MOYMATERIALS
Waterproofing & Insulation Specialists

Project reference:
010050

Specification

Project Name:

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Roof Report and Specification:

This specification has been produced for Mr Rob Dent of Deane Roofing and Cladding in relation to the development of their new training facility

Overview

Pre-contract conditions:

- Prior to tendering the contractor should ensure that they have examined all drawings and specifications and ensure they understand all (if any) restrictions regarding this work. No claims from failing to carry out these checks will be accepted.
- The contractor is to supply all necessary plant and access equipment to carry out the work in a safe and efficient manner (unless advised differently by the contract administrator)
- The contractor is to ensure that all persons employed by them are suitably skilled to carry out the works described in this specification.

These conditions apply in all circumstances except where the contract administrator's preliminaries and conditions override the ones stated in this document.

Warranty

This work is to be covered by the Moy Materials 25 year, workmanship and materials guarantee. In order to issue this warranty a Moy Materials representative must inspect each element of the system build-up before the next is installed.
A minimum of one inspection a week is required. Followed by a final inspection once all work is complete. The contractor should ensure that all "snagging" is complete BEFORE this visit.

Changes And Variations:
General-
All changes must be agreed in writing between all parties concerned and the specification changed accordingly before any new work takes place.

Insulation-
The insulation required to achieve the requested u-value of .21 is 100mm, thicker insulation may be required to accommodate any changes in roof levels and penetrations.
The contractor is to determine the required thickness of the insulation to accommodate changes in level and contact us to enable us to amend the specification and check that the u-value is achieved and that there is no condensation risk.

Please refer to the last page of this document for additional information regarding Health and safety, building regulations and risk assessments.

Section 1, Preparation.

1.1
Sweep concrete deck clear of all debris and dust.

1.2
Prime concrete deck and all details/upstands with impertine fast drying bitumen primer at a rate of 3 square meters per litre of material.

1.3
Prior to the installation of any membrane set the rolls of vapour control membrane out at regular intervals to avoid trafficking across the membrane with pump trucks etc.

Section 2, Vapour control:

2.1
Vapobar foil core vapour control layer is to be fully torch bonded to all details and upstands and running onto the field area by at least 150mm ensuring 80mm side laps at all times.

2.2
Vapobar foil core vapour control layer is to be fully torch bonded to the entire field area ensuring a joining lap of at least 100mm onto the details. All joints are to be staggered and ensuring 80mm side laps and 100mm end laps at all times.

2.3
If impractical the above 2 processes can be done in a single operation using a single run of membrane from the field area to the upstand.

Section 3, Insulation:

3.1
Sweep Vapour control layer/roof surface and ensure that the area is dry. Any water left on the surface of this layer could lead to vapour blisters so it is important that the surface is dry prior to

Paratherm T. (CFC,HCFC and HFC free, Zero OPD ,GWP 3) / bitumen impregnated glass tissue faced insulation, 100mm thick to be fixed to the roof using a foaming pu adhesive. The adhesive should be applied in an “S” pattern at 300mm centres and the board should be fixed into place within 5 minutes. Walk across the board to ensure the board is well seated. All joints are to be staggered ensuring there are no gaps between the boards. Any gaps extending from the base of the board to the top that are greater than 5mm at the narrowest point should be filled using wedges of insulation or PU foam. This insulation board will not require a partially bonded/separation layer.

3.2
Protective timber edging(150mm X 10mm less than Insulation Thickness) to be mechanically fixed to the deck at exposed edges (i.e changes in level). Fixings should be installed every 400mm. timber should be responsibly sourced FSC or PEFC timber.

Section 4, Waterproofing:

4.1
Eurogum 3mm sand faced SBS modified bitumen underlay is to be fully torch bonded to all details ensuring it laps onto the Vapour control layer by 50mm and extending onto the field area by at least 150mm.

4.2
Eurogum 3mm sand faced SBS modified bitumen underlay is to be fully torch bonded to the entire field area with 80mm side laps and 100mm end laps ensuring joints are staggered. This layer should join onto the details by at least 100mm

4.3
Paraflex Ard/Hs Granular 5mm SBS modified bitumen cap sheet is to be fully torch bonded to the entire field area with 80mm side laps and 100mm end laps ensuring joints are staggered.

4.4
Paraflex Ard/Hs Granular 5mm SBS modified bitumen cap sheet is to be fully torch bonded to the entire field area with 80mm side laps and 100mm end laps ensuring joints are staggered.

4.5
Night seals:
To ensure waterproofing integrity is maintained during the installation of warm roof build ups, (where the works need to be temporarily suspended due to dayworks or inclement weather), a temporary waterproofing seal is required from the new to the existing to ensure the building is kept watertight.

This temporary waterproofing seal should be provided to protect the insulation from any water ingress. An underlay or equivalent should be lapped and sealed by linking the vapour control layer to the waterproofing layers.
Day/night joints must be applied to all details and main roof areas, where waterproofing integrity may be compromised due to the progress of the works or inclement weather.

Section 5, Details:

5.1
The height of all skirtings are to finish at least 150mm above the finished roof surface

5.2
Cable trays and plant items are to be supported on suitable pads.

5.3
Angle fillets are to be used at all horizontal and vertical abutments. Apply with the facing upper side most, tightly butted to the horizontal and vertical abutment. These should be adhered using a mastic sealant.

5.4
Termination to parapet. GRP or aluminium terminations bars are to be used at the dividing parapet. These should be fixed over both layers of waterproofing and should be sealed using a mastic sealant.

5.5
Pipe penetrations hot:
Extend pipe-work as necessary to achieve a minimum upstand height of 150mm above finished roof level.
Install an insulated pipe sleeve to the pipe-work to achieve a minimum upstand height of 150mm above finished roof level.
Apply the specified waterproofing fully bonded to the pipe sleeve, and lapped onto the main roof area by 150mm
On completion of the detailing works provide a metal apron flashing to the pipe and seal using mastic.

5.6
Pipe penetration cold:
Extend pipe-work as necessary to achieve a minimum upstand height of 150mm above finished roof level.
Provide code 4 lead flashings preformed to suit each pipe; the sleeve should be dressed between the waterproofing layers. Lead work should be dressed and turned over the top of the pipe to encapsulate the rim or the top edge, being secured with a proprietary flashing being sealed with a suitable mastic sealant to the top edge.
Apply the specified waterproofing, fully bonded to the pipe and lapped onto the main roof area by 150mm.

Section 6, Completion:

All debris and arising's from works are to be cleared from site and the site is to be left tidy. A final inspection should be requested prior to decanting site.

Health and safety/building regulation considerations:

CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS 2007

In preparing this specification, it has been assumed that, where applicable the client has carried out his legal duties as required under the above regulations.
These Regulations apply to all construction work, which is notifiable, i.e. lasts for more than 30 days, involves more than 500 person days of work or involves 5 or more persons on site at any one time. The Regulations also apply to all design work and to all demolition work (irrespective of the length of time or number of workers involved).
Further information may be found in the publication: Construction (Design & Management) Regulations
2007; SI 1994 No: 3140 HMS0 1995 ISBN 011 04385 0

HEALTH & SAFETY GUIDANCE NOTES

The Contractors nominated in this specification are approved to install Moy Materials Products and will have the Company's Health & Safety data sheets relating to any hazardous products manufactured and marketed by Moy materials that have been included within this Proposal.
It is assumed that the Contractor/s will be working to the guidelines of the relevant British Standard Codes of Practice (in particular BS 8000: 1989) and that the relevant Health & Safety information will be obtained from manufacturer's of roof components that are not manufactured by Moy materials.

BUILDING REGULATIONS - PART L- THERMAL INSULATION (OUTLINE GUIDANCE)

The roofing works to be carried out will need to comply with the requirements of Building Regulations 2000, Part L (Revision October 2010) in England & Wales, or The Building (Scotland) Regulations 2004, Section 6 of the Building Standards Technical Handbook in Scotland.
The calculation of thermal transmittance, or U-Values, for a roof is controlled by the above mentioned regulations. There are different procedures according to whether the roofing work is for new-build or refurbishment. Where the refurbishment works is part of a change of use of the building, the works should comply with the latest Building Regulations and any revision thereof.

In all circumstances, it is recommended that advice be sought from your local Building Control Office, as to the compliance requirements for this particular project.

The following notes give outline guidance;
Refurbishment; England & Wales;
Where Renovation, Renewal or Replacement of a roof covering is to take place, the regulations require that
when more than 50% of the roof area is to be treated, measures should be taken to upgrade the roof to an average U-Value of 0.18W/m²K. This upgrade should be technically, functionally and economically feasible, and where this is not possible then the roof should be upgraded to the best improvement which is practical. (Parts L1B & L2B)

RISK ASSESSMENTS:

Works must comply with the requirements of the Health and Safety at Work Act and any additional requirements of the Client. The contractor must ensure that the works are carried out in accordance with written method statement for the project and that the appropriate risk assessments have been undertaken. Prior to commencing work, the contractor must liaise with the client or building occupier to establish whether any hazards exist (e.g. microwave transmitters) or whether any gases or noxious/flammable fumes are vented at roof level. If a hazard exists, an agreed working pattern must be adopted in accordance with health and safety requirements. The contractor must liaise with the client with respect to any air intake points at roof level, to minimise the risk of any fumes or smoke from the roofing works entering the building. In the event of air intakes being present, a working pattern agreed with the client/building occupier must be agreed prior to works commencing.

Schedule of products supplied by Moy Materials UK:

Product	Unit size	Use	Quantity	Special considerations
Vapobar Foil core VCL	Roll 1m x 20m 23 per pallet	Total roof area VCL	To be quantified by contractor	Rolls to be stored off the ground and upright
Eurogum Sand Face underlay	Roll 1m x 8m 23 per pallet	Underlay for waterproofing system. Details and field area	To be quantified by contractor	Rolls to be stored off the ground and upright
Paraflex ard/Hs 5kg mineral surface cap sheet	Roll 1m x 8m 23 per pallet	Mineral cap sheet for waterproofing system. Details and field area	To be quantified by contractor	Rolls to be stored off the ground and upright
Paratherm t 100mm Torchable insulation board.	1.2M x 1.2M	Insulation material	To be quantified by contractor	To be kept off the ground and dry/covered.