed wherever possible, otherwise lap at least 150 mm and seal to form a gas and watertight installation.
Joint with damp proof membrane: Overlap dpc/ cavity tray not less than 150 mm.

Timber Door Cladding:
- Timber cladding shall comply with the following standards:
    - BS 1186-3
    - BS EN 942, with the following exceptions for uncoated cladding boards:
        - Arris, splay, margin and branched knots are not acceptable on visible faces.
        - Loose, dead or unsound knots shall not be present on any visible faces. Making good of loose, dead or unsound knots, as described in BS EN 942, shall not be acceptable on visible faces.
    - Wood based panels conformity and marking: To BS EN 13986
    - Solid wood panelling and cladding conformity and marking: To BS EN 14915
- Sapwood: Not permitted
- Splits: Not permitted
- Wane: Not permitted
- Biological attack: Not permitted
- Reaction wood: Not permitted
- Finger jointing: Not permitted
- End jointing: Not permitted
- Edge jointing: Not permitted
- Use Class to BS EN 335 and BS 8417: the timber shall be utilised in 'Use Class 3 (UC 3)' – Exterior joinery that is not covered and not in contact with the ground and is subject to wetting.
- Moisture content of timber cladding and any supporting, trimming or associated timber components at the time of delivery and installation: To TRADA recommendations and BS 8000-5, Table 10:16% +/-2%. Check moisture content on delivery and confirm the readings to Designated Contact.
- Fasteners: All hardwood and softwood cladding panels shall be fixed with austenitic stainless steel fasteners. Refer also to particular requirements for metal fasteners.
- Coatings: Site applied coatings to be in accordance with BS EN 927-1
- Timber preservatives:
    - Preservative treatment shall be appropriate for the proposed timber species and adhesives, and shall be assessed in accordance with the requirements of BS EN 599-1 and BS 8417.
    - Treatment shall be in accordance with Table 4 of BS 8417, and shall be suitable for the

specified design service life of the timber component/ system and Use Class.
- Factory production and control shall be as required by BS EN 351.

Additional Requirements for Workmanship: External Doors and Windows

Site Dimensions:
- The Contractor shall take responsibility for checking dimensions on site.
- Procedure: Before starting work on designated items, the contractor shall take site dimensions, record on fabrication drawings and use to ensure accurate fabrication.

Fabrication:
- The Fabrication/Working Drawings shall state the tolerances intended to accommodate surrounding constructional elements in order to ensure that all aspects of the external door installation interfaces satisfactorily with the building as a whole.

Installation:
- The design shall accommodate any given tolerances and differences between actual site dimensions and dimensions shown on the design drawings.
- Building-in not permitted.

Assembly, Transportation, Site Handling and Storage:
- Generally: The contractor shall carry out as much assembly as possible in the workshop.
- Joints shall be rigidly secured, reinforced where necessary.
- Fabricated elements of the specialist contractors works shall be prepared and packaged for transportation to site to ensure that no undue stress or damage is caused. Submit proposals where components are to be re-assembled on site.
- Components that cannot be installed immediately or placed in clean, dry, floored and covered storage shall not be delivered to site.
- Stored components shall be stacked on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.
- All waste material and rubbish shall be removed from the immediate storage, waiting, pre-assembly and work area as preparation for work and the work itself progresses.
- Full use shall be made of manufacturer/supplier recovery schemes.

Site Welding:
- Not permitted.

Fixing Anchor Installations:
- Anchor fixings shall safely transfer to the building structure the unit dead and live loads, including live loads arising from moving components.
- Site drilling or cutting into structure: Submit proposals for positions other than shown on the design drawings.
- Spacing of anchors and edge fixing distances: Not less than recommended by fixing anchor manufacturers.
- The installation of frame fixing lugs shall accommodate variations in joint sizes of the supporting structure and it shall not restrict thermal expansion of building components.
- Windows and doors installed adjacent to masonry wall movement joints: Frame fixing lugs shall accommodate movement of adjacent masonry without adversely affecting the visual, functional and performance requirements for the window or door and surrounding construction.

Damp Proof Courses in Prepared Openings:
- The contractor shall ensure correct positioning in relation to door frames. Do not displace during fixing operations.

DPC/ Cavity Tray Installation:
- The works shall incorporate continuous dpc cavity trays with stop ends above openings such as windows and doors, at the base of the rainscreen and at interfaces where required to ensure that the water is drained to the outside.
- The contractor shall locate flashings, closers etc. correctly and neatly overlap cladding to form a

weathertight junction.

EPDM Seals Around Door Perimeter:
- EPDM membrane strips to provide continuous watertight and airtight seal around door perimeter fully sealed to the air/vapour control planes of adjoining elements.
- Installation: In accordance with manufacturer's instructions.

Sealing Joints Around Window Perimeters:
- Joints between window frames and their surrounds shall incorporate a minimum of three level defence against water, air leakage and thermal bridging:
- External weather seal: Continuous, flexible and vapour permeable EPDM membrane cloak to provide weather and air tight seal around window perimeter fully sealed to the air control planes of adjoining elements.
- Middle thermal and acoustic seal: Expanding, polyurethane foam, dispensed in situ to fully fill and seal joint gaps, apertures and to provide sound and thermal insulation around window frame.
- Internal airtight seal: Continuous, flexible and vapour impermeable EPDM cloak to provide continuous air and vapour tight seal around window perimeter fully sealed to the air control planes of adjoining elements.
- Installation: Strictly in accordance with manufacturer's instructions.
- Completion: All sealed joints surrounds shall be fully weather-tight, airtight and there shall be no thermal bridging.

Cills and Reveals:
- Fabrication and Fixing: To provide a secure, free-draining and completely weather-tight installation.
- Fixing: Spacing: When not specified otherwise, position fasteners nominally not more than 250mm from ends of each element, and at maximum 600mm centres.

Installing Fire Resisting and Smoke Control Doorsets, Door Assemblies or Doors:
- By a CERTIFIRE and FIRAS registered or similar third party UK accredited installer to Designated Contact acceptance.

Fixing Hardware to Fire Resisting and Smoke Control Doorsets, Door Assemblies or Doors:
- By a CERTIFIRE and FIRAS registered or similar third party UK accredited installer to Designated Contact acceptance.

Fixing Ironmongery Generally:
- Assembly and fixing: Accurately, using fasteners and components with matching finish supplied by ironmongery manufacturer.
- Completion: Check, adjust and lubricate as necessary to ensure correct functioning.

Protection:
- The contractor shall provide adequate protection and progressive removal in agreement with the main contractor works programme ensuring such protection does not become trapped by follow-on works.

Completion:
- The contractor shall check that all gaskets and seals are correctly seated/sealed with no gaps and do not obstruct drainage/ventilation holes.
- The contractor shall carefully remove all protection, tapes/coatings and thoroughly clean down to remove smears, adhesives and other blemishes prior to handing over.

Additional Requirements for Workmanship : Sloped Glazing Generally

- Sloped glazing shall be manufactured and installed in accordance with the recommendations of the system supplier.

Site Dimensions:
- Procedure: Before starting work on designated items take site dimensions, record on fabrication drawings and use to ensure accurate fabrication.

Assembly, Transportation and Site Handling:
- Generally: Carry out as much assembly as possible in the workshop.
- Joints: Rigidly secured, reinforced where necessary.
- Fabricated elements of the contractors works shall be prepared and packaged for transportation to site to ensure that no undue stress or damage is caused. Submit proposals where components are to be re-assembled on site.
- Do not deliver to site components that cannot be installed immediately or placed in clean, dry floored and covered storage.
- Stored components: Stack vertical or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.
- Building-in not permitted.

Site Welding:
- Not permitted.

Fixing Anchor Installations:
- Site drilling or cutting into structure: Submit proposals for positions other than shown on the design drawings.
- Masonry supporting structure:
- Edge fixing distances: Not less than recommended by fixing anchor manufacturers.

Damp Proof Courses in Prepared Openings:
Location: Ensure correct positioning in relation to door frames. Do not displace during fixing operations.

Cills and Reveals:
- Fabrication and Fixing: To provide a secure, free-draining and completely weather-tight installation.
- Fixing: Spacing: When not specified otherwise, position fasteners nominally not more than 250mm from ends of each element, and at maximum 600mm centres.

Fixing Ironmongery Generally:
- Assembly and fixing: Accurately, using fasteners and components with matching finish supplied by ironmongery manufacturer.
- Completion: Check, adjust and lubricate as necessary to ensure correct functioning.

Protection:
- The contractor shall provide adequate protection and progressive removal in agreement with the main contractor works programme ensuring such protection does not become trapped by follow-on works.

Completion:
- The window/rooflight contractor shall check that all gaskets and seals are correctly seated/sealed with no gaps and do not obstruct drainage/ventilation holes.
- The window/rooflight contractor shall carefully remove all protection, tapes/coatings and thoroughly clean down to remove smears, adhesives and other blemishes prior to handing over.

Additional Requirements for Workmanship: Fire Stopping Systems

Fire Stopping Generally:
- Fire stopping systems shall be listed in the BRE or the Association for Specialist Fire Protection (ASFP) Red Book latest editions and supplied by LPCB or equivalent UKAS accredited third-party certification body certified manufacturers.
- All fire stopping systems shall be installed by LPCB, or FIRAS, or equivalent UKAS accredited third-party certification body certified installers.
- Within each fire-stopping solution, fully tested products from a single manufacturer shall be used. 'Mixing and matching' components from different manufacturers, or different systems made by the same manufacturer, when installing fire stopping is not acceptable.
- Fire-stopping solutions shall encompass all joints and penetrations with no exceptions

Labelling/ Recording:
- All fire stopping shall be labelled with a unique reference number indicating as a minimum, date of installation, date of inspection and name of installer.
- All penetration seals shall be recorded with locations and other data for completion of the Health & Safety file
- Installers shall subscribe to or maintain a 'Firestop Documentation Management System' (cloud-based system) wherever possible

Installation Generally:
- Generally: Fire stopping/ sealing / protective insulation shall be installed by an LPCB or FIRAS accredited contractor with a minimum of 3 years experience in accordance with the manufacturer's recommendations.
- Evidence of accreditation to be submitted to Contractor and Designated Contact before work commences including evidence that the specialist firestop contractor has undertaken installation training from the manufacturer of the products and systems used.
- Install fire stopping material with sufficient pressure to maintain uniform density and texture, and to ensure proper filling and sealing of openings/gaps to provide fire resistance and resist the passage of smoke. All to be in accordance with manufacturer's written instructions.
- Openings: Excessive openings shall be supported by appropriate framework, in accordance with manufacturer's details.
- Adjacent Surfaces: Prevent overrun of sealant or mortar on to finished surfaces.
- Maintain required separation of penetrating items from edges of openings and from each other.
- Sequence: Ensure fire stopping measures are installed in accordance with the Specification prior to covering, concealing or eliminating access.
- Installation Depth: Install fire stop material to the depth required to achieve the Performance criteria.

Installing Fire Stop Laminate:
- Fitting of strips: Compress strips and fit into joint, so that as they decompress the strips wedge themselves in the void.
- Shrink wrapping: To manufacturers recommended detail

Joints:
- Ends of strips: Fit intumescent 'end piece' at the end of joints.
- Joints in strips: Fit two intumescent 'end pieces' at each butt joint.

Installing Intumescent Foam:
- The use of aerosol dispensed 'Fire Foam' is strictly prohibited Refer ASFP Advisory Note-PU Data sheet.
- New joints: Remove builder's debris, mortar droppings, grease, and the like.
- Old joints: Clean and remove existing sealant from the joint.
- Application: To specialist manufacturer's details generally

Applying Intumescent Mortar:
- Sequence: Install mortar after services are permanently installed.
- Loose dust and combustible materials: Remove from the opening.
- Shuttering: Install suitable shuttering panels to the faces of the opening.
- Temperature: Do not apply mortar when it could be damaged by frost.
- Powder: water ratio: To specialist manufacturer's written instructions generally
- Mortar cure: Do not disturb mortar before final set has taken place.
- Shuttering: Remove after mortar has cured.

Intumescent Putty:
- Submit test data demonstrating suitability of intumescent putty use above 1000mm from finished floor level
- Installations shall provide acoustic insulation/separation in excess of 70dB

Applying Intumescent Putty:
- Sequence: Install putty after services are permanently installed.
- Loose dust and combustible materials: Remove from the opening.

Installing Mineral Wool Batts:
- Installing batts: Fit tight into void between the penetrating services and the surrounding construction to form a solid barrier.
- Face of batts: Flush with the surface of wall, floor or soffit.

- Gaps between services and barrier: Seal with fire resisting sealant.

Joint Sealant:
- Proprietary joint sealants shall be certified to provide in excess of 12% flexibility under fire load and other installation movement
Application:
- Temperature: Do not apply water based sealants when they could be damaged by frost.

Completion:
- Remove masking tapes/ material.
- Cleaning: Clean off splashes and droppings. Wipe down finishes.

Finishing:
- Tool or trowel exposed surfaces to a smooth finish, flush with surrounding surfaces unless otherwise specified.

Storage and Use of Materials:
- All fire protection materials shall be stored under cover in dry conditions, on a flat base, clear of the ground in accordance with manufacturer's written instructions.
- Adhesives shall be stored at temperatures in the range 5 - 30°C and any water-based adhesives shall be protected from frost.
- Material containers shall remain unopened until needed and shall be used in date order.
- The installer shall maintain full delivery, usage, product stock identification marks etc as necessary to justify the installation being made.

Appendices All Sections:

Purpose Made Joinery:
- Refer Appendix Z10

Purpose Made Metalwork:
- Refer Appendix Z11

Preservative/ Fire Retardant Treatment:
- Refer Appendix Z12

Fixings and Adhesives:
- Refer Appendix Z20

Glass and Coatings:
- Refer Appendix Z25

Powder Coatings:
- Refer Appendix Z31

Anodizing:
- Refer Appendix Z33

Ironmongery:
- Refer Appendix Z40

Cavity Barriers:
- Refer Appendix Z41

EDR-600 ENTRANCE DOOR WITH FIXED TIMBER CLADDING AND GLASS SIDE PANELS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

External, thermally insulated, single leaf, hinged timber clad metal entrance door. Door to form visually seamless continuation of timber cladding. Single swing, inward opening operation. Concealed frame, fixed glass panels at each side of the door. System complete with soffit and threshold plates.
Door leaf: Metal door leaf overclad with timber cladding
Timber overcladding: TBC
Door frame: Single rebated steel frame. Fully welded smooth finish.
Finish (metal components): Polyester Powder Coated to RAL TBC
Timber finish: TBC

2. Detailed Description:

Metal doorset

Proprietary metal external door assembly complete with weatherseals. Door leaf and frame reinforced internally to accept all hardware penetrations.
Door leaf:
- Facings: Galvanised steel
- Core: Insulation core complete with internal stiffeners to accept the timber cladding
- Nominal thickness: 70

Door frame:
- Profile: Single rebate
- Core: Insulation core complete with stiffeners

- Nominal thickness: 70Indicative Product: ## To be advised at later work stage ##

Finish: Polyester powder coated.
Colour: To match EWS-450 fibre cement board.
Hardware: Factory fitted, stainless steel, brushed finish hardware

Timber cladding on metal panel:

Glass side panels:

Assembly with thermally broken, extruded aluminium window frame system concealed in the walls.

Soffit:

Pressed aluminium door soffit. Full piece pressing with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Soffit to be full length of door opening, and to include drip detail as indicated in design drawings.
Finish: Powder coated to match door frame finish.
Fixings: Recessed fixings in shadow gap detail.

Threshold:

Low profile, slip resistant, aluminium threshold conforming to BS 8300 with weather seal.
Finish: Brushed stainless steel
Threshold fixings: Recessed fixings, to match threshold finish.

Weather, thermal and air tight seals:

Three layer weather, thermal/ acoustic and airtight seals comprising:
- External weather seal: Continuous, vapour permeable flexible membrane cloaking to provide continuous weather and air tight seal around door perimeter, fully sealed to the cavity weather line. This shall form part of external primary air tightness line.

- Middle thermal and acoustic seal: Thermal and acoustic insulation at perimeter joint gaps. Mineral wool or expanded foam insulation.
- Internal airtight seal: Continuous, vapour resistant internal flexible membrane cloaking to provide continuous air and vapour tight seal around door perimeter, fully sealed to the air/vapour control planes of adjoining elements. This shall form part of internal secondary repairable air tightness line.

Mastic seals:
Neat, continuous weather and air tight mastic seals around internal and external door perimeter joints. External sealed joints to provide an effective weather and airtight seal, internal sealed joints to provide an effective airtight seal.
Sealant colour(s) to Designated Contact acceptance.

Cavity barriers:
Thermally insulated, fire resistant cavity barriers to provide an effective perimeter edge seal around door opening to meet the requirements of Approved Document B.
Product certification: Third party United Kingdom Accreditation Service (UKAS) approved cavity barrier.
System
Lamatherm EW-FS120
Installation: In accordance with manufacturer's instructions
Contact: www.siderise.com
Horizontal system at head: Refer to EWS Systems Specification

Fire resistance: minimum performance of 30 minutes integrity and 15 minutes of insulation in accordance with BS 476-20
Thermal resistance: Minimum thermal resistance path through the cavity barrier to be equal or better than 0.45 m2 k/W.

Ironmongery:
Ironmongery to meet requirements of Lifetime Homes and Secure by Design BS PAS 24
Lever handle
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Locks, hinges, security viewer, letter box, house number
Floor recessed door closer
Floor mounted door stop
Finish: Stainless steel, brushed finish

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secure By Design BS PAS 24: Enhanced Security

Water ingress:
Water tightness class to EN12208: Class 2

Air permeability:
Air permeability to EN 12207: 5a

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Thermal:
2.0 W/m2K

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-601 BASEMENT ENTRANCE DOORSET: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
TBC

2. Detailed Description:

Metal doorset

Timber cladding on metal panel:

Soffit:

Threshold:
Low profile, slip resistant, aluminium threshold conforming to BS 8300 with weather seal.
Finish: Brushed stainless steel
Threshold fixings: Recessed fixings, to match threshold finish.

Weather, thermal and air tight seals:
Door to withstand climate class C3..

Mastic seals:
Neat, continuous weather and air tight mastic seals around internal and external door perimeter joints.
External sealed joints to provide an effective weather and airtight seal, internal sealed joints to provide an effective airtight seal.
Sealant colour(s) to Designated Contact acceptance.

Cavity barriers:

Ironmongery:
Ironmongery to meet requirements of Lifetime Homes and Secure by Design BS PAS 24
Lever handle
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Locks, hinges, security viewer, letter box, house number
Floor recessed door closer
Floor mounted door stop
Finish: Stainless steel, brushed finish

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secure By Design BS PAS 24: Enhanced Security

Water ingress:
Water tightness class to EN12208: Class 2

Air permeability:
Air permeability to EN 12207: 5a

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Thermal:
N/A

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-710 CORE ACCESS DOORSET: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Security rated fire rated timber faced composite entrance door from basement car park to escape and residential access core.

2. Detailed Description:

Substrate:
Blockwork or structural concrete.

Threshold:
Low profile, slip resistant, aluminium threshold conforming to BS 8300.
Finish: Brushed stainless steel
Threshold fixings: Recessed fixings, to match threshold finish.

Weather, thermal and air tight seals:
Door to withstand climate class C3..

Mastic seals:
Neat, continuous mastic seals around internal and external door perimeter joints. External sealed joints to provide an effective weather seal.
Sealant colour(s) to Designated Contact acceptance.

Ironmongery:
Ironmongery to meet requirements of Lifetime Homes and Secure by Design BS PAS 24
Lever handle
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish

Locks, hinges, vision panel.
Floor mounted door stop
Finish: Stainless steel, brushed finish

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secure By Design BS PAS 24: Enhanced Security

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Thermal:
N/A

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-711 CORE ACCESS DOORSET FD60S: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Security rated fire rated timber faced composite entrance door from basement car park to escape and residential access core used as fire fighting shaft.

2. Detailed Description:

Substrate:
Structural concrete.

Threshold:
Low profile, slip resistant, aluminium threshold conforming to BS 8300.
Finish: Brushed stainless steel
Threshold fixings: Recessed fixings, to match threshold finish.

Weather, thermal and air tight seals:
Door to withstand climate class C3..

Mastic seals:
Neat, continuous mastic seals around internal and external door perimeter joints. External sealed joints to provide an effective weather seal.
Sealant colour(s) to Designated Contact acceptance.

Ironmongery:
Ironmongery to meet requirements of Lifetime Homes and Secure by Design BS PAS 24

Lever handle
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Locks, hinges, vision panel.
Floor mounted door stop
Finish: Stainless steel, brushed finish

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secure By Design BS PAS 24: Enhanced Security

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Thermal:
N/A

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-715 CAR PARK ACCESS DOOR: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External grade, single leaf, hinged metal door. Single swing, outward opening power assisted operation. System complete with threshold plates.
Door leaf: Door leaf with no face seams.
Door frame: Single rebated steel frame. Fully welded smooth finish. Mitred fully welded and ground smooth connection between frame jambs and head.
Finish: Polyester Powder Coated

2. Detailed Description:

Metal doorset
Proprietary metal external door assembly complete with weatherseals. Door leaf and frame reinforced internally to accept all hardware penetrations.
Door leaf:
- Facings: PPC
- Core: Insulation core complete with stiffeners
- Nominal thickness: 43mm

Door frame:
- Profile: Single rebate
- Core: Insulation core complete with stiffeners

Finish: Polyester powder coated.
Colour: To match EDR 731
Hardware: Factory fitted, stainless steel, brushed finish hardware

Threshold:
Low profile, slip resistant, aluminium threshold conforming to BS 8300 with weather seal
Weatherproof threshold, draining water away from interior
Finish: Brushed stainless steel
Threshold fixings: Recessed fixings, to match threshold finish

Mastic seals:
Neat, continuous weather mastic seals around internal and external door perimeter joints. External sealed joints to provide an effective weather seal.
Sealant colour(s) to Designated Contact acceptance.

Cavity barriers:
Thermally insulated, fire resistant cavity barriers to provide an effective perimeter edge seal around door opening to meet the requirements of Approved Document B.
Product certification: Third party United Kingdom Accreditation Service (UKAS) approved cavity barrier.
System: Lamatherm EW-FS120
Installation: In accordance with manufacturer's instructions
Contact: www.siderise.com
Horizontal system at head: Refer to EWS Systems Specification

Fire resistance: minimum performance of 30 minutes integrity and 15 minutes of insulation in accordance with BS 476-20
Thermal resistance: Minimum thermal resistance path through the cavity barrier to be equal or better than 0.45 m2 k/W.

Ironmongery:
Ironmongery to meet requirements of Lifetime Homes, Camden Wheel chair design guide and Secure by Design BS PAS 24
Lever handleProduct: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Hinges, Locks
Floor mounted stop
Flush bolts for slave leaf
Finish: Stainless steel, brushed finish
Overhead door closer

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secure By Design BS PAS 24: Enhanced Security

Refer to M&E engineer's specification for further details on entry system.

Fire:
Refer to Fire Consultant FDS Consult Fire Report

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:

Refer to System General Requirements for Workmanship and Materials

EDR-721 EXTERNAL METAL SINGLE DOORS TO PLANT ROOMS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External grade , single leaf, hinged metal plant room doors. Single swing, outward opening operation. System complete with threshold plates.
Door leaf: Door leaf with no face seams.
Door frame: Single rebated steel frame. Fully welded smooth finish. Mitred fully welded and ground smooth connection between frame jambs and head.
Finish: Polyester Powder Coated colour tp match EDR-720

2. Detailed Description:

Metal doorset
As EDR-720

Soffit:
As EDR-720

Threshold:
As EDR-720

Weather, thermal and air tight seals:
As EDR-720

Mastic seals:
As EDR-720

Cavity barriers:
As EDR-720

Ironmongery:
As EDR-720

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
As EDR-720

Fire:
Refer to Fire Consultant FDS Consult Fire Report

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-722 EXTERNAL METAL LEAF AND A HALF DOORS TO PLANT ROOMS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External grade , single leaf, hinged metal plant room doors. Single swing, outward opening operation. System complete with threshold plates.
Door leaf: Door leaf with no face seams.
Door frame: Single rebated steel frame. Fully welded smooth finish. Mitred fully welded and ground smooth connection between frame jambs and head.
Finish: Polyester Powder Coated colour tp match EDR-720

2. Detailed Description:

Metal doorset
As EDR-720

Soffit:
As EDR-720

Threshold:
As EDR-720

Weather, thermal and air tight seals:
As EDR-720

Mastic seals:
As EDR-720

Cavity barriers:
As EDR-720

Ironmongery:
As EDR-720

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
As EDR-720

Fire:
Refer to Fire Consultant FDS Consult Fire Report

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-731 EXTERNAL METAL LOUVERED DOUBLE LEAF DOORSET TO BIN STORE: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External double leaf, hinged metal doorset with fixed horizontal louvres in metal frame to provide ventilation. Single swing, outward opening operation on projection hinges to give 180 degree opening against brick face. Door leaf with no face seams. Louvre pitch to match LVR 701

Refer Services Engineers information for details on door entry system.
Refer to Access Strategy and M&E consultants' information for locking / access arrangements.

2. Detailed Description:

Metal Doorset:
Type: Proprietary metal external security rated doorset
Indicative Product: Requirements to be stated at later work stage
Finish: Polyester powder coated
Colour: Standard, to be confirmed at later work stage

Louvres:
50 or 75mm pitch to match LVR 701.
Surface of louvres and levels to be set up to match LVR 701 and give seamless appearance.

Ironmongery
Pull handle
Finish: to match louvres
Hinges,
Lock required
Floor mounted stop to protect brickwork
Flush bolts for slave leaf
Finish: Black

Accessories:
Anti slip threshold plate with weather seal
Refer to M&E engineer's specification for further details on entry system.

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secured By Design PAS 24: Enhanced Security when at ground floor level
Secure access door with: Fob access (maglock)
Secure access door with: Push button to exit

Refer to M&E engineer's specification for further details on entry system.

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

EDR-732 EXTERNAL METAL DOUBLE LEAF DOORSET TO BIN STORE FROM CAR PARK: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
As 731

Refer Services Engineers information for details on door entry system.
Refer to Access Strategy and M&E consultants' information for locking / access arrangements.

2. Detailed Description:

Metal Doorset:
Type: Proprietary metal external security rated doorset
Indicative Product: Requirements to be stated at later work stage
Finish: Polyester powder coated
Colour: to match EDR 731

Ironmongery
Ironmongery to meet lifetime homes and Camden wheelchar requirement
Pull handle
Finish: Brushed stainless steel
Hinges,
Lock required
Floor mounted stop
Flush bolts for slave leaf
Finish: Brushed stainless steel

Accessories:
Anti slip threshold plate with weather seal
Refer to M&E engineer's specification for further details on entry system.

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
To meet requirements of Secured By Design PAS 24: Enhanced Security when at ground floor level
Secure access door with: Fob access (maglock)
Secure access door with: Push button to exit

Refer to M&E engineer's specification for further details on entry system.

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

LVR-600 EXTERNAL METAL LOUVRES: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External fixed horizontal louvres in metal frame to provide ventilation smoke extract system.

Refer to M&E engineer's specification for further details on free area requirements.

2. Detailed Description:
Heavy duty extruded aluminium louvre panel for mechanical ventilation plant– refer to drawings for details and dimensions.

Reveals: Brick EWS-500
Frame: To match window frame profiles, refer to specification of WIN-5xx

Soffit: As window specification
Cill: PPC aluminium flashing, as window specification

Louvres:

.

Manufacturer:

Product Construction: Profile: Extruded aluminium (EN 12020-2)
Material Aluminium Al Mg Si 0,5 in accordance with EN 12020-2

Finish: Powder coated to match window frames.
Polyester powder coating: aluminium profiles pre-treated to resist corrosion to guarantee. Standard RAL colour , 30% Gloss to acceptable sample

Fixings: No visible fixings or fasteners on the exposed surfaces.

Installation:
To louvre manufacturer standard details, to suit application.

Accessories
With anti-static and stainless steel insect screen fitted flush on the back of the louvre or frame by means of a nylon cord.

Additional requirements to be stated at later work stage#

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Free area requirement:
Refer to specialist M&E subcontractor's details and specification.
Contractor to provide free area calculations.

Acoustic requirements: N/A

Fire: N/A

Security: To comply with Secured by Design requirements.

Additional requirements to be stated at later work stage#

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

LVR-700 EXTERNAL METAL LOUVRES: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External fixed horizontal louvres in metal frame to provide ventilation to smoke extract system.

Refer to M&E engineer's specification for further details on free area requirements.

2. Detailed Description:
Heavy duty extruded aluminium louvre panel for mechanical ventilation plant– refer to drawings for details and dimensions.
Reveals: –Black exact RAL TBC
Frame: Black exact RAL TBC
Soffit: Black exact RAL TBC
Cill: Black exact RAL TBC

LVR-701 EXTERNAL METAL LOUVRES TO CAR PARK ENTRANCE: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
External fixed horizontal louvres in to provide ventilation to smoke extract system. Metal frame to be incorporated into AMT-740 or louvres to be glazed into AMT 740. Louvres to align with EDR-732. Uniform joint of 20mm to be maintained with louvres of EDR-732.

Refer to M&E engineer's specification for further details on free area requirements. Indicatively 1.3m2 free area at 4m/s

2. Detailed Description:
Heavy duty extruded aluminium louvre panel for mechanical ventilation plant– refer to drawings for details and dimensions.
Reveals: To match AMT - 740
Frame: To match AMT - 740
Soffit: To match AMT - 740
Cill: To match threshold of EDR 732

WIN-300 FIXED WINDOW TO STAIR CORE WITH METAL PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Highly thermally insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed fixed window to stair core with metal panel.
Assembly comprising:
- Fixed lights
- Sill and soffit plates
- Fixed insulated metal panel as shown on design drawings and noted in Window Schedule.
Rainscreen cladding secretly fixed forming a regular, plumb and level grid of controlled panel joints to curtain wall.
Joints: 10mm joints maximum width
Finish: Powder Coated Metal TBC
Colour: Standard RAL TBC

Finish (aluminium components): Polyester powder coated TBC

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window frame system.

Metal panel:
Soffit and sill:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-301 FIXED WINDOW WITH METAL PANEL AND POWER ASSISTED SECONDARY ENTRANCE DOOR (INCLUDING CANOPY): SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Highly thermally insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed fixed window with metal panel and door secondary entrance.
Assembly comprising:
- Fixed lights
- Sill and soffit plates

- Fixed insulated metal panel as shown on design drawings and noted in Window Schedule.
Rainscreen cladding secretly fixed forming a regular, plumb and level grid of controlled panel joints to curtain wall.
Joints: 10mm joints maximum width
Finish: Powder Coated Metal TBC
Colour: Standard RAL TBC
-Insulated, thermally broken, aluminium framed, clear glazed external doorset.
Powder coated aluminium frame. Hinged, single swing, outward opening single leaf door.
Fob Ebtrance, Push Pad System and Power Assisted System to be provided.

Finish (aluminium components): Polyester powder coated TBC
Operation: Opening outward door action

2. Detailed Description:

Window System:TBC
Window assembly with thermally broken, extruded aluminium window frame system.
Door System:TBC
Door system with insulated, thermally broken, extruded aluminium frame system.

Metal panel:
Soffit:
Sill:
Threshold:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security
Doorset required to achieve the requirements of Secure By Design BS PAS 24: Enhanced Security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-310 CASEMENT AND FIXED WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed casement and fixed window assembly mullion/ transom comprising:
- Turn inward opening light
- Fixed light
- Sill and soffit plates

Finish (aluminium components): Polyester powder coated TBC

Operation: Restricted opening lights are to be side-hung and open inwards

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window frame system.

Soffit and sill:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-311 CASEMENT AND FIXED WINDOW WITH UPPER LEVEL FIXED WINDOW WITH METAL PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed casement and fixed window assembly mullion/ transom comprising:
- Turn inward opening light
- Lower level Fixed light
-Upper Level Fixed Light
- Sill and soffit plates

Finish (aluminium components): Polyester powder coated TBC

Operation: Restricted opening lights are to be side-hung and open inwards

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window frame system.

Soffit and sill:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-320 (CONCERTINA/BIFOLD) FOLDING SLIDING DOOR4 LEAF AND POWER ASSISTED ENTANCE DOOR (INCLUDING CANOPY): SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Highly thermally insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed folding sliding door to entrance.
Assembly comprising:
- Sill and soffit plates
-Insulated, thermally broken, aluminium framed, clear glazed doorset.
Powder coated aluminium frame. Hinged, folding sliding opening 5 leaf door.
Fob Ebtrance, Push Pad System and Power Assisted System to be provided.

Finish (aluminium components): Polyester powder coated TBC
Operation: Opening outward door action

2. Detailed Description:

Window System:TBC
Window assembly with thermally broken, extruded aluminium window frame system.
Door System:TBC
Door system with insulated, thermally broken, extruded aluminium frame system.

Soffit:
Sill:
Threshold:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security
Doorset required to achieve the requirements of Secure By Design BS PAS 24: Enhanced Security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:

Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-321 (CONCERTINA/BIFOLD) 6 LEAF, SLIDING-FOLDING DOORS TO BASEMENT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Highly thermally insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed folding sliding door to entrance.
Assembly comprising:
- Sill and soffit plates
-Insulated, thermally broken, aluminium framed, clear glazed doorset.
Powder coated aluminium frame. Hinged, folding sliding opening 5 leaf door.

Finish (aluminium components): Polyester powder coated TBC
Operation: Opening outward door action

2. Detailed Description:

Window System:TBC
Window assembly with thermally broken, extruded aluminium window frame system.
Door System:TBC
Door system with insulated, thermally broken, extruded aluminium frame system.

Soffit:
Sill:
Threshold:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Ironmongery:

3. Performance:

Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-340 ROOF LIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Clear glazed rooflight, recessed installation into roof slope.
Centre pivot opening.
Finishes:TBC

2. Detailed Description:

TBC
Item:
Indicative product:
Size:
Refer Window Schedule
Finish:
Glazing:
Ironmongery:
Ventilation:
Structural Opening:
Internal Blind:

3. Performance:
Refer to System General Requirements for Performance

Safety:
Product to be upgrade to achieve Class2 to TN66 and TN67

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-350 CURTAIN WALLING WITH METAL PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Thermally insulated, thermally broken, polyester powder coated, aluminium framed, clear glazed, capped, double glazed, fixed curtain walling system incorporating:
- Side hinged, outward opening power-assisted swing door
- Accessible weatherproof entrance thresholds
– Fixed insulated metal panel as shown on design drawings and noted in Window Schedule.
Rainscreen cladding secretly fixed forming a regular, plumb and level grid of controlled panel joints to curtain wall.
Joints: 10mm joints maximum width
Finish: Powder Coated Metal TBC
Colour: Standard RAL TBC

Finish (aluminium components): Polyester powder coated TBC
Operation: Opening inward door action

2. Detailed Description:

Window System:
Curtain walling system with thermally broken, extruded aluminium members.

Ironmongery:
Metal panel:
Threshold:
Weather, thermal and air tight seals:
Mastic seals:
Cavity barriers:
Manifestation:
As required by Building Regulations to detail drawings

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a TBC

Air permeability:
Air permeability to EN 12207: Class 4 TBC

Fire:
Refer to Fire Consultant FDS Consult Fire Report TBC

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule TBC

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.37 TBC

Thermal:
Uw: 2.2 W/m2K TBC by Whitecode following SBEM

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-500 METAL SINGLE WINDOW WITH OPENING LIGHT AND FIXED PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
AWS 75 BS.SI+ window system by Schueco UK or acceptable equivalent to meet the Functional, Visual and Performance Requirements to Designated Contact acceptance.
Contact details: www.schueco.com

Material: Aluminium
Standard: To BS EN 4873 manufactured to BS EN ISO 9001
Frame Depth: 75mm
Finish: Polyester powder coated.
Inner face colour: Standard RAL
Outer face colour: Standard RAL
Glazing: To meet thermal, fire and acoustic requirements
Support angles: To meet manufacturer's requirements

Hardware/ Ironmongery:
Lever handle window control

Ironmongery to meet requirements of Lifetime Homes and Secure by Design BS PAS 24 for windows in relevant locations as indicated on security strategy drawingsProduct: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Safety restrictors for windows in relevant locations;. Safety restrictors to limit the clear opening to a maximum of 100mm. Safety Restrictors to be internal, with a concealed key operated manual over-ride facility for maintenance and cleaning. All restrictors to meet BS 8213-1

- Hinges
Finish: Stainless steel, brushed finish

Contact: www.schueco.com

Soffit and Sill:
Pressed aluminium window soffit and sill. Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved. Sills and soffits to be full length of brick opening, to include drip detail as indicated in design drawings.
Finish: Powder coated to match window frame finish.
Cill: Insulated, thermally broken aluminium Cill, factory welded end caps to all Sills, with concealed fixings.
Soffit fixings: Recessed fixings in shadow gap detail, colour coated to match soffit finish.
Threshold angles to be supplied to take membranes and to provide offset of window from slab..

Weather, thermal and air tight seals:
Three layer weather, thermal/ acoustic and airtight seals comprising:
- External weather seal: Continuous, vapour permeable flexible membrane cloaking to provide continuous weather and air tight seal around window perimeter, fully sealed to the cavity weather line. This shall form part of external primary air tightness line.
- Middle thermal and acoustic seal: Thermal and acoustic insulation at perimeter joint gaps. Mineral wool or expanded foam insulation.
- Internal airtight seal: Continuous, vapour resistant internal flexible membrane cloaking to provide continuous air and vapour tight seal around window perimeter, fully sealed to the air/vapour control planes of adjoining elements. This shall form part of internal secondary repairable air tightness line.

Mastic seals:
Neat, continuous weather and air tight mastic seals around internal and external window perimeter joints. External sealed joints to provide an effective weather and airtight seal, internal sealed joints to provide an effective airtight seal.
Sealant colour(s) to Designated Contact acceptance.

Cavity barriers:
Refer to EWS Systems Specification
Thermally insulated, fire resistant cavity barriers required as fire section of System General Requirements.
System: Lamatherm EW-FS120
Installation: In accordance with manufacturer's instructions
Contact: www.siderise.com
Horizontal system at head:
Thermal resistance: Minimum thermal resistance path through the cavity barrier to be equal or better than 0.45 m2 k/W.

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Security:
Refer to System General Requirements for security

Water ingress:
Water tightness class to EN12208: Class 9a

Air permeability:
Air permeability to EN 12207: Class 4

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule. G1 as Acoustic engineers report

Light and solar transmission:
- Light transmittance (LT): 70% TBC
- Solar factor (g value): 0.41 TBC

Thermal: Overall window target: $1.3W/m^2K$

WIN-501 METAL SINGLE WINDOW WITH OPENING LIGHT AND FIXED PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN-500

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–500

WIN-502 METAL DOUBLE TERRACE ENTRANCE DOOR: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side light
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G1 as Acoustic engineers report

As WIN–500

WIN-503 METAL TWO BAY WINDOW ASSEMBLY WITH OPENING LIGHT AND 2 NO. FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Fixed side light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–500 except:
Thermal performance:
U-value of 1.4W/m2K generally
1.6W/m2K for glazed door

WIN-504 METAL TWO BAY WINDOW ASSEMBLY WITH OPENING LIGHT AND 2 NO. FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Fixed side light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN-500

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

WIN-505 COMMUNAL ENTRANCE DOOR ASSEMBLY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and transoms including sill and soffit plates, comprising:
- Power –assisted single swing inward opening glazed door
- Fixed side light
- Fixed side panel
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN-500

Hardware/ Ironmongery:

Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Safety restrictors not required

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-506 METAL THREE BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND 2 NO. FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side lights
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-507 METAL TWO BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND FIXED LIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side light
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-508 METAL SINGLE FIXED LIGHT TO BALCONY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Fixe light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–500

WIN-509 METAL TWO BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND FIXED LIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with

mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side light
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G3 as Acoustic engineers report

Otherwise as WIN–503

WIN-510 METAL SINGLE FIXED LIGHT TO BALCONY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G3 as Acoustic engineers report

Otherwise as WIN–500

WIN-511 METAL THREE BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND 2 NO. FIXED LIGHTS TO WHEELCHAIR UNIT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side lights
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500
Door clear opening to be 900 including ironmongery intrusions

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G3 as Acoustic engineers report

Otherwise as WIN–503

WIN-512 METAL THREE BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND 2 NO. FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side lights
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-513 METAL TWO BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND FIXED LIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side light
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-514 METAL THREE BAY WINDOW ASSEMBLY WITH TERRACE DOOR AND 2 NO. FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening single leaf glazed door
- Fixed side lights
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G3 as Acoustic engineers report

Otherwise as WIN–503

WIN-515 METAL SINGLE WINDOW WITH OPENING LIGHT AND FIXED PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G2 as Acoustic engineers report

Otherwise as WIN–500

WIN-516 METAL SINGLE WINDOW WITH OPENING LIGHT AND FIXED PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:

As WIN–500

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

Acoustic performance: G2 as Acoustic engineers report

Otherwise as WIN–500

WIN-540 RECTANGULAR FIXED ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
Flat fixed rooflight with thermally broken, PPC aluminium frames system.

Indicative Product:
Bespoke Plateau Studio Designer rooflight by Rooflight Company or acceptable equivalent to meet the Functional, Visual and Performance Requirements to Designated Contact acceptance.
The Rooflight Company:
www.therooflightcompany.co.uk

Frame material: Aluminium
Standard: To BS EN 4873 manufactured to BS EN ISO 9001

Frame size:
Clear structural width: 1500mm x 900mm
Clear well opening: 1442mm x 842mm
Frame width: To be advised at later work stage

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required of this is necessary to meet the classification.

Security:
As WIN-500

Water ingress:
Water tightness class to EN12208: Class 9a

Air permeability:
Air permeability to EN 12207: Class 4

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Light and solar transmission:
Light transmittance (LT):70%
Solar factor: 0.37

Thermal:
Uw:1.6 W/m²K

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-600 METAL PICTURE WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Side-hung inward opening light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:

Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-601 METAL DOUBLE BAY WINDOW ASSEMBLY WITH OPENING AND FIXED LIGHTS: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Sliding opening light
- Fixed side light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:

Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-602 METAL THREE BAY WINDOW ASSEMBLY WITH DOUBLE DOORS AND PURGING VENT SIDE: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening double leaf glazed door
- Fixed side light
- Fixed aluminium vertical fin between fixed side and doors
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-603 METAL WINDOW ASSEMBLY WITH OPENING UPPER LIGHT AND FIXED LOWER PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening light
- Low level fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-604 METAL PICTURE WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Fixedlight
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut

and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-605 FEATURE WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. **Functional and Visual Description:**

Workshop fabricated projecting window with three metal clad solid sides (top, side and bottom) and two glazed sides (front, side) forming a glass to glass corner. To be fixed on site to the concrete structure.

2. Detailed Description:

Window System:
.

Indicative Product:
.

Hardware/ Ironmongery:
.
Safety restrictors not applicable

Soffit and Sill:
.

Metal rainscreen overhead panel:

.

Masonry Infill panel:
Support to structural engineers' specification

Weather, thermal and air tight seals:
.

Mastic seals:
.

Cavity barriers:
.

3. Performance:
Refer to System General Requirements for Performance, except or in addition:
Refer to Structural Engineer's information for structure items
.

WIN-606 METAL PICTURE FIXED WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-607 METAL PICTURE FIXED WINDOW: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Fixed light
- Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-640 RECTANGULAR FIXED ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
Flat fixed rooflight with thermally broken, PPC aluminium frames system.

Indicative Product:
Bespoke Plateau Studio Designer rooflight by Rooflight Company or acceptable equivalent to meet the Functional, Visual and Performance Requirements to Designated Contact acceptance.
The Rooflight Company:
www.therooflightcompany.co.uk

Frame material: Aluminium
Standard: To BS EN 4873 manufactured to BS EN ISO 9001

Frame size:
Frame width: To be advised at later work stage

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required of this is necessary to meet the classification.

Security:
As WIN-500

Water ingress:
Water tightness class to EN12208: Class 9a

Air permeability:

Air permeability to EN 12207: Class 4

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Light and solar transmission:
Light transmittance (LT):70%
Solar factor: 0.37

Thermal:
Uw:1.6 W/m²K

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-641 CIRCULAR FIXED ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
Flat circular rooflight with thermally broken, PPC aluminium frames system.

Indicative Product:
Bespoke Plateau Studio Designer rooflight by Rooflight Company or acceptable equivalent to meet the Functional, Visual and Performance Requirements to Designated Contact acceptance.
The Rooflight Company:
www.therooflightcompany.co.uk

Frame material: Aluminium
Standard: To BS EN 4873 manufactured to BS EN ISO 9001

Frame size:
Clear structural width: 1100mm diameter
Clear well opening: 1000mm diameter
Frame width: To be advised at later work stage

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required of this is necessary to meet the

classification.

Security:
As WIN-500

Water ingress:
Water tightness class to EN12208: Class 9a

Air permeability:
Air permeability to EN 12207: Class 4

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Light and solar transmission:
Light transmittance (LT):70%
Solar factor: 0.37

Thermal:
Uw:1.6 W/m²K

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-642 RECTANGULAR OPENABLE -ACCESS ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight with protective polycarbonate cover and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
Flat openable rooflight, manually operated, with thermally broken, PPC aluminium frames system.
Rooflight to allow access for maintenance purposes to roof.

Indicative Product:
Velux CPX Flat roof exit rooflight by Velux or acceptable equivalent to meet the Functional, Visual and Performance Requirements to Designated Contact acceptance.
Velux:
www.velux.co.uk

Frame material: Aluminium
Standard: To BS EN 4873 manufactured to BS EN ISO 9001

Frame size:
Exterior frame: 1180mm x 1180mm

Roof opening: 1000mm x 1000mm
Visible glass: 835mm x 835mm
Lining rebate: 959mm x 959mm

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required of this is necessary to meet the classification.

Security:
As WIN-500

Water ingress:
Water tightness class to EN12208: Class 9a

Air permeability:
Air permeability to EN 12207: Class 4

Fire:
Refer to Fire Consultant FDS Consult Fire Report

Acoustic:
Refer to RBA Acoustic Engineer's External Building Fabric Assessment Report for Acoustic requirements and window schedule

Light and solar transmission:
Light transmittance (LT):70%
Solar factor: 0.37

Thermal:
Uw:1.5 W/m²K

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-700 METAL TWO BAY WINDOW ASSEMBLY WITH OPENING AND FIXED LIGHTS AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Fixed side light
- Fixed insulated head panel overclad with metal rainscreen, as shown on design drawings and as noted in Window Schedule-
  Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
Aluminium rainscreen panel with no intermediate joints with concealed fixings.
.. Full piece pressings with no intermediate joints. All folds to be true 90 degree folds. Corners to be cut and folded such, that a continuous return is achieved.
Fixings: Recessed fixings in shadow gap detail, colour coated to match soffit and cill finish.
Finish: Powder coated to match soffit and sill finish.

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-701 METAL TRIPLE WINDOW ASSEMBLY TO BALCONY WITH DOUBLE DOOR, FIXED LIGHT AND OVERHEAD PANEL SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening double leaf glazed door - Fixed side light

- Fixed insulated head panel overclad with metal rainscreen
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700**Masonry Infill panel:**
Support to structural engineers' specification

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-702 METAL TRIPLE WINDOW ASSEMBLY TO BALCONY WITH DOUBLE DOOR, FIXED LIGHT AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening double leaf glazed door
- Fixed side light
- Infill masonry panel
- Fixed insulated head panel overclad with metal rainscreen
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:

As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Masonry Infill panel:
Support to structural engineers' specification

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-703 PAIRED METAL WINDOW ASSEMBLY WITH OPENING LIGHT AND FIXED LIGHT, INFILL PANEL AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Infill masonry panel
- Fixed insulated head panel overclad with metal rainscreen
  Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Masonry Infill panel:
Support to structural engineers' specification

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-704 METAL DOUBLE DOOR ASSEMBLY TO BALCONY WITH 2 FIXED LIGHTS AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Hinged, single swing, outward opening double leaf glazed door
- Fixed side lights
- Fixed insulated head panel overclad with metal rainscreen
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-705 METAL SINGLE WINDOW WITH OPENING LIGHT, FIXED LIGHT AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Fixed insulated head panel overclad with metal rainscreen,
  Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
As WIN-700

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-706 METAL DOUBLE SLIDING DOOR TO DORMER: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Sliding double leaf glazed door
- Fixed insulated head panel overclad with metal rainscreen
- Cill and soffit plates

- To be co-ordinated with RFS 725

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-707 METAL SINGLE WINDOW WITH OPENING LIGHT, FIXED LIGHT AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Fixed insulated head panel overclad with metal rainscreen,
  Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
As WIN-700

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-708 METAL DOUBLE DOOR TO BALCONY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Single-swing, outward opening, double leaf glazed door
- Fixed insulated head panel overclad with metal rainscreen
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-709 PAIRED METAL WINDOW ASSEMBLY WITH OPENING LIGHT AND FIXED LIGHT, INFILL PANEL AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Infill masonry panel
- Fixed insulated head panel overclad with metal rainscreen
  Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Masonry Infill panel:
Support to structural engineers' specification

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-710 UNIT ENTRANCE DOOR ASSEMBLY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and transoms including sill and soffit plates, comprising:
- Power –assisted single swing inward opening timber clad door
- Opening upper side light
- Fixed lower side light
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Safety restrictors not required

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-711 COMMUNAL ENTRANCE DOOR ASSEMBLY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and

transoms including sill and soffit plates, comprising:
- Power –assisted single swing inward opening glazed door
- Fixed side panel
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Safety restrictors not required

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-712 METAL DOUBLE SLIDING DOOR TO DORMER BALCONY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- Sliding double leaf glazed door
- Fixed insulated head panel overclad with metal rainscreen
- Low profile threshold and soffit plates

- To be co-ordinated with RFS 725

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:
As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-713 PAIRED METAL WINDOW ASSEMBLY WITH OPENING LIGHT AND FIXED LIGHT, INFILL PANEL AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Infill masonry panel
- Fixed insulated head panel overclad with metal rainscreen
  Sill and soffit plates

2. Detailed Description:

Window System:
As WIN–500

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
As WIN–500
Safety restrictors not applicable

Soffit and Sill:
As WIN–500

Metal rainscreen overhead panel:
As WIN–700

Masonry Infill panel:
Support to structural engineers' specification

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-714 METAL SINGLE WINDOW WITH OPENING LIGHT, FIXED LIGHT AND OVERHEAD PANEL: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed window assembly with mullions and transoms including sill and soffit plates, comprising:
- High level side-hung inward opening lights
- Low level fixed light
- Fixed insulated head panel overclad with metal rainscreen,
  Sill and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:
As WIN-500

Hardware/ Ironmongery:
As WIN-500

Metal rainscreen overhead panel:
As WIN-700

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-500

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-715 UNIT ENTRANCE DOOR ASSEMBLY: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and transoms including sill and soffit plates, comprising:
- Power –assisted single swing inward opening timber clad door
- Fixed side light
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com

Safety restrictors not required

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN-500

Cavity barriers:
As WIN-500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-503

WIN-716 METAL SINGLE TERRACE ENTRANCE DOOR: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and transoms including sill and soffit plates, comprising:
- Single swing inward opening glazed door
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN-500

Hardware/ Ironmongery:
Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Safety restrictors not required

Soffit and Sill:
As WIN-500

Weather, thermal and air tight seals:
As WIN-500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN–503

WIN-717 METAL TWO-BAY TERRACE ENTRANCE DOOR: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:

Insulated, thermally broken, ppc finished, aluminium framed, clear glazed assembly with mullions and transoms including sill and soffit plates, comprising:
- Single swing inward opening glazed door
- Fixed side panel
- Overpanel
- Low profile threshold and soffit plates

2. Detailed Description:

Window System:
Window assembly with thermally broken, extruded aluminium window framing system.

Indicative Product:

As WIN–500

Hardware/ Ironmongery:
Lever handle window control
Secure by Design BS PAS 24 required
Product: FSB Design 1075 , Straight design, oval rosette, spindle 10mm Group 3
Finish: Stainless steel, brushed finish
Contact: www.schueco.com
Safety restrictors not required

Soffit and Sill:
As WIN–500

Weather, thermal and air tight seals:
As WIN–500

Mastic seals:
As WIN–500

Cavity barriers:
As WIN–500

3. Performance:
Refer to System General Requirements for Performance, except or in addition:

As WIN-503

WIN-740 RECTANGULAR FIXED ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
As WIN-540

Indicative Product:
As WIN-540

Frame material:
As WIN-540

Frame size:
As WIN-540

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required if this is necessary to meet the classification.

As WIN-540

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-741 AUTOMATIC VENT/ ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Roof-mounted natural casement ventilator, powder coated.

2. Detailed Description:
Colt Firelight with side control, automatically opening for smoke ventilation with manual control for day to day operation.

As WIN-541

3. Performance:
Refer to System General Requirements for Performance

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials

WIN-742 SMALL SQUARE FIXED ROOFLIGHT: SYSTEM SPECIFIC REQUIREMENTS

Type of Specification: Descriptive

1. Functional and Visual Description:
Purpose made, double glazed, PPC finished, metal framed rooflight and-upstand detail around the perimeter of the rooflight
Assembly to include insulated metal flashings forming upstand edge. No visible fixings or fasteners on the exposed surfaces.

2. Detailed Description:

Rooflight system:
As WIN-540

Indicative Product:
As WIN-540

Frame material:
As WIN-540

Frame size:
As WIN-540

Glazing:
tbc

3. Performance:
Refer to System General Requirements for Performance, except or in addition: Rooflight to be classified as class 2 to TN66 and TN67. Bespoke solution required if this is necessary to meet the classification.

As WIN-540

4. Samples, Submissions, Mock-ups and Testing:
Refer to System General Requirements for Samples, Submissions, Mock-ups and Testing

5. Workmanship and Materials:
Refer to System General Requirements for Workmanship and Materials