



DENOTES VAPOUR  
- BARRIER PERIMETER  
FIXING TO WALLS

HATCHING DENOTES  
— VAPOUR BARRIER  
OVER AIR-CONDITIONED  
SPACES

THE INTENDED PURPOSE OF THE VAPOUR BARRIER – GENERIC DETAILS ARE TO PROVIDE A GUIDE FOR DESIGNERS, CONSTRUCTION AND PROJECT MANAGERS TO ENSURE THE DESIGN AND INSTALLATION OF VAPOUR BARRIERS COMPLIES WITH THE REQUIRED PERFORMANCE CRITERIA OF VAPOUR BARRIERS FOR NORTHERN TERRITORY GOVERNMENT BUILDINGS IN ZONE 1 CLIMATES.

AIR CONDITIONED BUILDINGS IN ZONE 1 (TROPICAL) CLIMATES ARE REQUIRED TO HAVE AN EFFECTIVE VAPOUR BARRIER ON THE HOT SIDES OF A STRUCTURE (EXTERNAL OR INTERNAL UNCONDITIONED SPACES) TO PREVENT VAPOUR AND OUTSIDE AIR TRANSMISSION INTO COLD SIDES OF BUILDINGS (INTERNAL AIR-CONDITIONED SPACES) RESULTING IN THE FORMING OF CONDENSATION ON THE COOLER SURFACES. CONDENSATION OF THIS NATURE IS KNOWN TO HAVE CAUSED EXTENSIVE ROOFING AND CEILING FAILURES IN NORTHERN TERRITORY GOVERNMENT BUILDINGS.

## 1. MATERIALS AND INSTALLATION:

LAYER 1: SAFETY MESH – 300mm x 150mm GRID OF 2mm DIAMETER GALVANISED WIRE.

**INSTALL SAFETY MESH TO UNDERSIDE OF ROOF INSULATION / VAPOUR BARRIER IN ACCORDANCE WITH AS/NZS4389 AND THE RELEVANT WORK HEALTH & SAFETY REGULATIONS.**

LAYER 2 - GLASS WOOL ROOF INSULATION: R1.8 RATED (NOM. 80mm THICK) INSULATION BLANKET WITH BONDED PERFORATED REFLECTIVE FOIL LAMINATE FACING - PROPRIETARY ITEM: BRADFORD ANTICON BLANKET WITH BONDED PERFORATED FACING OR EQUAL ALTERNATIVE. FLETCHER PERMASTOP WITH BONDED REFLECTIVE FOIL.

LAY GLASS WOOL INSULATION BLANKETS, BONDED FACE DOWN, CONTINUOUSLY OVER THE TOP OF THE PURLINS AND THE SAFETY MESH.

LAYER 3 - VAPOUR BARRIER - PROPRIETARY ITEM: BRADFORD THERMOFOIL 753 HEAVY DUTY & HIGH CLASSIFICATION OR EQUAL ALTERNATIVE.

LAY VAPOUR BARRIER PARALLEL TO ROOF PURLINS. LAP VAPOUR BARRIER OVER ROOF PURLINS, MINIMUM 150mm, AND FULLY SEAL LAPS WITH APPROVED TAPE AND ELASTOMERIC SEALANT, BRING VAPOUR BARRIER TO EXTERNAL WALLS (HOT SIDE) AND FASTEN.

IN FRAMED WALL CONSTRUCTION ENSURE THE FOIL OF THE ROOF VAPOUR BARRIER IS LAPPED AND SEALED OVER THE WALL VAPOUR BARRIER / INSULATION, LAP AND SEAL JOINTS IN WALL VAPOUR BARRIER AS PER ROOF VAPOUR BARRIER.

IN TIMBER DECKED FLOOR CONSTRUCTION INSTALL VAPOUR BARRIER OVER JOISTS, ENSURE THE FOIL OF THE FLOOR VAPOUR BARRIER IS LAPPED AND SEALED OVER THE WALL VAPOUR BARRIER / INSULATION LAP AND SEAL JOINTS IN FLOOR VAPOUR BARRIER AS PER ROOF VAPOUR BARRIER.

LAYER 4 - SARKING REFLECTIVE FOIL LAMINATE (TYPICAL).

LAY SARKING OVER EAVES, VERANDAHS AND NON AIR-CONDITIONED INTERNAL SPACES.

LAP SARKING WITH VAPOUR BARRIER AND FULLY SEAL, TERMINATE OTHER END TO ROOF OVERHANG.

LAYER 5 - GLASS WOOL WALL INSULATION: R2.0 RATED INSULATION BATTS FITTED TIGHTLY BETWEEN FRAMING MEMBERS.

## 2. VAPOUR BARRIER PENETRATIONS:


ALL PENETRATIONS THROUGH THE VAPOUR BARRIER TO BE FULLY SEALED AND MECHANICALLY FIXED.

### 3. VAPOUR BARRIER TERMINATIONS:

ALL VAPOUR BARRIER TERMINATIONS TO WALLS TO BE ON THE 'HOT SIDE' OF THE STRUCTURE - BRING TO HOT SIDE OF WALL AND FASTEN (FOR BOTH EXTERNAL OR INTERNAL NON AIR-CONDITIONED SPACES). TERMINATIONS TO BE FULLY SEALED AND MECHANICALLY FIXED.

4. INSULATION UNDERLAY:

WHERE ROOF INSULATION IS SUPPLIED WITHOUT A BONDED FACING - A SEPARATE PERFORATED (PERMEABLE) UNDERLAY TO BE PROVIDED TO UNDERSIDE OF THE ROOF INSULATION. FIX UNDERLAY SECURELY OVER SAFETY MESH TO PREVENT MOVEMENT. PROPRIETARY ITEM: BRADFORD THERMOSEAL PERFORATED HEAVY DUTY FOIL OR EQUAL ALTERNATIVE. FLETCHER INSULATION WITH PERFORATED REFLECTIVE FOIL.

					<b>IMPORTANT NOTE:</b> DETAILS AS SHOWN ARE GENERIC AND ARE INTENDED TO BE USED AS A GUIDE ONLY - REFER DESIGN INTENT ON THIS DRAWING. <u>DESIGN CONSULTANTS TO ADAPT DETAILS TO SUIT EACH PROJECT AS REQUIRED.</u>	<table><tr><td>DRAWN</td><td>CHECKED</td></tr><tr><td>SG</td><td>-</td></tr><tr><td>DATE NOV. 2016</td><td>DATE -</td></tr><tr><td>DESIGNED</td><td>CHECKED</td></tr><tr><td>SG</td><td>-</td></tr><tr><td>DATE NOV. 2016</td><td>DATE -</td></tr><tr><td>DESIGN PROJECT LEADER</td><td>NTG PROJECT MANAGER</td></tr><tr><td>-</td><td>MT</td></tr><tr><td>DATE -</td><td>DATE -</td></tr></table>	DRAWN	CHECKED	SG	-	DATE NOV. 2016	DATE -	DESIGNED	CHECKED	SG	-	DATE NOV. 2016	DATE -	DESIGN PROJECT LEADER	NTG PROJECT MANAGER	-	MT	DATE -	DATE -	 <b>Northern Territory Government</b>	DARWIN - VARIOUS REGIONS VAPOUR BARRIERS - GENERIC DETAILS				
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2	REVISED ISSUE	20-11-16	SG	DIPL	TYPICAL CEILING PLAN AND NOTES																									
1	1st ISSUE	03-03-15	KMB	DoI																										
No.	DESCRIPTION	DATE	INIT.	DEPT/COMPANY.	NTG PROJECT No.	NTG ASSET No.	SHEET No.	NTG DRAWING No.	AMENDMENT	SHEET SIZE																				
AMENDMENTS							1 OF 1	B15-2501	2	A3																				