

HOME RETROFIT MATERIALS FOR EARTHQUAKE RESISTANCE:
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SOURCES OF MATERIALS: EMERGENCY PREPAREDNESS COMMITTEE
FAIRWINDS COMMUNITY ASSOCIATION and the following references summarized
by David Collyer 468-7116 or email: david.collyer@shaw.ca

Reference Manuals: Personal Emergency Preparedness Guide Book: [PEPGB]
published by Regional District of Nanaimo.

Neighbourhood Emergency Preparedness: [NEP] from the Emergency Management
Division of the Justice Institute of BC

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Note:

All the hardware listed below, with the exception of the door latches [item 4], plus the miscellaneous materials, is available from Home Depot. For assistance at Home Depot, ask for Bruce [Hardware Manager]. He has a copy of this article and he, or an assistant, would show where all this material is in the store. Home Depot's tel. is 1-888-291-2732.

Dan McLean at Windsor Plywood [Parksville] has compiled a material list of items noted, with a price summary. [tel. 752-3122]

1. Securing Water Heaters:
[ref: PEPGB p28 & NEP [art. 3.3.2]

Alternative #1 – min 2-11 ft. long x 1 1/2 in. 16 ga met straps

Alternative #2 - 2 sets of 4 lengths approx 2ft. long of
EMT electrical conduits

Miscellaneous for both:

- Minimum 8-3in. x 1/4in. x 1/2in. lag screws
- Nuts, lock washers, and bolts for EMT – 6 minimum
1/4in. x 1 in.
- wood shims to prevent water heater from rocking
if space between heater and wall is greater than 1 in.
-2ft. long – 1x2 or 3; or 2x2 or 3 or 4

2. Securing Furniture Over 3ft. High [book shelf unit, buffet, china cabinet]
[ref: PEPGB p29]

Alternative #1 – combination of 2-2in. x 2in. x 1in clip angles, or 1in. x 3in. x 1in.
Preferably with 1in. x 5/16in. slots

- 1/2in. x 1in. nuts and bolts with lock washers
- 1/4in. x 3in. lag screws to studs
- 1/4in. x 3/4in. 'screws to back of furniture

Alternative #2 – Eye [closed] hooks x 3in. long and heavy picture hanging wire and in order to prevent “rocking”,screw 1x2 wood strips,stained to match cabinet finish,to the top of the cabinet ,and centre these wood strips on wall studs, with firm contact to the finish on the studs

- For higher shelves, to prevent slippage of plates etc
unto floor – ¼in. x1 in. x reg'd length
- Velcro to bottom of plates and top of shelf

3. Structural Hazards [PEPGB p 40 &41 available at NEP art 3.2.2]

- to secure studs', or joists', bearing plates to concrete foundation walls – 1/2in x6in or 8in expansion bolts, or lag screws at max 6 ft on center

-to drill concrete – hammer drill, max 2ft clearance usage [can be rented from Home Depot]

-For cripple walls [exposed 2dx4or 6 studs from concrete foundation wall to underside of 1st floor joists] – nail 1/4in or3/8in plywood sheeting [PEPGB p. 42]

-To strengthen the frame, where exposed, use 1/8in to 1/4in steel tees or brackets, as shown in PEPGB p 42

-For windows – install plastic safety film as an option to prevent possible injury

4. Cabinet doors [PEPPGB p 32]

- Install finger release hooking devices, or regular hooks, preferably with horizontal slide to prevent ungainly aesthetic appearance
- The only source for these types of latches is Wal-Mart's Baby Furniture Dept.

5. Securing Pictures [heavier types] mirrors, hanging objects and cabinets [PEPGB p31 &32]

- closed end 3 in long hooks [into studs] heavy picture hanging wire,
- 90 degree x 3 in long hooks
- Velcro