

H92 Rainscreen cladding

TO BE READ WITH PRELIMINARIES/GENERAL CONDITIONS.

- Notwithstanding the descriptions of workmanship described in various parts of this NBS/NES; the contents of BS8000, where applicable, shall take precedence except where workmanship described is superior to BS8000.
- The manufacturers noted within this specification are indicative and may be substituted with similar or equal alternatives.
- Manufacturers should either provide a BRE Global BES6001 Product certificate or supply evidence of a independently certified Environmental Management System.

TENDERING**10 INFORMATION TO BE PROVIDED WITH TENDER**

- Submit the following cladding particulars:
 - Typical plan, section and elevation drawings at suitable scales.
 - Typical detailed drawings at large scales, including flashing and abutment details .
 - Technical information and certification demonstrating compliance with specification of proposed incorporated products and finishes, including thermal insulation .
 - Certification, reports and calculations demonstrating compliance with specification of proposed cladding.
 - Proposals for connections to and support from the primary support structure.
 - Proposals for primary support structure additional to that shown on preliminary design drawings.
 - Schedule of builder's work, special provisions and special attendance by others.
 - Examples of standard documentation from which project quality plan will be prepared.
 - Preliminary fabrication and installation method statements and programme.
 - Proposals for replacing damaged or failed products.
 - Areas of non-compliance with specification.

11 INFORMATION TO BE PROVIDED WITH TENDER

- In addition to the cladding specified in the below clauses 120 & 123 submit comparative supply and install costs per m2 of the whole cladding system for the following alternative materials:

Reynobond - Duragloss 5000:

- o Metallic std & non-std (Satin gloss)
- o Chameleon
- o Anodised Look (Satin gloss)

Alucobond:

- o Spectra, Sakura 917.

Zinc:

- o QUARTZ ZINC composite polymer panel by VM Zinc

Note: Face fastened solutions permitted.

TYPE(S) OF RAINSCREEN CLADDING

- 120 RAINSCREEN CLADDING TO COLUMNS & EXTERNAL ENVELOPE OF MAIN ENTRANCE CANOPY
- Primary support structure: Reinforced concrete half column with precast concrete cladding.
 - Rainscreen cladding system:
 - Manufacturer: Submit proposals.
 - Type: Drained and back ventilated.
 - Rainscreen panel:
 - Manufacturer:

KME Architectural Solutions
C/O KME Yorkshire Limited
East Lancashire Road
Kirkby
<http://www.kmearchitectural.com>.
Product reference: PROTEUS HR honeycomb rainscreen panel.
 - Material: aluminium honeycomb core structurally bonded between two lightweight zinc skins.
zinc sheets manufacturer:
NedZink B.V., Postbus 2135, 6020 AC Budel, Hoofdstraat 1, 6024 AA Budel-Dorplein, Netherlands
Tel: [REDACTED]
web: nedzink.com
 - zinc sheets supplier:
SIG Zinc & Copper, Warnell, Welton, Carlisle, Cumbria, CA5 7HH
Contact:
Simon Walker
Category Manager
simonwalker@sigdandt.co.uk
[REDACTED]
 - Thickness: To be confirmed by manufacturer. Provide backing panels to easy-to-reach locations if required to pass Category A under BS8200: 1985 .
 - Finish/ Colour: NedZink NOVA, pre-weathered.
 - Fasteners: Concealed as recommended by panel manufacturer.
Number and location: As recommended by panel manufacturer to suite location and panel layout.
 - Joint type: TBC.
 - Joint width: 20mm.
 - Air gap: min 25 mm.
 - Secondary support/framing system: Vertical rails with fixing brackets on thermal break spacers.
 - Manufacturer: Submit proposals.
Product reference: As recommended by panel manufacturer to suit location and panel layout.
 - Material: Aluminium.
 - Fasteners: As recommended by panel manufacturer.
Number and location: As recommended by panel manufacturer to suite location and panel layout.
 - Backing wall: Existing diamond shaped reinforced concrete half column with precast concrete cladding.
 - Vapour control layer: As clause 780.
 - Thermal insulation: As clause 776.
 - Breather membrane: As clause 785.
 - Accessories: Include products, fixings and interfaces necessary to complete the fabrication and installation.
 - Incorporated components: Flashings, insect mesh.
 - Other requirements: None.

123 RAINSCREEN CLADDING TO SPANDREL PANELS

- Primary support structure: Precast structural reinforced concrete spandrel panel.
- Rainscreen cladding system:
 - Manufacturer: Submit proposals.
 - Type: Drained and back ventilated.
- Rainscreen panel:
 - Manufacturer:

KME Architectural Solutions
C/O KME Yorkshire Limited
East Lancashire Road
Kirkby
<http://www.kmearchitectural.com>.
 - Product reference: PROTEUS HR honeycomb rainscreen panel.
 - Material: aluminium honeycomb core structurally bonded between two lightweight zinc skins.
zinc sheets manufacturer:
NedZink B.V., Postbus 2135, 6020 AC Budel, Hoofdstraat 1, 6024 AA Budel-Dorplein, Netherlands
Tel: [REDACTED]
web: nedzink.com
 - zinc sheets supplier:
SIG Zinc & Copper, Warnell, Welton, Carlisle, Cumbria, CA5 7HH
Contact:
Simon Walker
Category Manager
simonwalker@sigdandt.co.uk
[REDACTED]
 - Thickness: To be confirmed by manufacturer.
 - Finish/ Colour: NedZink NOVA, pre-weathered.
 - Fasteners: Concealed as recommended by panel manufacturer.
Number and location: As recommended by panel manufacturer to suite location and panel layout.
 - Joint type: TBC.
 - Joint width: 20mm.
- Air gap: min 25 mm.
- Secondary support/framing system: Vertical rails with fixing brackets on thermal break spacers.
 - Manufacturer: Submit proposals.
Product reference: As recommended by panel manufacturer to suite location and panel layout.
 - Material: Aluminium.
 - Fasteners: As recommended by panel manufacturer.
Number and location: As recommended by panel manufacturer to suite location and panel layout.
- Backing wall: Structural RC spandrel panel.
 - Vapour control layer: As clause 780.
 - Thermal insulation: As clause 776.
 - Breather membrane: As clause 785.
- Accessories: Include products, fixings and interfaces necessary to complete the fabrication and installation.
- Incorporated components: Copings, cill pressings, window head drip pressings, other flashings, insect mesh.
- Other requirements: None.

- 125 RAINSCREEN CLADDING GENERALLY. FIRST FOUR FLOORS ELEVATIONS & INTERNAL ENVELOPE OF MAIN ENTRANCE CANOPY & CANOPIES IN GENERAL.
- Primary support structure: Reinforced concrete, existing brickwork, new SFS.
 - Rainscreen cladding system:
 - Manufacturer: Submit proposals.
 - Type: Drained and back ventilated.
 - Rainscreen panel:
 - Manufacturer: CGL Systems, 2 Young Place, Kelvin Industrial Estate, East Kilbride, Glasgow, G75 0TD, Tel: [REDACTED], Email: sales@cglsystems.co.uk.
 - Product reference: CGL Wallplank System
 - Provide backing panels to ground floor and easy to reach locations if required to pass Category A under BS8200: 1985. Description: Readily accessible to public and others with little incentive to exercise care. Prone to vandalism and abnormally rough use. Example: External walls of housing and public buildings in vandal prone areas .
 - Material: coil-coated aluminium.
 - Thickness: To suit application.
 - Finish/ Colour: PvdF paint finish, colour TBC.
 - Fasteners: Concealed as recommended by panel manufacturer.
 - Number and location: As recommended by panel manufacturer to suite location and panel layout.
 - Joint type: Labyrinth.
 - Joint width: As per Architect's design.
 - Air gap: 25 mm.
 - Secondary support/framing system: Vertical or horizontal rails with fixing brackets on thermal break spacers. Provide proposal of secondary structure to support ventilation shafts roofs - coordination required with support of louvre panels .
 - Manufacturer: Submit proposals.
 - Product reference: As recommended by panel manufacturer to suite location and panel layout.
 - Material: Aluminium.
 - Fasteners: As recommended by panel manufacturer.
 - Number and location: As recommended by panel manufacturer to suite location and panel layout.
 - Backing wall: Reinforced concrete, brickwork, SFS.
 - Vapour control layer: As clause 780.
 - Thermal insulation: As clause 776.
 - Breather membrane: As clause 785.
 - Accessories: Include products, fixings and interfaces necessary to complete the fabrication and installation.
 - Incorporated components: Flashings, window cill and head drip pressings, gutters to canopies insect mesh etc.
 - Other requirements: Include perforation as indicated on Architect's drawing 1279 (06) 121. Free area to Mechanical Engineer's requirement. .
- 130 MAJOR NONSTANDARD COMPONENTS 'CROWN'
- Manufacturer: TBC.
 - Product reference: TBC.
 - Material: TBC.
 - Finish: TBC.
 - Fixing:
 - As recommended by panel manufacturer to suit environmental conditions;
 - Large wedge shaped elements fixed back to galvanized steel subframe to structural engineer's detail installed on top of existing RC columns.
 - Other requirements: Include products, fixings and interfaces necessary to complete the fabrication and installation.

GENERAL REQUIREMENTS/PREPARATORY WORK

210 DESIGN

- Rainscreen cladding system and associated features: Complete detailed design in accordance with this specification and the preliminary design drawings and submit before commencement of fabrication.
- Related works: Coordinate in detailed design.

215 DESIGN PROPOSALS

- Submission of alternative proposals: Preliminary design drawings indicate intent. Other reasonable proposals will be considered.

220 SPECIFICATION

- Compliance standards: The Centre for Window and Cladding Technology (CWCT) 'Standard for systemised building envelopes'.
- Reference information: For the duration of the contract, keep available at the design office, workshop and on site copies of:
 - The Centre for Window and Cladding Technology (CWCT) 'Standard for systemised building envelopes'.
 - Publications invoked by the CWCT 'Standard for systemised building envelopes'.

230 INFORMATION TO BE PROVIDED DURING DETAILED DESIGN

- Submit the following cladding particulars:
 - A schedule of detailed drawings and dates for submission for comment.
 - A schedule of loads that will be transmitted from the rainscreen cladding to the structure.
 - Proposed fixing details and systems relevant to the structural design and construction with methods of adjustment and tolerances.
 - A schedule of fabrication tolerances/ size tolerances.
 - A detailed testing programme in compliance with the Main Contract master programme.
 - A detailed fabrication and installation programme in compliance with the Main Contract master programme.
 - Proposals to support outstanding applications for Building Regulation consents or relaxations.

232 QUALITY PLAN

- Requirement: Submit during detailed design.
- Content: In accordance with BS EN ISO 9001 and including the following:
 - Name of the quality manager.
 - Quality assessment procedures.
 - Inspection procedures to be adopted in checking the work.
 - Stages at which check lists will be used and samples of the lists.
 - List of work procedures on the correct use of materials or components, both off site and on site.
 - List of product information with latest revisions.
 - Subcontractors involved in the work.
 - Subcontractors quality plans.
 - Storage, handling, transport and protection procedures.
 - Procedure for registering and reporting non compliances.
 - Maintenance procedures and calibration records.
 - Certification that completed work complies with specification.
 - Check list register to ensure all items have been inspected and non compliances discharged.

- 235 INFORMATION TO BE PROVIDED BEFORE COMMENCEMENT OF TESTING OR MANUFACTURE OF RAINSCREEN CLADDING SYSTEM
- Submit the following cladding particulars:
 - Detailed drawings to fully describe fabrication and installation.
 - Detailed calculations to prove compliance with design/ performance requirements.
 - Project specific fabrication, handling and installation method statements.
 - Certification for incorporated components manufactured by others confirming their suitability for proposed locations in the rainscreen cladding.
 - Recommendations for spare parts for future repairs or replacements.
 - Recommendations for safe dismantling and recycling or disposal of products.
- 240 PRODUCT SAMPLES
- General: Before commencing detailed design, submit labelled samples of: panels in clause 120, 123, 125 and 130 .
- 250 SAMPLES OF FIXINGS
- General: During detailed design, submit labelled samples of each type of fixing, together with manufacturers' recommended torque figures.
- 260 FABRICATION SAMPLES
- General: During detailed design, submit samples of: 600x600mm cladding incorporating horizontal and vertical joints for clause 120, 123, 125 and 130 .
Obtain approval of appearance before proceeding.

DESIGN/PERFORMANCE REQUIREMENTS

- 310 CWCT 'STANDARD FOR SYSTEMISED BUILDING ENVELOPES'
- General: Unless specified or agreed otherwise comply with:
 - Part 2 - Loads, fixings and movement.
 - Part 3 - Air, water and wind resistance.
 - Part 4 - Operable components, additional elements and means of access.
 - Part 5 - Thermal, moisture and acoustic performance.
 - Part 6 - Fire performance.
 - Part 7 - Robustness, durability, tolerances and workmanship.
 - Project performance requirements specified in this subsection: Read in conjunction with CWCT performance requirements.
- 342 CONTRACTOR'S DESIGN OF RAINSCREEN GENERALLY
- Design responsibility: Determine sizes and thickness of panels and types, sizes and numbers of fixings to suit backing wall and the layout and details of supporting steelwork .
 - Design standard: To CWCT 'Standard for systemised building envelopes'.
 - Structural and fire requirements:
 - Generally: As section B50.
 - Modifications: None.
 - Design: Complete the design in accordance with the designated code of practice to satisfy specified performance criteria.
 - Functional requirements: As specified in this section, with fire stopping to the requirements of the Building Regulations.
 - Additional requirements: As specified in this section.
- 350 DEFLECTION UNDER WIND LOAD
- Requirement: For listed components, at positive and negative applications of the design wind pressure, normal deflections are not to exceed: - Panel support system to be suitable for high traffic area with high risk of vandalism.
 - Additional stiffness to CWCT 'Standard for systemised building envelopes' clause 3.5.4.2: Not allowed.

- 360 WIND RESISTANCE - CYCLIC LOADING
- Requirement: No reduction in the integrity of the rainscreen cladding must occur when subjected to the test sequence given in CWCT 'Standard for systemised building envelopes', clause 8.14.6.
 - Test method: As clause 665.
 - Effective wind pressure: To be established by sub-contractor.
- 370 APPEARANCE AND FIT
- Requirement: Design rainscreen wall:
 - To ensure position and alignment of all parts and features as shown on preliminary design drawings.
 - To accommodate deviations in the primary support structure.
 - Primary support structure: Before commencing installation of rainscreen cladding system, carry out survey sufficient to verify that required accuracy of erection can be achieved.
 - Give notice: If the structure will not allow the required accuracy or security of erection.
 - Design tolerances: TBC.
 - Rainscreen envelope zone tolerances:
 - Width: TBC.
 - Critical reference location: TBC.
 - Maximum permitted component and installation tolerances:
 - Panel length ± 2 mm.
 - Panel width ± 1 mm.
 - Secondary support bracket length ± 1 mm.
 - Panel tolerance ± 2 mm, installation tolerance ± 2 mm, overall = ± 4 mm.
- 380 GENERAL MOVEMENT
- Requirement: Rainscreen cladding must accommodate anticipated building movements as follows: Consult Structural Engineer for information .
- 385 THERMAL MOVEMENT - SERVICE TEMPERATURE RANGES
- Requirement: To CWCT 'Standard for systemised building envelopes' clause 2.7.2 amended and/ or with the addition of the following: TBC.
- 390 AIR PERMEABILITY EXFILTRATION
- Requirement: The maximum permissible air exfiltration rate through the building envelope system must not exceed: $4 \text{ m}^3/(\text{h.m}^2)$ at a test pressure of 50 Pa.
- 410 AIR PERMEABILITY
- Permeability class to BS EN 12152: A4.
 - Peak test pressure: 600 Pa.
- 420 WATER PENETRATION
- Watertightness class to BS EN 12154: R7.
 - Peak test pressure: 600 Pa.
 - Additional requirements: Insulation attached to backing wall not to be wetted at peak test pressure.
- 425 WIND LOAD SERVICEABILITY AND SAFETY OF RAINSCREEN PANELS - CYCLIC WIND LOADING
- Method of determination: By calculation: Submit verification performance.
- 430 THERMAL PROPERTIES
- Method for calculating the thermal transmittance (U-value) of the rainscreen wall: Weighted U-value.
 - Average U-value of rainscreen wall: $0.15 \text{ W/m}^2\text{K}$.
 - Method for assessing thermal transmittance (U-value) of assemblies: By calculation.

440 AVOIDANCE OF CONDENSATION

- Requirement: Psychrometric conditions under which condensation must not form within or on the interior surface of the rainscreen wall or any surface of the wall that is on the warm side of insulation are:
 - Notional outdoor psychrometric conditions as BS 6229, table A1.
 - Notional indoor psychrometric conditions:
 - Temperature: 20°C.
 - Relative humidity: 55%.
 - Vapour pressure: 1.28 kPa .
- Winter interstitial condensate:
 - Calculated amount (maximum): 0.35 kg/m².
 - Calculated annual net retention: Nil.

450 VAPOUR CONTROL LAYER

- Interstitial condensation risk within rainscreen wall: Determine using the method described in BS 5250 Annex D. If necessary, provide a suitable vapour control layer to ensure that damage and nuisance from interstitial condensation does not occur.

460 SOUND TRANSMITTANCE

- Minimum weighted sound reduction index (R_w) to BS EN ISO 717-1:
 - Between internal and external surfaces of rainscreen clad wall: 32 dB R_w.
- Minimum weighted standardized level difference (D_{nTw}) to BS EN ISO 717-1.
 - Between adjacent floors abutting rainscreen clad wall: 45 dB D_{nTw}.
 - Between adjacent rooms on same floor abutting rainscreen clad wall: 45 dB D_{nTw}.

480 FIRE RESISTANCE OF BACKING WALL TO BS 476- 21

- Minimum periods and criteria: 60 min. integrity, 60 min. insulation .

485 INTERNAL SURFACE SPREAD OF FLAME OF BACKING WALL TO BS 476-7

- Class: 0 .

490 CAVITY FIRE BARRIERS TO BS 476-20

- Requirement: To resist the passage of flame and smoke for not less than 30 min. integrity, 30 min, insulation .

495 DURABILITY

- Relevant agents or degradation mechanisms: To be determined by sub-contractor.
- Design life of the rainscreen cladding system: Not less than 50 years.
- Secondary components: Submit details together with required maintenance regime, replacement periods and methods of replacement.

497 LIGHTNING PROTECTION SYSTEM

- Rainscreen components used as part of lightning protection system: Consult services engineer.

TESTING

510 COMPARISON (TYPE) TESTING

- Verification of performance:
 - Submit: Certification and reports satisfying CWCT 'Standard for systemised building envelopes', clause 1.5.5 items a and b.
- Commencement of fabrication and installation of rainscreen cladding: Not until test results and reports showing compliance with this specification have been submitted.

685 SITE HOSE TEST

- Requirement: To CWCT 'Standard for systemised building envelopes', 'Standard test methods for building envelopes' Section 9.
- Joints to be tested: Horizontal, vertical and corner joints over 5% of cladding area.
- Location to be agreed.

PRODUCTS

710 ALUMINIUM ALLOY FRAMING SECTIONS

- Standards: To BS EN 755 alloy EN AW-6063 and suitable for the specified finish.
- Structural members: To comply with BS EN 1999-1-1, -3 and -4.

712 ALUMINIUM ALLOY SHEET

- Standards: To BS EN 485, BS EN 515 and BS EN 573.
- Alloy, temper and thickness: Suitable for the application and specified finish.

715 CARBON STEEL FRAMING SECTIONS/ REINFORCEMENT

- Standards: To the relevant parts of BS 7668, BS EN 10029, BS EN 10025, and BS EN 10210.
- Thickness: Suitable for the application, and for galvanizing or other protective coating.

730 MECHANICAL FIXINGS - MATERIAL REQUIREMENTS

- Stainless steel: To BS EN ISO 3506 grade A2 generally, grade A4 when used in severely corrosive environments.
- Carbon steel: To BS 4190 and suitable for galvanizing or other protective coating.
- Aluminium: To BS EN 755.

735 FIXINGS AND FASTENERS

- Type and use: Reviewed and approved by manufacturers. Submit confirmatory information on request.
- Dimensions: Not less than recommended by their manufacturers.
- Adjustment capability: Sufficient in three dimensions to accommodate primary support structure and rainscreen cladding fabrication/ installation tolerances.

760 GASKETS

- Material:
 - Noncellular rubber to BS 4255-1.
 - Cellular rubber to ASTM-C509.
- Durability: Resistant to oxidation, ozone and UV degradation.

765 WEATHERSTRIPPING OF OPENING UNITS

- Material:
 - Noncellular rubber to BS 4255-1.
 - Cellular rubber to ASTM-C509.
 - Polypropylene woven pile, silicone treated.
- Installation: Fixed in undercut grooves in framing sections using preformed corners with any joints in the length.

770 GENERAL SEALANTS

- Selection: In accordance with BS 6213 from:
 - Silicone.
 - One part polysulfide.
 - Two part polysulfide.
 - One or two part polyurethane.
- Classification and requirements: To BS EN ISO 11600.
- Reaction to contact products and finishes: Stable and compatible.

776 THERMAL INSULATION

- Material: Zero ODP rigid polyisocyanurate insulation board. BRE Green Guide rating A+ .
- Manufacturer: Celotex Ltd, Lady Lane Industrial Estate, Hadleigh Ipswich Suffolk IP7 6BA
T: [REDACTED]
Web: celotex.co.uk, Email: technical@celotex.co.uk.
 - Product reference: FR5000 aluminium foil faced both sides.
 - Conductivity: 0.021W/mk.
- Thickness: Not less than 150mm for spandrel panels and 80mm for columns.
 - Required performance: Refer to clause 430.
- Recycled content: Manufacturer to confirm.
- Fixing: Attached to the outer face or supported within the backing wall so as not to bulge, sag, delaminate or detach during installation or in situ during the life of the rainscreen cladding.

780 VAPOUR CONTROL LAYER

- Material: Reinforced polyethylene with High Tensile scrim reinforcement .
 - Minimum vapour resistance: 250 MN s/g.
 - Manufacturer: Industrial Textiles & Plastics Ltd, Stillington Road, Easingwold, York, YO61 3FA. Tef [REDACTED] Fax: [REDACTED] Email: info@itpltd.com Web: www.powerlon.com / www.itpltd.com.
Product reference: Powerlon® 150 VCL Reinforced Vapour Control Layer .
- Continuity: No breaks and with the minimum of joints.
 - Penetrations and abutments: Seal to vapour control layer. If necessary, prime substrates to achieve full bond.
 - Sheet laps: Not less than 150 mm, seal with tape. Prime substrates as necessary to achieve full bond.
- Sheet tape: Double sided sealant with vapour resistivity not less than the vapour control sheet.
 - Size (width and thickness): A continuous double row of 15mm x 1.5mm Powerbond butyl sealing tape spaced 75mm apart is recommended for overlap sealing. It is essential that all surfaces are clean and dry. The number of joints should be kept to a minimum by using the full width of the membrane.
All joints should be firmly pressed together using a hand-held pressure roller to ensure that the double sided tape has adhered properly to the barrier .
- Sheet repairs and punctures: Seal with lapped patch of vapour control membrane and continuous band of sealant tape along edges.

785 BREATHER MEMBRANE

- Material: Reinforced polyethylene with High Tensile scrim reinforcement .
- Manufacturer: Industrial Textiles & Plastics Ltd, Stillington Road, Easingwold, York, YO61 3FA. Tel: [REDACTED] Fax: [REDACTED] Email: info@itpltd.com Web: www.powerlon.com / www.itpltd.com .
 - Product reference: Powerlon® Airbarrier.
- Continuity: No breaks. Minimize joints.
 - Penetrations and abutments: Attach to breather membrane with tape. Achieve full bond.
 - Laps: Not less than 150 mm, bond with tape. Achieve full bond.
- Tape: As recommended by breather membrane manufacturer.
- Repairs: Lapped patch of breather membrane material secured with continuous band of tape on edges.
- Junctions at flashings, sills, gutters etc. Overlap and allow free drainage to exterior.

FABRICATION AND INSTALLATION

910 GENERALLY

- Electrolytic corrosion: Take necessary measures to prevent.
- Identification of products: Mark or tag to facilitate identification during assembly, handling, storage and installation. Do not mark surfaces visible in the complete installation.

- 912 METALWORK
 - Requirement: As section Z11, unless specified otherwise in this section.
- 925 SEALANT APPLICATION
 - Requirement: As section Z22, unless specified otherwise in this section.
- 930 ASSEMBLY
 - Location: Carry out as much assembly as possible in the workshop.
 - Joints: Other than movement joints and designed open joints, must be rigidly secured, reinforced where necessary and fixed with hairline abutments.
 - Displacement of components in assembled units: Submit proposals for reassembly on site.
- 960 PRELIMINARY RAINSCREEN CLADDING INSTALLATION
 - Requirement: Complete an area of cladding as set out below for inspection and approval of appearance.
Approved facade section .
- 970 RAINSCREEN CLADDING INSTALLATION
 - Tightening mechanical fasteners: To manufacturer's recommended torque figures. Do not overtighten fasteners intended to permit differential movement.
 - Protective coverings: Remove only where necessary to facilitate installation and from surfaces which will be inaccessible on completion.
- 975 WELDING
 - In situ welding: Not permitted.
- 980 INTERFACES
 - Installation: Locate flashings, closers etc. correctly and neatly overlap cladding to form a weathertight junction.
- 985 DAMAGE
 - Repairs: Do not repair cladding without approval.
 - Approval: Will not be given where the proposed repair will impair performance or appearance.
 - Record of repairs: Prepare schedule or record on drawings for inclusion in the maintenance manual.
- 995 MAINTENANCE
 - Maintenance manual: Incorporate details within the Building Manual in accordance with CWCT 'Standard for systemised building envelopes', clause 7.6.1.
 - Materials certification and test reports to be included: As requested.