

**Project No.** 150457

**Client:** Council of the Isles of Scilly

**Tender Issue** 10/11/2017

**STRIDE TREGLOWN**  
ARCHITECTURE

## **Carn Gwavel School**

**14 November 2017**

**This document includes:**

Code	Section	Revision	Dated
L10	Windows/ Rooflights/ Screens/ Louvres		

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## **L10 Windows/ Rooflights/ Screens/ Louvres**

To be read with Preliminaries/ General conditions.

### **GENERAL**

#### **110 EVIDENCE OF PERFORMANCE**

- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

#### **120 SITE DIMENSIONS**

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items:  
Installation of new double glazed REHAU Total 70C externally coloured PVCu windows

Designated items: Refer to the window schedules/drawings from Stride Treglown Architects

150457-STL-XX-XX-DR-A-ZZZZ-72001 Rev P20 Window Schedule

150457-STL-XX-ZZ-DR-A-XXXX-21001 Rev P20 Elevation Drawings .

#### **140 CONTROL SAMPLES**

- Procedure:
  - Finalise component details.
  - Fabricate one of each of the following designated items as part of the quantity required for the project.
  - Obtain approval of appearance and quality before proceeding with manufacturer of the remaining quantity.
- Designated items: Provide smallest opening window for approval prior to manufacture.

## **PRODUCTS**

### **350A HIGH PERFORMANCE PVC-U WINDOWS**

- System Supplier:  
REHAU Limited  
Hill Court  
Walford  
Ross on Wye  
Herefordshire  
HR9 5QN  
Tel 01989 762600  
Contact Steve Tonkiss Email: Steve.Tonkiss@rehau.com
- Product reference: REHAU Total 70C Window System (Casement, Tilt and Turn & fixed style)
  - All window profiles to be tested and certified by the British Standards Institute as Severe weather rated.
  - Site Pascal rating 1085. Calculated at 1600 Pa
- Sill: 150mm Article 246360 reinforced and vented with Steel Article 255924 in accordance with REHAU technical manual. Sill dimension TBC following site survey.
- Drainage: Concealed
- Colour: External RAL 7016 Anthracite Grey (Smooth). Internal RAL 9016 REHAU White
- All glazed windows are to be internally beaded.
- Glazing details:
  - Double glazed units (28mm) to achieve a centre pane u value of 1.0 W/m<sup>2</sup>k
  - External pane: 6.8mm Laminated, Cavity 16mm 90% Argon filled cavity with Swiss spacer bar + butyl sealant, Inner pane 4mm Toughened Planiclear coating Planitherm One on face 3
  - G Value 0.48.
  - Obscure glazing Cotswold or Bark (Window WG10 & WG11)
  - All glazing in compliance with Building Regulations K Part 4
- Whole frame u value 1.4w/m<sup>2</sup>k

- **Window WG01 & WG02**

Approx. dimension 1170 x 1170.

Top hung over fixed casement

REHAU Extrusion articles to be used:

62mm Outerframe – Article 586825 fully reinforced with Article 216392

75mm Sash – Article 586855 fully reinforced with Article 216394

69mm Z transom – Article 576275 fully reinforced with Article 261748

28mm Bead – Article number 546132

- **Window WG03**

Approx. dimension 1000 x 1000.

Single top hung casement

REHAU Extrusion articles to be used:

62mm Outerframe – Article 586825 fully reinforced with Article 216392

75mm Sash – Article 586855 fully reinforced with Article 216394

69mm Z transom – Article 576275 fully reinforced with Article 261748

28mm Bead – Article number 546132

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- **Window WG04**

Approx. dimension 600 x 1000.  
Single top hung casement

REHAU Extrusion articles to be used:

62mm Outerframe – Article 586825 fully reinforced with Article 216392

75mm Sash – Article 586855 fully reinforced with Article 216394

69mm Z transom – Article 576275 fully reinforced with Article 261748

28mm Bead – Article number 546132

- **Window WG05 & WG07**

Approx. dimension 600 x 945.  
Single FIXED casement

REHAU Extrusion articles to be used:

62mm Outerframe – Article 586825 fully reinforced with Article 216392

28mm Bead – Article number 546132

- **Window WG06**

Approx. dimension 1200 x 1350.  
Single top hung casement

REHAU Extrusion articles to be used:

72mm Outerframe – Article 586835 fully reinforced with Article 216393

75mm Sash – Article 586855 fully reinforced with Article 216394

28mm Bead – Article number 546132

- **Window WG08**

Approx. dimension 600 x 1585.  
Single Tilt and Turn

REHAU Extrusion articles to be used:

72mm Outerframe – Article 586835 fully reinforced with Article 216393

70mm Tilt and Turn Sash – Article 576776 fully reinforced with Article 287779

28mm Bead – Article number 546132

Weather Rail – Article 596290:083 plus associated end caps to be coloured to match 7016

- **Window WG09, WG10 & WG11**

Approx. dimension 600 x 600.  
Single top hung casement

Note: WG09 & WG10 to be supplied with Teleflex winding gear. Winding gear to be positioned to avoid ball pool, position to be agreed on site.

REHAU Extrusion articles to be used:

62mm Outerframe – Article 586825 fully reinforced with Article 216392

75mm Sash – Article 586855 fully reinforced with Article 216394

28mm Bead – Article number 546132

- Trickle ventilation

All windows are to be supplied and fitted with trickle ventilation to comply with Part F of the building regulations. This is to be achieved via sleeved and sealed slot vent through the fully steel reinforced outerframe or sash profile. Vents are to be coloured matched

- externally RAL 7016 Anthracite Grey / White Internal with integral insect screen.
- Casement Hinges  
Securistyle Defender restricted hinge. Hinge **MUST** be supplied in grade 304 austenitic steel.  
Note Windows WG09 & WG10 to be supplied with non-restricted Defender hinge in grade 304 austenitic steel
- Casement Handle  
Offset White Key locking i.e. Securistyle Virage or similar approved
- Tilt and Turn Hardware: MACO Multi Trend fully concealed Tilt and Turn gearing and locking. Hinges to be coated with Tricoat Plus for marine environment applications or similar approved.
- Tilt and Turn Window handle: Carl F Groupco Sparta key locking. Finish White. Corrosion resistance Grade 4 to BS EN 16701

- **Windows**

Performance of windows and doors shall be in accordance with:

BS 6375-1:2004 – Classification for weather tightness and guidance on selection and specification with normative references

BS EN 1991-1-1:2002 Loading for buildings – Part 2: Code of practice for wind loads

BS EN 12207 Window and doors Air Permeability – Classification

BS EN 1026 Window and doors – Air Permeability – Test method

BS EN 12208 Windows and doors – Watertightness – Classification

BS EN 1027:2000 Window and doors – Watertightness – Test method

BS EN 12210 Window and doors – Resistance to wind load – Classification

BS EN 12211 Window and doors – Resistance to wind load – Test method

Wind loads are to be determined with particular reference to site location and conditions and in accordance with BSEN 1991-1-1:2002 or other recognised testing authority for the type of window to be used. Windows shall be reinforced in accordance with BS 7412 and fixed into chamber walls as stated in REHAU general fixing instructions for each system and the client's requirements.

The exposure category of a window or door shall be classified in accordance with Table 1 as set out within BS 6375-1:2004

Expected categories can be as set out below:

Air Permeability:           A pressure class of 2

Water Tightness:           A pressure class of 7A

Wind resistance:           Class 4 with 1/150 deflection - as laid down in BS           6375 Part  
1       2004.

- Static calculations and / or CAD detail is available from the REHAU Commercial Manager Steve Tonkiss. Email [steve.tonkiss@rehau.com](mailto:steve.tonkiss@rehau.com)

**495 DAYLIGHT PIPE To Existing Roof**

- **Manufacturer:**  
Lightway Crystal Sun Tunnel  
Crown House  
37 High Street  
East Grinstead  
RH19 3AF  
United Kingdom.
  - Product reference: HP400 sunpipe.
- **Components:** All pipes.
  - Pipe: 99.8% electro plated reflective tubing .  
Diameter: 320mm.  
Length: To be checked on site.
  - Bends: 45°.
  - Roof terminal: Crystal glass roof dome.
  - Ceiling terminal: Crystal glass diffuser.
- **Accessories:**
  - Full flashing kit
  - Full fixing kit
  - Blue performance thermal break
- **Fixing:** In accordance with manufacturer's instructions.

**EXECUTION**

**710 PROTECTION OF COMPONENTS**

- **General:** Do not deliver to site components that cannot be installed immediately or placed in clean, dry floored and covered storage.
- **Stored components:** Stack vertical or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

**730 PRIMING/ SEALING**

- **Wood surfaces inaccessible after installation:** Prime or seal as specified before fixing components.

**750 BUILDING IN**

- **General:** Not permitted unless indicated on drawings.
  - Brace and protect components to prevent distortion and damage during construction of adjacent structure.

**755A PVC-U WINDOW INSTALLATION**

- To be completed by an approved REHAU fabricator or installation company. Contact details on request.  
Standard: In accordance with BS 8213 part 4: Code of practice for the survey and installation of windows and external doorsets.

**760 REPLACEMENT WINDOW INSTALLATION**

- Standard: To BS 8213-4.

**765A WINDOW INSTALLATION GENERALLY**

- Installation: Into prepared openings.
- Gap between frame edge and surrounding construction:
  - Minimum: 5mm gap.
  - Maximum: 10mm gap.
- Distortion: Install windows without twist or diagonal racking.
- Note: Allow for internal trimming to all internal reveals

**766 LOCATION OF OPENABLE WINDOWS IN NATURALLY VENTILATED BUILDINGS**

- Location: Over 10 m from sources of external pollution.

**770 DAMP PROOF COURSES IN PREPARED OPENINGS**

- Location: Ensure correct positioning in relation to window frames. Do not displace during fixing operations.

**783A FIXING OF PVC-U FRAMES**

- Standard: As section Z20.
- Fasteners: Fixing anchors as appropriate.
  - Spacing: When not predrilled or specified otherwise, position fasteners 150-250 mm from ends of each jamb, adjacent to each hanging point of opening lights, but no closer than 150 mm to a transom or mullion centre line, and at maximum 500 mm centres

**810 SEALANT JOINTS**

- Sealant:
  - Manufacturer: Subcontractor's choice.  
Product reference: Subcontractor's choice.
  - Colour: To match window colour in contact.
  - Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile.

**820 IRONMONGERY**

- Fixing: Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
- Checking/ Adjusting/ Lubricating: Carry out at Completion and ensure correct functioning.