

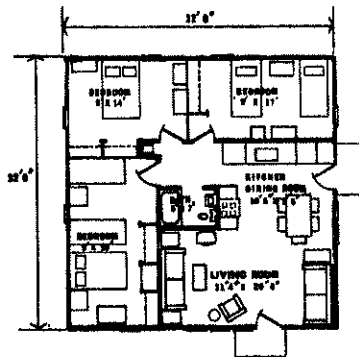


DESIGNS

FOR

LOW-COST WOOD HOMES

AREA - 1024 sq. ft.



House Plan no. FS-SE-1

This rural home of wood was designed by the Forest Service, U.S. Department of Agriculture. It is one of a series of plans for low-cost homes developed by the Southeastern Forest Experiment Station, Forestry Science Laboratory, Athens, Ga., to illustrate effective utilization of wood products.

This design, intended for a flat site, encloses 1,024 square feet. The square plan provides much more usable space, within the same exterior walls, than a typical rectangular plan.

While essentially conventional, the design features a novel floating-wood-floor system. The space under the

floor serves as a return-air plenum from a centrally located forced-air furnace. Air will flow into each room through the opening above the floor, then enter a space behind the baseboard for return under the floor to the furnace. Alternative designs are available for a conventional wood floor over a crawl space and for a concrete slab floor.

The house is unique in that it incorporates a central hall in which the furnace and washer are located. Useful storage space is provided in a central attic area over the hall. The square floor plan provides maximum floor area within the exterior walls. The removable particle board

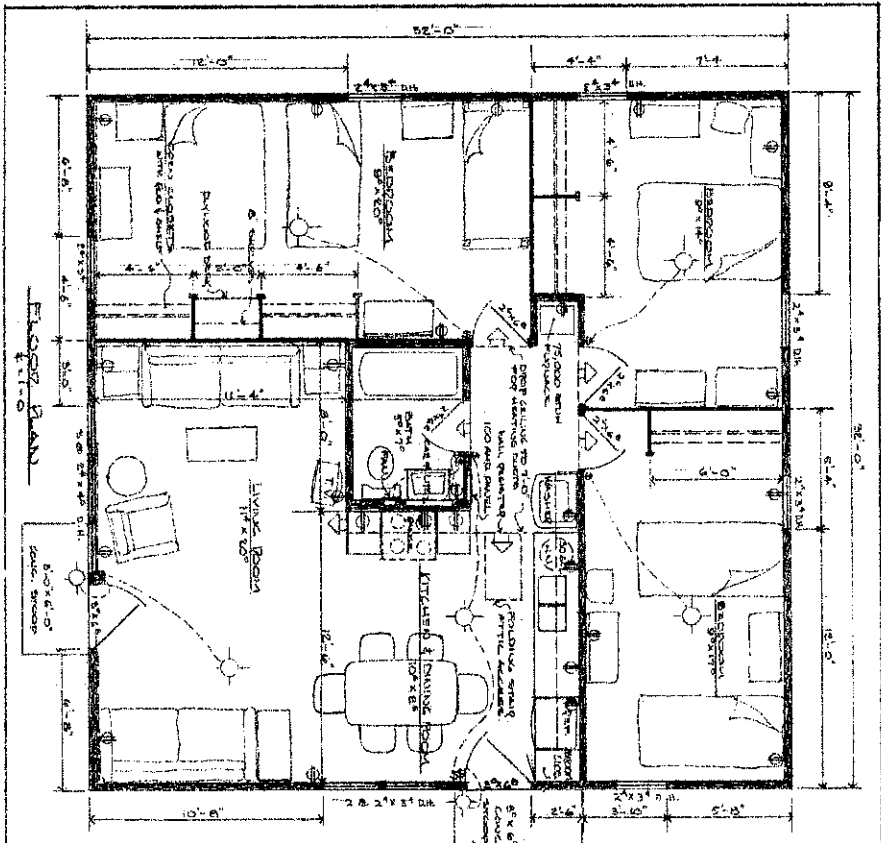
partitions can be relocated to provide many alternative room arrangements.

Large bedrooms, closets, built-in desks, and shelving in the bedrooms are bonus features. These bedrooms are really multi-purpose rooms for play, study and sleeping.

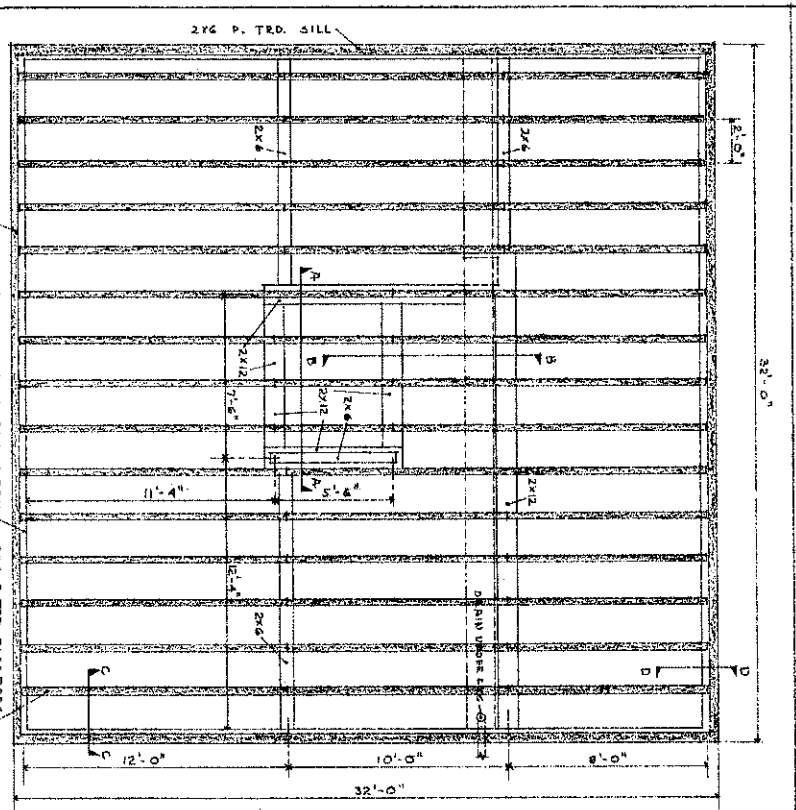
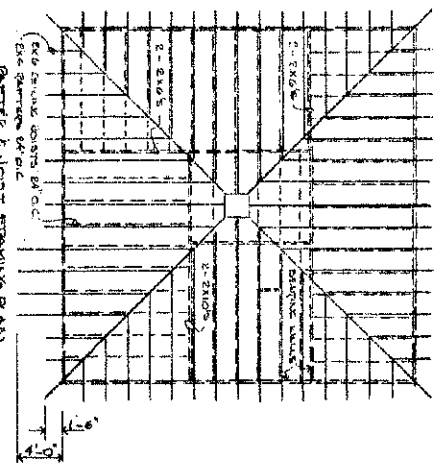
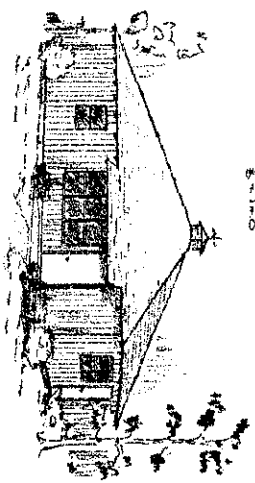
Economical, nonbearing partition walls of particle board have replaced conventional hollow-core interior walls. Being nonbearing, they can be located in various positions without affecting the structure.

Plywood combination siding and sheathing on the exterior walls can be finished with modern natural finishes and stains for durability and easy maintenance.

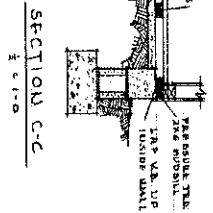
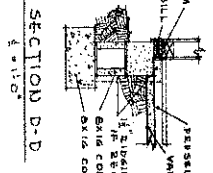
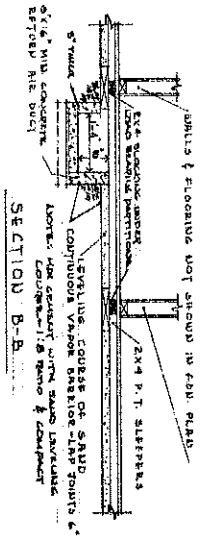
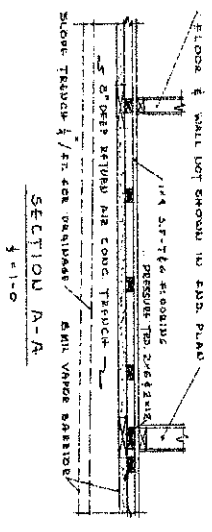
Designed by Harold F. Zornig
Southeastern Forest Experiment Station



PLA-BE-1
A RURAL HOME OF WOOD
 REVISED PLAN FROM ORIGINAL DATED: 11-10-12
 DRAWN BY: J. J. B. L. ARCHITECTS, CHICAGO, ILL.
 PROPERTY SURVEYED, LANSING, MICHIGAN, 1912
 P.C. U.S.D.A. BLDG. 14, EASTERN WOODS PLAN C-3048, P. 5

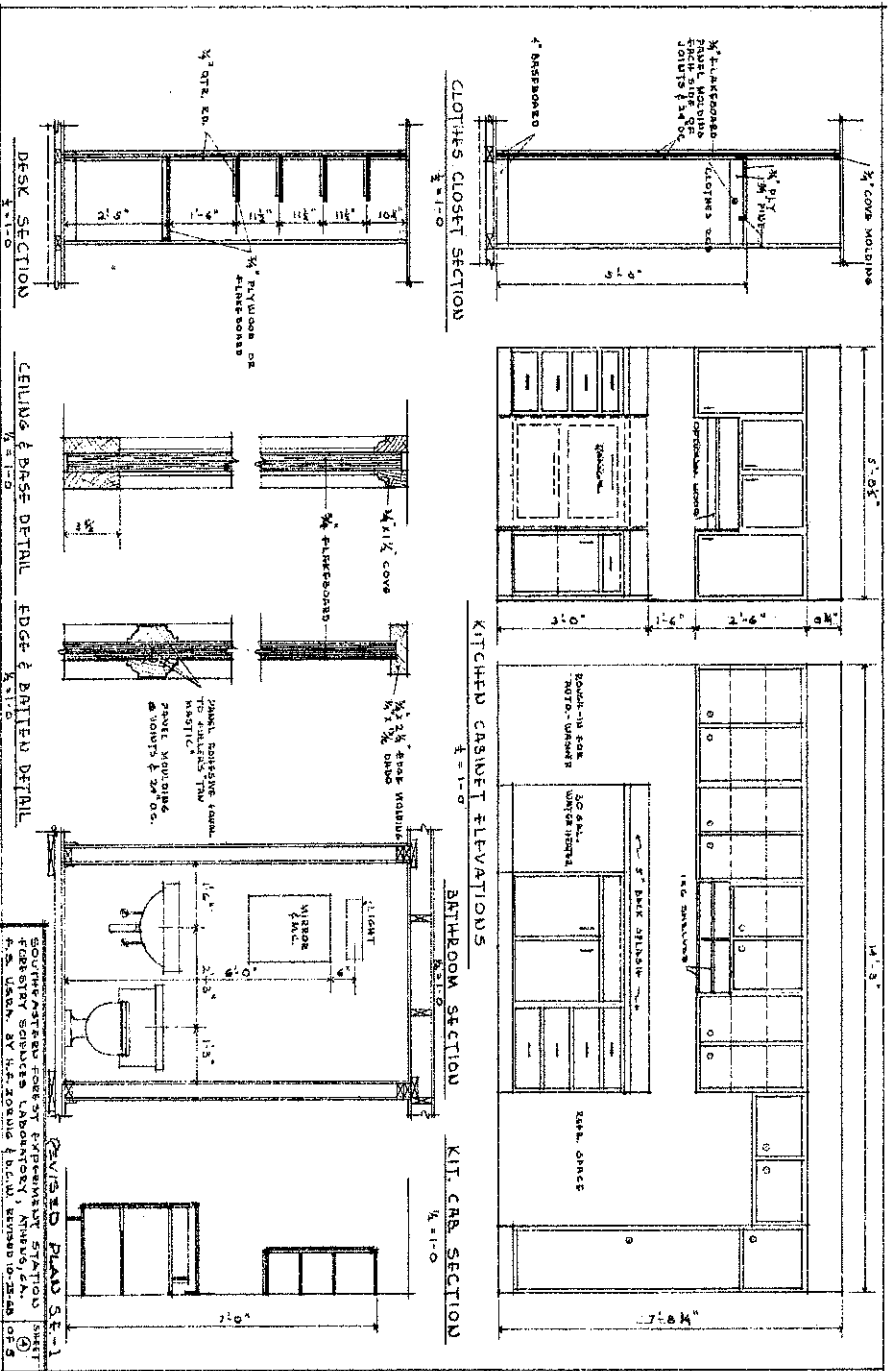
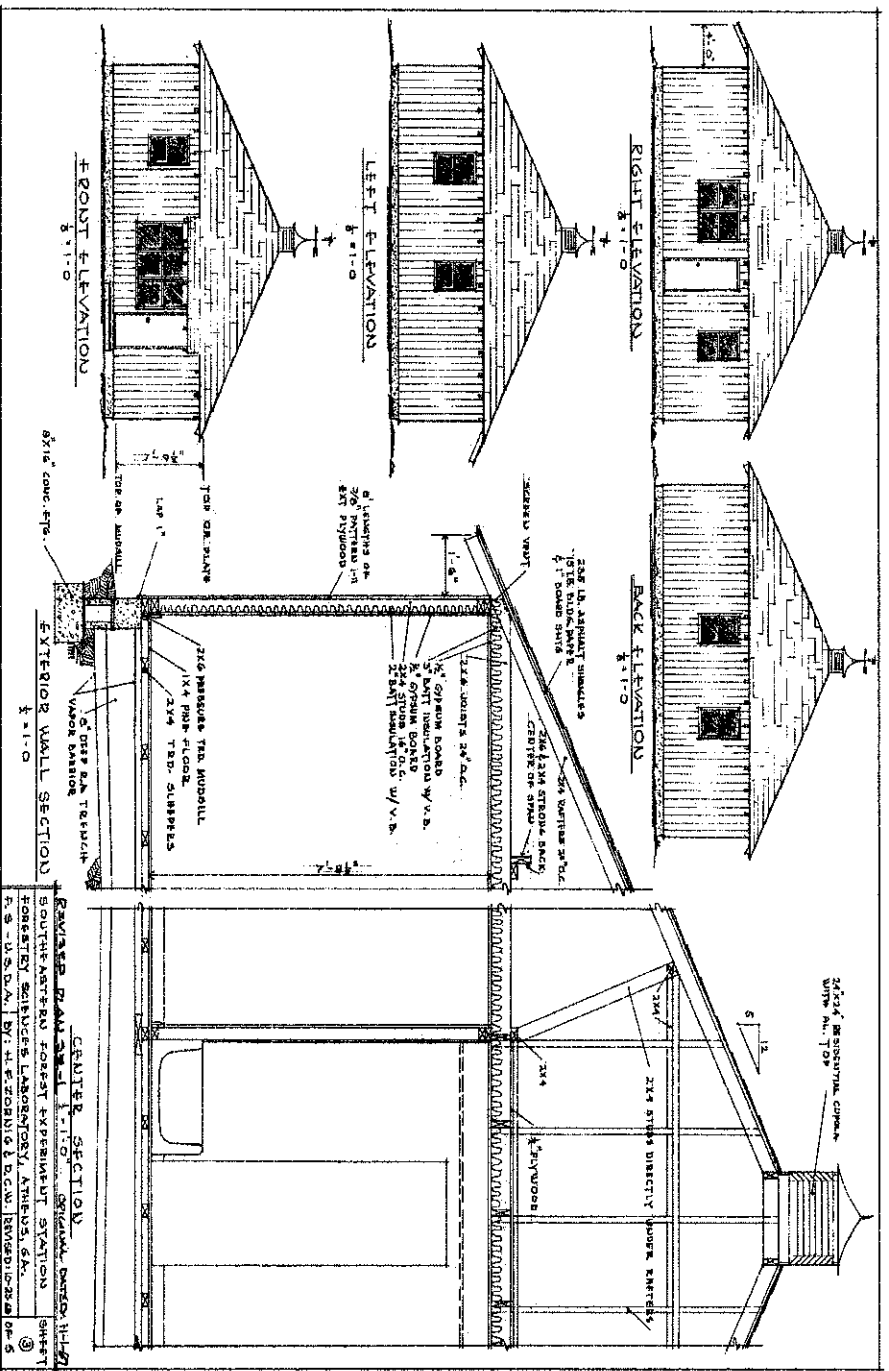


FOUNDATION & FLOOR FRAMING PLAN
 1/4" = 1'-0"



GENERAL NOTES: FOOTING DEPTHT MINUSILL
 AND GRADE SHALL BE AS SPECIFIED BY
 LOCAL BUILDING CODES.

REVISED PLAN SECTION ORIGINAL DATED: 11-10-12
 SOUTHWESTERN FOREST EXPERIMENT STATION ADAPT
 FORESTRY SERVICE LABORATORY ANN ARBOR MI
 P.C. U.S.D.A. BLDG. 14, EASTERN WOODS PLAN C-3048, P. 6



DWELLING SPECIFICATIONS

PLAN SE-1

GENERAL: EACH ITEM OF MATERIAL AND EQUIPMENT SHALL EQUAL OR EXCEED THAT DESCRIBED OR INDICATED. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST PRACTICE. MENTION OF COMMERCIAL PRODUCTS AND SOURCES DOES NOT CONSTITUTE AN ENDORSEMENT OF SUCH PRODUCTS BY THE FOREST SERVICE OR THE DEPARTMENT OF AGRICULTURE TO THE EXCLUSION OF OTHER EQUALLY ACCEPTABLE PRODUCTS.

EXCAVATION: SOIL SHALL BE SCRAPPED CLEAN OF ALL VEGETATION. IF SOIL IS DIFFICULT TO LEVEL FOR THE TREATED WOOD SLEEPERS, COVER WITH A LEVELING COURSE OF SAND. MINIMUM EXCAVATION DEPTH SHALL BE 6 INCHES BELOW FINISH GRADE. BACKFILL SHALL BE COMPACTED TO THE DENSITY OF EXISTING SOIL.

FOUNDATIONS:
FOOTINGS: 1:3:5 (2,000 PSI) CONCRETE
WALLS: 8X8X16 CONCRETE BLOCK
INTERIOR FOOTINGS: PRESSURE TREATED WOOD IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION RECOMMENDATIONS AND AMPI QUALITY CONTROL PROGRAM LP-22. EACH TREATED PIECE OF WOOD SHALL BEAR THE LP-22 AMPI QUALITY CONTROL MARK.

EXTERIOR WALLS:
WOOD FRAME: NO. 2 SYP OR FIR STUDS 16" O.C.
SHEATHING: NONE
SIDING: GRADE A-C PLYWOOD GROUP 2; 3/8" THICK; WITH CHANNEL GROOVES 4" OR 8" O.C. OR 1X2 INCH BATTENS 16" O.C. OVER SIDING. APPLIED DIRECTLY TO STUDS AS DESCRIBED BY THE AMERICAN PLYWOOD ASSOCIATION FOR "STURD-I-WALL" CONSTRUCTION.
EXTERIOR PAINTING: USE A PIGMENTED EXTERIOR PENETRATING STAIN AS RECOMMENDED BY THE MANUFACTURER. TWO COATS OF STAIN SHALL BE APPLIED SO THAT ALL PLYWOOD EDGES ARE SEALED. COLOR TO BE SELECTED BY OWNER FROM SAMPLES. THE SECOND COAT OF STAIN SHALL BE APPLIED BEFORE THE FIRST COAT IS DRY.

FLOOR FRAMING:
FLOATING OR JOIST: NO. 2 SYP OR FIR SLEEPERS SHALL BE TREATED THE SAME AS THE WOOD FOOTINGS IN ITEM 2 AND PLACED OVER 10 MIL POLYETHYLENE VAPOR BARRIER.
CONCRETE SLAB: 1:2:3 MIX OF 3,000 PSI CONCRETE WITH 6X6 WIRE MESH REINFORCING, POURED OVER COMPACTED 4" FILL OF CRUSHED STONE OR AGGREGATE AND 6 MIL POLYETHYLENE VAPOR BARRIER.

FINISH FLOORING: 1X4 INCH SYP, GRADE D OR BTR., NAILED DIRECTLY TO SLEEPERS OR JOISTS. SAND, SEAL AND WAX IN ALL ROOMS.

PARTITION FRAMING:
STUDS: NO. 2 SYP OR FIR 2X4'S 16" O.C.
FLAKEBOARD: HIGH DENSITY, 3/4" THICK, WITH "V" TYPE OR TONGUE-AND-GROOVE EDGES, SIMILAR TO "TIMBLEND" BY WEYERHAEUSER. FINISH WITH ONE COAT OF OIL-BASE PRIMER (NONPOROUS) AND ONE COAT LATEX ENAMEL.

CEILING FRAMING:
JOISTS: NO. 2 SYP OR FIR 2X6'S 24" O.C.

ROOF: (SEE SHEETS 1 AND 3)
SHEATHING: STANDARD PLYWOOD WITH EXTERIOR GLUE, C-D, 3/8" THICK, OR SYP BOARD SHEATHING, GRADE NO. 3. BOARD SHEATHING SHALL BE USED OVER EXPOSED SOFFITS WITH THE 3/8" PLYWOOD SHEATHING SHIMMED UP TO ALIGN WITH THE 1" BOARD SHEATHING, OR ASPHALT SHINGLES SHALL BE APPLIED OVER 3/8" EXTERIOR PLYWOOD OVER THE SOFFITS WITH A ROOFING MASTIC. NO NAILS SHALL PENETRATE INTO THE EXPOSED SOFFIT.

ROOFING: 15# ROOFING FELT AND 23# ASPHALT SHINGLES APPLIED WITH NAILS AND CEMENT; OR SELVAGE, GRADE C, DOUBLE COVERAGE.
FLASHING: ASPHALT ROOFING OVER RIDGES WITH GALVANIZED OR ALUMINUM DRIP EDGES.

GUTTERS AND DOWNSPOUTS: NONE

WALL AND CEILING FINISH:
WALLS: 3/8" FACTORY PAINTED GYPSUM BOARD SIMILAR TO "BLENDTEX" BY U.S. GYPSUM COMPANY. EDGES SHALL BE TAPERED OR ROUNDED. INSTALL WITH 60 GROOVED NAILS OR AN ADHESIVE APPROVED BY U.S. GYPSUM FOR THIS TYPE OF APPLICATION. TOUCH-UP PAINT SHALL BE USED TO PAINT THE NAIL HEADS. (BATHROOM WALL FINISH GIVEN IN NEXT ITEM).
CEILINGS: 1/2" FACTORY PAINTED GYPSUM BOARD SIMILAR TO "BLENDTEX" BY U.S. GYPSUM COMPANY. AS NEAR AS POSSIBLE, BOARD LENGTHS SHOULD MATCH ROOM LENGTH OR WIDTH TO AVOID END JOINTS. CEILING BOARD SHALL BE PRESCORED WITH A SQUARE TILE PATTERN. APPLICATION SHALL BE THE SAME AS FOR WALL PANELS, OR AS RECOMMENDED BY U.S. GYPSUM COMPANY.

DECORATING: COLORS AND TEXTURE FOR FACTORY APPLIED PAINT SHALL BE SELECTED BY THE OWNER FROM SAMPLES, OR A COLOR CHART.
BATHROOM WALLS SHALL BE PAINTED WITH A PRIMER AND 2 COATS ENAMEL PAINT. BATHROOM CEILING FINISH SHALL BE THE SAME AS IN THE REST OF THE HOUSE.

INTERIOR DOORS AND TRIM:
DOORS: 1-3/8", FLUSH HOLLOW CORE, LAUAN.
DOOR AND WINDOW TRIM: 2-1/3" RANCH, D SELECT PINE; PAINT WITH PRIMER AND TWO COATS OF ENAMEL.
BASE: 1X4 INCH SYP, D SELECT; PRIME AND TWO COATS OF ENAMEL, BEVEL TOP EDGE WITH SANDER.

WINDOWS: WOOD, DOUBLE HUNG; PRIME AND TWO COATS OF PAINT. WINDOWS SHALL BE FACTORY TREATED WITH WRP AND COMPLETE WITH ALL HARDWARE, EXTERIOR TRIM, WEATHER-STRIPPING, AND SCREENS. CAULK BETWEEN TRIM AND SIDING ALONG THE TOP EDGE OF EACH WINDOW.

ENTRANCE DOORS: 1-3/4" THICKNESS, SOLID CORE LAUAN, WITH 5/4" PINE OR FIR FRAMES; PROVIDE A SCREEN DOOR FOR EACH ENTRANCE; CAULK BETWEEN TRIM AND PLYWOOD SIDING ALONG TOP EDGE OF EACH DOOR. FINISH WITH (NONPOROUS) OIL-BASE PRIMER AND TWO COATS EXTERIOR PAINT.

CABINETS AND EQUIPMENT:
KITCHEN CABINETS: FIR PLYWOOD WITH VINYL COUNTER TOP AND METAL EDGING; STAIN, SEAL AND WAX. BACK AND END SPLASH IS THE SAME.
MEDICINE CABINET: ALLOW \$20.00.
OTHER CABINETS: 20" DEEP LINEN CLOSET WITH FIR DOOR; PAINTED TO MATCH TRIM. SHELVES ARE 1X10 INCH, GRADE 3 SYP UNPAINTED.

STAIRS: ALLOW \$50.00 FOR FOLDING-TYPE ATTIC STAIR.

PLUMBING: PROVIDE FOUR FIXTURES COMPLETE WITH ALL NECESSARY FITTINGS: 32"X20" DOUBLE OR SINGLE KITCHEN SINK, BATH TUB, 17"X19" LAVATORY, WATER CLOSET IN WHITE PORCELAIN ON STEEL.
WATER HEATER: MINIMUM CAPACITY 40 GALLONS; 10 YEAR WARRANTY; ELECTRIC UNDER-COUNTER OR DROP-IN COUNTER TOP TYPE.
WATER PIPING: GALVANIZED STEEL, COPPER, OR PLASTIC AS APPROVED BY LOCAL PLUMBING CODES.
HOUSE DRAIN: PROVIDE SILL COOK IN THE LOWEST POINT OF THE WATER SUPPLY PIPING.
HOSE BIBB: PROVIDE ONE EXTERIOR HOSE BIBB.

HEATING AND VENTILATING:
WALL HEATER: 80,000 BTU GAS-FIRED FORCED AIR FURNACE; RETURN AIR IN THE FLOOR AND DISCHARGE NEAR THE CEILING; 10 YEAR WARRANTY. PROVIDE A BAFFLE NEAR THE CEILING TO DIRECT THE HOT AIR INTO THE LIVING ROOM AND BEDROOMS. PROVIDE HEATER FLUE AS RECOMMENDED BY FURNACE MANUFACTURER.
BATHROOM EXHAUST: ALLOW \$20.00.

ELECTRIC WIRING AND FIXTURES:
SERVICE: OVERHEAD, 100 AMPERES.
DISTRIBUTION PANEL: 100 AMP. SERVICE PANEL WITH SIX BRANCH CIRCUITS AND THREE SPARE CIRCUITS.
ALL WIRING IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
ALLOW \$35.00 FOR LIGHT FIXTURES.

INSULATION:
ROOF: 3" MINERAL WOOL WITH INTEGRAL VAPOR BARRIER.
WALLS: 2" MINERAL WOOL WITH INTEGRAL VAPOR BARRIER.

FINISH HARDWARE: WITH PUSHING DOORS AND WINDOWS.

PORCHES: 4" CONCRETE OVER 4" AGGREGATE FILL; STEEL TROMEL FINISH.

LANDSCAPING: PLANTING, WALKS, DRIVES, AND FINISH GRADING: BY OWNER.

MISCELLANEOUS:
ALL OUTSIDE UTILITIES, SUCH AS ELECTRICITY, WATER, SEWER, AND GAS TO THE HOUSE ARE PROVIDED BY THE OWNER OR UTILITY COMPANY. ALL UTILITIES IN THE HOUSE SHALL BE STUBBED OUT OF THE HOUSE FOR CONVENIENT HOOKUP TO OUTSIDE UTILITIES.
TERMITE PROTECTION: 1 PERCENT CHLORDANE IN WATER EMULSION OR EQUIVALENT TREATMENT SHALL BE APPLIED TO THE SOIL AROUND THE FOOTINGS AND UNDER THE FLOOR, AND IN THE HOLLOW CORES OF THE CONCRETE BLOCKS. APPLY 4 GALLONS OF 1 PERCENT CHLORDANE PER 10 LINEAR FEET TO THE SOIL ALONG BOTH SIDES OF FOOTINGS AND AROUND UNDERGROUND PIPING. APPLY 1 GALLON OF 1 PERCENT CHLORDANE PER 10 SQUARE FEET AS AN OVERALL TREATMENT UNDER THE FLOOR AND UNDER ATTACHED PORCHES.

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BY: H. P. ZORNIG, REVISED 10/21/68