



Utilitarian Buildings

Field Guide to Accompany Legacy Project 15-783



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Utilitarian Defined

Utilitarian properties are those which have designs dictated by function and practicality rather than aesthetics. For the Department of Defense (DoD), speed, ease, and cost of construction were the most important factors when using and designing utilitarian buildings. Consequently, nearly all utilitarian buildings constructed by the DoD in the second half of 20th century were prefabricated or otherwise standardized. Metal, wood, and concrete were the most commonly used building materials for both prefabricated and standardized utilitarian buildings constructed by the DoD in the 20th century.

Utilitarian properties in the DoD's inventory may include, but are not limited to, warehouses, vehicle shelters, storage buildings and sheds, maintenance facilities, support buildings, fueling facilities, latrines, and septic and landfill facilities.

Major Manufacturers

- Butler Manufacturing
 - Active 1909–Present
 - Kansas City, MO
 - Metal buildings constructed on-site
- Geo. L. Mesker & Co.
 - Active 1885–1960
 - Evansville, IN
 - Complete storefronts, steel roof trusses, and prefabricated steel buildings

- Luria Standardized Buildings
 - Active 1948–Present
 - Haverstraw, NY (formerly Georgia)
 - Steel prefabricated aircraft hangars

- M.I.C. Industries
 - Active 1981–Present
 - Reston, VA
 - Metal buildings constructed on-site with Automatic Building Machine (ABM) system

- Stran-Steel/U.S. Steel
 - Active 1929–Present
 - Detroit, MI
 - Metal buildings constructed on-site, Quonset Huts

Hangars and Warehouses

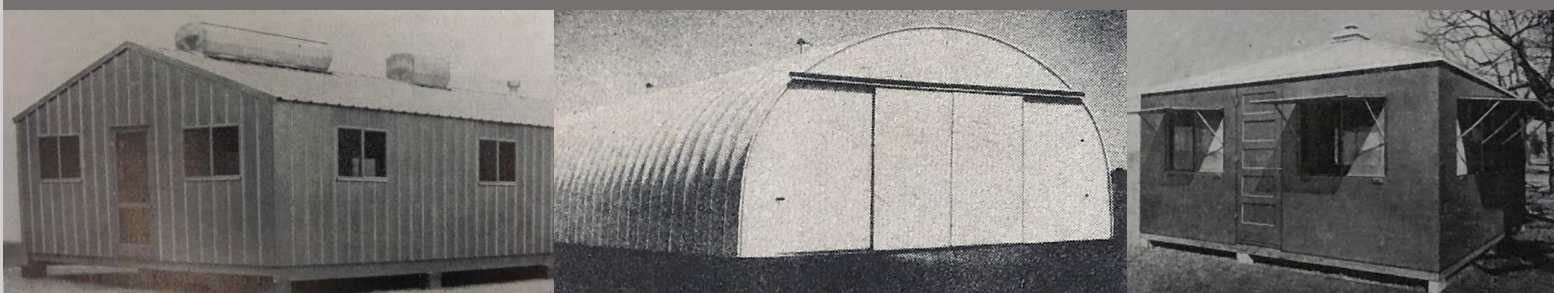


- Luria Standardized Buildings
- Butler Manufacturing

- Bush Prefabricate Structures, Inc.
- Timber Engineering Co. (TECO)

- U.S. Steel Corp.
- Kelly Klosure Systems

Half Rounds and Huts



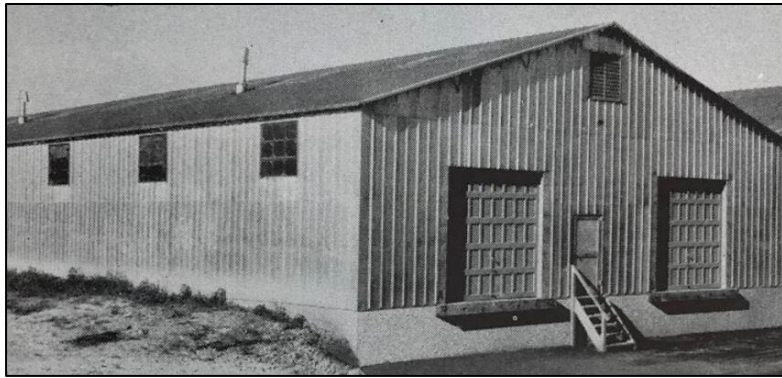
- Wonder Building Corp.
- Butler Manufacturing

- RILCO Laminated Products, Inc.

- Stran-Steel



Metal Construction



The military began using prefabricated metal structures during World War I. As increased production speed was required for military uses, standardization increased from the 1920s to 1950s to allow for speedy production.

By the Cold War, though, technological advancements allowed for both speedy production and customization. They also allowed for durable and adaptable structures that could be quickly constructed.

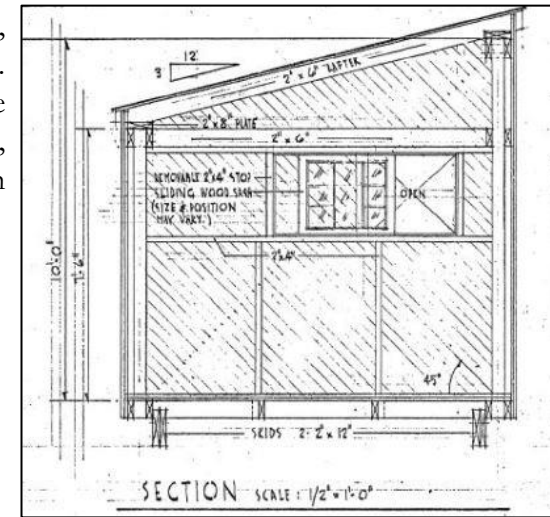
With increased interest in adaptable structures, prefabricated metal buildings were replaced in popularity by pre-engineered structures, which were easily customizable structural designs. The DoD began to commonly use panel construction and deployable buildings because of their adaptability and easy erection.

With increasing customization and design possibilities, the metal building industry split into two distinct fields: prefabricated kit manufacture and metal building system manufacture. Prefabricated kits were frequently used for housing, offices, and other small structures, while metal building systems were often used for larger structures like hangars and warehouses.

Wood Construction

Wood has always been utilized for military construction. New building materials, though, increased the efficiency of wood construction. Most notably, advances in technology during the 1940s made plywood stronger and more durable, so the DoD began to use it to build both conventional barracks and prefabricated housing.

As other building materials increased in popularity, wood's popularity changed. While the DoD still used wood construct some semi-permanent buildings, by the Vietnam War, most wood was used for facilitating purposes (such as forming concrete). In the 1980s, the DoD began again using it as structural support for prefabricated structures with metal exteriors.



Concrete Construction

Concrete block construction, invented in the 19th century, became popular in the early 1900s because concrete blocks were affordable, fireproof, uniform in size, lightweight, and could be mass-produced by builders on-site. They could also be produced in numerous styles. These properties made concrete block an attractive building material for the DoD during

World War II. Later, concrete block was used as siding for metal-framed structures. By the late-1960s, modular precast concrete panels also came to be used as siding. Concrete block, though, continued to be popular for the construction of housing and utilitarian buildings.

