



SurvivalRing

Study Yesterday... Prepare Today... Live Tomorrow

This digital document created and presented by Richard Fleetwood. He is the founder, author, producer, and webmaster of the **SurvivalRing** (<http://www.survivalring.org>) and **Civil Defense Now!** (<http://www.survivalring.org/cd-main.htm>) websites.

SurvivalRing has as its goal the ideal of being the leading source of survival, preparedness, and self reliance information on the Internet. Linkage, assistance, and creation of digital content in areas that until now have only been hinted at or impossible to find, is being added to everyday via the SurvivalRing website and email lists.

Thousands of hours of searching, writing, and communications have been spent collecting over 2 gigabytes of digital content, as well as tens of thousands of pages of hard copy original public domain material in the areas of civil defense, survival, training, and preparedness, from all over the globe.

As much as possible is being put online at his website at

<http://www.survivalring.org>

Civil Defense Now!

Part of The SurvivalRing website

The content of THIS file, while created from PUBLIC DOMAIN material, produced by the U.S. (or other) Government at taxpayer expense, is presented in THIS digital format, produced from the ORIGINAL hardcopy document, for the benefit of all mankind, in hoping to help spread the idea of PREPAREDNESS for any and all threats that may come from either natural, extraterrestrial (space based), or manmade sources.

There are too many situations and incidents that can come to pass in everyday life, that when time is taken to learn and skills obtained, can mean the difference between life and death. Sept. 11, 2001 proved to the world that no matter how safe a person thinks they may be, death and injury can come from the most UN-LIKELY place, at any time. The documents presented in this series of digitized works, can help the average person with the knowledge within, to know how to save those persons closest to them in REAL disaster. Help spread this idea of sharing SURVIVAL INFORMATION.

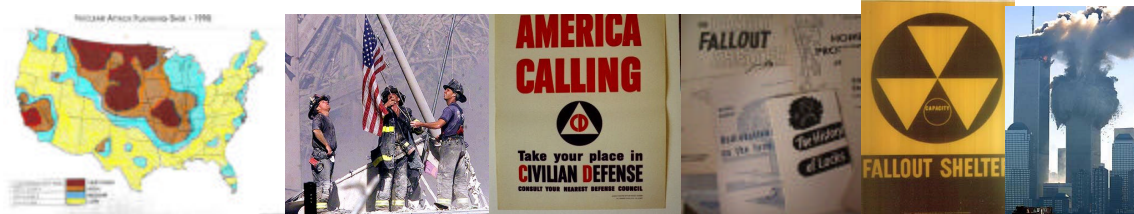
If you have documents from any era, on any disaster or civil defense area, PLEASE contact Richard at his email address of RAFLEET@AOL.COM. Check the website for the LATEST additions to the CIVIL DEFENSE NOW online library archive. All data online, and much more, is also available on CD-ROM. Information is available at the website on how to obtain it. Thanks for your support, and enjoy the information contained on the following pages. Share them with those who will learn from them and teach what they know to others.

Donations of U.S. or other civil defense documents, articles, books, videos, digitized ephemera, patches, tools, photos, or anything of this nature is appreciated, as well as cash gifts or donations to support the website costs and bills. Address information is available on the homepage of Civil Defense Now! (URL located above)

- Richard Fleetwood – January 2002 — ALL RIGHTS RESERVED –

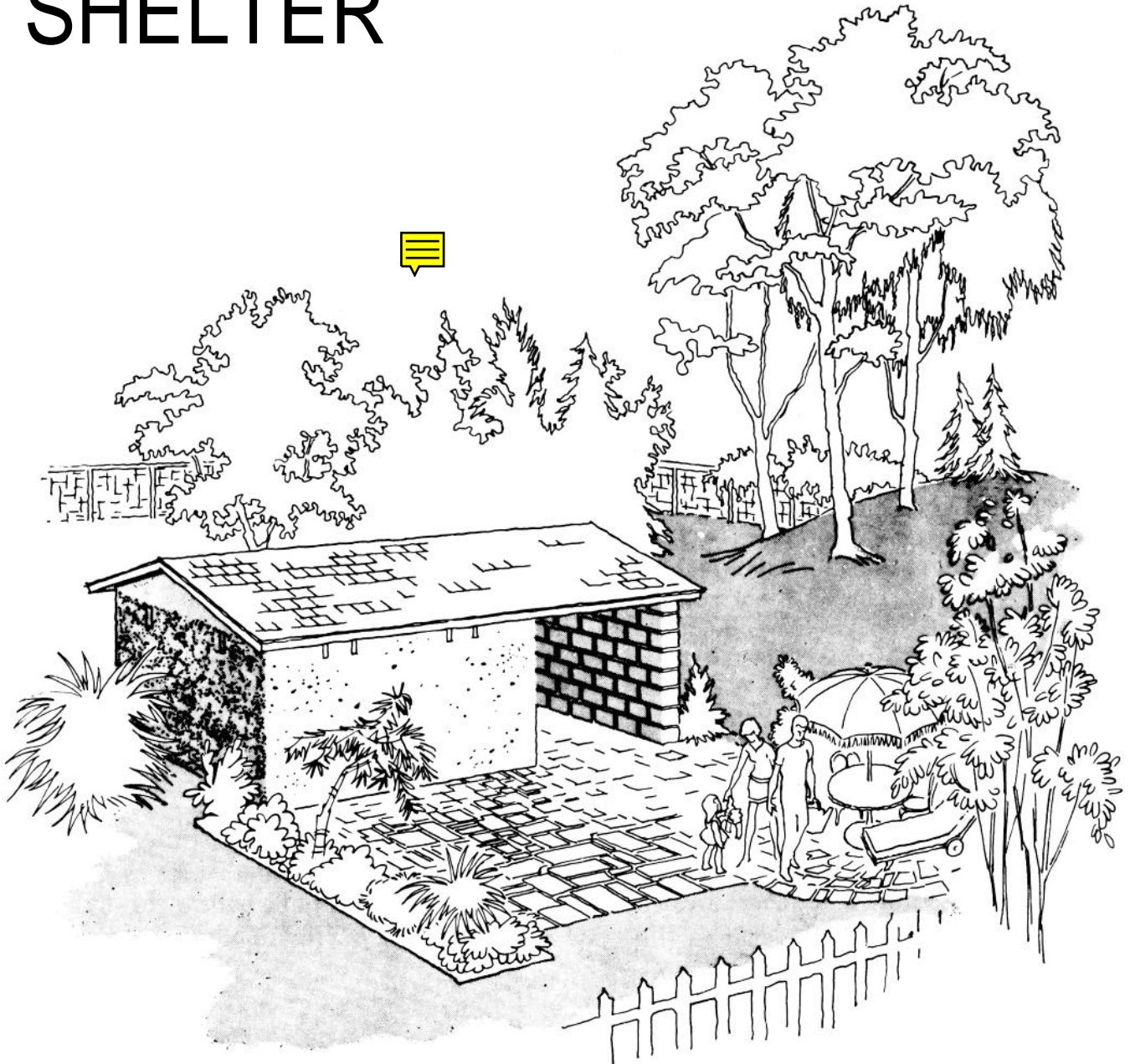
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ABOVEGROUND HOME SHELTER

H-1 2-2
JUNE 1980
(Supersedes H-12-2
dated Feb. 1973
which may be used.)



Protection is provided in an
outside aboveground shelter.
The shelter can be used as
a tool shed or workshop.

**federal emergency
management agency**



GENERAL INFORMATION

This family shelter is intended for persons who prefer an aboveground shelter or, for some reason such as a high water table, cannot have a belowground shelter. In general, belowground shelter is superior and more economical than an aboveground shelter.

The shelter is designed to meet the standard of protection against fallout radiation that has been established by the Federal Emergency Management Agency for public fallout shelters. It can also be constructed to provide significant protection from the effects of hurricanes, tornadoes, and earthquakes, and limited protection from the blast and fire effects of a nuclear explosion. 1/ It has sufficient space to shelter six adults.

The shelter can be built of two rows of concrete blocks, one 12" and one 8", filled with sand or grout, or of poured reinforced concrete. Windows have been omitted; therefore, electric lights are recommended for day to day use.

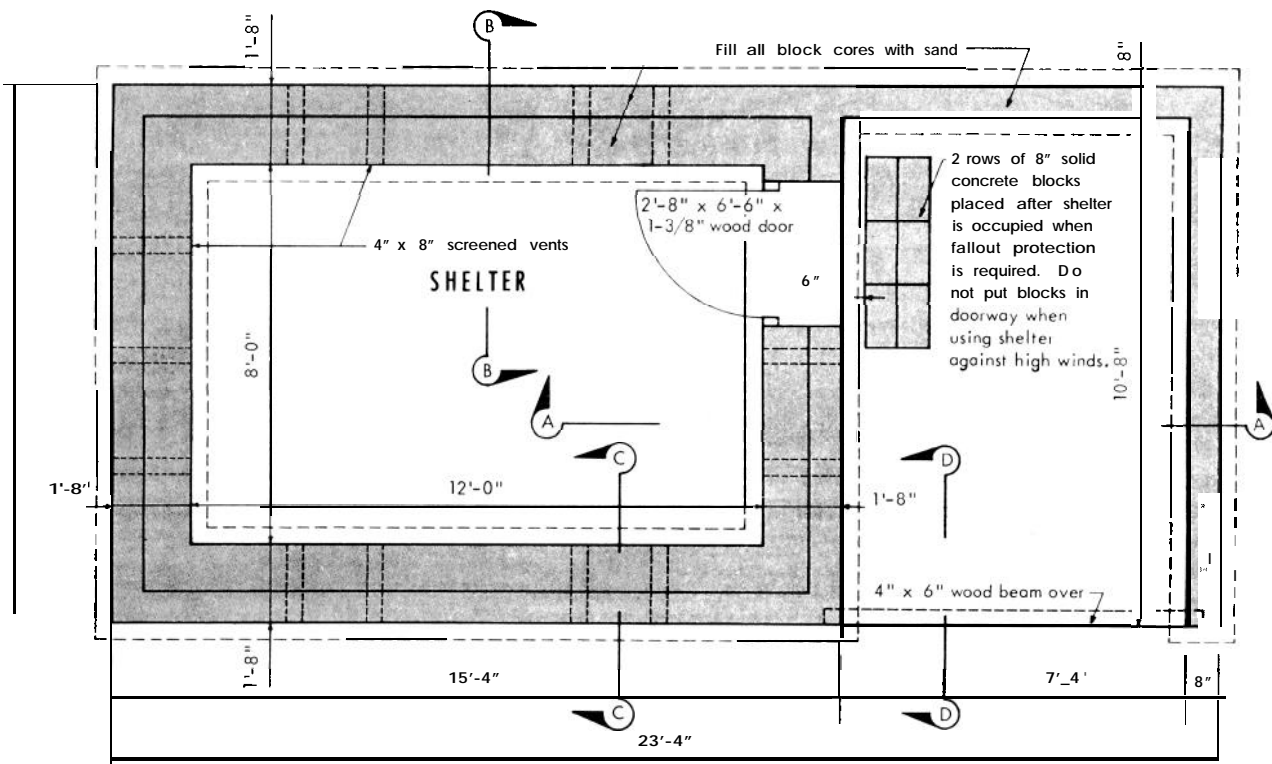
The details and construction methods are considered typical. If materials other than shown are selected -- for example, concrete block faced with brick -- care should be taken to provide at least the same weight of materials per square foot: 200 lb. per sq. ft. in the walls and 100 lb. per sq. ft. in the roof. The wood frame roof over the reinforced concrete ceiling probably would be blown off by extremely high winds such as caused by a blast wave or tornado. However, the wood frame roof is intended primarily for appearance; the concrete ceiling provides the protection. When using the shelter for protection against high winds, DO NOT place the concrete blocks in the doorway or windows.

This structure has been designed for areas where frost does not penetrate the ground more than 20 inches. If 20 inches is not a sufficient depth for footings, one or two additional courses of concrete blocks may be used to lower the footings. Average soil bearing pressure is 1,500 lb. per sq. ft. Most soils can be assumed to support this pressure without special testing or investigation.

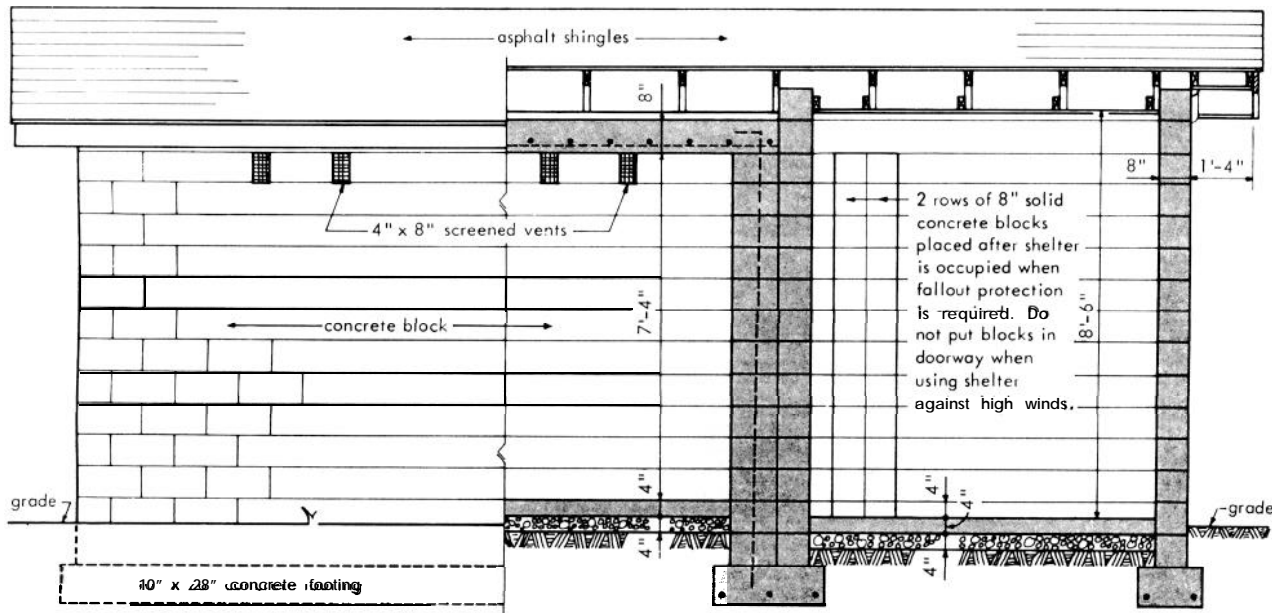
The baffle wall outside the entrance to the shelter is extended out 7'-4" to allow storage of lawn equipment such as wheelbarrows and lawn mowers. If additional space is desired, extend this dimension.

Before starting to build the shelter, make certain that the plan conforms to the local building code. Obtain a building permit if required. If the shelter is to be built by a contractor, engage a reliable firm that offers protection from any liability or other claims arising from its construction.

1/ This shelter will withstand over-pressures of up to 5 p.s.i.

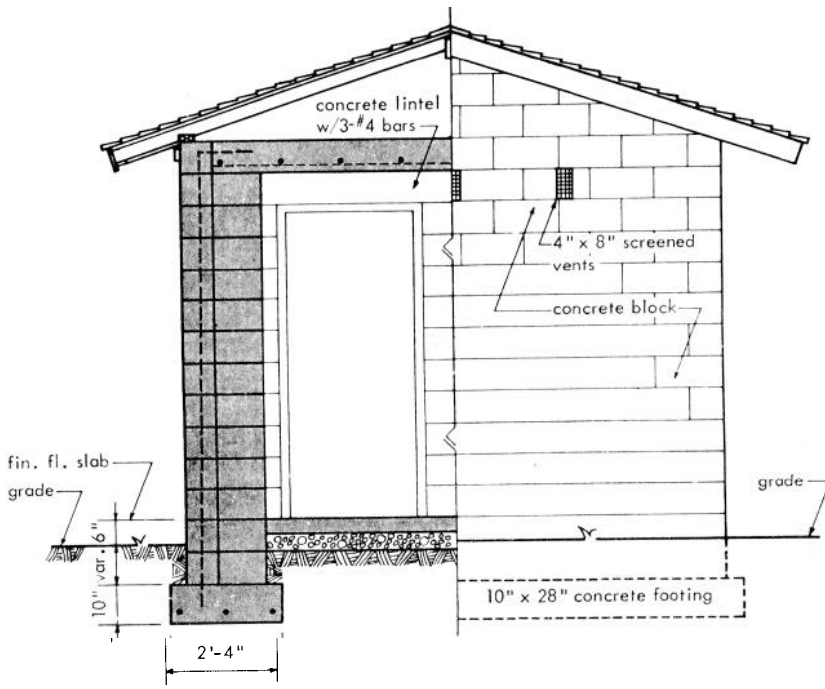


PLAN



ELEVATION

SECTION A-A



SECTION B-B ELEVATION

NOTES

Provide horizontal joint reinforcement for 1'-8" walls in every third course and metal cross ties at 2'-0" o.c. in every alternate course.

If concrete is used in place of block, the walls of the shelter shall be 1'-2" thick with #4 bars at 14" o.c., each way, each side.

The dimension from finish grade to bottom of footings is dependent upon the depth of frost and varies with geographic location. Consult your local building code.

1" areas subject to hurricanes, tornadoes, Of earthquakes, walls shall be reinforced with #4 bars at 16" o.c. vertically. Place bars in block cells and then fill with grout. Top bars between wall and footing dowels, and between wall and roof slab.

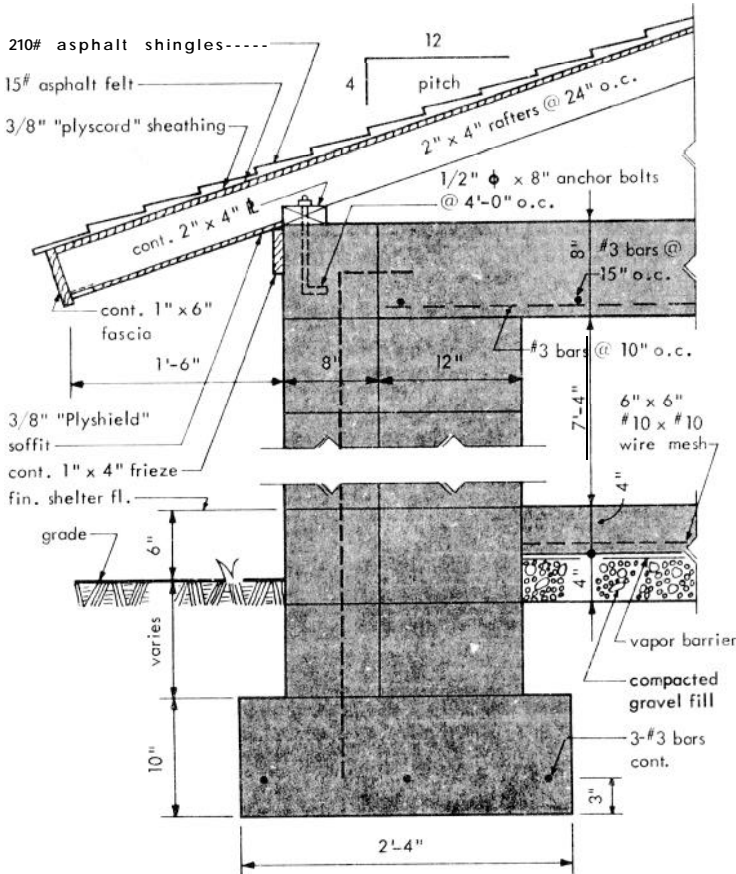
The wood frame roof over the reinforced concrete ceiling probably would be blown off by extremely high winds such as caused by a blast wave or tornado. However, this roof is primarily intended for appearance; The concrete ceiling provides the protection.

Structural design data:

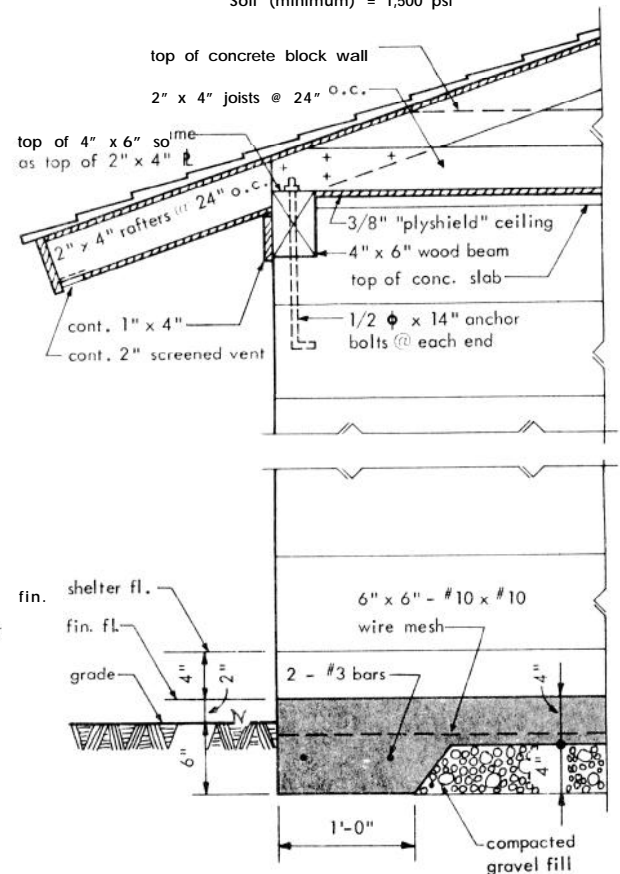
Steel = 20,000 psi

Concrete = 2,500 psi

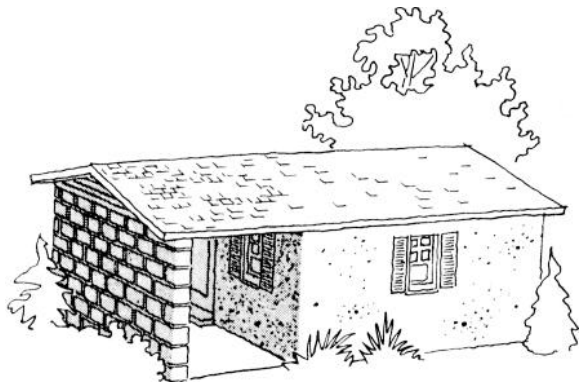
Soil (minimum) = 1,500 psf



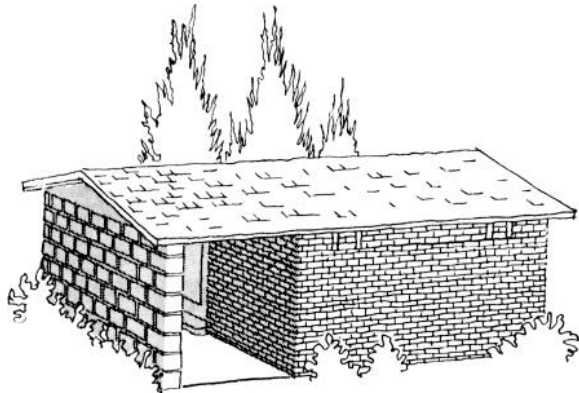
SECTION C-C



SECTION D-D



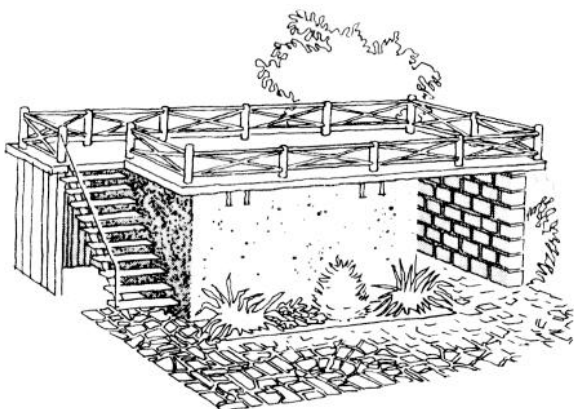
FIRST ALTERNATE indicates windows in the workshop area. Solid blocks, equal to a thickness of 12 inches, should be available to fill these openings to provide adequate fallout protection. Window sizes should be kept small. When using the shelter for protection against high winds, do not place the concrete blocks in the doorway or windows.



SECOND ALTERNATE shows the cement block faced with bricks. Use one course 4-inch brick and two courses of 8-inch cement block to obtain the required weight per unit area.



THIRD ALTERNATE is to attach the tool shed or workshop to the house, with a covered area between. In this case, the facing materials should match the house.



FOURTH ALTERNATE is to install built-up roofing of asphalt or tar, or other wearing surface, on top of the concrete deck.

GUIDE TO CONTRACTS AND SPECIFICATIONS

It is generally advisable to have a written contract with your contractor as well as specifications to supplement the drawing. A widely used and convenient contract form for construction of this size is AIA Document A 107, "Short Form For Small Construction Contract Stipulated Sum," which is available from the American Institute of Architects, 1785 Mass. Ave., Washington, D.C. 20036. It would be impractical to write a specification to suit every local condition; however, the following summary of generally accepted construction materials and practices is a useful guide:

CONCRETE

For details of concrete construction, follow "Building Code Requirements for Reinforced Concrete (AC I-3 18-71)." This publication can be obtained from the American Concrete Institute, Detroit, Michigan 48219.

DAMP-PROOFING

Damp-proofing the bottom slab is necessary to make the room more comfortable in most areas. Any contractor will be accustomed to compacting gravel and applying a polyethylene vapor barrier course. In areas that regularly experience high humidity, the outside walls of the block or concrete should be treated with a colorless type of protective coating material which is readily available at building supply stores. In areas of very low humidity, damp-proofing might be omitted.

VENTILATION

Ventilation is obtained by natural convection. Air will enter the doorway and be exhausted through the holes at the ceiling. If a roof exhaust ventilation system is desired, the following manufacturer makes units that will meet the requirements:

**Penn Ventilator Co.*/
Red Lion and Gantry Rd.
Philadelphia, Pennsylvania 19115**

*The listing of a specific manufacturer of equipment does not denote a preference for his products.

OPTIONS

To accommodate additional persons, increase the shelter length 2' -6" for each two shelter spaces. Do not increase the 8' -0" width.

Lighting and receptacles may be installed with electric service obtained from a separate residence circuit. A branch circuit breaker should be installed inside the shelter.

MATERIALS LIST

Item	Quantity
Concrete:	
footings	4.5 cu. yd.
floor	2.3 cu. yd.
ceiling	3.4 cu. yd.
Total :	10.2 cu. yd.
Steel Reinforcing:	
footings (3# deformed bars)	198 lin. ft.
ceiling (3# deformed bars)	257 lin. ft.
walls (4# deformed bars for hurricane, tornado, or earthquake resistance)	approx. 300 lin. ft.
Total :	755 lin. ft.
tie wire	100 lin. ft.
Masonry:	
8" X 8" X 16" hollow concrete blocks	800
12" X 8" X 16" hollow concrete blocks	430
8" X 8" X 16" solid concrete blocks	75
sand (to fill cores)	12-1/2 yd.
Mortar:	
sand	1-1/2 yd.
portland cement	9 bags
lime	2 bags
Lumber: ("construction" grade)	
2" X 4" X 8'-0" roof rafters	32 pcs.
1" X 6" ridge	26 lin. ft.
2" X 4" X 12'-0" ceiling joists	5 pcs.
4" X 6" X 8'-0" beam	1 pc.
2" X 4" bearing plate	36 lin. ft.
4'-0" X 8'-0" X 3/8" "plyscord" sheathing	13 sheets
4'-0" X 8'-0" X 3/8" "plyshield" soffit & ceiling	6 sheets
1" x 4" x 3/4"	48 lin. ft.
1" X 6" X 3/4"	84 lin. ft.
3/4" - 1/4φ	24 lin. ft.
2'-8" X 6'-6" X 1 3/8" solid core wood door	1
2'-8" X 6'-6" X 5 1/2" wood jamb	1

Miscellaneous:

15# roofing felt	4 1/2 squares
210# asphalt shingles	4 1/2 squares
1/2" ϕ X 8" anchor bolts	12
1/2" ϕ X 14" anchor bolts	2
copper screen	20 sq. ft.
6" X 6" - #10 X #10 wire mesh	200 sq. ft.
polyethylene vapor barrier (4 mil)	200 sq. ft.
gravel fill	2 1/2 yds.
4" butts w/screws	3
lockset	1
16d common nails	25 lb.
8d common nails	20 lb.
6d common nails	10 lb.
8d casing nails	5 lb.
exterior paint, primer	5 gal.
exterior paint, 2 coats	6 gal.
interior paint, primer	4 gal.
interior paint, 2 coats	5 gal.

Distribution:

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