

SECTION 3

SCHEDULE OF WORKS

LOGOS HOUSE

Client Questions

Consider changing colours/multi-colour wall finishes for the replacement EWI?

Should a planning application be undertaken before tendering?

Assume SWIGA 25-year Insurance backed guarantee is required?

Is Fire Safety Consultant & Report required on completion?

Is a Structural engineers survey & report required on completion?

Included a £5,000 contingency for structural repairs?

Set a client's contingency on the works?

Are EPC's (Pre & Post) required?

Are there any other associated works being considered?

Assume the facility remains operational during the works?

3.1 BRIEF

- 3.1.1. The replacement of a non-compliant external wall insulation (EWI) to the upper four-storeys of a five-storey sheltered housing scheme.

Logos House was built in the 1970s and extensively remodelled in early 2000's.

3.2 GENERAL

- 3.2.1. All works are to be undertaken in accordance with the relevant British Standards, By-laws and Regulations.
- 3.2.2. Prior to commencement of the work the contractor is required to provide a method statement, indicating how they will maintain the water proofing of the building, during the course of the works. The contractor is to allow for all necessary temporary protection, tarpaulin to cover opened up areas against water ingress during inclement weather.
- 3.2.3. The contractor shall be responsible for obtaining all necessary licences and complying in all respects with the relevant By-laws, Regulations etc. The contractor is to allow for the works to be commenced/completed during the time scale set out within the contract preliminaries.
- 3.2.4. The works are to be read in conjunction with the materials and workmanship clauses.

- 3.2.5. The contractor is to allow for all safe access to the work area in order to undertake/execute all activities in connection with the works.
- 3.2.6. The works herein have been described in reasonable detail, the contractor shall consider in conjunction with any supporting documents the actual works involved on site and shall allow for everything necessary for the works to be carried out in the best manner whether specifically mentioned or not it may be reasonably implied.

3.3 Survey Work

- 3.3.1. Prior to undertaking any works on site, the contractor is to allow for undertaking a full photographic schedule of the condition of all of the areas likely to be affected by the works and any fixtures/fittings, appliances that may be temporarily disturbed or set aside as a consequence of the works. Include for providing to the Contract Administrator the photographic schedule in a disc format.
- 3.3.2. The contractor will be required to undertake detailed surveys of the building fabric and all joinery elements and prepare a schedule of repairs. The schedule of repairs is to be in a word-processed format and cross referenced to a professionally/AutoCAD drawn set of elevations to the Contract Administrator. Following the issuing of the schedules the contractor is to allow for 1 weeks' notice to the Contract Administrator once safe access is available for agreement and instruction of the works.
- 3.3.3. Allow the provisional sum of **£5,000**, for remedial repairs identified in the detailed surveys of the building fabric and all joinery elements.

£5,000

3.4 Planning Permission

- 3.4.1. The contractor is to allow to submit detailed design drawings for a planning application.
- The application is to be made up of a minimum of:
- The necessary plans of the site
 - The completed form
 - Existing and proposed elevation drawings
 - Ownership certificate
 - Design and access statement
 - The correct fee.
 - Including other relevant documentation that will help the local authority determine the application.

3.5 Building Control

- 3.5.1. Allow for application and liaison to the Local Authority for Building Regulations Approval and all necessary drawings and fees.

3.6 Site Setup

- 3.6.1. The contractor is to read this in conjunction with the Preliminaries section and take all due regard to all relevant regulations. It is noted that the site is limited in space for a site setup and the contractor is to satisfy himself at the time of tender that sufficient locations can be

found outside the building to locate the site setup and toilet facilities. It will be the contractor's responsibility to obtain and pay for any licences that may be required.

3.7 Deleterious Materials

- 3.7.1. Where suspected deleterious materials are encountered the contractor should cease work immediately and inform the Contract Administrator. The contractor is to exercise due diligence.
- 3.7.2. Refurbishment and demolition surveys will be necessary when the building (or part of it) is to be upgraded, refurbished or demolished and should be carried out before any refurbishment or demolition work commences. Refurbishment and demolition surveys are intended to locate all the asbestos in the building (or the relevant part), as far as is reasonably practicable.
- 3.7.3. The contractor is to allow to have Refurbishment and Demolition surveys undertaken prior to any works commencing to all areas likely to be accessed or disturbed in order to complete the works required and as detailed in this specification.
- 3.7.4. The refurbishment and demolition survey reports will include full results of all materials sampled or presumed to contain asbestos, a full list and description of all areas inspected, annotated plans and conclusions.

3.8 Asbestos Removal

- 3.8.1. Allow the provisional sum of **£5,000**, for the removal of any asbestos material identified in the refurbishment/demolition survey.

£5,000

3.9 Completion

- 3.9.1. On completion of the works the contractor is to allow for a full builder clean to the work area including all glazing, vents, etc.
- 3.9.2. Upon completion the contractor is to allow for removing all site hoardings etc and clearing from site. The site is to be left in a clean and tidy condition to the satisfaction of the CA.
- 3.9.3. Practical Completion will only be certified once the O & M manuals have been submitted and the Health & Safety File approved by the Principal Designer.

3.10 Risk Control – Hot Work Permit

- 3.11 Hot Work Permit is required for any temporary operations involving open flames or producing heat and/or sparks. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering, Torch Applied Roofing and Welding. The contractor is to undertake a risk assessment and provide copy to the Contract Administrator where all occurrence of potential hot works is to be undertaken.

- 3.12 Following contractors Risk Assessment, a specific hot work permit must be issued where it can be foreseen that an activity or process may produce sufficient heat that may give rise to an unintentional fire, smoke and/or create a hazard.

The permit system is to be managed locally by the client but through the Contract Administrator. Permits are to include as a minimum:

- Named responsible persons throughout the activity
- Job and area specific details
- Time limited according to individual task requirements (not to exceed 12 hours or any staff shift changes)
- Identified control measures to be taken
- Variances to be agreed and signed by the original issuer
- Signatory upon completion

3.12.1. Consideration should include the following but not exhaustive:

- Use of an alternative process / system not involving the generation of hot works
- Removal of all combustible / flammable / explosive etc. items from the immediate area
- Clear time restrictions, including ongoing monitoring of local area during and following (for a minimum of 30 minutes) completion of all activities
- Ensure equipment in good and clean working order
- Named responsible persons (Inc. where appropriate involvement of local Fire Wardens)
- Adequate ventilation
- Identification and implementation for means of raising the alarm in the event of a fire
- Use of competent persons involved in this type of activity / process
- Provision and immediate availability of portable fire extinguishers or other appropriate local means for extinguishing a fire
- Temporary suspension of local fixed fire alarm system / fire suppression system / automatic 999 dial etc.
- Reinstatement of the above 'lifesaving' systems
- Provision and use of appropriate Personal Protective Equipment (Inc. other protective measures for those not directly involved that may be affected i.e. shielding / screening / ventilation etc.)
- All associated controls / limitations or any other appropriate safety measure are implemented and adhered to throughout
- All persons involved are competent (or have adequate levels of supervision) to safely perform the required activity
- The responsible person must also agree any variations (and ultimate sign off following completion and cool down period) to task specific documents.

EXTERNAL WORKS

3.13 Scaffold/Access Requirements

3.13.1. Allow to obtain all necessary scaffold licences. The licensee and his employees or agents shall pay due regard to the safety and control of all highway users and the additional particular needs of the visually and mobility impaired. Signs and warning notices shall be displayed in accordance with the Traffic Signs Regulations and General Directions 2002, the Health and Safety (Signs and Signals) Regulations 1996 and any other legislative requirements. Any height restriction warning signs used must be illuminate where necessary, and must display the correct restriction.

- 3.13.2. Elevated access can be provided by either Mast climbing work platforms (MCWP) or traditional scaffolding. Substitute mast climber for scaffold in the following access clauses as appropriate.
- 3.13.3. Allow to supply, erect and maintain/strike on completion scaffolding / mast climbers to all elevations, in accordance with the preliminary items. The Scaffolder must hold a current CISRS Scaffolders card and be full members of NACS. Scaffolding is to be finished with fire retardant debris netting, include double boarded fans above entrances that are to be finished with sheeting between the boards. Allow to supply heras fencing to the surrounds of the scaffolding at ground level to leave fully enclosed, or an equivalent to prevent unauthorised access on to the scaffold (any change must be stated at tender stage). Access to the scaffold for the contractors should be via a ladder access hatch which should be hinged and locked when not in use. The contractors should allow to remove ladders to the ground floor of the scaffold when not in use.
- 3.13.4. The contractor is to allow for an adequate goods hoist / mast climber to undertake the works. This should allow for erection, testing, protection, dismantle and carriage. The contractor should also allow for a hoist tower, hoist gates and adaptations required to the scaffold where deemed necessary.
- 3.13.5. Provide Permanex or equally approved monitored alarm system to the first lift of the scaffolding to all elevations of the building. The alarm is to be connected to a manned response unit. Include for telephone connection and all associated costs with the installation.
- 3.13.6. The Permanex alarm will under normal circumstances comprise of Quad Beam Active Infra-Red (AIR) sensors and Passive Infra-Red (PIR) sensors, used in a combination to provide protection to the first vulnerable lift of scaffold and the end of scaffold runs (PIR End stops). All the above technology to be of the type described in the attached product specification and comply with BS EN 61000-6-1:2007 together with The Electromagnetic Compatibility (EMC) Directive 2014/30/EU.
- 3.13.7. The technology used must have a low false alarm sensitivity and will not be activated by birds, cats or other small animals. The field of protection will normally be provided to the first vulnerable lift of scaffold and will be activated by human intrusion only.
- 3.13.8. All debris netting/monaflex must be fully secured to prevent interference with the sensors.
- 3.13.9. All sensors must be specifically designed for external use to be not less than IP65 standard.
- 3.13.10. Control equipment must be located within a secure area in some circumstances external control keypads and waterproof boxes may be provided to permit access by approved contractors and others.
- 3.13.11. The control panel should have a minimum 700 event log and capability of printing log, 12 or 24 volts as appropriate and standby rechargeable back up battery. The control panel must have the

capability of being interfaced with digital communicator and other security systems, which may be in place.

- 3.13.12. In the event the system shall have the following minimum capability.

To operate an audible alarm (120dB) and strobe light securely affixed to the scaffolds in a prominent but inaccessible position. Any tampering with the sounder or any wiring shall activate the sounder, which will have its own independent internal battery.

- 3.13.13. The system must also have the capability of sending a telecommunication signal (land or GSM) if required, to a Central Monitoring Centre or protocol to meet with client requirements. The system must have the capability of interfacing with local permanent or temporary lighting.

- 3.13.14. The system will have a capability of re-arming following activation.

- 3.13.15. Prominent Warning signs must support the system.

- 3.13.16. The contractor is to allow for any making good and costs associated with the erection and striking of the scaffolding, including any damage caused to adjoining owner's properties in executing the works. The contractor is to notify any adjoining owners and occupiers of dates and proposals to erect the scaffolding, as well as keeping them informed and notified of any key critical updates that may affect them.

- 3.13.17. Allowances are to be made for any alterations to the scaffold required, to complete the works.

3.14 CLADDING

- 3.14.1. General

- 3.14.2. The contractor is to allow for the removal and replacement of the existing non-compliant EWI cladding and to carry out the design, survey, test, repair and associated remedial works to the retained elements.

Replacement EWI cladding to be a non-combustible system meeting A1 to BS EN 13501-1 and thermal insulation to better 0.3/m²K to meet the conservation of fuel and power retained thermal elements part L2B table 5, as manufactured by Wetherby Building Systems or acceptable equivalent, see [Appendix C](#)

Wetherby Building Systems Ltd.
1 Kid Glove Road
Golborne Enterprise Park
Golborne
Greater Manchester
WA3 3GS
01942 717100
info@wbs-ltd.co.uk

- 3.14.3. Allow for the price of obtaining an insurance backed 25-year guarantee from Solid Wall Insulation Guarantee Agency (SWIGA) for the replacement EWI.

- 3.14.4. Works to be undertaken to PAS 2030:2017 Improving the energy efficiency of existing buildings. Specification for installation process, process management and service provision
- 3.14.5. To be read with Preliminaries/General Conditions.

GENERAL/ SYSTEM REQUIREMENTS:

- 3.14.6. The replacement cladding system shall be installed by a subcontractor approved by the manufacturer, strictly in accordance with their installation techniques and instructions. This specification is a performance specification and the accompanying drawings are indicative only. The subcontractor is to complete the detailed design and provide a safe, robust, weather and airtight system. The installation shall comply with all relevant standards including British Standards and Codes of Practice and the Building Regulations. Where standards are contradictory, the more onerous shall apply. The subcontractor's attention is drawn to the need for coordination, with particular attention to airtightness and weathertightness.

The subcontractor shall also be responsible for establishing an understanding of the tolerances of the supporting structures and design accordingly. The subcontractor shall notify the main contractor immediately if such tolerances have not been achieved on site. The work includes completion of the detailed design, production of workshop drawings, preparing mock-ups and samples, testing if required, fabrication, supply, installation, cleaning down, commissioning and handover of the complete works to meet the performances requirements all as shown on the drawings and described herein.

3.14.7. SURVEY OF EXISTING WALLS

- Timing: Before starting work covered in this section.
- Objective: To confirm suitability for application of external wall insulation system.
- Survey report: Submit, covering all relevant matters listed below:
 - The form and condition of the structural substrate.
 - A schedule of repairs and / or additional works necessary to render the substrate suitable to receive the system.
 - A schedule of services, fixtures and fittings requiring removal to facilitate installation of the system.
 - Proposals for treatment of potential cold bridges e.g. reveals, concrete floor edges.
 - Remove existing rainwater pipes and re-direct away from work surface whilst work proceeds. Ensure all rainwater from the roof area is carried away from the work area by means of temporary fixed rainwater goods.
 - Remove, extend beyond the surface of the proposed system and securely re-fix, to the satisfaction of the supervising officer, soil stacks, waste water pipes, overflows, vent pipes etc.
 - Any other information considered relevant.

3.14.8. **REMEDIAL WORK**

- See clause 3.3 above

3.14.9. **STRUCTURAL SUBSTRATE**

- Description: Masonry.
- Preparation:
 - Treatment to Existing Sound Surfaces
 - Remove any existing loose material and where required dub out the surface level, ready to receive the EWI system. The existing walls are to be cleaned with a wire brush or pressure jet wash, to the satisfaction of the
 - Contract Administrator, to remove any friable material, algae or lichen, and to provide a good key for Wetherby products. Treat areas of moss, algae and mould growth with WBS Biocidal Wash. Dense smooth
 - surfaces may require treating with WBS Stabilising Solution / Bonding Agent to ensure adequate adhesion on wet fix or render only applications.
 - Dubbing Out: Where necessary dub out, using Wetherby Dubbing Render, any hollow / defective areas to leave a suitable
 - surface for the application of the insulation boards. Maximum dubbing coat thickness: 16mm.
 - Biocidal Wash: Where required, apply one coat of Wetherby Biocidal Wash to the entire surface by roller or knapsack spray
 - and allow to dry. Brush the surface to remove all signs of growth before rendering commences.
 - Stabilising Solution: Where required, apply one coat of Wetherby Stabilising Solution to the entire surface by roller, ensuring uniform coverage and allow to dry.

3.14.10. **EXTERNAL WALL INSULATION SYSTEM**

Manufacturer:
Wetherby Building Systems Ltd.
1 Kid Glove Road
Golborne Enterprise Park
Golborne
Greater Manchester
WA3 3GS
Tel: 01942 717100
Email: info@wbs-ltd.co.uk
Web: www.wbs-ltd.co.uk

- System Reference: Wetherby Stone Wool and Silicone External Wall Insulation System.
- Insulation: WBS Stone Wool Insulation Boards.
 - Thickness: 100mm.
 - Board Size: 1200 x 600mm.
 - Minimum Compressive Strength: 120 KN/m².
 - Thermal Conductivity: 0.036 Wm²/K.
 - Performance in Relation to Fire:
 - Class 1A (BS EN 13501-1:2002).
 - Non-combustible.

- Environmental:
 - CFC / HCFC Free.
 - Zero ODP.
 - GWP Less Than 5.
- Fixing: Mechanical and Adhesive.
 - Insulation Adhesive: WBS Insulation Bedding Adhesive.
 - Fixing Type: TFIX-8M x 155mm – 6 Fixings per board (subject to pull out tests).
 - Fixing Retaining Plate: KWL90PP.
 - Fixings must achieve a minimum pull out of 1.0kN.
- Movement Joints: As Per Drawings.
 - Movement Joint Ref: WBS MJ6 Movement Joint.
 - Movement joints must be used to replicate any structural movement joints in the existing substrate as per site survey / Structural Engineers report.
- Fire Breaks: Not Required.
- Reinforcement: WBS Alkali Resistant Scrim Cloth incorporated into top third of the WBS Heck K&A Scrim Adhesive.
 - Reinforcement Adhesive: WBS Heck K&A Scrim Adhesive.
 - Stainless Steel Secondary Fixing: Required at a rate of 1 per m² at second storey and above.
 - Stainless Steel Fixing Type: TID-MR 8/35 x 170mm.
 - Secondary Fixing (Ground and First Floor): Required at a rate of 1 per m².
 - Secondary Fixing Type: TFIX-8M x 155mm.
- Decorative Finish.
 - Wetherby Primer: Solvent free pigmented bonding primer in a colour to match the finish coat.
 - Wetherby Finish Coat: HECK Silicone 'K' 1.5mm Textured Finish.
 - Colour: TBC.
- Additional Coating (Optional)
 - Wetherby Aspira Render Protector: Apply one clear coat of Aspira Render Protector.
- Beads / Trims / Accessories.
 - Full System Beads / Trims:
 - Wetherby Starter Track Ref: WBS 9150 100mm Aluminium Base Rail with WBS 37400 Profile Clip.
 - Wetherby Full Depth Stop Bead Ref: WBS 9250 100mm Aluminium Stop Profile.
 - Wetherby Verge Trim: WBS 741/150 150mm Powder Coated Galv. Verge Trim.
 - Mechanical Fixing: WBS HIT 6/5 Hammerscrew Bead Fixing.
- Wetherby Cills: Type TBC.
 - Wetherby Aluminium Overcills. All cills shall be site measured (ensuring a minimum 40mm overhang)

and supplied with welded end caps to suit the application.

- Option 1* Aluminium Overcill Extenders
- Option 2* Upvc Overcill Cappit Extenders
- Option 3* Aluminium Undercill Extenders

NOTE: *Contractor to submit proposals to Contract Administrator to confirm option.

- Wetherby Aluminium Undercill Ref: 731/125 150mm Aluminium Undercill.
- Surface Render System Beads:
 - Wetherby Corner Bead Ref: WBS 3707 PVCu Corner Bead.
 - Wetherby Render Bellcast Bead Ref: WBS B10 PVCu Bellcast Bead.
 - Wetherby Render Stop Bead Ref: WBS RS6 PVCu Stop Bead.
 - Wetherby Movement Joint Ref: WBS MJ6 PVCu Movement joint.
 - Wetherby APU Frame Seal Ref: WBS APU 3743 PVCu Frame Seal.
- Accessories:
 - WBS Sealing Tape: Pre-compressed, expanding waterproof sealing tape.
 - WBS Firtree Fixings.
 - WBS Jointing Pieces.
 - WBS End Caps.
 - Wetherby Fire Rated Silicone Sealant.

3.14.11. DESIGN

- Complete the detailed design of system and associated features shown on drawings: Complete to meet requirements of this specification. Refer to Wetherby detail drawings.
- Please note that WBS Ltd take no design liability for this specification and all compliance needed to meet Building and Fire Regulations is the responsibility of the main contractor.

3.14.12. INTEGRITY

- Installation Requirements:
 - Weathertight under all anticipated conditions.
 - Capable of resisting all dead loads and design live loads, including impact and wind loads, and accommodating all thermal movements without damage.

3.14.13. IMPACT LOADING

- Impact Resistance of Finished Walls: Resistance to hard body impacts (3 joules to 10 joules) and to perforation.

3.14.14. **WIND LOADING**

- Design Wind Loads: The system shall be designed to withstand all design wind loads.

3.14.15. **SAMPLES**

- Procedure: Submit samples / examples of designated items for approval. Keep approved samples on site for the duration of the contract for inspection / comparison purposes.
- Designated items: Textured sample of Wetherby Silicone Finish.

3.14.16. **UNIFORMITY OF COLOUR AND TEXTURE**

- Type / proportion of constituent materials: Unchanged once samples of coatings have been approved.
- Supplies of materials: Sufficient to give consistent and uniform colour and texture.
- All materials shall be manufactured and supplied in accordance with BS EN ISO 9001: 2008.
- WBS renders and mortars are pre-blended during the manufacturing process by the supplier, although care should be taken to ensure colour uniformity between individual batches of material.

3.14.17. **LIGHTNESS**

- It is advised that Silicone Textured Render Systems for application over insulated render backgrounds shall be selected in colour(s) with a lightness factor of >20. Should the lightness factor of the selected colour(s) be <20, please contact the Wetherby Technical Support Team for further information.

3.14.18. **AVOIDANCE OF COLOUR SHADING**

- To minimise the risk of variations in colour shade and to avoid dry line jointing, decorative finishes should be applied continuously without a break.
- Where breaks are unavoidable, they should be made where services or architectural features such as the lines of doors, windows, reveals or drainpipes help to conceal the position of the joint. Surface render beads can be used to provide a clean break in the render.
- Material sharing the same batch number should be used to complete an entire elevation where possible.
- Material with different batch numbers should be checked for colour consistency.

3.14.19. **INSTALLATION**

- Installer: The system shall be installed by a specialist contractor approved for the project by Wetherby Building Systems.

3.14.20. **WBS STONE WOOL SILICONE SYSTEM APPLICATION**

Base Bead

Securely fix Wetherby starter track with profile clip above DPC level at base of the system. Mechanically fix starter track at max. 300mm centres, 50mm from each end. WBS 3756 base rail connectors should be used to join the tracks, packing shims may be required to ensure the starter track is true to line and level.

Stop Bead

Securely fix Wetherby stop beads on a continuous bead of Wetherby Fire Rated Silicone Sealant to the extent of the system and its abutment to untreated areas i.e. meter boxes, rising service supplies or any other untreated abutment. Stop beads are to be fixed at max. 300mm centres, 50mm from each end.

Verge Trim

Mechanically fix Verge Trim on Wetherby Sealing Tape at the top of the system, ensuring tape is fully compressed. Verge trims are to be fixed at max. 300mm centres, 50mm from each end. Apply Wetherby Fire Rated Silicone Sealant to the top of the verge to ensure no water ingress is possible.

Cills

Securely fix cills, ensuring they are secure and provide a water tight detail to protect the EWI system. Apply Wetherby Fire Rated Silicone Sealant where required.

3.14.21. **WBS Insulation Bedding Adhesive**

Trowel apply WBS Insulation Bedding Adhesive to the entire face of the insulation boards. The bedding adhesive shall be of sufficient thickness in which to bed and level the insulation boards. The adhesive must be applied immediately before the insulation boards are offered to the wall to ensure a good bond. Insulation boards must be fully bedded into the adhesive and laid as true to line as possible. A fixing should be installed through the centre of each board to hold in place whilst the adhesive dries.

3.14.22. **Application of Stone Wool Insulation Boards**

Position and securely fix the Stone Wool insulation boards to the substrate. The boards should be tightly butt jointed, laid with staggered joints and overlapped at building corners. Board joints should not occur within 200mm of the corners of openings. Board pieces narrower than 200mm shall not be used. Where the insulation butts up against dissimilar materials, supply and install WBS Sealing Tape and ensure the boards are fitted tight against the seal, ensuring full compression of the tape.

N.B. thinner insulation may be required in passageways and to window reveals.

3.14.23. **Fixing of Insulation Boards**

Fix boards mechanically to the substrate using approved WBS fixings at a rate of 6 fixings per board in accordance with WBS fixing pattern

(fixing pattern located at the back of this document). Fixings shall be installed so that the fixing head is flush with the insulation board surface. Additional fixings should be installed to ensure a maximum of 300mm centres at either side of building corners and around all openings.

3.14.24. PVCu Movement Bead

Fix movement beads at agreed locations using WBS Firtree Fixings. Structural movement joints must be mirrored through the EWI system.

3.14.25. Surface Mounted Render Beads

Fix surface mounted render beads directly to the insulation board at required locations using WBS Firtree Fixings.

3.14.26. Existing Air Vents, Grilles etc.

Identify live or used air vents, grilles etc. and extend through the insulation system as work progresses.

3.14.27. PVCu Angle Bead

Fix by bedding into first pass of scrim adhesive, PVCu angle beads with glassfibre mesh reference WBS 3707 to all external building corners, window / door jambs and heads.

3.14.28. Alkali Resistant Glassfibre Scrim Coat

Trowel apply a 4-6mm thick coat of scrim adhesive to the entire surface of the insulation boards. Lightly run a notched trowel through the scrim adhesive at a 45-degree angle to ensure the correct thickness of adhesive is applied. Bed WBS Alkali Resistant Scrim Cloth into top third of the wet adhesive, overlapping joints by 75mm minimum. The scrim cloth must be overlapped around building corners and returned into all reveals and heads.

All beads must be fully scrimmed in. Install additional 200mm x 200mm minimum pieces of scrim cloth diagonally across corners of all wall openings. Install secondary fixings through the wet scrim adhesive and alkali resistant scrim cloth whilst adhesive is wet. 100mm x 100mm scrim patches to be installed over each secondary fixing head. Finally smooth out scrim adhesive using a spatula.

3.14.29. Scrim Adhesive Coat (Second Application)

When initial layer of scrim adhesive has hardened, trowel apply a further 2-3mm coat of scrim adhesive ensuring all alkali resistant mesh is covered. Level the scrim adhesive using a spatula / damp sponge float to achieve a uniform flat and even surface ready to receive the WBS final finish. Allow sufficient drying time before applying the Wetherby Primer.

3.14.30. Silicone Primer

Apply Wetherby Primer with a brush or lamb's wool roller as per manufacturer's printed instructions. Allow Primer to fully dry, minimum 12 hours.

3.14.31. **Silicone Render Finish**

Mix and apply Wetherby Silicone Textured Finish strictly in accordance with the manufacturer's printed instructions. The top coat should be applied with a stainless-steel trowel to the thickness of the grain and finished with a plastic float. Apply in a continuous application always working to a wet edge and in the same direction to ensure consistency of finish. Wherever possible, entire elevations should be completed in a single operation to avoid joint marks in the finish. This can often be achieved by working to natural breaks in the building or working to breaks in colour or texture.

Do not apply Wetherby Silicone Textured Finish with differing batch numbers on the same elevation. Care should be taken to avoid texture changes at different levels. Prior to setting, polish render with plastic float to give an even texture and remove all trowel marks.

3.14.32. **Silicone Sealant**

Gun apply a continuous bead of Wetherby Fire Rated Silicone Sealant at points where the renders will butt up against other materials, e.g. window frames, door frames, eaves, fascia's, projecting wall vents, gas and electric meter boxes etc. ensuring water tightness.

3.14.33. **Aspira Render Protector (Optional)**

Apply Wetherby Aspira Render Protector with a roller ensuring a full and even coverage, covering 100% of the substrate. The substrate must be fully dry and clean before application; ensuring morning dew is not present on the substrate. Cross hatch application is recommended to ensure all areas are fully treated. Do not dilute product and protect from rain for a minimum 12 hours after application to allow coating to fully dry.

3.14.34. **Cleaning**

Wipe clean all exposed PVC nosing, cills etc., at each work stage whilst render is still wet.

3.14.35. **ADVERSE WEATHER**

- **Materials / Surfaces:** Do not use frozen materials and do not apply materials to frost bound substrates.
- **Adhesives / Mortars / Renders:** Do not apply when air temperature is at or below 5°C. Render products may be applied where temperatures are above 3°C on a rising thermometer and are forecast to stay above 5°C for an extended period on the same day.
- **Adhesives / Mortars / Renders:** Do not apply when relative humidity is equal to or greater than 90%.
- Do not apply materials when the air temperature or wall surface is in excess of 30°C without protection of the surface.
- **Temperature of the work:** Maintained above minimum level recommended by manufacturer until adhesive / mortar / render has fully hardened.

- Drying Times: Drying times of decorative finishes, particularly pre-mixed water-based materials, may be greatly extended during periods of low temperature and / or high relative humidity 90% and above.
- Newly rendered surfaces: Protect newly rendered surfaces against rain, snow or other precipitation. Ensure that material is protected from frost, wash-offs etc.
- Application of renders, mortars or decorative finishes shall not be carried out on elevations where summer strength sunlight is hitting the area square on for prolonged periods without affording protection.
- Coatings damaged by rain or frost: Remove and replace.

3.14.36. **ON-SITE PULL-OUT TESTS ON FIXING PINS**

- Objective: To prove suitability of structural substrate and determine size and number of fixings required.
- Pull out test load: 2.5 x design load.

3.14.37. **CONSTRUCTION / MOVEMENT JOINTS / SLIP JOINTS**

- Location: As shown on drawings.
- Formation: Accurately to detail.
- Modifications to joint locations / design: Agree revisions before proceeding.

All structural movement joints must be mirrored through the EWI system

3.14.38. **FLUES, CHIMNEYS AND COMBUSTION AIR VENTILATORS**

Reference to be made to CIGA's Technician's Best Practice Guide to Flues, Chimneys and Combustion Air Ventilators, or similar, so that the performance and safety of fuel burning appliances is not compromised by the installation of the EWI measure.

- The combustion air supply must be isolated and air ventilator continuously sleeved through the wall.
- Flueless gas fires require a ventilator that provides a free air area of 10,000 mm². Under PAS 2030, both surveyor and installer have strict responsibilities placed upon them when it comes to the identification and safeguarding of essential ventilation requirements. Failure to comply will result in PAS 2030 being revoked. Please refer to Wetherby document WBS-VENTINFO-01.

3.14.39. With regards to gas flues there are two methods of installation, either a clear gap is left around the flue (300mm for fanned draught flues / 600mm for natural draught flues) or a 200mm non-combustible insulation slab installed around an extended flue. While WBS includes both alternatives in their detail drawings, main contractors and installers must ensure the chosen method is approved in conjunction with the boiler manufacturer's specification.

3.14.40. **LIGHTNING CONDUCTORS**

- Fix Stone Wool insulation strip around the lightning conductor with stainless steel fixings. Notch the back of the insulation board to allow for movement of lightning

conductor leaving a 10mm gap as per Wetherby detail drawing. Lightning conductors which limit temperature may not require Stone Wool insulation, please contact WBS Technical for more information.

3.14.41. **SUPPORTS FOR SERVICES / FITTINGS**

- Supports for soil and rainwater pipes, signs, CCTV cameras etc: Provide in locations shown on the drawings.
- Type: timber pattresses same thickness as the insulation, fixed back to the load-bearing background using proprietary countersunk stainless-steel screws or other non-corrodible fixings. Timber pattress to be no more than 200mm x 200mm.
- No load is to be transferred to the insulated render system.
- Alternatively, sleeved fixings shall be installed into the load-bearing background after completion of the render works in accordance with Wetherby recommendations.

3.14.42. **EXTERNAL POWER CABLES**

External power cables must not be covered over by the EWI system or cover plates in any circumstances. Power cables must be relocated or left open and visible and must not be contained by ducting irrespective of duct cover type.

3.14.43. **SEALANT JOINTS**

- Sealant: WBS EVO-STIK 25 Year Life Expectancy Silicone Sealant.
- Joints: Formed in accordance with section Z22 and system manufacturer's recommendations using any necessary joint fillers, backing strips etc.

3.14.44. **STORAGE OF MATERIALS**

- Adequate dry weatherproof and ventilated storage shall be provided for materials.
- All materials shall be protected against frost.
- Insulation boards must be kept dry at all times.
- Cementitious products shall be stored off the floor.
- Renders to be stored in temperatures of at least 5°C.
- Materials should be protected from prolonged exposure to sunlight.

3.14.45. **INSPECTION OF COMPLETED INSTALLATION**

- Timing: As soon as possible after completion of the work and before removing scaffolding.
- Notice for inspection (minimum): 7 working days.
- Defects: Report immediately.

3.14.46. **MATERIALS AND SITE CONDITIONS**

- All materials shall be provided for the proper and efficient execution and completion of the works.
- Materials shall be mixed, applied and fixed in accordance with the relevant clauses of the specification and the

- manufacturer's instructions.
- A clean, fresh supply of water shall be provided for the works, via the management contractor.
- Suitable scaffolding that has a minimum gap of 300mm (all scaffold items) from the elevation surface in order to facilitate application requirements, shall be provided, erected, maintained and later removed for the proper and efficient execution and completion of the works.
- All necessary temporary supports for drains, water pipes, gas pipes, electrical cables and telephone cables shall be provided and maintained until the permanent supports are reinstated.
- Temporary flexible tubing shall be provided for the efficient discharge of rainwater from the buildings to protect the system during the progress of the works.

3.14.47. **CLEANLINESS OF WORKS**

- Protect all existing works, approaches and adjacent surfaces including windows and doors etc. using suitable sheeting, boards, covers etc.
- Remove all splashes, droppings etc. from completed works immediately and before drying takes place.

3.14.48. **CONTROL OF POLLUTION**

- All debris and rubbish arising from the works shall be removed off site from time to time to keep the site and works clean and tidy. All measures shall be taken to control the noise levels produced by the operatives on site to comply with the Control of Pollution Act. Precautions should be taken to prevent pollution of any river watercourse, reservoir, drainage or the like by the operatives on site.

3.15 **MISCELLANEOUS**

Cables

- 3.15.1. Allow to survey, inspect and test all cables running up the elevations and provide a report on the matter for the review of the CA and Client. Following comment from the CA & Client on the report allow for any redundant cables to be removed. Allow to reclip existing cabling where loose in a neat and tidy position. Provide proposed wire run sketch proposals to CA for approval prior to reclipping. Include for the removal of all junction boxes where possible.

Pigeon Repellent Works

- 3.15.2. Provisionally allow for supplying and fitting avipoint bird spikes (sized to suit) secured with suitable adhesive. The spikes are to be installed by a member of the British Pest Control Association.
Allow for 90Im

SECTION 4 – COLLECTION PAGE

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