High Peak Borough Council and Staffordshire Moorlands District Council *(working as a Strategic Alliance)*

PROJECT REF: P: 4120

Windows and Doors Replacement Programme, Including Repairs and glazing requirements.

Specification of Requirement

Contracting Authority:
High Peak Borough Council

ISSUED DATE: Wednesday 28th August 2019

CLOSING DATE: Monday 30th September 2019 12:00 (Noon)

OJEU Ref: TBC (2019-119955)

PROCUREMENT

Windows and Doors Replacement and Repairs including Glazing

SPECIFICATION OF WORKS

INDEX

WINDOWS AND DOORS INSTALLATION:

SPECIFICATION OF WORKS

1. PREAMBLES

1.1 Definitions

The meaning of terms, derived terms and synonyms used in the preliminaries/general conditions and specification is as defined below or in the appropriate British Standard or British Standard glossary.

1.1.1 Abbreviations

Left hand and right hand have been abbreviated to LH and RH respectively. Front elevation, rear elevation and side elevation have been abbreviated to FE, RE and SE respectively. Ground floor and first floor have been abbreviated to GF and FF respectively.

CA means the person nominated in the contract as Architect or Contract Administrator or his authorised representative.

1.1.2 Adapting:

The term “adapting” shall include for both new work and making good existing.

1.1.3 Approval:

(and words derived there from) means the approval in writing of the CA unless specified otherwise.

1.1.4 British Standards Products:

Where any product is specified to comply with a British Standard it may be substituted by a product complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK specifying equivalent requirements and assurances in respect of material, safety, reliability, fitness for the purpose and, where relevant, appearance. Notify the CA of all such substitutions in advance of ordering and provide documentary evidence confirming that the products comply with the specified requirements.

1.1.5 Clear Away:

The term "clear away" shall mean removing materials from site, and providing disposal at an authorised facility , paying all waste transfer and disposal fees and costs.

1.1.6 Demolishing/Removing/Cutting**:**

These terms mean remove existing work so described and all associated accessories, fastenings, linings and bedding materials, without damaging adjacent work to be retained, and dispose of unwanted materials

1.1.7 Ease and Adjust

The term "ease and adjust" shall include for planing or cutting door, window or frame, oiling hinges and oiling and adjusting ironmongery and testing as required.

1.1.8 Fixing

The term "fixing" shall include providing, bringing to site, off loading, storing on site, mixing if required, cutting to length, size and shape and fixing in accordance with the relevant BS Code of Practice and/or the manufacturer's recommendations, connecting to services, waste etc, and leaving in full working order including testing as required.

1.1.9 In Writing:

When required to notify, inform, instruct, agree, confirm, obtain approval or obtain instructions do so in writing

1.1.10 Make Good:

Means carry out local remedial works, including the following as appropriate and necessary to leave the work in a sound and neat condition:

- Remove defective parts of existing finishes and components and around any stated features
- Fill, dress down, piece-in, patch, extend existing finishes, make minor repairs and adjustments
- Refix or restick
- Redecorate

1.1.11 Manufacturer and Reference:

Where used in this combination:

- 'Manufacturer' means the firm under whose name the particular product is marketed.
- 'Reference' means the proprietary brand name and/or reference by which the particular product is identified.

1.1.12 Manufacturer's References:

Are those current at the time of tender and mean the particular product as specified in the manufacturer's technical literature current at that time.

1.1.13 Or Equivalent Approved:

Means that products of different manufacture may be substituted if prior approval has been obtained, but the CA reserves the right to insist on the named product(s). The rates or prices will be held to be based on the product(s) specified, unless agreed otherwise.

1.1.14 Proprietary Names:

The phrase 'or equivalent approved' is to be deemed included whenever products are specified by proprietary name

1.1.15 Refix Means:

- Carefully remove existing work required to be refixed
- Remove fastenings and bedding materials from products/materials and clean and repair as necessary
- Set aside and adequately protect until required
- Relocate accurately and fix securely using fixing and jointing materials and methods to match existing, or alternatives if approved, and make good
- Comply with additional specified requirements

1.1.16 Renew:

The term "replacement" or "renew" shall mean the removal of the item described and replacement by a new component of equal dimensions and specifications together with associated work including taking off, clearing away and fixing new all to match existing.

1.1.17 Repair:

The term "repair" shall include for taking off the item described, adjusting, cleaning off, straightening, oiling and generally repairing and "making good", to enable the correct operation and usage of the item and replacing on completion.

1.1.18 Set Aside for Reuse:
The term "set aside for re-use" shall include for carefully removing to a convenient place, removing all old nails and screws, cleaning and oiling if required and providing new nails and screws for re-fixing.

1.1.19 Sizes:
Unless otherwise stated, products are specified by their co-ordinating sizes.

1.1.20 Supply and Fix:
Unless stated otherwise all items given in the schedule of work and/or on the drawings are to be supplied and fixed complete.

1.1.21 Take Out/ Take Off:
The terms "take out", "take off" and take down" shall include for disconnecting, temporarily blanking off services; carefully removing together with all associated fittings such as architraves, cover moulds, etc with the least possible disturbance. Prices shall include for adjustments to adjacent fittings, pipework, cables etc, to enable the work to be carried out.

1.1.22 Technical Literature:
The Contractor is advised to keep copies of the following on site, readily accessible for reference by all supervisory personnel:
- Manufacturers' current literature relating to all products to be used in the works
- BSI Handbook No 3 with all current revision sheets included and superseded sheets removed.
- Relevant BS Codes of Practice.

1.1.23 To Match Existing:
Means use products, materials and methods to closely match all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance and to additional specified requirements.

1.2 Quality Standards and Control

1.2.1 Good Practice
Where and to the extent that materials, products, and workmanship are not fully detailed or specified they are to be:
- of a standard appropriate to the works and suitable for the purpose stated in or reasonably to be inferred from the project documents, and
- In accordance with good building practice

1.2.2 General Quality of Products and Materials
- Products to be new unless otherwise specified.
- For products and materials specified to a British Standard obtain certificates of compliance from manufacturers when requested by CA.
- Where a choice of manufacturer or source of supply is allowed for any particular product or material, the whole quantity required to complete the work must be of the same type, manufacture and/or source unless otherwise approved. Produce written evidence of sources of supply when requested by CA.
- Ensure that the whole quantity of each product and material required to complete the works is of consistent kind, size, quality and overall appearance.
- If materials are prone to deterioration or have a limited shelf life, order in suitable quantities to a programme and use in appropriate sequence.

1.2.3 Proprietary Products

- Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations/ instructions. Inform CA if these conflict with any other specified requirement. Submit copies to CA when requested.
- The tender will be deemed to be based on the products as marketed and recommendations on their use current at the date of tender.
- Obtain confirmation from manufacturers that the products specified and recommendations on their use have not been changed since that time. Where such change has occurred, inform CA and do not place orders for, or use the affected products without further instructions.

1.2.4 Checking Compliance of Product/Materials

Check all delivery tickets, labels, identification marks and, where appropriate, the goods themselves to ensure that all products comply with the project documents. Where different types of any product are specified, check to ensure that the correct type is being used in each location. In particular, check that:

- The sources, types, qualities, finishes and colours are correct, and match any approved samples.
- All accessories and fixings which should be supplied with the goods have been supplied.
- Sizes and dimensions are correct. Where tolerances of components are critical, measure a sufficient quantity to ensure compliance.
- The delivered quantities are correct, to ensure that shortages do not cause delays in the work.
- The goods are clean, undamaged and otherwise in good condition, with intact protective coverings and unbroken seals e delivered quantities are correct, to ensure that shortages do not cause delays in the work.
- Any materials which have a limited shelf life are not out of date.

1.2.5 Protection of Products/ Materials

- Prevent over-stressing and any other type of physical damage.
- Keep clean and free from contamination and staining.
- Keep dry and in a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects. Where appropriate allow free air movement around and between stored components.
- Prevent excessively high or low temperatures and rapid changes of temperature in the material.
- Protect adequately from rain, frost, sun, and other elements
- Ensure that cabins and covers are of ample size, in good weatherproof condition and well secured.
- Keep different types and grades of materials separately and adequately identified.
- So far as possible keep materials in their original wrappings, packings or containers, with unbroken seals, until immediately before they are used.
- Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion
- Ensure that protective measures are fully compatible with and not prejudicial to the product/materials

1.2.6 Suitability of Previous Work and Conditions

Before starting each new type or section of work, ensure that:

- Previous related work is appropriately complete, in accordance with the project documents, to a suitable standard and in a suitable condition to receive the new work.
- All necessary preparatory work has been carried out, including provision for services, damp proofing, priming and sealing.
- The environmental conditions are suitable, particularly that the building is suitably weather tight when internal components, services and finishes are installed.

1.2.7 General Quality of Workmanship

- Operatives must be appropriate skilled and experienced for the type and quality of work.
- Inspect components/materials carefully before fixing or using and reject any which are defective.
- Fix or lay securely, accurately and in alignment
- Use fixings/accessories and bedding/jointing materials/methods recommended for the purpose by the manufacturer of the component/ material being fixed or laid.
- Provide suitable, tight packing at screwed and bolted fixing points to take up tolerances and prevent distortion. Do not over tighten fixings.
- Adjust location and fixing of components so that joints which are to be finished with mortar or sealant or otherwise left open to view are even and regular.
- Ensure that all moving parts operate properly and freely. Do not cut, grind or plane prefinished components to remedy binding or poor fit without approval.

1.2.7 Approvals

Inspection or any other action by the CA must not be taken as approval of materials, products or work unless the CA so confirms in writing in express terms referring to:

- Date of Inspection
- Part of the work inspected
- Respects of characteristics which are approved.
- Extent and purpose of the approval.
- Any associated conditions.

1.2.8 Setting Out

Check the levels and dimensions of the site against those shown on the drawings, and record the results on a copy of the drawings. Notify CA in writing of any discrepancies and obtain instructions before proceeding.

1.2.9 Appearance and Fit

Arrange the setting out, erection, juxtaposition of components and application of finishes (working within the practical limits of the design and the specification) to ensure that there is satisfactory fit at junctions, that there are no practically or visually unacceptable changes in plane, line or level and that the finished work has a true and regular appearance.

Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.

1.2.10 Critical Dimensions

Dimensions given for appliance spaces are critical and the overall dimensions of fixed units and appliance spaces should be checked on site and any divergence brought to the attention of the Contract Administrator.

1.2.11 Sequence of Construction

On commencement of the works the Contractor will be allowed possession of an agreed number of dwellings per week up to a maximum of 50 No. dwellings. The contractor will be expected to complete dwellings per week at the agreed allowed possession rate. If in the opinion of the Employer the Contractor fails without due cause to achieve the agreed completion rate then the Employer will cease to hand over new dwellings until the outstanding dwellings have been completed.

1.2.12 Out of Sequence Work

The Contractor shall note that sole possession of the site is not guaranteed. Other Contractors may be carrying out window and or door replacement schemes or major pre-painting repair work. Whilst the Employer will use his best endeavours to ensure that the cyclical redecoration work shall proceed unhindered, this may not always be possible. The Contractor must allow in his tender for possibility of the need for a return visit to a dwelling to complete the works and/or for a change in programme where the painting works overtake the repair/renew work being carried out by others.

1.3 General Matters

1.3.1 The work and materials described in this Specification cannot be deemed to be complete in every detail and must only be treated as a summary of the item of work and materials required to complete the works, and in this respect the Contractor should allow as he sees fit all incidental work and materials necessitated by the items described.

All materials, appliance and fittings should be compliant to BSI British standards, and shall be obtained from the sources or from manufacturers approved by the CA and the Contractor shall supply the CA with samples of materials to be used in the Works which, if approved, shall become a standard in quality.

The Contractor's attention is drawn to the fact that where a manufacturer's name or product is stated within this Specification, alternative products to those stated may only be used with prior approval of the CA. Tenders will be deemed to include materials as specified unless written approval for alternative products has been granted by the CA. In all cases materials shall be used strictly in accordance with the manufacturer's written instructions.

1.3.2 The Contractor is to allow for all sequencing and integration of work clauses for the proper execution of the works. Prior to commencement of the works the Contractor is to provide a programme to the Contract Administrator and Client detailing efficient execution and delivery of the works.

1.3.3 Prior to ordering materials, the contractor must undertake a pre-entry survey at each property to determine:

1. Property specific requirements, design considerations and access requirements
2. Sufficient information to prepare the system design including pipe runs, layout arrangements, and positioning of units, location of consumer unit and positioning of electrical fittings, extractor fan existing and proposed.
3. The extent of making good following removal of units, and services
4. The extent of any variations necessary to complete the works, whether covered by the standard variations clauses or otherwise.

1.3.4 The contractor shall include for the supply of all materials and consumables to provide a complete installation.

1.3.5 The Contractor is to allow for all making good required as a consequence of the works and for the daily removal of all debris from site.

1.3.6 The Contractor is to allow for the provision of access to allow the safe installation of all systems/elements and the safe movement of materials both new and redundant.

1.3.7 The Contractor is to allow for all removal and reinstatement of services as required due to the consequence of the works. This shall include all data or voice cabling equipment, all electrical services, alarm installations, water and gas services, and TV aerial installations, together with satellite and cable installations. Any works which result in temporary removal and therefore loss of service shall be minimised and must be reinstated either temporarily or permanently within two hours.

1.3.8 The Contractor must provide required protection to floor coverings & furniture for all trades visiting the properties. Specific care shall be taken to protect electrical equipment e.g. televisions.

1.3.9 The Contractor is to provide in tabular form a weekly schedule of works progress detailing installation progress and the date presented for inspection/handover.

1.3.10 The Contractor shall keep a Complaints / Compliments book on site at all times and record all tenant matters reported. This is to be present at site meetings.

1.3.11 All notification should be undertaken in accordance with (ADD Client) Tenant Protocol. The Contractor shall provide tenants with a minimum of 3 No. weeks written notification of the date for works in their property or immediate area. The Contractor shall provide attached to the notification letter, an information sheet including the tenant's responsibilities, access requirements, return visits for finishing inspections, procedure and contact details for complaints.

1.3.12 The Contractor shall be responsible for arranging access to each property and shall allow for carding properties up to 3 times. Where access cannot be obtained, these addresses shall be referred to the Contract Administrator with details of when access was attempted. No claim for additional cost can be considered if access procedures have not been correctly followed and notified.

WINDOWS AND DOORS INSTALLATION:

SPECIFICATION OF WORKS

2.0 INSTALLATION REQUIREMENTS

2.1 Code of Practice: installation shall be in accordance with BS 8213; Windows, Doors and Rooflights Part 4; *'Code of Practice for the installation and replacement of windows and doorsets in dwellings'* and BFP document W362/1 '*Code of practice for the survey and installation of replacement plastic windows and doorsets'*. Installation shall also be in accordance with the Window System Designers technical instruction manual.

2.2 FENSA: all window and door replacements are to be certified by the Contractor through FENSA (Fenestration Self-Assessment Scheme).

2.3 Building Regulations: prior to placing an order the contractor shall ensure that all windows and doors will comply with the requirements of the Building Regulations, and is to take due consideration of the matters below and advise the CA in writing of any areas of concern prior to installation:

1. consider and ensure compliance with Approved Document M of the Building Regulations and BS8300 and through doing so assess location of openers/ ironmongery of existing windows and proposed. Access to operate windows should in no way be made worse than existing and wherever possible should be improved, giving particular consideration to the resident / occupancy group e.g. elderly sheltered. Requirements to lean across kitchen worktops to operate windows, access to trickle vents etc. should all be considered. The contractor should also consider threshold arrangements for doors and ensure that proposed designs are compatible with site conditions and provide level access wherever possible.
2. consider and ensure requirements for egress windows and compliance with Approved Document B of Building Regulations are achieved whenever practical.
3. consider the requirements for fire resistance of windows and doors where opening onto a protected route or single means and ensure compliance with Approved Document B of the Building Regulations.
4. consider the requirements for glazing in critical locations and ensure compliance with Approved Document N of the Building Regulations.
5. consider the requirements for background and purge ventilation and ensure compliance with Approved Document F of the Building Regulations, having particular regard to properties where open flued or flueless gas appliances are installed. Opening lights are required to provide a minimum of 1/20th of the floor area of the room to which the window will be fitted.
6. consider requirements for passive smoke ventilation to communal areas and ensure that existing provision is not compromised by the new installation.

2.4 Sample Property: the Contractor will be required to install windows and doors to a selected dwelling or property area to be to the satisfaction of the CA, which will then act as the standard of workmanship required for the remainder of the works.

2.5 Property Inspection: prior to any works commencing the Contractor shall visit each property to assess fabric around openings and individual property characteristics.

2.6 Works Planning: the Contractor should plan to install and seal the new windows and doorsets on the same day that the existing windows or doorsets are removed, to maintain security and the weather tightness of the structure. For non-traditional

installations i.e. curtain or screen walling, where it is impracticable to complete all works in a single work period, alternative arrangements are to be agreed in advance with the tenant.

2.7 Checks Prior to Installation: care should be taken to ensure that the windows and doors are received at the site compound, stored, and labelled by property, in the correct fashion. Prior to the commencement of work the sizes, type and condition of all windows and doorsets should be checked both against the survey sizes and types and against the actual aperture sizes. The Contractor will be responsible for ensuring that correctly marked windows and doors are fitted to the correct property and aperture. It will be the Supplier's responsibility to ensure that the window/ door is of the correct type and handing.

2.8 Structural Condition: existing lintels in masonry walls are to be retained. Prior to window installation the Contractor shall notify the CA in writing (at least 24hrs to allow inspection) of any cracking, defective or dropped brickwork above openings. Any defects within the triangulation above the opening, one brick course below the opening or one brick width either side of the opening, identified after window installation will be deemed to have occurred as a result of the works and will require to be repaired by the Contractor without charge.

2.9 Temporary Support: the contractor shall provide all necessary temporary internal and external support prior to removal of any window or door enclosures, in sufficient quantities and in a manner to adequately support the super-structure. The Contractor shall be responsible for designing and selecting appropriate and adequate support to ensure all works are executed safely. On completion of frame installations the temporary supports shall be carefully removed and the super-structure closely monitored for any sign of movement or settlement.

2.10 Strip Out Existing Windows and Doors: carefully strip out the existing window and door frames and cill boards and clear all debris from site on day of removal. All glazing is to be removed whole and not broken. The Contractor is to allow for brushing balconies/floors etc and removing debris from rainwater gulleys. The Contractor to allow for cutting back and making good to plaster and render finishes where applicable.
The Contractor is to allow for temporary disconnection and reconnection of localised window/door alarm contacts, and will determine suitability for reconnection before removing the frame. Where contacts cannot be re-fixed, the Contractor shall allow for replacement to ensure continuity of the alarm system.

2.11 Installation: windows and doors to be installed by fully trained and skilled operatives and **in accordance with the specification**:

1. prepare existing opening, set frames (with foam) behind inner face of external leaf of brickwork and secure in accordance with manufacturer's instructions.
2. allow for packing out each frame as required including packing to accommodate timber liners to reveals and soffits
3. frames to be installed centrally in openings, fixed square and plumb within the aperture, without twist, racking or distortion of any member, level on cills and head. The Contractor is responsible for 'toeing and heeling' the window and ensuring its correct operation.
4. window frames to be fixed with cills and head drips, except frames directly under eaves or frame with arched infill panels, both of which will have cills only or as agreed with the CA. If a cill is to be fixed to the window frame, this shall be fixed with screws, inserted from the underside of the cill, into the frame

5. doors: install outward/ inward opening door and frame with low line threshold with 3 seals to comply with part M of the Building Regulations, with galvanised steel reinforcement. Provide and fix a PVCu packer beneath the threshold strip. Packers to be flush with threshold width and bedded on silicon sealant. Depth of packer to suit site conditions and to accommodate clearance of internal floor finishes
6. allow for PVCu internal cover beads

2.12 Coupled Window Assemblies: coupled window assemblies are usually delivered to site as separate window units to ease handling and minimise damage. When building up components into the required assembly, care should be taken to keep coupling joints equal and frames both aligned and plumb. Ensure that perimeter fixings are made close to coupling bar ends. Coupling joints must have seals, such as bedding mastic, expanding bituminised tapes, or flexible polymer gaskets, placed within the profile cavity during the assembly operation. It is not sufficient to rely solely on external pointing sealant. Coupled windows/assemblies shall be fastened together in accordance with the manufacturer's instructions. The Contractor shall be responsible for obtaining the clients approval for the proposed coupling assembly.

2.13 Frame Position: replacement windows and doorsets are to be positioned to match existing and to minimise the amount of making good. Important points to consider include:

1. the position of the frame within the reveal shall be agreed with client prior to commencement of works
2. the correct movement gap must be consistently maintained and centralised around the full perimeter of the frame
3. where the new frame must bridge the DPC/DPM, any damaged DPC/DPM shall be repaired
4. arched heads frames: the existing timber arch infill shall be replaced in conjunction with the window or door using a minimum of 10mm thick closed cell PVCu board, scribed and sealed to the arch and overlapping the frame head a minimum of 12mm, fixed to new timber grounds using stainless steel nails or screws.

2.14 Open Cavities: open cavities discovered between inner and outer skins of brick or block- work need to be bridged or closed with an insulating material, care being taken to maintain integrity of damp proof membrane, and if required fixing with extended lugs to ensure adequate screw purchase.

2.15 Fixings: the fixing requirements below are provided for pricing purposes only and should manufacturers fixing requirements vary from those stated, the manufacturers requirements should take precedence:

1. fix through the frame using Fisher FS106 120 anchor fixings or using propriety cramps
2. fixings to be between min 150 mm and max 250 mm of all joints (i.e. corners, mid rails etc.) intermediate fixings to be at max 600 mm centres
3. fixing screws are to be austenitic stainless steel.
4. where fitted into masonry wall, bed frame on min 12mm bed of 1:1:6 mortar to a minimum distance of 20mm behind sill drip groove. Point face of bed joint with silicon
5. Expanding Polyurethane Foam: foam fixings should not be used as the sole method of fixing the entire frame into the reveal. Prior to the use of any expanding foam fixing the Contractor shall seek client approval for the material and its planned application prior to installation

6. Installation Packers: appropriately sized installation packers shall be used adjacent to fixing positions to prevent outer frame distortion during installation. Installation packers shall be resistant to compression, rot and corrosion. They shall span the full depth of the outer frame. The fixings shall be tightened so that the frame is held securely against the packers. Over tightening may lead to distortion and shall be avoided.
7. Lugs: where lugs are used, they shall be packed off the substrate to prevent distortion. Where enhanced security is required, additional packers shall be used adjacent to hinge and locking points.
8. Fixing Distances: where the specification does not provide for sufficient clarity, the final location, nature, quantity and quality of frame fixings shall be in accordance with the frame manufacturer's recommendations and agreed with the client prior to fixing.

2.16 Window Board: provide and fix new 25x150mm bullnosed, formaldehyde free, MDF window boards internally to all windows, projecting minimum 22mm beyond face of finished plastered surface finished with neat bullnosed edge and extended 38mm beyond either side of opening. (Kitchen window is to have tiled cill).

2.17 Finishings: allow for colour matched PVC / timber trims/ cover beads for both internal and external perimeters when fitting windows. Trims should not be used to provide or enhance the weather tightness of the window or door or the perimeter joints.

2.18 Making Good:
1. make good all disturbed finishes to walls/ plaster on completion of the installation
2. remove debris or contaminants shall be removed and any drainage paths shall be cleared
3. internal reveals shall be made good as agreed, ready for the customer to redecorate if necessary
4. where the replacement product has a smaller front to back dimension than the original, a mastic and/or paint line may be visible on the substrate which should be removed wherever practicable
5. method and responsibility for render repair to be as agreed with (ADD CLIENT)

2.19 Sealants:
1. seal all junctions of window and door frames with gun applied silicone sealant in accordance with the manufacturer's instructions.
2. any materials such as trims or sealant should not be applied on top of existing wall coverings or protective tapes as any subsequent removal of that wall covering or tape could also remove the trim or sealant
3. all brick repairs are to be undertaken prior to the application of sealant.

2.20 Protective Covers and Tapes: should be removed as soon as practicable to prevent difficulties in removal

2.21 Windows General:
1. all new windows above ground floor are to have 2 No. restricted friction hinges fitted.
2. all bathrooms and WCs are to be glazed in obscure glazing
3. one window to all habitable rooms above ground level is to be fabricated as an Escape Window for use in case of fire and will provide an unobstructed area of at least 0.33m², in accordance with Building Regulations Approved Document B (refer to elevations).

4. Trickle Ventilation shall be provided by a Brook vent or similar (SM1200 vent – with sound insulation and adjustable cover) which is to conform to Part F1 of the Building Regulations: 2010. Trickle vents should be fitted through the window sash. In wheel chair/ disabled person dwellings the vents must be operable from low level by means of a pull cord or other device
5. Window Cleaning: all hardware should permit safe cleaning of windows from within the property, without putting the occupier in danger, to BS 8213-2004.Windows to be measured by Supplier/fabricator not Installer.
6. Where windows are supplied glazed, the contractor should allow for removal of glazing for fixing and subsequent re glazing.

2.22 Scaffolding: All scaffolding works to be carried out strictly in accordance with: TG20:08 Technical Scaffolding Guidance and compliant with BS EN 12811-1:2003. Contractor is responsible for determining location, extent and type of scaffolding required to provide safe access for the installation works. Contractor to include and manage applications for highway closure notices with the Local Authority, when access platforms are to be positioned on the public highway.

2.23 Final Completion: on completion of all works a final clean is to be carried out to the satisfaction of the CA:

1. all scaffolding, access equipment, unused materials and plant is to be removed from site and any reinstatement work carried out.
2. no payment will be made to the contractor for incomplete properties.
3. final completion will deem to include for a gas spillage test certificate
4. all warranties / guarantees are to be submitted to CA prior to the issuing of a Completion certificate.

WINDOWS AND DOORS INSTALLATION:

SPECIFICATION OF WORKS

3.1 WINDOWS AND DOOR: Installation and Additional Work.

3.2 General Description

Common work requirements have been grouped together to form a package of works and the work.

The objective is to price nominated styles and all additional work for such cost information to be used as typical output prices for application to subsequent work programmes with defined work scopes and property list.

3.3 Window / Door Styles

The following property Window Styles are proposed: As

per window and door schedule

WINDOWS AND DOORS INSTALLATION:

SPECIFICATION OF WORKS

4.0 SCHEDULE OF VARIATION AND ADDITIONAL WORKS

Variations and additional works will form part of the installation activities and will be carried out along with the standard archetype work when required. Variations will not be one off activities and should be costed on the basis that they will be carried out alongside the standard programme of work. The unit of measure for each variation item is described as UOM with each item.

PRICE MATRIX	WORKS	UOM
4.1	**STRIPPING OUT WORKS**	
WD4.1.1	Asbestos Management Works: The Contractor to undertake non-licensed tasks to each property to adequately safeguard other trades and enable other works to be undertaken to asbestos containing material. The Contractor is to allow for the following: 1. Removal of external boarding and such materials to soffit, lintels and wall elevations containing asbestos. All tasks and removal works are to be undertaken by suitably qualified operatives and in strict accordance with the Control of Asbestos Regulations 2012 and requirements for 'notifiable none licensed works' (NNLW) and HSE Essential Task Sheets for non-licensed work. Allow for all necessary tools and equipment to undertake the works such as H-vacs, disposable dust sheets etc. Provide all necessary protection to adjacent areas and safety measures to protect the tenant and property from contamination resulting from the works.	Item
4.2	**BRICKWORK**	
WD4.2.1	Brickwork: Patch Repair: 1M2 Cut out and remove defective bricks, prepare surface and lay new facing brickwork to match existing, area up to 1m2, in cement lime mortar (1:1:6), bonded, bedded and pointed to match existing	m2
WD4.2.2	Brickwork: Patch Repair: Single Brick Cut out and remove defective brick, prepare surface and lay new facing brick to match existing, in cement lime mortar (1:1:6), bonded, bedded and pointed to match existing.	No
WD4.2.3	Brickwork: Repointing: Rake out existing mortar joints to minimum 20mm depth and repoint brickwork in cement lime mortar(1:1:6) to match existing.	M2
WD4.2.4	Supply and Fit Steel Lintel to Inner or Outer Brick Leaf: up to 1.3m length Allow to carefully take down and remove 1m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing. Minimum gauge of proposed lintel to be 3.0mm.	No

WD4.2.5	Supply and Fit Steel Lintel to Inner or Outer Brick Leaf: up to 2.2m length Allow to carefully take down and remove 2m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing. Minimum gauge of proposed lintel to be 3.0mm.	No
WD4.2.6	Supply and Fit Steel Lintel to Inner or Outer Brick Leaf: up to 3.0m length Allow to carefully take down and remove 2m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing. Minimum gauge of proposed lintel to be 3.0mm.	No
WD4.2.7	Supply and Fit Concrete Lintel to Inner or Outer Brick Leaf: up to 1.3m length Allow to carefully take down and remove 1m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing.	No
WD4.2.8	Supply and Fit Concrete Lintel to Inner or Outer Brick Leaf: up to 2.2m length Allow to carefully take down and remove 2m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing.	No
WD4.2.9	Supply and Fit Concrete Lintel to Inner or Outer Brick Leaf: up to 3.0m length Allow to carefully take down and remove 2m2 brickwork and dispose off site. Remove existing lintel and dispose off site and prepare to receive new lintel. Allow to supply and fit new concrete lintel including for new concrete padstones. Allow to reinstate brickwork to match existing including for toothing into existing.	No

WD4.2.10	Replace Soldier Lintel to Outer Brick Leaf: up to 1.2m length Cut out defective brick lintel and steel angle support to inner brick leaf, prop and support opening, insert new 100x100 mm galvanised steel angle with minimum 100mm bearing and build brick soldier lintel using retained bricks, and make good all works disturbed.	No
WD4.2.11	Replace Brick Arch to Outer Brick Leaf: up to 1.2m length Cut out defective brick arch, prop and support opening, and rebuild brick arch using retained bricks, and make good all works disturbed.	No
WD4.2.12	Replace Brick Cill Cut out defective brick cill and rebuild cill to falls on cement mortar bed with DPC, using retained bricks, and make good all works disturbed.	M
WD4.2.13	Replace Cill: Quarry Tile Cut out cill, prepare surface and lay quarry tiles to falls on cement mortar bed with DPC, making good all works and pointing with silicon sealant.	M
4.3	**RENDER WORKS**	
WD4.3.1	Smooth Render: Patch Repair Allow to hack off and reinstate external sand and cement render to external walls and prepare to receive new, all for new base coat and top coat up to 20mm thick. Cost to include for feathering in to existing with smooth trowel finish. Extent of repairs to be agreed on site by CA.	m2
WD4.3.2	Smooth Render: Patch Repair Allow to hack off and reinstate external sand and cement render to external walls and prepare to receive new, all for new base coat and top coat up to 20mm thick. Allow for reveal up to 300mm wide. Cost to include for feathering in to existing with smooth trowel finish. Extent of repairs to be agreed on site by CA.	M
WD4.3.3	Pebbledash Render: Patch Repair Allow to hack off and reinstate external sand and cement render to external walls and prepare to receive new, all for new base coat and top coat and aggregate finish up to 30mm thick. Cost to include for feathering in to existing. Extent of repairs to be agreed on site by CA.	M2

5.1 SPECIFICATION

5.2 UPVC WINDOWS

5.2.1 PVCu Windows: high performance, energy efficient fully weather stripped top hung and side hung casement windows, factory double-glazed and factory finished. Manufactured windows to comply with Building Regulations, current at time of window installation. Documentation to be made available before manufacture to demonstrate compliance.

5.2.2 Warranty: 10 year insurance-backed guarantees are to be provided by the window supplier for the glazed units. Guarantees are to commence from completion of the works.

Window performance to comply with the following:

1. PVC-U profiles: BS 7412: 2007
2. Weather tightness: BS 6375:Part 1: 2009
3. Operation/ Strength: BS 6375:Part 2: 2009
4. Air Permeability: tested to BS EN 1026: 2000
5. Wind Resistance: tested to BS EN 12210: 2000
6. Security: PAS 24: 2012

5.2.3 Manufacture: Manufacturers to be BS7413 accredited. BS EN 12698

5.2.4 Material Type: Window profiles shall be manufactured from extruded, impact-modified PVCu, in compliance with BS EN 12608:2003, and will be of multi-chamber design. PVCu - White to BS7412. Retaining white internal finish.

5.2.5 Fabrication: There shall be a maximum of 1mm/metre deviation from the straight line of the profile. Outer surface dimensions may not deviate by more than +/-0.3mm glazing channels and seal grooves +/-0.3mm. Frame profile sections should range from 60-70mm wide +/-5mm. Each frame shall have a maximum of 4mm tolerance when measured from one corner to the opposite corner.

All outer frame and mullion profiles shall be capable of reverse butt-welding with all internal walls being properly aligned.

Concealed drainage is to be provided, via suitable slots of holes – in certain circumstances face drainage must be used.

All frames shall have fusion-welded joints.
Rebate inserts, adhesive joints or solvent-welded joints are not permissible.
Reverse butt welds are to be used on mullion joints, if required.
Shadow grooves shall be included at joints

Window Frames to be manufactured to BS 7950 - with full accreditation.

5.2.6 Air Permeability: tested to BS EN1026 and results classified in accordance with BS EN 12207 class 4.

5.2.7 Water tightness: tested to BS EN 1027 and results classified in accordance with BS EN 12208 to E1950.

5.2.8 Resistance to Wind Load: tested to BS EN 12210 and results classified in accordance with BS EN 12208 to E2600.

5.2.9 Operation and Strength: tested to BS 6375 part 2.

5.2.10 Profile: All profiles shall have been assessed by the BBA against MOATs 1, 8 and 17 and must carry Kitemark certification from the BSI to BS EN 12608:2003. In addition the window system shall have been assessed and approved by either the BBA or the BSI for PAS 24:2012 standard for windows with enhanced security. The system designer shall have a proven quality assurance programme with third party certification and must be assessed to BS ISO 9001 for the manufacture of PVCu Windows and Doors. Range from 58mm to 70mm (+/- 0.5mm), to relevant British Standard. Steel/Aluminium reinforced to system company recommendation

Reinforcement of all outer frame profiles shall be made with RCM (Recycled Composite Material), aluminium or stainless steel and manufactured to the system designer's reinforcement specification. These should be housed in a separate chamber within the PVC-U profile. Any drainage water must not penetrate this chamber.

5.2.11 Beading: All frames are to be internally glazed and beaded.

All beading should be co-extruded and covered by the manufacturer's Kitemark certification.
Weather seals, fasteners, gaskets and reinforcement used should be as per the system supplier's design and specification.

5.2.12 Glazing: Glazing of the units is to comply with Approved Document N (c Glazing), any specific requirements of the Client and the recommendations of the system manufacturer.

All glazing is to comply with BS 952-1: 1995, BS 952-2:1980 and BS 6262-4:2005.

The overall thickness of double glazed units is to be 28mm with 20mm air space. All units are to incorporate low emissivity glass in order to provide a WER A rating.

The inside pane of all bathroom windows that are less than 1.5m above the floor are to be safety glazing. This also applies to other areas defined as 'critical locations' in Approved Document N1 as being 'critical locations'. All are to be in accordance with BSEN 12150-1:200 Identification of glass. Bathroom windows are to be supplied with obscured glass.

Toughened glass shall be provided in any locations that fall below 800mm from floor level.

5.2.13 Window Type: See 'Window Styles' attached in the appendix Documents

5.2.14 Gasket/ Seals: Glazing gaskets and weather seals shall be made from Black Dynamic grade Vaycron material or equal with sulphur content 3% and a maximum compression set of 12% to BS4255 part 2.

5.2.15 Locking Mechanism: Espagnolette type system to casements and sashes

5.2.16 Top Hung Sash: Austenitic Stainless Steel Friction Stays (>450mm Restricted, <450mm Unrestricted), require anti-jemmy device. BS7950 security compliance

5.2.17 Side Hung Sash: Austenitic Stainless Steel Friction Stays (Restricted), require anti-jemmy device. BS7950 security compliance

5.2.18 Fire Safety: In compliance with Building Regulations Approved Document B, one opening for every habitable room above the first floor is to be an emergency egress window. This unit must provide an unobstructed area of a minimum of 0.33m^2 and a minimum size of 450mm in any one direction. These openings are to be in habitable rooms only and will be identifiable by a green push button and fitted with approved Egress (304 Austenitic) friction hinges. The size of each friction stay is to be greater than two thirds of each vent's height. The stay is to be positioned so as to ensure a good seal and must be fixed with stainless steel self-tapping screws with countersunk heads.

Handles are to be an approved off-set/in line, in a white finish, and fixed centrally in each opening light. All handles are to have key-operated locks, with the exception of emergency egress windows which are to have green push button handles as above.

Locking mechanisms are to be approved mechanisms in austenitic stainless steel in compliance with BS 7412: 2007 and PAS 24:2012. Housings are to be sealed plated and adjustable incorporating bi-directional gearboxes which have undergone tests to 30,000 cycles of operation. Bar and spun riveted adjustable mushroom-headed cams are to be manufactured from austenitic 304 Stainless Steel.

Locking mechanisms are to have a 10 year, insurance-backed guarantee.

All egress sashes to have integral child restrictor stay.

5.2.19 Handles: Offset Handle. Button locking standard on all windows. Additional cost for Key Locking Handles - Key locking to be fitted to all none-egress windows.

5.2.20 Hardware and Fixings: Fixing screws are to be Austenitic stainless steel to all hardware.

5.2.21 Night-Vent: Night-vent facility to be 'deactivated' on ground floor windows.

5.2.22 Ventilation: Opening lights are to provide no less ventilation, when open, than the units they are replacing. Rapid ventilation, (i.e. open-able area) shall be no less on the replacement window than the existing window, unless instructed by the Client.

Trickle ventilation shall be provided by a Brookvent SM1200, or equal and approved, with sound insulation and adjustable cover and to comply with Part F1 of the Building Regulations: 2010.

The preferred method of ventilation shall be achieved either by 'slot' or 'through the frame'. As directed by Slot' or 'Through the Frame' vents shall be either manufactured from PVCu, thermally broken aluminium, or a combination of both. Incorporating an external hood and a fly screen. The vents also need be watertight to over 500pa at a design wind pressure of over 2000N/m2 to BS13141-1:2004

Note: If slots or holes need to be made in the reinforcement to facilitate such ventilation, assurance must be sought that this will not adversely affect the performance of the window by the Clients Representative

All vents shall be fitted with an upward air deflector internally.

All vents shall be so designed as not to enable daylight to be visible through the vent aperture from internally.

All vents to ground and first floor windows shall have a permanent 'trickle vent' capability.

Manually operated vents shall be so positioned or equipped that they may be operated from floor level or other permanent stable surface provided to give access. Trickle vents must be openable by a pull cord (or similar), where the resident is disabled or a wheelchair user.

Ventilator to be tested to BS EN 20140-10:1992 for acoustic performance as detailed in Part F of the Building Regulations. Vents must be fixed strictly in accordance with manufacturer's recommendations and glazing heights must be amended as necessary to accommodate the vent.

5.2.23 Infill Panel: 28mm insulating infill panel as required

5.2.24 Energy Rating: WER A rated, in accordance with the British Fenestration Rating Council (BFRC)

5.2.25 Measure: to be compliant with BS8213-4:2007: Code of Practice for the Survey and Installation of Windows and External Doorsets.

5.2.26 Sealant: gaps between frame and reveal to be filled with non-setting sealant to BS 5889, colour as frames.

5.2.27 Maintenance and Cleaning: To conform with BS8213 Part 1 Code - cleanable from inside the property - where practicable.

5.2.28 General: All hardware and ironmongery is to be fixed in accordance with the relevant manufacturer's instructions.

Windows must be capable of being cleaned safely from the inside, where practicable, without putting the occupier in danger in compliance with BS 8213-1:2004 relating to the 'Design for Safety in Use and During Cleaning of Windows'.

Alternative adapted handles and the like are to be offered where required in accordance with the Equality Act 2010.

The frames supplied must match with commonly-available cellular cladding, trims and window boards.

All wedges and run up blocks to be fitted to the system designer's specification in accordance with BS 7412: 2007 and PAS 24:2012.

All windows should be permanently marked using an identification label. It shall be in an unobtrusive position that cannot be seen when the window is shut. This should

give the extrusion, date of manufacture, the batch number, the British Standard number and the weather tightness exposure category.

5.3 DOORS (PVCU / COMPOSITE)

5.3.1 Principles

BS 6375 Part 1 - Explains how to calculate the appropriate design wind load for a particular location and then how to use that wind load to specify the appropriate weather resistance class for the proposed doors. It specifies the exposure categories and classifications that can be achieved and the test methods that should be used to determine these results. Aspects covered include air permeability, water tightness and wind resistance, including safety of the product under extreme loading conditions.

The Standard gives an abbreviated method for calculating wind loads for low rise applications within the British Isles. This is a conservative way of assessing wind loads. If a more accurate calculation of wind load is required, or if the product use falls outside the scope of this document, then reference should be made to the building designer or to BS EN 1991 A structural engineer or other competent person should always complete calculations.

BS 6375 Part 2 - Specifies the performance requirements for the operation and strength of windows and doors.

Test procedures and recommended performance levels are listed for the maximum forces that can be allowed to operate hinges and handles to open sashes, and for resistance to vertical loads, resistance to static torsion, racking, load bearing capacity of safety devices, resistance to soft and heavy body impact, resistance to hard body impact and resistance to repeated opening and closing.

BS 6375 Part 3 - Covers the performance requirements for all the other characteristics identified in BS EN 14351 which are not dealt with in BS 6375 Parts 1 or 2. It covers items such as reaction to fire, acoustic performance, bullet resistance, explosion resistance and burglar resistance. For each of the characteristics, comment is made on an appropriate level of performance and the test methods to be used are specified. However, it should be noted that it is not necessary for windows and doors to always comply with all of the characteristics, but if a certain characteristic needs to be specified then it should be in accordance with BS 6375 Part 3.

Best Practice Note:

The GGF recommends that vulnerable windows and doors should be manufactured to enhanced security standards that meet the requirements of BS EN 1627 – 30 or PAS 24:2012. The vulnerability of windows and doors should be determined by a site risk assessment carried out by a competent person. Generally, windows and doors at ground floor or basement level and those on first floor that are easily accessible (via flat roofs, balconies etc.) are considered to be vulnerable.

5.3.2 Regulations

There is currently no requirement within the England and Wales Building Regulations regarding the level of security provided by windows and doors. However, there may be a local requirement for enhanced security windows through imposed planning conditions, ‘Code for Sustainable Homes’ etc. If enhanced security windows and doors are required, the performance of those products is based on BS EN 1627 – 1630. There may also be additional prescriptive requirements based on the Secured by Design specification of the Association of Chief Police Officers (ACPO) Crime Prevention Initiatives.

The issue of security is currently being reviewed by the Home Office (HO) and Department of
Communities and Local Government (DCLG) so there may be changes to the statutory requirements in the future.

Before the introduction of the European security standards contained in EN 1627 - 1630 and the publication of the UK versions, BS EN 1627 - 1630, the UK's enhanced security standards were BS 7950 for windows and PAS 24 for doors . The new European Standards do not address some of the Modus Operandi (MO) sometimes used by the opportunist burglar within the UK and as a result a national foreword has been included within BS EN 1627 – 30.

Additional requirements for enhanced security windows and doors fitted in the UK have also been added. Third party certification using either EN1627 – 1630 plus the additional requirements above or PAS 24:2012 is recommended by the GGF as a means of demonstrating compliance.

The PAS 24:2012 standard contains the requirements for Doors (Annex B) and Windows (Annex C) and the cylinder specific requirements for compliance through the EN 1627 – 1630 route (Annex A).

Best Practice Note:

The GGF recommends that vulnerable windows and doors should be manufactured to enhanced security standards that meet the requirements of BS EN 1627 – 30 or PAS
24:2012. The vulnerability of windows and doors should be determined by a site risk assessment carried out by a competent person. Generally, windows and doors at ground floor or basement level and those on first floor that are easily accessible (via flat roofs, balconies etc.) are considered to be vulnerable.

5.3.3 Fixing

For correct door fixing, each frame member should be fixed to the structure or to an adjacent frame in order to resist all likely imposed loads which could cause the frame to deflect. These loads might be due to:

- Wind loads
- Operating loads
- Weight
- Accidental impact
- Attempted burglary
- Fixing methods are affected by
- The presence or absence of a wall cavity
- The nature and condition of any cavity
- The relative position of the frame and cavity
- The position of the plaster line and the need to minimise disturbance and damage to
- interior decorations
- The design of the reveal
- Any requirements for fire resistance (timber frame)

There are two principal methods of fixing available, which may be used separately or in combination. These are through frame fixings and lug fixings. The manufacturer's instructions should always be followed.

If lug fixings are used they should be of a suitable material to resist corrosion and, if used externally, they should be secured to the wall using “one-way” or other suitable security screws.

Screws should be sized to penetrate at least 25mm into timber, or 40mm into plugged holes in brick, block, or masonry, unless equivalent demonstrable provision can be made by other means, for example by complying with an appropriate structural code. Connections to steelwork up to 2mm thick such as folded sheet lintels should be made with appropriate thread cutting screws. Connections to steelwork over 2mm thick should be into pre-tapped holes with machine screws of minimum 5mm diameter or alternatively with power-driven hardened self drilling screws.

Other proprietary mechanical fixing methods should be assessed for suitability, preferably by obtaining an appropriate third party assessment.

Fixings should be at least as corrosion–resistant as BS EN 1670:1998, Grade 3.

The presence of pre-cast concrete or steel lintels may make it impracticable or pose severe difficulties in achieving the specified fixing distances. In these instances the use of polyurethane foam has proved a useful adjunct to mechanical fixings. However, foam fixings should never be used as the sole method of fixing the entire frame into the reveal.

5.3.4 Hinges

Door hinges shall comply with all of the following requirements:

Face fixed with concealed fixings.

Capable of sustaining a minimum of 50,000 cycles of operation without demonstrating any significant deterioration or deformation that would inhibit their function.

Three hinges will be provided for each door and each hinge shall be capable of sustaining a static load of not less than 80kg.

Each hinge shall be capable of being adjusted in the following ways:-

Vertically by + 4mm
Laterally by ± 5mm

The adjustments shall be capable of being made without removing the door or the hinge. The full extent of the adjustment shall be available after installation.

Where the hinge is exposed on the outside of the door (e.g. outward opening doors) tamper-proof screws shall be used to secure the hinge.

Hinges shall be finished in a white powder coating complying with BS 6497: 1984 (1991).

5.3.5 Fixing distances

Where possible, all four sides of the frame should be secured as follows:-

- Corner fixings should be between 150 mm and 250 mm from the external corner.
- No fixings should be less than 150 mm from the centre line of a mullion or transom.
- Intermediate fixings should be at centres no greater than 600mm.
- There should be a minimum of two fixings on each jamb.
- If the head is fixed with polyurethane foam, then the fixings at the head may be as follows:
    - Frame width up to 1200mm – no fixings
    - Frame width 1201mm to 2400mm – one fixing
    - Frame width 2401mm to 3600mm – 2 equally spaced fixings.

5.3.6 Installation packers

Installation packers should be used adjacent to fixing positions to prevent outer frame distortion during installation. Installation packers should be resistant to compression, rot and corrosion. They should span the full depth of the outer frame. The fixings should be tightened so that the frame is held securely against the packers. Over-tightening can lead to distortion and should be avoided.

Where enhanced security is required, additional packers might be necessary adjacent to hinge and locking points.

5.3.7 Finishings

Finishings, such as trims, are sometimes used to neaten the interface between a door and the substrate. They should not be used to provide or enhance the weather tightness of the window or door or the perimeter joints. They should be good exterior quality materials used in accordance with the manufacturer's instructions, and colour matched where specified.
Cellular extruded PVC-UE trims should conform to BS 7619.

5.3.8 Frame position

Replacement doorsets should generally be positioned to minimize the amount of making good, taking into account the following points:-

- They should be installed plumb and square within the aperture, without twist, racking or distortion of any member in accordance with the manufacturer's recommended tolerances, to operate correctly after installation and in accordance with the surveyor's instructions.
- If the new frame should bridge the DPC. Any damaged DPC should be repaired.
- The frame should be set as far back in the reveal as is feasible for better weather performance.
- The correct movement gap should be provided around the perimeter of the window or door.

5.3.9 Open cavities

Open cavities discovered between inner and outer skins of brick or blockwork should be closed with an insulating material. Care should be taken to maintain the integrity of the DPC and adequate purchase for fixing screws should be ensured, if necessary with extended fixing lugs.

5.3.10 Finishing off and making good

Debris or contaminants should be removed and any drainage paths should be cleared.
Internal reveals should be made good as agreed, ready for the purchaser to redecorate if necessary.

Any materials such as trims or sealant should not be applied on top of loose material. Protective tapes should be removed as soon as practicable, as ageing of tapes can cause difficulties in removal. Refer to the manufacturer's guidance.

Where the replacement product has a smaller front to back dimension than the original, there might be a mastic and/or paint line visible on the substrate which should be removed as much as practicable or covered with a trim.

The method of, and responsibility for, repair to any render should be as agreed with the purchaser.

5.3.11 Sealing

The purpose of perimeter sealants is to repel water and prevent air leakage in the face of differential movement between the aperture and the window. Suitable sealants exhibit and retain flexibility. Sealants should be compatible with the frame, substrate and other materials with which it may come into contact.

The presence of old oil-based mastics and bituminous DPC's can adversely affect the behaviour or appearance of otherwise correctly specified and applied sealants through the migration of hydrocarbons to the surface of the new sealants. Consequent photo-oxidation of the migrant products can affect sealant performance and produce discoloration. This risk should be avoided by removal of unwanted mastic and by keeping sealant away from DPC's.

Perimeter joints should be sealed on both the outside and the inside, with a sealant appropriate to:

- the frame surface
- the substrate material
- joint size and configuration
- anticipated joint movement
- anticipated exposure to weather.

In situations where sealants rely upon atmospheric moisture to initiate curing, deep filling i.e. over 6mm, should be avoided.

The sealant should be applied against a firm backing e.g. foamed PE rod, so that it is forced against the sides of the joint during application. To avoid failure in service, the sealant should not adhere to the backing because this would restrict the lateral movement of the joint. This can be achieved through the use of a closed-cell foam strip such as a polyethylene foam tube.

Wherever practicable, an insulating fill should be inserted or injected around the full perimeter of the frame, between the frame and the structural opening. Any such insulation should be sufficiently flexible that it does not interfere with any expansion and contraction of the frame.

5.3.12 Installation

Move and/or protect customer's furniture and possessions as required to facilitate door replacement, and reinstate on completion of the works.

Carefully cut out any cabling that may be running through an existing door frame, include for cutting into brickwork joint and refixing cable to allow installation of new without fouling on cable.

The Service Provider will allow for the removal and reinstatement of existing doorbells, alarms, cat-flaps, external lights etc, necessary to undertake the installation of the new door.

Carefully remove existing door and frame, including all associated fittings, clear away from site and dispose.

Include for any preparation to structural openings as required in order to receive the new door set.

Supply and install new door set to include:

All front doors are to incorporate the following:

- 180° door viewer, incorporating a knocker to be set between 1200mm and 1500mm.
- A choice of ironmongery i.e Brass, Chrome, Satin finish
- Brass / Chrome door chain.
- Split spindle handle.
- Numerals.
- Letter plate (BS EN 13724:2002, spring loaded hinge flap to both sides of the door and a connecting adjustable plastic sleeve.
- All SDS door sets are to have a 10 year guarantee.

All rear doors are to incorporate the following:

- Fixed spindle handle.

The Handing of the doors shall be as existing as care must be taken to ensure that no doors foul on walls, units or steps etc.

Allow for making good brickwork around door openings particularly include for bricking-in gaps left by existing window horns.

Allow for making good all damaged render around door opening. Include for touching in paintwork to match existing.

Allow for making good damaged internal door reveals up to a width of 100mm around the opening.

Allow for the installation of deep bull nosed trim to internal revels and head of door. Full depth reveal liner shall be used at the request of the Client Representative.

The Service Provider is to identify and use safety glass in positions as required to comply with all current regulations.

5.4 ALUMINIUM WINDOWS

5.2.1 Aluminium Windows: Minimum 50mm Casement System or equal approved: high performance, energy efficient fully weather stripped top hung and side hung casement windows, factory double-glazed and factory finished.

5.3.2 Warranty: 10 year insurance-backed guarantees are to be provided by the window supplier for the glazed units. Guarantees are to commence from completion of the works.

Window performance to comply with the following:

Aluminium profiles:	BS 7412: 2007
Weather tightness:	BS 6375:Part 1: 2009
Operation/ Strength:	BS 6375:Part 2: 2009
Air Permeability:	tested to BS EN 1026: 2000
Wind Resistance:	tested to BS EN 12210: 2000
Security:	PAS 24: 2012

5.3.3 Manufacture: Manufacturers to be BS7413 accredited. BS EN 12698

5.3.4 Material Type: extruded aluminium alloy to BS EN 12020 and BS EN 755-1:1997

5.3.5 Fabrication: Window Frames to be manufactured to BS 7950 - with full accreditation.

5.3.6 Air Permeability: tested to BS EN1026 and results classified in accordance with BS EN 12207 class 4.

5.3.7 Water tightness: tested to BS EN 1027 and results classified in accordance with BS EN 12208 to E1950.

5.3.8 Resistance to Wind Load: tested to BS EN 12210 and results classified in accordance with BS EN 12208 to E2600.

5.3.9 Operation and Strength: tested to BS 6375 part 2.

5.3.10 Profile: Crown 52mm Slimline

5.3.11 Beading: All frames are to be internally glazed and beaded.

All beading should be covered by the manufacturer's Kitemark certification.
Weather seals, fasteners, gaskets and reinforcement used should be as per the system supplier's design and specification.

5.3.12 Finish: factory finish polyester powder coating to BS 6496:1984 RAL colour.

5.3.13 Glazing: Glazing of the units is to comply with Approved Document N (Safety Glazing), any specific requirements of the Client and the recommendations of the system manufacturer.

All glazing is to comply with BS 952-1: 1995, BS 952-2:1980 and BS 6262-4:2005.

The overall thickness of double glazed units is to be 28mm with 20mm air space. All units are to incorporate low emissivity glass in order to provide a WER A rating.

The inside pane of all bathroom windows that are less than 1.5m above the floor are to be safety glazing. This also applies to other areas defined as 'critical locations' in Approved Document N1 as being 'critical locations'. All are to be in accordance with BSEN 12150-1:200 Identification of glass. Bathroom windows are to be supplied with obscured glass.

Toughened glass shall be provided in any locations that fall below 800mm from floor level.

5.3.14 Window Type: See 'Window Styles' A – O. (attached to this ITT)

5.3.15 Gasket/ Seals: Gasket/ Seals: Glazing gaskets and weather seals shall be made from Black Dynamic grade Vaycron material or equal with sulphur content 3% and a maximum compression set of 12% to BS4255 part 2. An option is to be available in white, where requested by the Client.

5.3.16 Locking Mechanism: Espagnolette type system to casements and sashes.

5.3.17 Fire Safety: In compliance with Building Regulations Approved Document B, one opening for every floor above the first floor is to be an emergency egress window. This unit must provide an unobstructed area of a minimum of $0.33m^2$ and a minimum size of 450mm in any one direction. These openings are to be in habitable rooms only and will be identifiable by a green push button and fitted with approved Egress (304 Austenitic) friction hinges. The size of each friction stay is to be greater than two thirds of each vent's height. The stay is to be positioned so as to ensure a good seal and must be fixed with stainless steel self-tapping screws with countersunk heads.

Handles are to be an approved off-set/in line, in a white finish, and fixed centrally in each opening light. All handles are to have key-operated locks, with the exception of emergency egress windows which are to have green push button handles as above.

Locking mechanisms are to be approved mechanisms in austenitic stainless steel in compliance with BS 7412: 2007 and PAS 24:2012. Housings are to be sealed plated and adjustable incorporating bi-directional gearboxes which have undergone tests to 30,000 cycles of operation. Bar and spun riveted adjustable mushroom-headed cams are to be manufactured from austenitic 304 Stainless Steel.

Locking mechanisms are to have a 10 year, insurance-backed guarantee.

All egress sashes to have integral child restrictor stay.

5.3.18 Handles: Offset Handle. Button locking standard on all windows. Additional cost for Key Locking Handles - Key locking to be fitted to all none-egress windows.

5.3.19 Hardware and Fixings: Fixing screws are to be Austenitic stainless steel to all hardware.

5.3.20 Night-Vent: Night-vent facility to be 'deactivated' on ground floor windows.

5.3.21 Ventilation: Opening lights are to provide no less ventilation, when open, than the units they are replacing. Rapid ventilation, (i.e. open-able area) shall be no less on the replacement window than the existing window, unless instructed by the Client.

Trickle ventilation shall be provided by a Brookvent SM1200, or equal and approved, with sound insulation and adjustable cover and to comply with Part F1 of the Building Regulations: 2010.

The preferred method of ventilation shall be achieved either by 'slot' or 'through the frame'. As directed by Slot' or 'Through the Frame' vents shall be either manufactured from PVCu, thermally broken aluminium, or a combination of both. Incorporating an external hood and a fly screen. The vents also need be watertight to over 500pa at a design wind pressure of over 2000N/m2 to BS13141-1:2004

Note: If slots or holes need to be made in the reinforcement to facilitate such ventilation, assurance must be sought that this will not adversely affect the performance of the window by the Clients Representative

All vents shall be fitted with an upward air deflector internally.

All vents shall be so designed as not to enable daylight to be visible through the vent aperture from internally.

All vents to ground and first floor windows shall have a permanent 'trickle vent' capability.

Manually operated vents shall be so positioned or equipped that they may be operated from floor level or other permanent stable surface provided to give access. Trickle vents must be openable by a pull cord (or similar), where the resident is disabled or a wheelchair user.

Ventilator to be tested to BS EN 20140-10:1992 for acoustic performance as detailed in Part F of the Building Regulations. Vents must be fixed strictly in accordance with manufacturer's recommendations and glazing heights must be amended as necessary to accommodate the vent.

5.3.22 Infill Panel: 28mm insulating infill panel as required

5.3.23 Energy Rating: WER A rated, in accordance with the British Fenestration Rating Council (BFRC)

5.3.24 Measure: to be compliant with BS8213-4:2007: Code of Practice for the Survey and Installation of Windows and External Doorsets.

5.3.25 Sealant: gaps between frame and reveal to be filled with non-setting sealant to BS 5889, colour as frames.

5.3.26 Maintenance and Cleaning: To conform with BS8213 Part 1 Code - cleanable from inside the property - where practicable.

5.3.27 General: All hardware and ironmongery is to be fixed in accordance with the relevant manufacturer's instructions.

Windows must be capable of being cleaned safely from the inside, where practicable, without putting the occupier in danger in compliance with BS 8213-1:2004 relating to the 'Design for Safety in Use and During Cleaning of Windows'.

Alternative adapted handles and the like are to be offered where required in accordance with the Equality Act 2010.

The frames supplied must match with commonly-available cellular cladding, trims and window boards.

All wedges and run up blocks to be fitted to the system designer's specification in accordance with BS 7412: 2007 and PAS 24:2012.

All windows should be permanently marked using an identification label. It shall be in an unobtrusive position that cannot be seen when the window is shut. This should give the extrusion, date of manufacture, the batch number, the British Standard number and the weather tightness exposure category.

5.4 TIMBER WINDOWS (VERTICAL SLIDING SASH & CASEMENTS)

5.4.1 Timber Windows: high performance, energy efficient fully weather stripped vertical sliding sash windows and casement windows, double-glazed and factory finished.

5.4.2 Warranty: 10 years generally and 30 years against rot or fungal attack.
Insurance-backed guarantees are to be provided by the window supplier for the glazed units. Guarantees are to commence from completion of the works.

Window performance to comply with the following:

Timber profiles:	BS 7412: 2007
Weather tightness:	BS 6375:Part 1: 2009
Operation/ Strength:	BS 6375:Part 2: 2009
Air Permeability:	tested to BS EN 1026: 2000
Wind Resistance:	tested to BS EN 12210: 2000
Security:	PAS 24: 2012

5.4.3 Manufacture and Fabrication: high performance window frames with performance requirements, design, fabrication, and manufactured to BS644:2012. Accreditation to BM TRADA Q Mark certified and FSC Chain of Custody

5.4.4 Air Permeability: tested to BS EN1026 and results classified in accordance with BS EN 12207 class 4.

5.4.5 Water tightness: tested to BS EN 1027 and results classified in accordance with BS EN 12208 to E1950.

5.4.6 Resistance to Wind Load: tested to BS EN 12210 and results classified in accordance with BS EN 12208 to E2600.

5.4.7 Operation and Strength: tested to BS 6375 part 2.

5.4.8 Profile: profiles sections for box section, sash frame, hardwood cill, moulded glazing bars, parting beads, horns and the like to be sized to accommodate double glazed units whilst also maintaining existing external appearance; profiles to BS644:2012.

5.4.9 Material Type: FSC finger-jointed laminated softwood to BS EN 13307-1, or FSC solid European redwood to BS EN 942: 2000. Maximum moisture content at time of machining to be no more than 18%.

5.4.10 Preservative Treatment: Double vacuum organic solvent wood preservative treatment for 30 year service life to BS599 part 1 and preservative to a minimum hazard class 3A to BS8417.

5.4.11 Decoration: factory finish to BS6150:1991 and BS8000 part 12, with opaque breather paint system comprising dipped base coat with end grain sealer, stain blocking primer coat sprayed to a minimum 200 micron wet film weight, and high build (60% gloss) opaque top coat sprayed to a minimum 180 micron wet film weight.

5.4.12 Glazing: Glazing of the units is to comply with Approved Document N (Safety Glazing), any specific requirements of the Client and the recommendations of the system manufacturer.

All glazing is to comply with BS 952-1: 1995, BS 952-2:1980 and BS 6262-4:2005.

The overall thickness of double glazed units is to be 28mm with 20mm air space. All units are to incorporate low emissivity glass in order to provide a WER A rating.

The inside pane of all bathroom windows that are less than 1.5m above the floor are to be safety glazing. This also applies to other areas defined as 'critical locations' in Approved Document N1 as being 'critical locations'. All are to be in accordance with BSEN 12150-1:200 Identification of glass. Bathroom windows are to be supplied with obscured glass.

Toughened glass shall be provided in any locations that fall below 800mm from floor level.

5.4.13 Window Type: See 'Window Styles' A – O. (attached to this ITT)

5.4.14 Gasket/ Seals: Glazing gaskets and weather seals shall be made from Black Dynamic grade Vaycron material or equal with sulphur content 3% and a maximum compression set of 12% to BS4255 part 2.

5.4.15 Top Hung Sash: Austenitic Stainless Steel Friction Stays (>450mm Restricted, <450mm Unrestricted), require anti-jemmy device. BS7950 security compliance.

5.4.16 Side Hung Sash: Austenitic Stainless Steel Friction Stays (Restricted), require anti-jemmy device. BS7950 security compliance.

5.4.17 Operating / Locking Mechanism: pre stretched nylon cord and lead weights % Espagnolette type system to casements and sashes.

5.4.18 Hardware: sash lifts, sash catch, sash stops, and cord pulleys all in Premium brass.

5.4.19 Fire Safety: In compliance with Building Regulations Approved Document B, one opening for every floor above the first floor is to be an emergency egress window. This unit must provide an unobstructed area of a minimum of $0.33m^2$ and a minimum size of 450mm in any one direction. These openings are to be in habitable rooms only and will be identifiable by a green push button and fitted with approved Egress (304 Austenitic) friction hinges. The size of each friction stay is to be greater than two thirds of each vent's height. The stay is to be positioned so as to ensure a good seal and must be fixed with stainless steel self-tapping screws with countersunk heads.

Handles are to be approved off-set/in line, in a white finish, and fixed centrally in each opening light. All handles are to have key-operated locks, with the exception of emergency egress windows which are to have green push button handles as above.

Locking mechanisms are to be approved mechanisms in austenitic stainless steel in compliance with BS 7412: 2007 and PAS 24:2012. Housings are to be sealed plated and adjustable incorporating bi-directional gearboxes which have undergone tests to 30,000 cycles of operation. Bar and spun riveted adjustable mushroom-headed cams are to be manufactured from austenitic 304 Stainless Steel.

Locking mechanisms are to have a 10 year, insurance-backed guarantee.

All egress sashes to have integral child restrictor stay.

5.4.20 Fixings: Fixing screws are to be Austenitic stainless steel to all hardware.

5.4.21 Ventilation: Opening lights are to provide no less ventilation, when open, than the units they are replacing. Rapid ventilation, (i.e. open-able area) shall be no less on the replacement window than the existing window, unless instructed by the Client.

Trickle ventilation shall be provided by a Brookvent SM1200, or equal and approved, with sound insulation and adjustable cover and to comply with Part F1 of the Building Regulations: 2010.

The preferred method of ventilation shall be achieved either by 'slot' or 'through the frame'. As directed by Slot' or 'Through the Frame' vents shall be either manufactured from PVCu, thermally broken aluminium, or a combination of both. Incorporating an external hood and a fly screen. The vents also need be watertight to over 500pa at a design wind pressure of over 2000N/m2 to BS13141-1:2004

Note: If slots or holes need to be made in the reinforcement to facilitate such ventilation, assurance must be sought that this will not adversely affect the performance of the window by the Clients Representative

All vents shall be fitted with an upward air deflector internally.

All vents shall be so designed as not to enable daylight to be visible through the vent aperture from internally.

All vents to ground and first floor windows shall have a permanent 'trickle vent' capability.

Manually operated vents shall be so positioned or equipped that they may be operated from floor level or other permanent stable surface provided to give access. Trickle vents must be openable by a pull cord (or similar), where the resident is disabled or a wheelchair user.

Ventilator to be tested to BS EN 20140-10:1992 for acoustic performance as detailed in Part F of the Building Regulations. Vents must be fixed strictly in accordance with manufacturer's recommendations and glazing heights must be amended as necessary to accommodate the vent.

5.4.22 Energy Rating: WER A rated, in accordance with the British Fenestration Rating Council (BFRC)

5.4.23 Measure: to be compliant with BS8213-4:2007: Code of Practice for the Survey and Installation of Windows and External Doorsets.

5.4.24 Sealant: gaps between frame and reveal to be filled with non-setting sealant to BS 5889. Colour as frames.

5.4.25 Maintenance and Cleaning: to conform with BS8213 Part 1 Code - cleanable from inside the property where practicable

5.4.26 General: All hardware and ironmongery is to be fixed in accordance with the relevant manufacturer's instructions.

Windows must be capable of being cleaned safely from the inside, where practicable, without putting the occupier in danger in compliance with BS 8213-1:2004 relating to the ‘Design for Safety in Use and During Cleaning of Windows’.

Alternative adapted handles and the like are to be offered where required in accordance with the Equality Act 2010.

The frames supplied must match with commonly-available cladding, trims and window boards.

All wedges and run up blocks to be fitted to the system designer’s specification in accordance with BS 7412: 2007 and PAS 24:2012.

All windows should be permanently marked using an identification label. It shall be in an unobtrusive position that cannot be seen when the window is shut. This should give the extrusion, date of manufacture, the batch number, the British Standard number and the weather tightness exposure category.

5.5 Fire Doors / Frames

Renewal of Composite FD30S Fire Doors

To be read in conjunction with 5.2 (PVCu / Composite Doors)

- Composite FD30 Fire Doorset
- Composite FD30 Fire Doorset (Storey Height)
- Composite FD30 Fire Doorset with Glazed Side Screen (Standard Height)
- Composite FD30 Fire Doorset with Glazed Side Screen (Storey Height)

5.5.1 Composite FD30 Fire Doorset (Standard Height)

Install New Composite FD30 Fire Doorset (Standard Height) Shall Mean:

Allow for all necessary temporary support and protection and carefully strip out existing door and frame and dispose from site. Allow to carefully cut back reveals plaster/render for removal/installation as required. Allow for temporary disconnection and reconnection of localised door alarm contacts and door bells. Contractor to determine suitability for reconnection before removing the frame. Where contacts cannot be re-fixed, contractor shall allow for replacement to ensure continuity of the alarm system. Make good and extend all disturbed finishes on completion.

Supply and install new FD30S Composite fire doorset complete with Winkhaus 70mm Ecoframe door profile, intumescent strips, smoke seals and Pyroshield glazed vision panel (as applicable)

The door is to be supplied with the following ironmongery:

- 1 nr set of Balmoral heavy duty lever handles.
- 1 nr letter plate
- 1 nr security chain
- Winkhaus AV2 Automatic Locking System.
- ERA double Euro profile thumb turn cylinder
- Set of 50mm numerals
- 1 nr overhead door closer. Closer to comprise adjustable delayed action closing pressure.
- 3 No. Grade 13 steel hinges.
- 1 nr door knocker
- 1 nr Door knocker
- Fire rated letter box

3 no. keys to be provided to and signed for by the resident.

Door to be sized to suit existing opening, frame to be measured by Contractor.

For gaps of less than 10mm between the frame and structural opening, carefully fill gaps using intumescent mastic. Depth of mastic seal as specified by the manufacturer to achieve a minimum integrity and insulation of 30 minutes. Gaps of greater that 10mm shall be tightly packed with a suitable glass or mineral wool to a depth of not less than 10mm before sealing perimeter with intumescent mastic. Allow for supply and installation of backing rod as specified by the mastic manufacturer.

Mastic performance to be tested in accordance with BS 476 Part 22 and all relevant European Standards. The product must be supplied with a Certifire 3rd Party Accreditation or similar and approved 3rd Party certification.

Intumescent mastic to be applied strictly in accordance with manufacturers recommendations.

Make good and extend all disturbed surfaces and finishes on completion of installation.

Installation to be in strict accordance with manufacturer's instructions.

Notes

- Installation to be in accordance with BS8214:2008 Code of Practice for Fire Door Assemblies.
- All hardware must be CE Marked.
- Method of frame fixing to be in strict accordance with manufacturer's instructions.
- Complete doorset specification to be supplied in strict accordance with that utilised as part of the Exova Warrington Fire Test Assessment Report Nr 303970 dated 26th January 2011 and must comply fully with BS 476: Part 22: 1987.

All doors must meet with all current Building Regulations, Parts B and E, together with BS 476-22;1987 to achieve a fire resistance integrity in excess of 30 minutes and BS476-31.1:1983 smoke penetration, where required.

All doors shall be fitted with either an overhead mounted door closing device with standard arm or slide track, or Perko R2 concealed door closure.

Copies of test results are to be provided on request, and only supplied to the specification as tested / assessed.

NOTE: Fire retardant sealant must be used to seal around door frames.

5.5.2 Composite FD30 Fire Doorset (Storey Height)

Install New Composite FD30 Fire Doorset (Storey Height) Shall Mean:

As per 5.5.1 and including:

Door to be installed with glazed fan light comprising above incorporating Wired Pyroshield 2 Texture 7mm fire resisting glass by Pilkington or equal and approved. Glazing to be mounted within System-36 Plus fire resisting glazing gasket by Lorient. Hardwood glazing beads to be minimum 22mm wide by 13mm high, chamfered by 15 degrees, with a minimum density of 550kg/m3.

Glazing bead to be secured with min 40mm steel pins at max 200mm centres, angled at 45 degrees to the vertical. Fixings shall be staggered at opposing sides and filled.

The fan light frame shall be independent of the door frame. Frame to be s.w., minimum dimensions 94mm x 44mm, with a minimum density of 550Kg/m3. Frame to be bedded on intumescent pad in accordance with the requirements of the door manufacturer and screw fixed. Screw fixings to be minimum 90mm x 5mm and maximum 600mm centres.

All joinery to be factory finished.

5.5.3 Composite FD30 Fire Doorset with Glazed Side Screen (Standard Height)

Install New Composite FD30 Fire Doorset with Glazed Side Screen (Standard Height) Shall Mean:

As per 5.5.1 and including:

Door to be installed with glazed side screen comprising above incorporating Wired Pyroshield 2 Texture 7mm fire resisting glass by Pilkington or equal and approved. Glazing to be mounted within System-36 Plus fire resisting glazing gasket by Lorient. Hardwood glazing beads to be minimum 22mm wide by 13mm high, chamfered by 15 degrees, with a minimum density of 550kg/m3.

Glazing bead to be secured with min 40mm steel pins at max 200mm centres, angled at 45 degrees to the vertical. Fixings shall be staggered at opposing sides and filled.

The fanlight / glazed screen frame shall be independent of the door frame. Frame to be s.w., minimum dimensions 94mm x 44mm, with a minimum density of 550Kg/m3. Frame to be bedded on intumescent pad in accordance with the requirements of the door manufacturer and screw fixed. Screw fixings to be minimum 90mm x 5mm and maximum 600mm centres.

5.5.4 Composite FD30 Fire Doorset with Glazed Side Screen (Storey Height)

Install New Composite FD30 Fire Doorset with Glazed Side Screen (Storey Height) Shall Mean:

As per 5.5.1 and including:

Door to be installed with glazed side screen comprising above incorporating Wired Pyroshield 2 Texture 7mm fire resisting glass by Pilkington or equal and approved. Glazing to be mounted within System-36 Plus fire resisting glazing gasket by Lorient. Hardwood glazing beads to be minimum 22mm wide by 13mm high, chamfered by 15 degrees, with a minimum density of 550kg/m3.

Glazing bead to be secured with min 40mm steel pins at max 200mm centres, angled at 45 degrees to the vertical. Fixings shall be staggered at opposing sides and filled.

The fanlight / glazed screen frame shall be independent of the door frame. Frame to be s.w., minimum dimensions 94mm x 44mm, with a minimum density of 550Kg/m3. Frame to be bedded on intumescent pad in accordance with the requirements of the door manufacturer and screw fixed. Screw fixings to be minimum 90mm x 5mm and maximum 600mm centres.

5.6 Communal Entrance Doors

5.6.1 Communal Doors: The frames are to comply with all relevant British Standard Specifications, Codes of Practice, and Statutory Requirements (including all revisions and amendments), as well as the guides and recommendations laid down by the relevant trade organisation relating to their performance, constituent materials, methods of assembly and use. Any exceptions to the above are to be advised in writing by the specifier.

5.6.2 Warranty: 10 years

5.6.3 Manufacture: Manufacturers to be BS7413 accredited. BS EN 12698

5.6.4 Material Type: Heavy gauge rebated aluminium section (4mm Wall thickness) extruded from alloy complying with the recommendations of BS EN 755-9:2001.

5.6.5 Fabrication: The door fabricator shall hold test certificates to the following standards. PAS023-1:1999 'General Performance Requirements for Door Assemblies' and PAS024-1:1999 'Doors of Enhanced Security'. Testing shall be carried out by a UKAS accredited test house.

5.6.6 Air Permeability: tested to BS EN1026 and results classified in accordance with BS EN 12207 class 4.

5.6.7 Water tightness: tested to BS EN 1027 and results classified in accordance with BS EN 12208 to E1950.

5.6.8 Resistance to Wind Load: tested to BS EN 12210 and results classified in accordance with BS EN 12208 to E2600.

5.6.9 Operation and Strength: tested to BS 6375 part 2.

5.6.10 Profile:

Frame members are mitre cut at 45 degrees.

Corners are reinforced with extruded aluminium corner cleats bonded using two part adhesive.

All joints to be secondary sealed with appropriate adhesive.

Mid rails are cut square, machined and securely fixed to the leaves with an extruded aluminium block and machine screws

All joints are sealed during fabrication against the ingress of water. Thermally broken profiles are achieved by using two separate aluminium extruded profiles and two polyamide profiles mechanically jointed together to form a single compound profile. Polyester powder coated finishes to BS EN 12206-1:2004.

Drainage in accordance with the requirements of a "ventilated and drained system" as defined in BS6262.

5.6.11 Beading: Security bead secured with patented security screws and decorative cover to conceal all bead fixings.

5.6.12 Glazing: All glass and glazing shall conform to:

EN 12600: Specification for Impact Performance;

BS.6262: Parts 1-6:2005 Code of Practice for Glazing Buildings;

BS.952:1978: Glass for Glazing;

BS EN 1279: Glass in buildings. Insulating Glass Units.

Part 1: 2004 Generalities, dimensional tolerances and rules for the system description.

Part 2: 2005 Long term test method and requirements for moisture penetration.

Part 3: 2005 Long term test method and requirements for gas leakage rate and for gas concentration tolerances.

Part 4: 2002 Methods of test for the physical attributes of edge seals

Part 5: 2005 Evaluation of conformity.

Part 6: 2002 Factory production control and periodic tests.

Insulating glass units of 33mm nominal thickness.

9.5mm laminated safety glass / 16mm / 6mm toughened safety glass.

Manifestation to comply with Document M.

5.6.13 Door Type: See 'Window Styles' A – O. (attached to the ITT)

5.6.14 Gasket/ Seals: Weather seals are produced from Q-Lon polyurethane foam enclosed in a polythene sheath set in undercut grooves within the aluminium frame profiles.

5.6.15 Locking Mechanism: PAS 24 / PAS23 SBD accredited Solenoid bolt locking mechanisms

5.6.16 Handles: 30mm x 400mm Stainless steel tubular handles external, flat push plate internally with security fixings to prevent tampering.

5.6.17 Hardware and Fixings: Door leaves hung off 3 number three part hinges securely fixed to the outer frame and leaf with 11mm diameter thread forming screws. Fixing screws are to be Austenitic stainless steel to all hardware. Fully adjustable integrated motion closer installed as standard to allow Equality Act compliance. Incorporating concealed stainless steel slide rail & bronze slide block with security fastening. Accommodation made for retro installation of fully automated/remote door access gearing as required.

5.6.18 Energy Rating: WER A rated, in accordance with the British Fenestration Rating Council (BFRC)

5.6.19 Measure: to be compliant with BS8213-4:2007: Code of Practice for the Survey and Installation of Windows and External Doorsets.

5.6.20 Sealant: gaps between frame and reveal to be filled with non-setting sealant to BS 5889, colour as frames.

5.6.21 General: Equality act compliant threshold from extruded aluminium either ramped for general access or square to allow for tiled finish.

Door set and sidescreens must carry full Secured by Design Accreditation.

5.6.22 Door Installation:

Principles

BS 6375 Part 1 - Explains how to calculate the appropriate design wind load for a particular location and then how to use that wind load to specify the appropriate weather resistance class for the proposed doors. It specifies the exposure categories and classifications that can be achieved and the test methods that should be used to determine these results. Aspects covered include air permeability, water tightness and wind resistance, including safety of the product under extreme loading conditions.

The Standard gives an abbreviated method for calculating wind loads for low rise applications within the British Isles. This is a conservative way of assessing wind loads. If a more accurate calculation of wind load is required, or if the product use falls outside the scope of this document, then reference should be made to the building designer or to BS EN 1991. A structural engineer or other competent person should always complete calculations.

BS 6375 Part 2 - Specifies the performance requirements for the operation and strength of windows and doors.

Test procedures and recommended performance levels are listed for the maximum forces that can be allowed to operate hinges and handles to open sashes, and for resistance to vertical loads, resistance to static torsion, racking, load bearing capacity of safety devices, resistance to soft and heavy body impact, resistance to hard body impact and resistance to repeated opening and closing.

BS 6375 Part 3 - Covers the performance requirements for all the other characteristics identified in BS EN 14351 which are not dealt with in BS 6375 Parts 1 or 2. It covers items such as reaction to fire, acoustic performance, bullet resistance, explosion resistance and burglar resistance. For each of the characteristics, comment is made on an appropriate level of performance and the test methods to be used are specified. However, it should be noted that it is not necessary for windows and doors to always comply with all of the characteristics, but if a certain characteristic needs to be specified then it should be in accordance with BS 6375 Part 3.

Best Practice Note:

The GGF recommends that vulnerable windows and doors should be manufactured to enhanced security standards that meet the requirements of BS EN 1627 – 30 or PAS
24:2012. The vulnerability of windows and doors should be determined by a site risk assessment carried out by a competent person. Generally, windows and doors at ground floor or basement level and those on first floor that are easily accessible (via flat roofs, balconies etc.) are considered to be vulnerable.

Metal frames

There are two distinct methods by which metal frames are fixed.
Screw-fixed through the frame into timber sub-frames or direct. Firstly remove all glazing from fixed lights, and separate and remove all opening lights from the frames.

Then locate the screws holding the metal frame in place and remove them. Finally remove any timber sub-frame as described for timber windows.

Lug-fixed directly into the aperture. Firstly remove any opening lights with an angle grinder or hacksaw. Then cut through any transoms and mullions and remove them. Remove the lug screws from the frame by driving them through the frame using a suitable punch. Finally cut through each side of the frame with an angle grinder and lever away from the wall, taking care not to damage the fabric of the aperture.

Door fixing

For correct door fixing, each frame member should be fixed to the structure or to an adjacent frame in order to resist all likely imposed loads which could cause the frame to deflect. These loads might be due to:

- Wind loads
- Operating loads
- Weight
- Accidental impact
- Attempted burglary

Fixing methods are affected by

- The presence or absence of a wall cavity
- The nature and condition of any cavity
- The relative position of the frame and cavity
- The position of the plaster
- The design of the reveal
- Any requirements for fire resistance (timber frame)

Fixings

There are two principal methods of fixing available, which may be used separately or in combination. These are through frame fixings and lug fixings. The manufacturer's instructions should always be followed.

If lug fixings are used they should be of a suitable material to resist corrosion and, if used externally, they should be secured to the wall using “one-way” or other suitable security screws.

Screws should be sized to penetrate at least 25mm into timber, or 40mm into plugged holes in brick, block, or masonry, unless equivalent demonstrable provision can be made by other means, for example by complying with an appropriate structural code. Connections to steelwork up to 2mm thick such as folded sheet lintels should be made with appropriate thread cutting screws. Connections to steelwork over 2mm thick should be into pre-tapped holes with machine screws of minimum 5mm diameter or alternatively with power-driven hardened selfdrilling screws.

Other proprietary mechanical fixing methods should be assessed for suitability, preferably by obtaining an appropriate third party assessment.
Fixings should be at least as corrosion–resistant as BS EN 1670:1998, Grade 3.

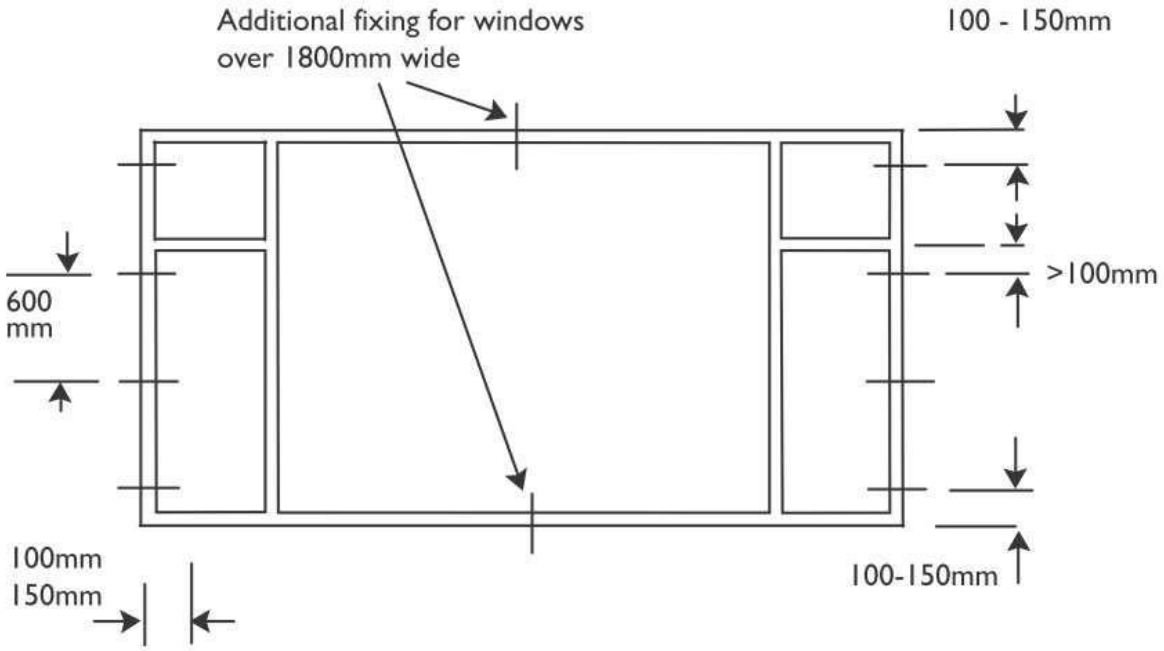
The presence of pre-cast concrete or steel lintels may make it impracticable or pose severe difficulties in achieving the specified fixing distances. In these instances the use of polyurethane foam has proved a useful adjunct to mechanical fixings. However, foam fixings

should never be used as the sole method of fixing the entire frame into the reveal.

All Frames

Where possible, all four sides of the frame should be secured as follows:-

- Corner jamb fixings should be between 100 mm and 150 mm from the external comer.
- No fixings should be less than 100 mm from the centre line of a mullion or transom
- Intermediate fixings should be at centres no greater than 600mm.
- There should be a minimum of two fixings on each jamb.
- On windows over 1800 mm wide, central head and sub-sill fixings should be provided



Installation packers

Installation packers should be used adjacent to fixing positions to prevent outer frame distortion during installation. Installation packers should be resistant to compression, rot and corrosion. They should span the full depth of the outer frame. The fixings should be tightened so that the frame is held securely against the packers. Over-tightening can lead to distortion and should be avoided.

Where enhanced security is required, additional packers might be necessary adjacent to hinge and locking points.

Finishings

Finishings, such as trims, are generally used to neaten the interface between a window and the substrate. They should not be used to provide or enhance the weather tightness of the window or door or the perimeter joints. They should be good exterior quality materials used in accordance with the manufacturer's instructions, and colour matched where specified.

Frame position

Replacement doorsets should generally be positioned to minimize the amount of making good, taking into account the following points:-

- They should be installed plumb and square within the aperture, without twist, racking or distortion of any member in accordance with the manufacturer's recommended tolerances, to operate correctly after installation and in accordance with the surveyor's instructions.
- The new frame should bridge the DPC. Any damaged DPC should be repaired.
- The frame should be set as far back in the reveal as is feasible for better weather performance.
- The correct movement gap should be provided around the perimeter of the window or door.

Open cavities

Open cavities discovered between inner and outer skins of brick or blockwork should be closed with an insulating material. Care should be taken to maintain the integrity of the DPC and adequate purchase for fixing screws should be ensured, if necessary with extended fixing lugs.

Finishing off and making good

Debris or contaminants should be removed and any drainage paths should be cleared.
Internal reveals should be made good as agreed, ready for the purchaser to redecorate if necessary.

Any materials such as trims or sealant should not be applied on top of loose material.

Protective tapes should be removed as soon as practicable, as ageing of tapes can cause difficulties in removal. Refer to the manufacturer's guidance.

Where the replacement product has a smaller front to back dimension than the original, there might be a mastic and/or paint line visible on the substrate which should be removed as much as practicable or covered with a trim.

The method of, and responsibility for, repair to any render should be as agreed with the purchaser.

Sealing

The purpose of perimeter sealants is to repel water and prevent air leakage in the face of differential movement between the aperture and the window. Suitable sealants exhibit and retain flexibility. Sealants should be compatible with the frame, substrate and other materials with which it may come into contact.

The presence of old oil-based mastics and bituminous DPC’s can adversely affect the behaviour or appearance of otherwise correctly specified and applied sealants through the migration of hydrocarbons to the surface of the new sealants. Consequent photo-oxidation of the migrant products can affect sealant performance and produce discoloration. This risk should be avoided by removal of unwanted mastic and by keeping sealant away from DPC's.

Perimeter joints should be sealed on both the outside and the inside, with a sealant appropriate to:

- the frame surface
- the substrate material
- joint size and configuration
- anticipated joint movement
- anticipated exposure to weather.

In situations where sealants rely upon atmospheric moisture to initiate curing, deep filling i.e. over 6mm, should be avoided.

The sealant should be applied against a firm backing e.g. foamed PE rod, so that it is forced against the sides of the joint during application. To avoid failure in service, the sealant should not adhere to the backing because this would restrict the lateral movement of the joint. This can be achieved through the use of a closed-cell foam strip such as a polyethylene foam tube.

Wherever practicable, an insulating fill should be inserted or injected around the full perimeter of the frame, between the frame and the structural opening. Any such insulation should be sufficiently flexible that it does not interfere with any expansion and contraction of the frame.

5.7 Ironmongery

5.7.1 Window Ironmongery to comply with:

BS EN 14351-1:2006

BS EN 1627:2011

PAS 24:2012 'Security'

BS EN 14351-1 clause 4.8 'Load-bearing capacity of safety devices'

Approved Document B 'Emergency Escape'

BS 8213 2004 'Safety in Use & During Cleaning'

BS 8220 'Security of Building Against Crime'

BS 7412/BS EN 1670 2007 'Whole PVCu Window Performance'

Equality Act 2010 / Equality Duty 2010

'Secured by Design'

BBA Approval Inspection Testing Certificate

NHBC Standards 2008

5.7.2 CE Marking.

From 1st July 2013 under the Construction Products Regulation all windows sold into the U.K. market and Europe will have to carry a CE mark.
CE marking is in essence a self declaration of performance to provide evidence the product is fit for purpose. Manufacturers and importers of windows are required to provide the necessary testing evidence to prove that a product has the correct characteristics for a particular application. This initial type testing must be carried out by a recognised Notified Body.

One of the mandatory elements within the requirements is proof of the load-bearing capacity of safety devices, [where applicable]. Window hardware products are not covered within the scope of current CE marking as individual products, but should be tested as a part of a whole window assembly under the scope of the harmonised standard BS EN 14351-1 clause 4.8. The guidance recommends that the worst case scenario should be tested which means using the biggest sized windows and applying pressure in the most unfavourable position.

5.7.3 General Windows Restricted for Safety

Where indicated and instructed windows to be fitted with Austenitic Restricted Hinges.

Non Restricted Windows where indicated and instructed after a considered and noted risk assessment windows to be fitted with Austenitic Friction Hinges.

All hardware should permit safe cleaning of windows from within the property without putting the occupier in a dangerous position to BS 8213- 2004 'Design for Safety in Use and During Cleaning of Windows'.

All hinge components such as bottom track, link bars and rivets to be manufactured from Austenitic 304 Stainless Steel and fitted in accordance with manufacturer's instructions limitations and recommendations. . All components should be capable of

sustaining a minimum of 30,000 cycles of operation without demonstrating any significant deterioration and deformation that would inhibit their functions.

All windows should be approved to BS 7412:2007 and to meet BS EN 1670:2007 'Class 4 Corrosion Resistance'.

All hinges should incorporate nylon washers between all pivot points to minimise metal to metal fatigue. Friction adjustment should not rely on metal to metal contact and should be achieved by a metal cam working via a thermoplastic twin lipped slider block to provide precise long lasting friction adjustment. All hinges to have a thermoplastic asymmetric end cap to ensure smooth location and weather tight sealing.

On restricted hinges, window system manufactures and fabricators should request the relevant information as to the precise hinge compatible with their system to facilitate a maximum 100mm opening in the restricted position.

The release mechanism shall be an integral part of the hinge and shall self relocate in one action on closure of the vent. All components, rivets and pins should withstand a force of 350N for one minute to comply with BS EN 14351-1 clause 4.8 'Load-bearing Capacity of Safety Devices' and BS 8213 Part 1:2004 'Design for Safety in Use and During Cleaning of Windows'.

Side hung windows restricted by a single restrictor hinge, positioned at the bottom of each opening must comply with BS EN 14351-1 clause 4.8.

All opening windows to be fitted with two pairs of non-contact ancillary security device. Positioned adjacent to and not more than 50 mm away from the top of each hinge.

Hardware with provision for adjustment shall be accessible for adjustment after the window has been installed. Hardware used to open / close the window shall be replaceable without removing the outer frame from the structure.

All components should be supplied by a manufacturer complying with BS EN 9001:2008 accredited quality system and be covered by the manufacturer's Warranty Scheme.

A Warranty Certificate to be issued by the hardware manufacturer on completion of the project or phase.

It is the responsibility of the fabricator / purchaser to ensure that the performance of the window complies with the relevant standards and specification requirements for the particular window and that the correct product is chosen for the weight and design of each window system.

All windows to be tested in accordance with BS EN 1627:2011 to PAS 24:2012 'Enhanced Security Performance for Doorsets and Windows in the U.K.' will be a condition of tender. All windows must clearly marked as evidence of compliance.

Where indicated and instructed by the client, window hardware wherever applicable must be supplied from a manufacturer holding a product license under the auspices of the Home Office "Secured By Design" initiative with the aim of fulfilling the obligations placed on the housing provider to ensure a reasonable level of security to the occupants as outlined in Section 17 of the Crime and Disorder Act 1998.

All friction hinges to be covered by BBA Certification Scheme and NHBC Product acceptance under NHBC Standards 2008 Chapter 6.7.

Written confirmation of compliance with all of the above should be given to the contract management team in advance of commencement on site.

5.7.4 Disability Discrimination

Components such as handles and locking mechanisms to be capable of offering adaptations in accordance with the Equality Act 2010 and the housing providers Equality Duty 2010.

5.7.5 Nominated Emergency Egress Openings

One opening in every habitable room on first floor, except kitchens, should provide an unobstructed area of at least 0.33m^2 with minimum size of 450mm in any one direction. Effectively this should provide a minimum clear opening of 450mm x 734mm. All in accordance with Building Regulations Approved Document B at a maximum cill height of 1.1m

Where indicated and instructed windows to be fitted with Egress Easy Clean Hinges. All hinge components such as bottom track, link bars and rivets to be manufactured from Austenitic 304 Stainless Steel and fitted in accordance with manufacturer's instructions limitations and recommendations. All associated hardware should be approved to BS 7412:2007 and meet BS EN 1670:2007 Class 4 'Corrosion Resistance'.

All opening windows to be fitted with two pairs of non-contact ancillary security device. Positioned adjacent to, and, not more than 50 mm away from the top of each hinge

Where a 90 degree opening is required to facilitate exit from the building with an easy clean option the hinge should provide the following. Easy clean facility to allow the window to slide along the hinge track so as to be cleaned from the inside the building to BS 8213. After cleaning the hinge should allow the window to self relocate and return to its original position and mode of operation simply by closing the casement

Above must be fitted to a casement of a size sufficient to provide a minimum clear opening of 500 mm wide by 850 mm high at a maximum height of 1.1 m from floor to cill. All to comply with BS 5588 Part 1:1990 section 3.11.5a 'Fire Precautions in the Design and Construction of Buildings - Residential Dwellings'. All hinges should be BBA Approved and to include a thermoplastic end point and die cast end cap with self lubricating surface finish featuring a roof to minimise the build up of debris.

Emergency windows after a considered and noted risk assessment can be fitted with a clearly visible and intuitive to release restrictor.

Restrictor to be tested to comply with BS EN 14351-1 clause 4.8 to withstand a force of 350N for one minute when opened at the restricted position and fitted to provide a maximum opening of 100mm in the restricted position. Restrictor to be manufactured from Austenitic 304 Stainless Steel tested to meet the requirements of BS 7412:2007 and to meet BS EN 1670:2007 Class 4 'Corrosion Resistance'**.**

All friction hinges to be covered by BBA Certification Scheme and NHBC Product

acceptance under NHBC Standards 2008 Chapter 6.7.

Written confirmation of compliance with all of the above should be given to the contract management team in advance of commencement on site.

5.7.6 Operating Handles

Windows to be fitted with cranked Espagnolette operating handles. Colour white. Handles to incorporate a push release mechanism with a barrel lock. All to BS 6462-1985 strength Test C3.

Handle to be manufactured to BS EN ISO 9001 from die cast zinc alloy under with a polyester powder coating finish incorporating thermoplastic push fit covers. All components should be capable of sustaining a minimum of 30,000 cycles of operation without demonstrating any significant deterioration or deformation that would inhibit its function.

Handles to have option to provide non-latching facility to meet the considerations of the Equality Act 2010 and the housing providers Equality Duty 2010. Where non-latching handles are fitted the window should also have attached the appropriate information warning label.

5.7.7 Emergency Egress Window Handles

Nominated Emergency Egress windows to be fitted with green buttoned push to release non deadlocking handle. Written confirmation of compliance with all of the above should be given to the contract management team in advance of commencement on site and will be a condition of the tender.

5.7.8 Locking Mechanism

All windows to be fitted with a High Security Locking Mechanism.

To include system specific, sealed plated adjustable housings. With integral bi-directional gearbox endurance cycle tested to 30,000 cycles of operation. Bar and spun riveted adjustable mushroom headed cams to be manufactured from Austenitic 304 Stainless Steel.

Locking mechanism must have option to offset handle height on side-hung sashes to meet the consideration of the Equality Act 2010 and the housing providers Equality Duty 2010.

All windows should be approved to BS 7412:2007 and meet BS EN 1670:2007 Class 4 ‘Corrosion Resistance’.

Evidence of compliance with PAS 24:2012 ‘Specification for Enhanced Security Performance of Casement Tilt/turn Windows for Domestic Application’ will be a condition of tender.

All components should be supplied by a manufacturer complying with BS EN ISO 9001:2008 accredited quality system and be covered by the manufacturer’s Warranty Scheme.

A warranty certificate to be issued by the hardware manufacturer on completion of the project or phase.

Written confirmation of compliance with all of the above should be given to the contract management team in advance of commencement on site and will be a condition of the tender.

5.7.9 Fully Reversible Windows.

Where indicated and instructed windows to be fitted with Top Hung Reversible window hinges as supplied by manufacturer.

5.7.10 Modes of Operation

The fully reversible hinge is to have 4 modes of operation.

In 'Safety' Mode the key lockable safety restrictor and sash release button are designed to prevent accidental operation. In this mode all components, rivets and pins should withstand a force of 350N being applied to the window for one minute to comply with BS 6375 Part 2:2009 'Operations and Strength Characteristics of Windows and Doors'. The window opening should also not exceed 100mm in order to comply with BS 8213 Part 1:2004 'Design for Safety in Use and During Cleaning of Windows'.

'Outer Ventilation' Mode is a wider open position giving increased ventilation. In this position (and Safety Mode detailed above) the window is held in position by ventilation/anti-blowback functionality. This is designed to hold the window in the open position and prevent it from blowing shut during severe wind conditions.

'Inner Wash' Mode allows the sash to be fully reversed in order to clean the windows from within the property without putting the occupier in a dangerous position - in accordance with
BS 8213:2004 'Design for Safety in Use and During Cleaning of Windows'.

In 'Closed' Mode the window should be tested in accordance with BS EN 1627:2011 to
PAS 24:2012 'Enhanced Security Performance of Casement Tilt/turn Windows for Domestic Application'. All windows must be clearly marked as evidence of compliance.

5.7.11 Fire Escape

Where windows are required to provide Emergency Egress hardware must be fitted to a casement of a size sufficient to provide an unobstructed area of at least 0.33m^2 with minimum size of 450mm in any one direction. Effectively this should provide a minimum clear opening of 450mm x 734mm in accordance with Building Regulations Approved Document B at a maximum cill height of 1.1m. They should also provide a minimum clear opening of 500 mm wide by 850 mm high at a maximum height of 1.1m from floor to cill to comply with BS 5588 Part 1:1990 section 3.11.5a 'Fire Precautions in the Design and Construction of Buildings - Residential Dwellings'.

5.7.12 Performance and Guarantee

All components should be capable of sustaining a minimum of 20,000 cycles of operation without demonstrating any significant deterioration and deformation that would inhibit their functions.

Hardware to be tested to BS EN 1670:2007 Grade 3 (96 hours) 'Corrosion Resistance'.

All components should be supplied by a manufacturer complying with BS EN 9001:2008 accredited quality system and be covered by the manufacturer's 10 Year mechanical guarantee.

Where indicated and instructed by the client, window hardware wherever applicable must be supplied from a manufacturer holding a product licence under the auspices of the Home Office "Secured By Design" initiative with the aim of fulfilling the obligations placed on the housing provider to ensure a reasonable level of security to the occupants as outlined in Section 17 of the Crime and Disorder Act 1998.

Hardware with provision for adjustment shall be accessible for adjustment after the window has been installed. Hardware used to open/close the window shall be replaceable without removing the outer frame from the structure.

Manufacturer product limitations must be strictly observed within the terms of their conditions of supply. It is the responsibility of the fabricator/purchaser to ensure that the performance of the window complies with the relevant standards and specification requirements for the particular window and that the correct product is chosen for the weight and design of each window system.

5.7.13 Door Ironmongery to comply with:

BS EN 14351:1:2006

BS 6375 Parts 1-3:2009

PAS 24:2012

BS 8220:2000

5.7.14 Main Entrance Doors

Dwellings – all
All entrance doors of individual dwellings to be fitted with multi point 3 deadbolt door locking mechanism**.**
All door sets must be tested to meet the requirements of PAS 24:2012 'Enhanced security performance requirements for doorsets and windows in the U.K.'. All door sets must be fit for purpose and comply with BS 6375 Parts 1-3:2009 'General performance requirements for door assemblies'.

Handles to have option of (Lever/Lever) 92/92 PZ configuration or split spindle with spring cassette system and snib retention of latch manufactured from 316 stainless steel
Handle to meet TS007 2012 accreditation. Corrosion resistant to BS EN 1670:2007 Grade 4
240 hours. Tested to 50,000 cycles of operation in accordance with BS 6375.

Cylinders to be AS with a 3* rating, with saw cut key to meet the requirements of BS EN 1303:2005 'Building Hardware. Cylinders for locks. Requirements and test methods'. Durability Grade 5- 50,000 cycles, Key related security to Grade 6- anti-pick, attack resistance to Grade 2- anti-drill 5- 10 minutes. Locking shall be by dual key operation (or thumb turn internal and key external) as standard.

Hinges, 3 per leaf, to meet the requirements of BS 6375 – 2:2009, 50,000 cycles of operation and BS EN 1670:2007 Grade 5 corrosion resistance.

Letter plates to be compliant to BS EN 13724:2002 'Apertures of private letterboxes and letter plates. Requirements and test methods'.
Where indicated letter plates to be approved to BS 476-20/22:1987 Grade FD30 providing in excess of half an hour integrity.
Finishes in (Silver, Gold, Black, White).
The inner-hinged flap of the letter plate shall have a restrictor hood so designed to limit the opening of the inner-hinged flap and to prevent intruders gaining access via the letter plate aperture and to prevent manipulation and 'fishing' to meet the guidance of BS 8220-1:2000 and SBD.

Door viewer shall have a wide angle of vision (min 70°), have a maximum diameter of 19mm, and finish to match letter plate and handle or as specified by the contract administrator. The viewer shall be fitted with an internal swivel cover to prevent light emission and viewing from outside.
The door viewer shall be positioned at a height to suit the occupant's requirements. Special consideration should be given to occupants with visual impairments.

Door Closer Certified in compliance with EN 1154. Capability characteristics DC140 with thermodynamic valves for consistent performance. Closing speed, latching speed and backcheck to be adjustable via front facing regulating valves.

Security chains to be fitted to all main entrance doors. Fixings to be strictly in accordance with the manufacturer's instructions. Chains to be fixed at 1440mm from the bottom of the door.

All components should be supplied by a manufacturer complying with BS EN ISO 9001 2008 accredited quality system and be covered by the manufacturer's Warranty Scheme.

A warranty certificate to be issued by the hardware manufacturer on completion of the project or phase.

Where indicated and instructed by the client door hardware wherever applicable must be supplied from a manufacturer holding a product license under the auspices of the Home Office 'Secured by Design' initiative with the aim of fulfilling the obligations placed on the housing provider to ensure a reasonable level of security to the occupants as outlined in Section 17 of the Crime and Disorder Act 1998.

Written confirmation of compliance with all of the above should be given to the contract management team in advance of commencement on site.

5.7.15 Disability Discrimination

Components such as handles and locking mechanisms to be capable of offering adaptations in accordance with the Equality Act 2010 and the housing providers Equality Duty 2010.

5.7.16 Automatic Mechanical Secure Closure on Main Entrance Doors to comply with:

BS EN 14351:1:2006

PAS 24:2012

BS 6375 Parts 1-3 : 2009

BS EN 10088-Grade1 4016

BS EN 1670:2007 Grade 5

BS EN 1303:2005

BS 3621:2007

BS 8621:2007+A2:2012

BS EN 13724:2002

BS 476-20/22:1987 Grade FD30

BS EN 1906 Grade 4.

BS 8220 -1:2000

Equality Act 2010 / Equality Duty 2010

Secured by Design (Police Preferred Specification)

NHBC Design Standards

6.0 Access equipment.

The contractor is to allow for all necessary access equipment to BS standards to enable the work to take place.

7.0 Tender Information

Tender Bidding Guidance

High Peak Borough Council is advertising an open opportunity to procure all the requirements for Windows, doors and glazing potentially for the next 5 years. The requirements are varied and include planned capital replacement programme, unplanned responsive repairs and replacements, and also unplanned glazing repairs and replacement elements.

High Peak Area the advertised tender will cover all areas of the High peak a contractor may be requested to attend any area within the High Peak Boundary. All bidders are requested to accept that works may be allocated from any area in the High Peak under each of the lot requirements.

The Tender Opportunity has been divided into lots

LOT 1: Windows and Doors Planned replacement programme

Given the anticipated value of this Lot 1 the council will require a performance bond or parent company guarantee to be put into place for a minimum value of 10% of the total contract value.

An estimated work programme and numbers for the planned requirements are available on the pricing documents for the year 1, year 2 and year 3 properties.

Please ensure you have or can arrange the resources to meet the planned work programme or can reliably plan to increase output by the requirement.

LOT 2: Windows and Doors replacements (Un Planned)

High Peak Borough council require the services of a contractor/s to supply and install doors, and windows this includes specialist doors and glazing (fitting only), to existing frames.

The requirement for this lot is unplanned works. There are no guarantees of available works the requirement can and does fluctuate. Due to the unplanned nature of the requirement the council may consider awarding this lot to a maximum of 3 suppliers to ensure demand can be met at peak times.

For an Indication of anticipated work load please refer to the appendix document.

LOT 3: Glazing (Only) replacement

The Glazing replacements are for the production and fitting of glazing only.

Any charges for delivery and transportation must be included in the pricing document. Delivery and fitting will be required across the whole of the High Peak area.

From the point of order glazing must meet the Priority 4 (112 days) requirements and be manufactured and fitted within the Priority 4 time scales.

The glazing requirements are un planned there are no guarantees of available works.

Requirements will fluctuate.

Lot Bidding options
Bidders may select to bid for one, two or all three lots under this opportunity. There is no obligation to bid for all lots, a bidder may select to only bid against a single lot that best suits the business size and capabilities.

One supplier will be awarded against LOT 1 and LOT 3, up to a maximum of 3 suppliers may be awarded against LOT 2. Each Lot will be scored and evaluated in accordance with the published criteria. The same supplier may be awarded on two lots or may win one lot and not be successful for a second or third.

Performance monitoring KPI's and Reporting
Fully detailed in the preliminaries document

KPI 1 Customer Satisfaction
KPI 2 Time works completed on time
KPI 3 Safety The service providers accident rate

Key Response Times
Priority 0- Out of Hours – 5pm -8am (Not required under this Contract)
Priority 1 – Response within 24 hours (Required only for Lot 1)
Priority 2- Response within 7 Days
Priority 3- Response within 21 days
Priority 4 – Response within 112 days

Contract Terms
The contract is expected to commence on 1st April 2020 and be for an initial period of two (2) years with the option to extend for a further one plus one plus one (1+1) 4 years in total.

Fees and Payment Arrangements
Upon completion of the work to the satisfaction of the Council the supplier will submit a compliant invoice for payment. All Invoices must quote a valid purchase order number, job number and property address to ensure Invoices will be paid within 30 days of receipt in line with Government Regulations.

Any Invoice received that does not quote a valid purchase order will be returned as a non compliant Invoice. At the request of the supplier we will consider staged payments at agreed key points in the work programme. These will be agreed at the time the contract is offered (LOT 1)

Contact details and timescales
Any enquiries or clarifications about this tender must be via the secure messaging within the Pro Contract (The Electronic tender system / E Tender system) to ensure that there is an audit trail of all discussions/clarifications.

Clarifications about the tender must allow a reasonable period for a response to be provided in relation to the complexity of the clarification.

Please ensure to send all clarifications with a minimum of 24 hours in advance of the tender deadline. Clarifications received within 24 hours of the tender closing deadline may not be provided with a response before the deadline.

If you require any technical support using the technology to submit a tender bid via the Electronic

Tendering system please contact our procurement team. The Procurement team will provide technical help support and guidance on using the system for the first time, uploading documents, or entering your first tender bid. Contact details and telephone number for the procurement team are available on the project information.