 <p>Building Division</p>	<p>STEAM SHOWER</p> <p>City of Palo Alto (CPA) Building Inspection Division 285 Hamilton Ave. Inspection Request: 650 329-2496</p>	Revision Date:02/03/11
		General Requirements/Checklist for: Residential
		Codes Enforced: 2010 CRC, CBC, CPC Palo Alto Municipal Code (PAMC)
<p>The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.</p>		

WARNING

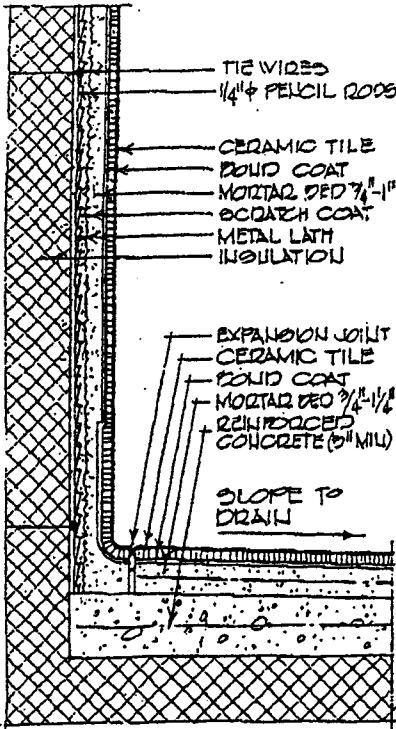
- Failure to complete items below prior to inspection may result in a re-inspection fee.
- BUILDING**
 - See attached Council of America Design Standards **#SR613-98 or #SR614-98** for recommended installation standards.
 - Verify structural elements are completed per approved plans.
 - Drywall is prohibited unless specifically listed for use in residential steam showers, **no green board** *CBC 2508.2*
 - Apply approved waterproof membrane over approved substrates
 - Use of a peel and stick membrane such as ice and water shield or approved liquid applied membrane such as LATICRETE 9235, DENSSHIELD tile guard REDGARD, AQUA GUARD or AQUA SEAL, which is listed for use in a residential steam shower shall be used.
- PLUMBING**
 - Plumbing penetrations in walls and ceilings must be sealed to prevent the entry of moisture into concealed spaces.
 - Shower pan and wall membrane should be overlapped and sealed or continuous where possible to eliminate possible leakage at joints.
 - Installation of a relief vent is recommended to relieve pressure build-up inside the steam room. The vent should be located under bench seat in the shower and taken to the exterior of the building using 1" PVC piping if possible.
 - Steam generators placed in attics or furred spaces shall have drip pans with drains routed to the exterior of the building.
- ELECTRICAL**
 - Provide electrical disconnect for steam generator.
 - Lighting devices shall be listed **steam shower/vapor proof** and shall provide protection against moisture entry to construction i.e. HYDR-O-DYNAMIC CORP. part # HD-LPS-400-1. GFCI protection required for steam shower lighting device.
- MECHANICAL**
 - An exhaust fan should be installed in the room immediately outside the steam room.
 - Steam generating equipment shall be installed to comply with access requirements of *CMC SEC. 305*

All specifications for ceramic tile installations must conform to local building codes, ordinances, trade practices and climatic conditions.

REFRIGERATOR ROOMS Insulation

Cement Mortar

R612-98



Requirements:

- use tile designated as frostproof by the manufacturer in all rooms subject to freezing temperatures.
- provide reinforced concrete slab over floor insulation to resist wheel load of hand and mechanical trucks. (3" minimum; 4" or more for fork lift trucks.)

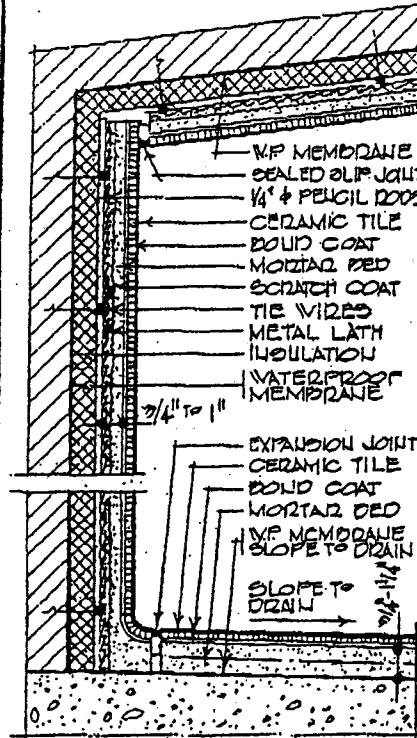
Material and Tile Installation:

- attach four equally spaced tie wires to the supporting members and through the insulation. Attach 1/4" D steel pencil rods vertically over the insulation.
- attach metal lath to pencil rods and follow Method W222 or install on a mortar bed meeting the requirements of Method W241.
- floors and expansion joints may be installed in accordance to Method F112 (cement mortar), F113 (dry-set mortar or latex-portland cement mortar), or F131 (epoxy grout and mortar).

STEAM ROOMS Membrane

Cement Mortar

SR613-98



Requirements:

- steam rooms require a waterproofing membrane on all surfaces to prevent moisture from penetrating adjoining spaces.
- some membranes will require insulation on walls and ceilings to protect them from excessive heat.
- slope ceilings (2" per ft. minimum) to avoid condensation from dripping onto occupants, (sometimes sloped to center to minimize rundown on walls).

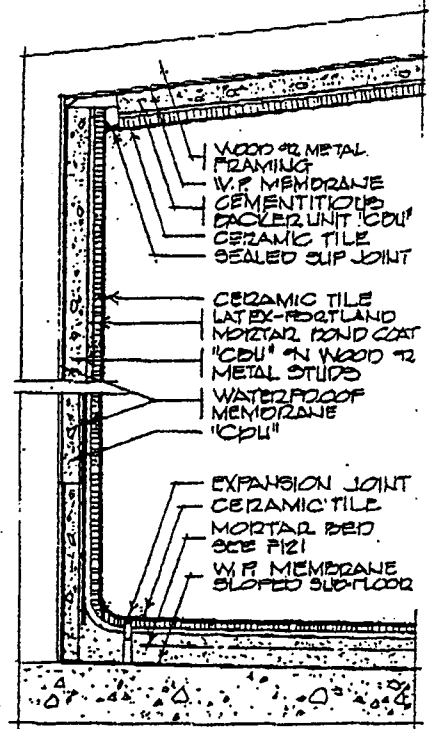
Material and Tile Installation:

- attach four equally spaced tie wires to the supporting members and through the insulation. Attach 1/4" D steel pencil rods vertically over the insulation. Attach metal lath to pencil rods on both walls and ceilings.
- install open slip joints in all corners between walls and ceilings and to divide areas that exceed 16' - 0" in length.
- floors — follow Method F121.
- walls and ceiling — follow Method W221.

NOTE: Any penetration of the membrane should be sealed with appropriate sealant before installing tile.

Thin-bed

SR614-98



NOTE: Waterproof membrane is shown in two different installation locations. Specify one or the other.

Requirements:

- steam rooms require a waterproofing membrane on all surfaces to prevent moisture from penetrating adjoining spaces.
- slope ceilings (2" per ft. minimum) to avoid condensation from dripping onto occupants, (sometimes sloped to center to minimize rundown on walls).

Materials and Tile Installation:

- tile — A137.1 and certified by manufacturer for wet environment.
- cementitious backer units — ANSI A108.11 and A118.9.
- reference and follow membrane manufacturer's installation directions for placement of membrane.
- install open slip joints in all corners between walls and ceilings.
- floors — follow Methods F121 or F122.
- walls and ceilings — follow Methods W244 or B415.