

Forward

The purpose of this document is to allow the end-user to fabricate or have a contractor fabricate locally the necessary structural components of the American Safe Room Underground Blast Resistant Bomb/Fallout Shelter. It is not necessary to fabricate these components locally — you can purchase any or all of them from American Safe Room, but this document gives you the option of “doing it yourself.”

CAUTION

You are constructing an underground structure designed for human occupants. Do not attempt to deviate from the drawings in this manual. Any deviation in materials, dimensions, or construction methods may impact the integrity of that particular part and/or other mating parts and a “compounding of errors” may weaken the entire structure. Remember — everything in this structure is connected and reliant upon the other components to work together to keep the occupants safe.

The shelter is designed as a modular system with a fixed outside width of 10 feet and a standard outside length of 21-feet, 4-inches. The length may be modified longer or shorter in increments of 32-inches — see the parts section of this manual.

It is assumed that the user of this manual and fabricator of these components have at least a journey-level knowledge and skill of steel fabrication.

Quantities of components required to construct a particular shelter length may be found in the necessary parts section of this manual.

How to use this manual

This manual is to be used in conjunction with the *Installation and Operation Manual* for the American Safe Room *Blast Resistant Underground Bomb/Fallout Shelter*. There are some unique things about how these manuals work together that will make it easier on the fabricator/installer:

The revision level and date of the two manuals should be the same. This insures that you have two documents that are designed to work together. The revision level and date can be found on the front of the manual and in the upper right hand corner of almost every page.

The section letters (A, B, C, ...) are the same for both manuals. Because of that, some sections may not be in this manual. That is because those sections in the *Installation and Operation Manual* do not have any parts in them that may be locally fabricated. For instance, this manual has a *Section H* (types of concrete blocks), but not a *Section B* (description — general discussion). There are no parts that can be locally fabricated in that section. **In other words, use both manuals together — one has instructions and the other has drawings and dimensions.**

The quantities listed on them are for a 21-foot, 4-inch length shelter.

The drawings are dimensioned in inches and degrees. There is pertinent data in the data block of every drawing. Some parts have more than one drawing — a “stretch out” drawing of the part shape before it is formed, then a forming drawing of the bracing (bending) of the part. If you have any questions, please refer to Section A — the contact information of this manual and contact our engineer.