

REVISIONS REV. DATE DESCRIPTION 00/00/00

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All work to be carried out in full compliance with current HSE regulations. All work methods and materials are to comply with relevant British Standards,

approved codes of practice and manufacturer's instructions.

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GENER

CLIENT ST NEWLYN EAST VILLAGE HALL PROJECT DESCRIPTION **REFURBISHMENT WORKS**

DATE DRAWN 11.12.2023 RC

DATE

REV.

DESCRIPTION

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LOCATION NEEHAM ROAD, ST NEWLYN EAST, TR8 5LE.

DRAWING TITLE

PROPOSED SITE PLAN (WALL INSULATION WORKS) scale As Noted @A1

TENDER

DRAWING NO. REV. TW 11 -



DARBARI UNIT 12, PROW PARK BUSINESS PARK, TRELOGGAN INDUSTRIAL ESTATE, NEWQUAY, TR7 2SX 01637 850144 info@ark-designs.com www.ark-designs.com



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PROPOSED FLOOR PLAN 1:50



ASBESTOS.

PRIOR TO WORKS COMMENCING ON SITE THE BUILDING OWNER IS TO ARRANGE FOR A TYPE 3 ASBESTOS SURVEY TO BE CARRIED OUT TO ESTABLISH THE PRESENCE OF ASBESTOS.

THIS SURVEY WILL HAVE TO BE CARRIED OUT BY A BOHS P402 APPROVED ASBESTOS SURVEYOR. CONSTRUCTION WORKS CANNOT COMMENCE ON

AREAS CONTAINING ASBESTOS UNTIL THE ACM'S ARE REMOVED BY A CONTRACTOR LICENSED BY THE HSE UNDER CONTROLLED CONDITIONS.



Prior to installation of wall insulation -All existing external meter boxes, satellite dishes, flues, ventilation ducts & grilles, and gas & mains water connections to be removed and re-fixed to the surface of the external wall finish. Ensure any ducts are sleeved through the insulation.

All windows to be fitted with their new extended cills, as noted below.

Provide new extended cills to windows of powder coated pressed aluminium colour matched to windows, with sealed boxed ends and side upstands. To project min 40mm beyond the face of the render finish - refer also to EWI details drawing.

Prepare the existing walls surface to the External Wall Insulation manufacturer's instructions. Fix 180mm Premium EPS EWI insulation to achieve a U-value of 0.18 W/mK, fixed in accordance with manufacturers instructions (bonded and mechanically fixed with plastic insulation anchors

as specified by manufacturer). Thin coat render system to insulation manufacturer's recommendations incorporating EML or glass fibre mesh reinforcement installed with all relevant beads / angles as specified by manufacturer.

At DPC level, a starter rail / track formed of PVCu or other low thermal conductivity material to be

used. At DPC form bellcast and insulated plinth below DPC by reduced thickness of insulation to form step back, carry insulated plinth down to

path/ground level to EWI manufacturer's recommendations. Ensure any air bricks and ducts are sleeved

through/not obstructed by the insulation.

LOCATION NEEHAM ROAD, ST NEWLYN EAST, TR8 5LE.

PROPOSED FLOOR PLAN (WALL INSULATION WORKS) SCALE As Noted @A1

TENDER

DRAWING NO. REV. TW 12 -



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NORTH ELEVATION 1:100



SOUTH ELEVATION 1:100

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WEST ELEVATION 1:100

LOCATION NEEHAM ROAD, ST NEWLYN EAST, TR8 5LE.

PROPOSED ELEVATIONS (WALL INSULATION WORKS) scale As Noted @A1

TENDER

DRAWING NO. REV. TW 13 -



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MATERIALS AND WORKMANSHIP:

Building work is to be carried out with adequate & proper materials which are appropriate for the circumstances in which they are used; are adequately mixed or prepared; and which are applied, used or fixed so as adequately to perform the functions for which they are designed: and all in a workmanlike manner. For interpretation of the above refer to the Approved Document Reg 7 Building Regulations 2000.

LIMITING THERMAL BRIDGING & AIR LEAKAGE:

The construction should be carried out to ensure that there are no reasonably avoidable thermal bridges in the insulation layers caused by gaps within the various elements, at the joints between elements, and at the edges of elements.

The Contractor is to obtain a copy of the Accredited Construction Details for Part I published on the planning portal which have been developed to assist the contractor to achieve the performance standards required to demonstrate compliance with the energy efficiency requirements of the Building Regulations.

Additional details are also provided by the Energy Savings Trust known as Enhanced Construction Details which give improved performance beyond the basic requirements. It is recommended that the Contractor obtains copies of these details and familiarises himself with the techniques to improve

EXISTING CAVITY WALLS:

construction.

The existing external walls are assumed to be of cavity construction.

Where in-filling openings use matching constructions to those that exist. The existing walls are to be clad with a proprietary external wall insulation cladding to all masonry walls, with the insulation manufacturer's recommended thin coat render finish. Masonry external walls to achieve a U-value of 0.18W/mK.

The wall areas formed by the new vertical metal claddings are also to achieve a U-value of 0.18W/mK.

External Wall Insulation:

Prior to installation of wall insulation - All existing external meter boxes, satellite dishes, flues, ventilation ducts & grilles, and gas & mains water connections to be removed (and on completion re-fixed to the surface of the external wall finish). Ensure any ducts are sleeved through the insulation.

All windows to be fitted with their new extended cills to cover the full width of the insulation and render finish - to be supplied and installed by others.

Prepare the existing walls surface to the External Wall Insulation manufacturer's instructions.

Fix a Premium EPS EWI insulation, thickness to the manufacturer's specifications, to achieve a U-value of 0.18 W/mK, fixed in accordance with manufacturers instructions (bonded and/or mechanically fixed with plastic insulation anchors as specified by manufacturer).

At reveals and to lintels fix nominal 25mm EPS EWI sealed to the window/door frame.

Apply a thin coat render system to insulation manufacturer's recommendations incorporating EML or glass fibre mesh reinforcement installed with all relevant beads / angles / bellcast former, etc, as specified by the manufacturer.

At DPC level, a starter rail / track formed of PVCu or other low thermal conductivity material to be used.

At DPC form bellcast and insulated plinth below DPC by fixing a reduced thickness of insulation to form step back, carry



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SECTION A-A 1:25



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CDM 2015 (COMMERCIAL - NOTIFIABLE): This project involves works where the Client is a Commercial Client and is notifiable to the HSE as the construction phase is expected to exceed 500 person days.

Summary of clients role/ duties:

• make suitable arrangements for managing a project, including making sure other Dutyholders are appointed as appropriate, and that sufficient time and resources are allocated to the project. • make sure that relevant information is prepared and provided to other Dutyholders.

• make sure that the Principal Designer and Principal Contractor carry out their duties. • make sure that welfare facilities are provided.

On this project our role as Designer is to secure Building Regulation approval and, accordingly, we have fulfilled our duties under the CDM 2015 Regulations up to that point. At this stage our role as Principal Designer will cease. All relevant Health and Safety information will be passed to the Client for distribution to the Principal Contractor.

For the construction stage of this project all Designers will have Designer Duties under the CDM Regulations 2015. Designers include any person who as part of their business:

• prepares or modifies a design, • arranges for, or instructs, any person under their control to do so, relating to a structure, or to a product or mechanical or electrical system.

Design hazard elimination & risk reduction:

The scope of the works are clearly illustrated on our drawings and described in our specification.

In the design of this project, we have eliminated as far as reasonably practicable any foreseeable risks. It is considered that there are no significant risks remaining that will not be obvious to a competent Contractor or Designer. Installations involving / requiring hot processes will increase the fire risk and should be avoided.

The works on this project include an internal fit out of an existing building. The landlord/building owner is to provide the building's existing Health and Safety File to the Principal Contractor. This is to include details of all services, any hazards not previously eliminated and any hazardous materials.

Structural collapse

The superstructure design should be carried out in accordance with the relevant temporary works design guidance to ensure stability is maintained during the construction phase.

The Contractor should carry out a risk assessment in accordance with HSG 168 Fire Safety in Construction, and take actions based on the outcome of this. Also to follow the guidance in STA - 16 Steps to Fire Safety.

The Health & Safety at Work Act.

All work related activities associated with this project are subject to the provisions of the Health and Safety at Work Act 1974. The Contractor has a legal obligation to ensure that the Regulations and Act are complied with.

ASBESTOS.

Prior to works commencing on site the building owner is to arrange for a Type 3 Asbestos Survey to be carried out to establish the presence of Asbestos. This survey will have to be carried out by a BOHS P402 approved Asbestos Surveyor.

Construction works cannot commence on areas containing asbestos until the ACM's are removed by a Contractor licensed by the HSE under controlled conditions.

ASBESTOS.

PRIOR TO WORKS COMMENCING ON SITE THE BUILDING OWNER IS TO ARRANGE FOR A TYPE 3 ASBESTOS SURVEY TO BE CARRIED OUT TO ESTABLISH THE PRESENCE OF ASBESTOS.

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New insulated steel clad roofing to be supplied and installed by others.

Prior to installation of wall insulation - All existing external meter boxes, satellite dishes, flues, ventilation ducts & grilles, and gas & mains water connections to be removed and re-fixed to the surface of the external wall finish. Ensure any ducts are sleeved through the All windows to be fitted with their new extended cills, as noted below. To be supplied & installed by others - new extended cills to windows of powder coated pressed aluminium colour matched to windows, with sealed boxed ends and side upstands. To project min 40mm beyond the face of the render finish - refer also to EWI details drawing.

New roof covering to extend to 100mm beyond face of external wall insulation and its render

Prepare the existing walls surface to the External Wall Insulation manufacturer's instructions. Fix 180mm Premium EPS EWI insulation to achieve a U-value of 0.18 W/mK, fixed in accordance with manufacturers instructions (bonded and mechanically fixed with plastic insulation anchors as specified by manufacturer).

Thin coat render system to insulation manufacturer's recommendations incorporating EML or glass fibre mesh reinforcement installed with all relevant beads / angles as specified by

manufacturer. At DPC level, a starter rail / track formed of PVCu or other low thermal conductivity material to be used.

At DPC form bellcast and insulated plinth below DPC by reduced thickness of insulation to form step back, carry insulated plinth down to path/ground level to EWI manufacturer's recommendations.

Ensure any air brick and ducts are sleeved through/not obstructed by the insulation.

LOCATION NEEHAM ROAD. ST NEWLYN EAST, TR8 5LE.

DRAWING TITLE **SECTION A-A &**

(WALL INSULATION WORKS)

As Noted @A1

TENDER

DRAWING NO. REV. TW 14 -

SUSTAINABLE ARCHITECTURE DARBARI UNIT 12, PROW PARK BUSINESS PARK, TRELOGGAN

INDUSTRIAL ESTATE, NEWQUAY, TR7 2SX 01637 850144 info@ark-designs.com www.ark-designs.com Soffit Detail



Detail 20 - Existing overhanging soffit

Where an existing soffit board is retained, the system should be taken tight against the underside, and a bead of silicone mastic applied. It is imperative that the contractor / client checks to determine if there is evidence of existing insulation within the roof void that will ensure no cold bridge will occur. Failure to check this may result in localised condensation and mould growth to the top of the internal walls.

Extending 'Live' Airbricks



Detail 30 - Proprietary air brick extension

Window Cill Detail



Should the project retain the existing windows, it is generally noted that the existing sills have insufficient overhang to allow for sufficient shedding of water away from the face of the finished system.

Should this be the case, then a new over sill profile can be installed. These should be cut to suit each window, and ideally have up stand wings, to enable the render to overlap and provide a weather tight seal. The sills should be installed so that there is a minimum of 40mm over hang from the face of the finished system. Refer to BS13914:1:2005. All junctions should be finished with a silicone mastic seal (see reveal details).

When installing any over sill profile, it is important to consider existing weep hole frame drainage, and the frame should be either drilled to create new weep holes, or the under sill (detail 6) should be used.

Should the project retain the existing windows, it is generally

noted that the existing sills have insufficient overhang to

Should this be the case, then a new under sill profile can

be installed. These should be cut to suit each window, and

be mechanically fixed to the substrate. There should be a

minimum of 40mm overhang created from the face of the

finished render and any junctions finished with silicone

mastic sealant. Refer to BS13914:1:2005.

allow for sufficient shedding of water away from the face of

Alternate Window Cill Detail

Note:

the finished system.



Detail 6 - Existing windows and sills with new under sill trim

Plinth detail with Insulation Below DPC



The system should be installed as previous details, and starter track installed at existing DPC level, or 150mm above ground level.

For insulation below the DPC, it is recommended that the insulation thickness is less than the main insulation, to create a step and drip between the two elements.

Insulation types should be chosen that have low moisture uptake properties, as specified by system designers for each particular project.

It is recommended that the area adjacent to the plinth is removed of any grass, or soil, and replaced with paving slabs, brick paving, stone chippings, and if the water content of the ground is high, allowance for a land drain or soak away should be considered.



Detail 31 - Rendered return and cover plate

Window / Door Head Detail



Detail 13 - Head detail when window is set back from the face of the existing wall, where there is sufficient frame margin for the introduction of cold bridge insulation

Window / Door Reveal Details



Detail 9 - Reveal detail when window is set back from the face of the existing wall, where there is sufficient frame margin for the introduction of cold bridge insulation

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REVISIONS REV. DATE DESCRIPTION 00/00/00

The client / contractor should advise if existing air bricks are 'live'. If they are to be retained, then they should be extended using a proprietary UPVC airbrick extension profiles, such as those indicated below.

All junctions should be fully sealed with silicone mastic sealant and any voids in the insulation filled with expanding foam.

The render finish should be taken tight to the sides of the unit and sealed with a silicone mastic sealant.

Note: It is the responsibility of the client / main contractor to identify which air bricks are in use and which can be covered.



If the bespoke UPVC units are not installed, then air bricks should be maintained by allowing a hole within the insulation to the size of the existing air brick, and the render system returned into the reveals of the opening. Any returns should be sealed with a silicone mastic sealant.

To ensure rainwater does not sit within the opening, a UPVC or PPC aluminium vented cover plate should be provided, and fixed to the system using the spiral anchors and screws, and bedded on mastic.

BT Connections



Extending BT brackets or covering BT wires without first contacting BT Openreach should not be undertaken.

BT Openreach have a process to ensure the safe upgrade of brackets and wires which is undertaken by approved BT Openreach engineers. It is against the law to damage the BT Network, and may have health and safety implications.

Contact should be made with the local BT Openreach representative, prior to work commencing.

All existing heads should be checked to ascertain the correct detail to be used. It is important that EWI systems are designed to remove any chance of a cold bridge occurring.

Frame margins should be measured and if sufficient margin. circa 50mm is found, then there should be the introduction of a minimum of 20mm high K value insulation and render. The system to frame junction should have a stop bead and silicone mastic applied, or silicone mastic to the base coat render and the top coat installed over. Stop bead and silicone mastic is the preferred detail.

DESCRIPTION

All existing reveals should be checked to ascertain the correct detail to be used. It is important that EWI systems are designed to remove any chance of a cold bridge occurring.

Frame margins should be measured and if sufficient margin. circa 50mm is found, then there should be the introduction of a minimum of 20mm high K value insulation and render. The system to frame junction should have a stop bead and silicone mastic applied, or silicone mastic to the base coat render and the top coat installed over. Stop bead and silicone mastic is the preferred detail.

Gas Boxes

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Note: A cold bridge

will occur

through insulation

Detail 35 - Plan on existing gas box



Detail 36 - Plan of existing front access panel gas box



Best practice would be to move the gas box and re-fix on a timber ground to the thickness of the new EWI system, however timescales do not always allow this

No current regulations exist with regards to the acceptable dimensions for existing gas boxes, however there should be a review on the type of gas box existing on site.

Many gas boxes are required to be removed, so that access to the regulator valve can be provided. Access to the regulator valve using a stub screw driver or spanner can be achieved in a dimension of 50-60mm. The valve is generally lower than the box cover herefore a dimension of 50mm should be sufficient to access.

An assessment of the box and position of the regulator valve should be undertaken, and the dimension checked to ensure access can be provided.

There may be occasion where the existing gas box can be accessed and maintained rom the front access panel. Therefore the system can be taken tight to the box. Proprietary box surrounds are available and these should be used where possible.

Note: It is the responsibility of the client / main contractor to advise which detail is acceptable for each specific project.



Images and text courtesy of: INCA the Insulated Render and Cladding Association, External Wall Insulation Best Practice Guide.

ST NEWLYN EAST VILLAGE HALL

PROJECT DESCRIPTION **REFURBISHMENT WORKS**

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LOCATION NEEHAM ROAD, ST NEWLYN EAST, TR8 5LE.

DRAWING TITLE TYPICAL EXTERNAL WALL **INSULATION DETAILS**

As Noted @A1

TENDER

DRAWING NO. REV. TW 15 -



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