

Render Facade Package

Introductory notes and performance criteria to tendering sub-contractors



B17-1796 Broadway Two Hotel

Renfield Street, Glasgow

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FOREWORD

This report has been prepared by Consarc design Group on behalf of McAleer & Rushe to describe the constituent elements of the stated package of work for the purposes of gaining tender submissions for same. The report should not be used for any purpose other than that originally intended and only with the written permission of Consarc Design Group.

This report should be read along with the drawings and documents by Consarc Design Group as listed overleaf.

Revision	Author	Checked	Approved	Issued
-	RL	CS	MK	05.06.19

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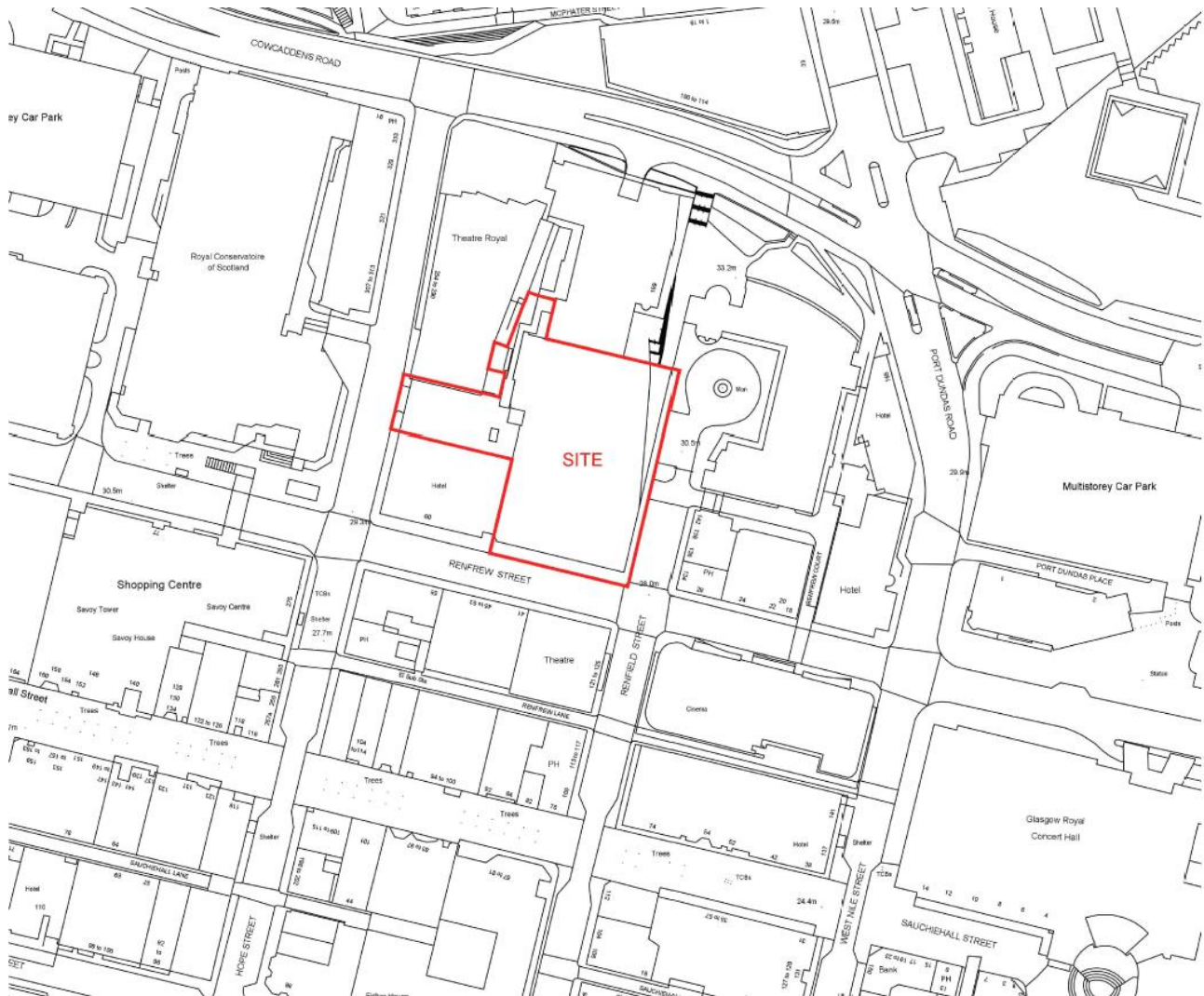
2.0 Drawings

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1.0 INTRODUCTION

The proposal is for a 300 bed, 12 storey hotel with roof level plant enclosure on Renfrew/Renfield Street, Glasgow.

Site Location Plan



2.0 DRAWINGS

This specification is to be read in conjunction with the following information:

Consarc Design Group Drawings:

DRAWING NO	DRAWING TITLE
GA-A-L100	Proposed Ground Floor Plan
GA-A-L101	Proposed First Floor Plan
GA-A-L102	Proposed Second Floor Plan
GA-A-L103	Proposed Third Floor Plan
GA-A-L104	Proposed Fourth Floor Plan
GA-A-L105	Proposed Fifth Floor Plan
GA-A-L106	Proposed First Floor Plan
GA-A-L110	Proposed Tenth Floor Plan
GA-A-L111	Proposed Eleventh Floor Plan
GA-A-L112	Proposed Twelfth Floor Plan
GA-A-L113	Proposed Thirteenth Floor Plan
GA-A-702	Façade Details
GA-A-703	Façade Details
GA-A-704	Façade Details
GA-A-705	Façade Details
GA-A-706	Façade Details
GA-A-707	Façade Details
GA-A-708	Façade Details
GA-A-709	Façade Details
GA-A-710	Façade Details
GA-A-711	Façade Details
GA-A-720	Renfrew Street Façade Detail Elevation
GA-A-721	Renfield Street and West Courtyard Façade Detail Elevation
GA-A-722	North Street Façade Detail Elevation
GA-A-723	West Façade Detail Elevation

And the following information provided by other design team consultants:

Adnitt Acoustics –

- Stage 3 Report

Caldwell Consulting –

- SBEM Model.

Jeremy Gardner Associates -

- Fire Report

Ian Black Consulting Drawings –

- Structural drawings illustrating locations of structure to fix façade finishes to so that the sub-contractor can allow for sufficient brackets/frame anchors to fix back to structural slabs/boots etc.
- Movement Report.

3.0 SPECIFICATION – RENDER FAÇADE

SCOPE OF WORK

The scope of work includes the design, supply fabrication and installation of Sto render system, complete with all necessary sub-structures, anchors, hardware, insulation, fire barriers, membranes, dpcs, epdms and fittings to provide a total installation, fully in conformity with the requirements and intent of the drawings and specification herein.

The Sto render system shall be installed by a Sto approved specialist subcontractor in accordance with the manufacturer's recommendations, instructions, detailed specification and BBA agreements, Building Regulations and British/European standards.

Facade sub-contractors shall demonstrate compliance with BS8414-1, BS8414-2 and BR135 for the complete cladding systems including all component parts, and with Scottish Building Regulations, to the satisfaction of fire consultant and building control. Any insulation products used in the system to achieve class A1 non-combustible rating when tested to EN 13501-1.

All copings and cills are to be supplied under the aluminium cladding and roofing sub-contract packages.

Façade sub-contractor to undertake a full detailed design process for all elevations including sub structure design, details, calculations etc. including the submission of information to the design team in good time for approval prior to the procurement of any of the façade materials.

All fixing and joint details shall be designed to provide for the expected thermal movements and structural movements including deflection/long term creep in accordance with structural engineer's specification, movement report and UK Standards and Building Regulations. The system shall be designed to withstand the Design wind load based on the relevant UK Standards and Building Regulations for the prevailing local weather conditions and submitted to the structural engineer for approval prior to any other design works being undertaken.

The system shall be so fabricated and erected as to provide for all expansion and contraction of the components. Any temperature change due to climatic conditions shall not cause harmful buckling, opening of joints, undue stress on fastening and anchors, noise of any kind or other defects.

Façade sub-contractor to undertake a full and detailed survey of each façade prior to manufacture of any of the component parts of that façade.

The complete wall build up to achieve will to achieve and overall u-value of 0.18 W/m²K. As part of tender, sub-contractor to submit written analysis demonstrating compliance.

Façade sub-contractor to allow for large size A3 samples for final colour selection and 1 large sample panel approx. 1m x 1m for final design team and client signoff. Allow for one horizontal and one vertical movement joint

DESIGN LIFE

Render system to have a minimum design life of 25 years.

FINISHES

Refer to dwg nos. noted in section 2 for extent of finishes

StoTherm Mineral M render system.

System to be installed in accordance with manufacturer's recommendations.

Refer to drawings noted above for location of extract vent and grill through render. Allowance to be made for abutment and reveal detail to mechanical ventilation louvres provided by others.

FAÇADE BUILD-UP

STO RENDER SYSTEM

Sto Perforated Aluminium Starter Track

Sto MHD Mineral Fibre Boards – Square Edged

Insulation Fixing: Sto-Rotofix Plus

Accessories: Sto-Clip Profile Novo

Accessories: Sto PVC Mesh Angle Beads

Accessories: Sto Armour Angle

Accessories: StoSeal Joint Sealing Tape Lento 15/2-5, 15/5-12 or 25/9-18

Accessories: StoSeal Beads (Perfekt / Expert / Supra)

Accessories: Sto-NHBC (drained) system accessories

Accessories: Sto-Filler Foam SE

Reinforcing Coat: StoLevell-Duo Plus

Reinforcing Mesh: Sto-Glass Fibre Reinforcing Mesh

Reinforcing Mesh: Sto-Armour Mesh

Finish: StoSilco K

StoSilco renders contain a minimum of 20% silicone resin content by mass of the binder

Note: The above are standard products and accessories used with this system. Refer to construction issue drawings for information regarding the requirement for other beads / trims in specific locations.

Manufacturer:

Sto Ltd, 2 Gordon Avenue, Hillington Park, Glasgow G52 4TG. Tel: 0141 892 8000 Fax: 0141 404 9001

Email: info.uk@sto.com Web: www.sto.co.uk www.sto.ie

Latent Defects Warranty

An insurance backed guarantee covering materials and workmanship for a period of 12 years is available upon request and where specific project criteria are met.

Survey of Existing Walls / Substrates

To assess the suitability of the substrate prior to commencement of installation, carry out a survey of each elevation of the existing structural substrate

Include the following:

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Include the following:

Condition of substrate.

Form of the substrate (with particular regard to line / straightness).

A schedule of repairs necessary to leave the substrate in a suitable condition to receive the system.

A schedule of services, fixtures and fittings to be either removed or installed to facilitate correct installation of the system.

A schedule of areas where the maximum spacing capacity of the Sto-Rotofix fixing is likely to be exceeded, and adjustment of either the substrate or the finished facade will be required.

Any other information considered relevant.

Substrate Condition:

Class A1 non-combustible sheathing board Substrate: Existing substrate requires no special preparation and the Sto-Rotofix Plus system can accommodate limited changes in levels.

Structural substrate:

Class A1 non-combustible sheathing board on steel frame. 12mm thick for StoTherm 'M' Rotofix Plus / Rotofix Mini systems, minimum 12mm thick for all other StoTherm systems.

The suitability of the board as a sheathing material for the given application must be confirmed by the Contract Administrator.

Details of panel substrates must be submitted to the Contract Administrator for approval in respect of all other performance requirements within the Contract.

Substrate Preparation:

Existing substrate requires no special preparation. Make good as necessary.

Substrate Pre-treatment:

Depending upon specific site conditions, there may be a requirement for additional surface pre-treatment(s). Please consult Sto Ltd for further advice.

Insulation support rails:

'M' Rotofix Plus system with drained cavity: Sto-Aluminium Flexicurve starter track 2.5m or Sto aluminium horizontal starter track; 2.0m perforated to allow drainage. Size of aluminium starter track to suit thickness of insulation + 20mm.

NOTE: for insulation thicknesses in excess of 200mm (EPS only), either a bespoke starter track must be manufactured or alternatively, use Sto 2-part Passive House Starter Track.

In the horizontal board joint immediately below fire barriers: Sto Stainless Steel Perforated Firebreak Rail. Sto Intumescent Fire Protection Tape 10/2 is not required.

NOTE: Sto Stainless Steel Perforated Firebreak Rails must be fixed tight to the substrate and penetrate into the insulation joint by a minimum of 20mm.

The width of the drained cavity should be maintained at 20mm +/-5mm wherever possible. However, where a cavity in excess of 50mm is unavoidable, a wider bespoke manufactured stainless steel firebreak rail will be required to ensure penetration into the insulation by a minimum of 20mm.

Alternatively, a continuous non-combustible packing strip may be securely fixed behind the rail to ensure conformity. Joints in the continuous packing strip shall be accurately formed without gaps and sealed with a suitable intumescent sealant.

Method of fixing:

Sto external wall insulation systems will require a wind loading assessment to determine the fixing requirement(s) for each project.

Please contact the Sto Specification Manager to discuss wind loadings and arrange an assessment for this project.

Starter tracks (and firebreak rails where required) fixed using Sto-Screw Rail Fixing CS 5.5 x 50/70 to light steel frame & sheathing board substrates in accordance with Sto Ltd recommendations, and on-site pull out tests.

Alternative stainless steel fixing: Sto-Screw Rail Fixing SS 5.5 x 50/70.

Fixings to be at maximum 300mm centres and with a fixing in the nearest available suitably sized hole to the end of the track.

Packing shims to be used to overcome surface irregularities in the substrate.

Sto Rotofix Plus adjustable fixings used with Sto MHD Mineral Fibre insulation onto dense masonry, 12mm Class A1 non-combustible sheathing board, 18mm plywood / OSB or CLT panels.

For 80 – 140mm thick insulation – Sto-Rotofix Plus Green & 120T fixing.

For 140 – 200mm thick insulation – Sto-Rotofix Plus Black & 160T fixing.

Where a sheathing board is installed onto a timber framed structure, the 120T / 160T Rotofix Plus fixing must only be installed into the sheathing board and is not suitable for fixing into the timber studs.

When fixing to CLT panels, remove the plastic sleeve and screw the fixing directly into the CLT panel. (It may be necessary to first drill a small pilot hole).

PLEASE NOTE: Additional fixings will be required around openings and at corners. Please consult Sto Rotofix Plus standard details for further information.

Insulation:

Sto MHD Mineral Fibre boards for use with StoTherm Mineral M Rotofix Plus / Rotofix Mini systems.

Thermal Conductivity 0.039 W/Mk to BS 3958-5: 1986 & DIN 52 612.

Density: 140 kg/m³

Minimum Compressive strength: 20 kN/m² @ 10% compression

Sto MHD Mineral Fibre boards used to create horizontal firebreaks in fire assessed StoTherm Mineral M Rotofix Plus systems where a drained cavity must be maintained.

Thermal Conductivity 0.039 W/Mk to BS 3958-5: 1986 & DIN 52 612.

Density: 140 kg/m³

Minimum Compressive strength: 20 kN/m² @ 10% compression

Boards shall be used full size and fixed using Sto Rotofix Plus fixings.

Horizontal firebreaks shall incorporate a Sto Stainless Steel Perforated Firebreak Rail at the bottom of the firebreak as described in 'Insulation support rails' above.

Sto MHD Mineral Fibre boards used to create vertical firebreaks in conjunction with StoLevell-Uni adhesive of minimum width 100mm to close the cavity and provide a smoke barrier where the cavity does not exceed 24mm

Thermal Conductivity 0.039 W/Mk to BS 3958-5: 1986 & DIN 52 612.

Density: 140 kg/m³

Minimum Compressive strength: 20 kN/m² @ 10% compression

Boards shall be used full size and fixed using Sto Rotofix Plus fixings.

ALTERNATIVELY: The use of Mineral Fibre Lamella insulation thicker than the surrounding insulation in conjunction with StoLevell-Uni adhesive is permissible where the cavity width exceeds 24 mm. The adhesive shall be applied to the full width of the Lamella board (200mm) and be no thicker than 24mm. Alternate vertical courses shall be staggered horizontally by 100mm.

Sto MHD Mineral Fibre insulation used to create horizontal and vertical cavity barriers above and to the sides of openings through the system if the cavity is not closed / protected by other suitable means, e.g. window / door frame / lining of limited combustibility or non-combustible material.

ALTERNATIVELY: Sto Mineral Fibre Lamella used to create horizontal (and vertical where required) full depth fire barriers above and to the sides of openings through the system. Refer to the section "Cavity Fire Barriers" below for fixing requirements.

Install all firebreaks as illustrated in Sto firebreak details for this system and as described in Clause(s) 510 below.

Rows (courses) of insulation should be installed straight, level / plumb and true, with a minimum of surface undulations. Cut insulation as accurately as possible to avoid open joints.

In StoTherm Classic systems, firebreaks should be installed with the outer face of the firebreak insulation recessed approximately 3mm from the outer face of the surrounding EPS insulation. StoLevell-Uni / StoLevell Duo Plus shall be applied to the face of the firebreak, finishing flush with the EPS insulation.

IMPORTANT NOTE:

Please note that adhesively fixed fire barriers cannot be used where a loose (sheet type) vapour control layer or breather membrane has been installed on the outer face of the substrate, or where the load bearing capacity of the existing substrate is unknown or cannot be determined.

In such cases, Mineral Fibre Lamella of a thickness equal to that of the adjacent insulation plus the width of cavity should be used, and shall be fixed using the appropriate mechanical fixings, (stainless steel screws / dowels) at maximum 300 mm horizontal centres, with alternate fixings being positioned 50 mm from the top & bottom edges of the fire barrier.

Alternatively, where the Mineral Fibre Lamella firebreak insulation is the same thickness as the surrounding insulation (or in the case of StoTherm Mineral M rail or Rotofix Plus systems – the mineral fibre boards), a full width application (200 mm high) of StoLevell-Uni adhesive may be used to provide a smoke barrier (up to a maximum thickness of 24 mm) but cannot be relied upon to securely fix the fire barrier insulation which shall be fixed using the appropriate mechanical fixings, (stainless steel screws / dowels) at maximum 300 mm horizontal centres.

Where the thickness between substrate and fire barrier insulation is 25 mm or greater, fire barriers shall be fixed using mechanical fixings positioned as described above, with the cavity fully filled using compressed mineral fibre quilt 400 mm wide, extending 100 mm above and below the mineral fibre lamella fire barrier. As a guide and to ensure adequate compression, the thickness of mineral fibre quilt should be a minimum of 3 x the cavity width.

For masonry substrates, firebreak fixings shall be Sto-Firebreak Dowel + Sto-Firebreak Dowel Washer.

For framed substrates with a suitable sheathing board, firebreak fixings shall be Sto-Firebreak Fixing JT3ST + Sto-Firebreak Washer HTV40 + Sto-Firebreak Dowel Washer.

Insulation – Board Size & Thickness:

Mineral Fibre. 1200mm x 600mm board size, square edged. Standard thicknesses for StoTherm Mineral 'M' Rotofix Plus system from 80 to 200mm in 10mm increments. Thicknesses from 30mm upwards are available in Sto Mineral 'K' system boards (dual density) for use at reveals to openings. Consult with Sto Ltd for details and recommendations.

Mineral Fibre Lamella. 1000mm x 200mm board size, square edged, for use as firebreaks in StoTherm Classic & Vario 'K' systems and StoTherm Classic, Vario and Mineral 'M' Rotofix Plus, Rotofix Mini and rail systems. Standard thicknesses from 40 to 200mm in 10mm increments, (up to 300mm on request). Consult with Sto Ltd for details and recommendations.

Prior to installation of insulation, render subcontractor, in conjunction with the main contractor to set out very detailed reference lines and offset lines to determine the exact position and alignment of each and every insulation panel.

Beads/ Trims:

Sto Perforated Aluminium starter tracks 2.5M Flexicurve (where available in the required width), or alternatively, Sto-Aluminium starter track 2.0M, pre-drilled by the installer with minimum 6mm diameter holes at maximum 75mm centres, 10mm from the rear of the profile along the entire length of the profile.

Sto PVC Mesh Angle beads.

Sto Armour Angle.

Sto-Seal Joint Sealing Tape Lento compressible waterproof sealing tape, available in either 15/2-5, 15/5-12 or 25/9-18 sizes.

StoSeal Beads. Available in three formats and in addition to sealing interfaces, are used to provide enhanced movement capabilities and a clean finished edge at reveals & heads of openings.

StoSeal Bead Perfekt – for use on un-insulated reveals / heads.

StoSeal Bead Expert – for side attachment to window / door frames, etc.

StoSeal Bead Supra – with integrated PU sealing tape for face attachment to window / door frames, etc.

Do not use StoSeal Beads around cills or at the bottom of openings in the system.

Sto NHBC Head Channel Profile – Used to divert any free water within the system away from window / door / balcony heads, allowing drainage to the base of the system.

Sto NHBC Soffit Profile - Used to provide clear drainage where the system terminates at a soffit.

Sto Clip Profile Novo - A profile designed to clip onto the front edge of Sto Aluminium Starter Tracks, available in 6mm, 10mm and 15mm variants.

The Sto Clip Profile Novo is used to ensure the minimum render thickness is achieved at the base of the system and support the bottom edge of the render coatings, and shall be installed wherever mineral reinforcing coats are specified or wherever the total render coatings depth is 6mm or greater.

Sto-Filler Foam SE.

NOTE: The above are standard items used with this system. Refer to construction issue drawings for information regarding the requirement for other beads / trims in specific locations.

Consult with Sto Ltd for recommendations and details.

Fixings into / through system:

A range of fixing options is available. Contact Sto Ltd for recommendations and details.

Reinforcing coat:

StoLevell Duo Plus calcium silicate based reinforcing coat. Thickness to be nominal 5mm ensuring the reinforcing mesh is fully embedded and a level surface is provided.

Sto Primer (Putzgrund). Apply 1 full coat by brush or roller and allow to dry thoroughly.

Reinforcement:

Sto Glass Fibre Reinforcing Mesh.

In high traffic, vandal prone and anticipated impact areas additional reinforcement shall be Sto Armour Mesh.

Areas where Sto Armour Mesh is to be applied shall be clearly defined either within the contract documentation or marked on construction drawings.

Render / Finish:

StoSilco cement free silicone resin render.

StoSilco renders contain a minimum of 20% silicone resin content by mass of the binder.

StoSilco QS – can be used in temperatures from +1°C to +10°C (max. +15°C) and relative humidity of up to 95%. Do not mix standard and QS grade of the same material type on the same elevation.

Rendering on walls should be consistent in texture, finish and colour. ±8mm maximum vertical and horizontal deviation from flatness in 5m.

Thickness:

1.5mm

Texture:

K – Stippled.

NOTE: Where the colour specified below is in the C2, C3 or C4 categories, it is advisable to have the preceding coat tinted to the same colour reference as the finish colour.

Colour/aggregate:

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Consult with Sto Ltd for details of colour options and to obtain samples.

The use of surface finishes with a light reflectance value of less than 20% is restricted on StoTherm External Wall Insulation Systems. Written approval for the use of surface finishes whose LRV is less than 20% must be obtained from Sto Ltd before orders are placed.

PLEASE NOTE:

Due to the natural chalking effect of dark or intense coloured renders, and to aid the appearance of colour consistency, it is either essential or strongly advised that such renders be overpainted with a compatible Sto façade paint as follows:

Essential: Colours of 15% light reflectancy or less, or from C3 and C4 colour charge bands.

Strongly recommended: Colours between 15% and 20% light reflectancy.

It is also strongly recommended that any render with 20% light reflectancy or less, have a grain size of 2.0mm or greater.

DESIGN

Complete the detailed design of the system and associated features shown on the drawings to meet the requirements of this specification.

INTEGRITY

The installation must be weathertight under all anticipated conditions. Consult with Sto Ltd for specific details and relating to particular conditions.

The installation must be capable of resisting all dead loads and design live loads, including impact and wind loads, and accommodate all thermal movements without damage.

Render systems may not be applied to horizontal or near-horizontal surfaces. To enable the integrity of the system to be maintained at parapets / wall heads, it will be necessary to install copings or cappings. Render systems may not be continued over wall heads / parapets without the provision of suitable protection.

IMPACT LOADING

Resistance to hard body impact and perforation as categorised below shall be:

Category II - 10 Joules using a single layer of Sto Glass Fibre Reinforcing Mesh - and the render shall not be perforated using a 12mm indenter.

(The standard ETA requirement for impact resistance is based upon impacts using energy of 3 Joules & 10 Joules).

The above categories are defined in the Guideline for European Technical Approval ETAG 004 and correspond to the degrees of exposure in use. They do not include an allowance for acts of vandalism.

WIND LOADING

Wind Loading should be calculated to BS EN 1991 - 1 - 4: 2005 + A1: 2010. In accordance with BS EN 1990: 2002, it is recommended that a load factor of 1.5 be applied to the calculated values to determine the ultimate wind suction load(s) to be resisted by the system.

TO ENABLE ECONOMIC DESIGN, ACCURATE CALCULATIONS INDICATING NEGATIVE WIND LOADS MUST BE PRESENTED TO STO LTD AT THE EARLIEST POSSIBLE OPPORTUNITY, IN ORDER TO ENABLE A WIND LOAD / FIXING ASSESSMENT TO BE CARRIED OUT.

SAMPLE(S)

Obtain approval before starting work.

Keep sample(s) available on site throughout the contract for inspection/comparison purposes.

UNIFORMITY OF COLOUR AND TEXTURE: Once samples of coatings have been approved do not change type or proportion of constituent materials. Ensure that supplies of materials are sufficient to give consistent and uniform colour and texture.

INSTALLATION

Installation to be carried out by a contractor registered with Sto Ltd. It is also recommend that the contractor is a member of INCA, The Insulated Render and Cladding Association and subscribe to the INCA guideline that 75% of the work force, whether directly employed or subcontract, have been certified as being competent in the installation of External Wall Insulation Systems, by an INCA approved assessor.

Installation shall be made strictly in accordance with Sto Ltd instructions. Reference should be made to the project specification, method statement, drawings, technical data sheets, and all other relevant literature. Consult with Sto Ltd for latest literature.

ADVERSE WEATHER

Do not use materials that are or have been frozen. Do not apply materials to frost bound surfaces. Do not apply when the air or surface temperature is below 5 degrees Centigrade.

Maintain temperature of the work above freezing until material has fully hardened.

Protect newly rendered surfaces against rain and snow by covering when precipitation occurs.

Remove and replace coatings damaged by rain or frost.

PULL OUT TEST(S) ON FIXING PINS to be carried out on site to prove the suitability of the structural background and determine the size and number of fixings required. Give advance notice of testing to allow CA the opportunity to be present.

CLEANLINESS

Carefully protect all existing work and approaches using suitable boards, sheets, etc. Clean off any droppings from finished work immediately.

RENDER THICKNESS GAUGES or other suitable means must be used to ensure the specified coating thickness.

CURING

Allow all mortar / render coats and primer coats to dry out thoroughly before applying subsequent coats.

Take all necessary precautions to prevent newly rendered surfaces from drying out too rapidly.

CONSTRUCTION / CONTRACTION JOINTS

The system may be carried over construction / contraction joints within the building structure.

MOVEMENT JOINTS

Horizontal movement joints are to be included at each floor level to accommodate shrinkage and compression as the building dries & settles. Stotherm movement joint profile to be used for horizontal and vertical movement joints and must be class A1 non-combustible.

CONSULT WITH STO LTD TO VERIFY JOINT REQUIREMENT AND TYPE.

Form joints accurately to detail and in locations shown on the drawings. If modifications to any joint location or design are necessary on site, agree revisions with CA before proceeding.

HORIZONTAL FIRE BARRIERS

For installations assessed to be in accordance with the report written and issued by the Building Research Establishment on full scale fire testing of the system to BS 8414-2: 2005: Non-combustible material to BS476: Part 4.

Size: Minimum 200mm (or as otherwise described above) x total thickness of external wall insulation.

Fire barriers shall consist of stainless steel firebreak rail(s) and intumescent strip (where required) as described above.

The provision of horizontal fire barriers shall be compliant with local Building Regulations / Technical Handbooks and to Building Control approval.

Refer to Sto Standard Details for this system for specific fire barrier design.

VERTICAL FIRE BARRIERS

For installations that have been assessed to be in accordance with the report written and issued by the Building Research Establishment on full scale fire testing of the system to BS 8414-2: 2005: Install vertical fire barriers where required to achieve integrity of fire compartments using non-combustible material to BS476: Part 4.

Minimum 200mm wide (or as otherwise described above) x total thickness of external wall insulation, shall be used in a staggered pattern to ensure a band of non-combustible material extending 100mm wide for the full height of the compartment.

Fire barriers shall be fixed to the substrate using a full bed of non-combustible Sto mineralic adhesive, or as otherwise described above.

The provision of vertical fire barriers shall be compliant with local Building Regulations / Technical Handbooks and to Building Control approval.

Refer to Sto Standard Details for this system for specific fire barrier design.

CAVITY BARRIERS TO OPENINGS

For installations assessed to be in accordance with the report written and issued by the Building Research Establishment on full scale fire testing of the system to BS 8414-2: 2005: install cavity barriers above and to the side of all openings through the system using non-combustible material to BS476: Part 4.

Use Mineral Fibre Lamella insulation 200mm wide x total thickness of external wall insulation, and extending a minimum of 200mm past the sides of openings, adhered to the substrate using a full bed of StoLevell-Uni adhesive.

The provision of cavity barriers shall be compliant with local Building Regulations / Technical Handbooks and to Building Control approval.

FIRE BARRIERS FIXINGS

All Sto Specified fixings to fire barriers to be stainless steel or as otherwise approved by Sto Ltd.

Where the inclusion of such fixings is visible at the face of the insulation, this will introduce a cold bridge and may therefore result in the appearance of light spots in the render finish.

SUPPORTS FOR SERVICES/FITTINGS

Provide secure supports within the insulation for soil and rainwater pipe brackets, aerials, cameras, lighting, signage and the like in locations shown on drawings. Consult with Sto Ltd for fixing methods / details.

SEALANT JOINTS: Location(s): At all interfaces between insulation / render and dissimilar materials.

Sealant:

StoSeal Joint Sealing Tape Lento 15/ 5-12, 15mm wide, installed thickness 5 – 12mm

Sto PVC Stop Beads in conjunction with mastic sealant in locations where there is insufficient room / provision for StoSeal Joint Sealing Tape Lento to be installed.

NOTE: Mastic sealants are not generally supplied by Sto Ltd and are not specified in this document. The performance requirements, specification and suitability of mastic sealants must therefore be determined by the contract administrator.

INSPECTION OF COMPLETED INSTALLATION

As soon as possible after completion of the work and before removing scaffolding, carry out an inspection with the CA to identify any defects.

INNER LEAF

Inner leaf is generally Metsec SFS Infill Walling system with 150mm wide channels (all accessories required are to be provided to provide a full finished system).

AIR PERMEABILITY

Air permeability to be 5 m³/(h.m²) at 50 Pa maximum.

TESTING

The testing of the complete wall build up shall be carried out to each elevation. As a minimum testing should be carried out for air permeability/draught test, water penetration (static) and water penetration (dynamic) test and written results provided to the satisfaction of building control.

As part of tender, sub-contractor to submit written test analysis by a UK recognised independent testing house demonstrating compliance with the requirements of BS EN 13914-1:2016.