



JAMES CAMPBELL ASSOCIATES LTD

CHARTERED ARCHITECTURAL SERVICES



**Campbell House
173 Rochdale Road
Firgrove
Rochdale
OL16 3BN**

Tel: 01706 354888

Mob: 07817 623183

Email: admin@jamescampbellassociates.co.uk

Web: www.jamescampbellassociates.co.uk

External Wall Recladding Specification

Zinc Standing Seam System with Thermal Upgrade

1. Overview

The existing single-storey brick building is to be externally reclad using a standing seam zinc cladding system to improve the building's thermal performance and visual appearance.

The cladding will consist of vertical standing seam zinc sheets set at 430 mm centres, creating a strong vertical rhythm across the façade. Full-height window openings will be introduced within this rhythm at approximately 900 mm width, aligning with the cladding module to produce a consistent façade composition.

The zinc will be a pre-weathered dark zinc finish, similar in tone to the reference image provided, giving the building a contemporary but muted appearance appropriate to a rural setting.

Acceptable products include:

- VMZINC PLUS
- Rheinzink prePATINA
- NedZink NEO / NOVA

Colour:

Anthracite / Graphite / Black pre-weathered zinc

2. Existing Wall Preparation

The existing brickwork walls will remain in place and act as the primary structural backing.

Prior to installation:

- Any loose mortar or unstable brickwork will be repaired.
- Surfaces will be cleaned and made suitable for fixing the cladding support system.
- Damp penetration or structural defects will be addressed before works commence.
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3. Thermal Upgrade and Wall Build-Up

The recladding system will incorporate a ventilated rainscreen construction with external insulation, significantly improving the thermal performance of the building.

Typical wall build-up (inside to outside):

Existing internal plaster finish

Existing brickwork wall (approx. 215 mm)

Breather membrane installed over external face of masonry

Aluminium support rail system mechanically fixed back to brickwork

120 mm rigid insulation board (PIR or mineral wool rainscreen insulation) installed between support rails

Ventilated cavity (minimum 25 mm)

Zinc standing seam cladding sheets

The insulation thickness may be adjusted depending on final U-value calculations, however the wall build-up should aim to achieve approximately:

U-value $\approx 0.18 \text{ W/m}^2\text{K}$ or better

All insulation boards shall be tightly fitted with staggered joints to avoid cold bridging.

A continuous breather membrane shall be installed over the insulation layer to protect the structure from moisture penetration while allowing vapour permeability.

4. Zinc Standing Seam Cladding

The external finish will comprise vertical zinc standing seam panels.

Panel specification:

Panel width: 430 mm centres

Material thickness: 0.7 mm titanium zinc sheet

Installation: traditional double standing seam system

Sheets will be formed and installed vertically with folded standing seams creating a continuous weatherproof surface.

Fixings will consist of concealed stainless steel clips, allowing for natural thermal expansion of the zinc.

The vertical orientation of the panels reinforces the architectural proportions of the building and aligns with the new window openings.

5. Window Openings

New vertical windows will be introduced within the façade.

Typical window specification:

Width: approximately 900 mm

Height: full height glazing or large vertical openings depending on final design

Frames: powder coated aluminium

Window frames will be set within the zinc cladding zone to create a deep reveal, improving façade depth and shading.

The cladding seams will be coordinated with the window layout so that window edges align with the cladding rhythm.

6. Corner Detail

External corners will be formed using folded zinc corner profiles.

The preferred approach is a standing seam corner detail, where the seam is expressed vertically at the building edge.

Alternatively, a folded zinc corner flashing may be used where required.

Corner trim specification:

Material: 0.7 mm titanium zinc

Colour: match cladding finish

Folded profile fixed to support rails

Standing seams maintained through corner where possible

The aim is to produce a clean, minimal corner detail without bulky trims.

7. Base Detail (Plinth / Starter Trim)

At the base of the wall the cladding will terminate into a zinc starter trim.

This detail will:

- Support the base of the zinc panels
- Allow ventilation to the cavity
- Protect the wall construction from moisture

Typical base build-up:

Ventilated cavity opening with insect mesh

Folded zinc starter rail

Zinc panel termination with drip edge

The base trim will project slightly beyond the wall to allow rainwater to drip clear of the façade.

Where the wall meets gravel or paving, a minimum 150 mm clearance will be maintained between ground level and the start of the zinc cladding.

8. Head Trim / Parapet Detail

At the top of the wall the zinc cladding will terminate into a head flashing or parapet trim.

This will be formed from folded zinc sheet matching the cladding material.

The head trim will:

- Cap the top of the cladding system
- Prevent water penetration behind the cladding
- Allow ventilation to the rear cavity

The flashing will incorporate a drip edge projecting slightly beyond the façade line.

Where the roof meets the wall, the zinc will integrate with the roof covering to ensure continuous weather protection.

9. Ventilation

A ventilated cavity behind the cladding is essential for durability.

Ventilation will be provided:

- At the base of the cladding
- At the top of the cladding

Minimum cavity: 25 mm

Ventilation openings will include insect mesh to prevent pest ingress.

10. Finish and Appearance

The zinc finish will be pre-weathered dark zinc, similar to the reference image supplied. The material will naturally continue to develop a subtle patina over time.

The appearance will be characterised by:

- Strong vertical seams
- Deep window reveals
- Minimal detailing
- A refined contemporary finish

The restrained colour palette ensures the building sits comfortably within the landscape while giving the structure a clear architectural identity.