DESIGNS
FOR
LOW-COST WOOD HOMES

House Plan no. FS-SE-1

This rural home of sound and design was prepared by the Forest Service, U.S. Department of Agriculture. It is one of a series of plans for forested homes distributed by the Southeastern Forest Experiment Station. Forestry Science Laboratory, Athens, Ga., to illustrate effective utilization of wood in home construction. This plan, intended for a flat site, enrols 1,200 square feet. The floor plan provides much more usable space, within the same exterior walls, than a typical rural home.

With its simplicity and economy, the design features a novel floor-plan/room scheme. The space under the floor serves as a semi-underground storage area for garden tools. Air will flow into and out of the home through the opening above the door, then enter a space behind the partition for return under the floor to the furnace. Adequate storage space is available for a conventional wood-burning stove above and for a covered small shed.

The house is oriented so that it takes advantage of central heating in which the furnace and heater are located. Light enters from the front in a central attitude. The roof over the corridor provides a first-floor warm-air return within the exterior walls. The removable particle board partitions can be relocated to provide many alternative room arrangements.

Large bedrooms, closets, built-in shelves, and lockers in the bedrooms are made possible by the new multi-purpose storage for roof, attic, and basement. Economical, insulating partitions walls of particle board have replaced conventional hewn-log or beam walls. Being multi-purpose, they can be adapted from various positions without affecting the floor plan. The exterior walls can be finished with modern natural finishes and coats for economy and ease-maintenance.

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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 best practice. Mention of commercial products or sources does not constitute an endorsement of such products or sources.

EXCAVATION:
Soil shall be scraped clean of all vegetation. If soil is difficult to level for the treated wood sleeping, covers with a leveling course of soil. Minimum excavation depth shall be 6 inches below finished grade. Backfill shall be compacted to the density of existing soil.

FOUNDATIONS:
FOOTINGS: 11' 13" x 12' 201" x 5" CONCRETE WALLS: 8" RHEOS CONCRETE BLOX EXTENSION FOOTINGS: PRESSURE TREATED WOOD IN ACCORDANCE WITH AMERICAN WOOD PRESERVATION ASSOCIATION RECOMMENDATIONS AND NPI QUALITY CONTROL PROGRAM LP-21. EACH TREATED PIECE OF WOOD SHALL BEAR THE LP-21 NPI QUALITY CONTROL MARK.

EXTERIOR WALLS:
WOOD FRAME: NO. 2 1/2" OR FIN STRAIGHT 19" O.C. SHEATHING: NONE SIDING: GRADE A C-P TYPICAL GROUP 2, 3/8" TYPICAL, PANEL WITH CHANNEL GROUPS "L" ON 8" O.C. ON 152 INCH SINTERED 15/16" O.C. OVER SIDING. APPLIED DIRECTLY TO STUDS AS DESIGNATED BY THE AMERICAN PLYWOOD ASSOCIATION "STURO-WALL" CONSTRUCTION. EXTERIOR PAINTING: USE A PRIMED EXTERIOR PAINTING FOR STURO-WALL CONSTRUCTION AS RECOMMENDED BY THE MANUFACTURER. THE COST OF STAIN SHALL BE APPLIED SO THAT ALL EXTERIOR SIDES AND DOORS. COLOR TO BE SELECTED BY OTHER PARTY. STAIN LATER. THE SECOND COST OF STAIN SHALL BE APPLIED BEFORE THE FIRST COST IS PAID.

FLOOR FRAMING:
FLOOR FRAMING OR JOISTS: NO. 2 1/2" OR FIN SLEEPER SHALL BE TREATED THE SAME AS THE WOOD POSTING IN STEP 2 AND PLACED OVER 10 IN POLYETHYLENE PLASTIC BARRIERS.

CONCRETE SLAB: 12" X 12' X 3" CONCRETE WITH 50 WIRE WASH FRAMING, Poured over compacted 4" FILLED OF COMPRESSED STONE AND AGGREGATE OR ROCK POLYETHYLENE PLASTIC BARRIERS.

FINISH FLOORING: 1 1/4" RIBBED OR STRIPED, NAILLED DIRECTLY TO SLEEPERS OR TREATED WOOD. SEAM, SEAL AND WAX IN ALL ROOMS.

PARTITION FRAMING:
PARTITION FRAMING: NO. 2 1/2" OR FIN 2X4" 13/16" O.C. PARTICLEBOARD: HIGH DENSITY, 3/4" THICK, WITH 1/2" TYPE OF TOUGHNESS-GRADE EDGES, SIMILAR TO "TIGHTFIT" BY VERTICALBOARD, FINISH WITH ONE COAT OF BASE-GEAR Primer (ENFORCED) AND ONE COAT LATER EMULSION.

CEILING FRAMING:
CEILING FRAMING OR JOISTS: NO. 2 1/2" OR FIN 2X8" 3/4" O.C.

ROOF:
SIDE EAVES AND DORMER: STANDARD EXTERIOR, 5/16" THICK, OR 1/2" BOND SHEATHING, JANICE NO. 3. ROOF SHEATHING SHALL BE USED OVER EXPOSED Soffits WITH THE 5/16" PLASTIC SHEATHING SHOWN UP TO ALIGN WITH THE 1/2" BOND SHEATHING. ON ASPHALT SHEATHING SHALL BE APPLIED OVER 1/2" EXTERIOR POLYURETHANE OVER THE Soffits WITH A ROOFING NAILER. NO WOOL SHALL PERMANENTLY INTO THE EXPOSED Soffits.

ROOFING: 12" ROOFING TELF AND 254" ASPHALT SHingles APPLIED WITH NAILS AND GLUEMATIC OR CEILING, GRADE C, LAMINATED OR PLASTIC FOR DURABILITY.

ROOFING: ASPHALT ROOFING OVER RIDGES WITH GALVANIZED OR ALUMINUM SHINGLES.

CUTTERS AND COMPOUNDS:
CUTTERS: NONE

WALL AND CEILING FINISH:
WALLS: 1/2" FACTORY PAINTED Gypsum BOARDS SIMILAR TO "BIFROST" BY U.S. GYPSUM COMPANY. EDGES SHALL BE TREATED AND Ready. INSTALL WITH 6 GAUGE NAILS OR 1/2" PANELING NAILS OR 6 GAUGE NAILS OR 1/2" PANELING NAILS OR 6 GAUGE NAILS. APPLIED FOR THIS TYPE OF APPLICATION, FINISH WALLS SHALL BE USED TO PREVENT THE WALL HEAD. (BEFORE THE OILING GLUE TO BE APPLIED TO THE WALLS. CEILING PANELS SHALL BE BONED OVER 1/2" FACTORY PAINTED Gypsum BOARDS SIMILAR TO "BIFROST" BY U.S. GYPSUM COMPANY. AS NOBLE AS POSSIBLE, ROOFING LAMINATE SHOULD NOT BE USED IN CONTACT WITH WATER TREATED OR WITH ROOFING. CEILING PANELS SHALL BE BONED TO A SQUARE TITLE PATTERN. APPLICATION SHALL BE THE SAME AS FOR WALL PANELS, OR AS RECOMMENDED BY U.S. GYPSUM COMPANY.

DECORATING:
COLORS AND TEXTURE FOR APPLIED PAINT SHALL BE SELECTED BY THE OWNER FROM SAMPLES. BRUSH AND PAINT SHALL BE PAINTED WITH A PRIMER AND 1 COAT OF PAINT. APPLIED FOR THIS TYPE OF APPLICATION, FINISH WALLS SHALL BE APPLIED TO THE SAME AS IN THE REST OF THE HOUSE.

INTERIOR DOORS AND TRIM:
DOORS: 1-3/4" FLUSH HOLLOW CORE, LAMINATED OR WOODEN TRIM: 1-3/4" RABBET, D SELECTED PAINT WITH PRIMER AND 2 COATS OF PAINT.

VENEERS: WOOD, DOUBLE HANGS TO THE WALLS AND TRIM. VENEERS SHALL BE FACTORY PAINTED WITH PRIMER AND 2 COATS OF PAINT.

ENTRANCE DOORS: 1-3/4" THICK, SOLID CORE, LAMINATED WITH 1/2" PINE OR FINISH FRAMES PROVIDE A GROOVE DOOR FOR EACH ENTRANCE. CAULK BETWEEN TRIM AND PLASTIC SIDING ALONG THE TOP EDGE OF EACH DOOR. FINISH DOOR WITH A LAMINATED OIL-BASED PRIMER AND 2 COATS OF EXTERIOR PAINT.

CABINETS AND EQUIPMENT:
KITCHEN CABINETS: 1/2" PANEL WITH VENEER, COUNTER TOP METAL EDGING, STAIN, SEAL, AND WAX. BATH AND LAUNDRY: MATCH TRIM. SHELVES ARE 1X3" SLEDGE, GRADE 3, 3" SLEDGE. APPLIED.

STAIRS: ALLOW 100.00 FOR FOLDING-STEP TYPE STAIR.

PLUMBING:
PLUMBING: PROVIDE FOUR FIXTURES COMPLETE WITH ALL NECESSARY FITTINGS. 3/4" X 3/4" DOUBLE OR SINGLE UNIT FITTING, BATH TUB, 1-1/2" LAUNDRY, WATER CLOSET IN WALL, VENTILATION, AND SADDLE." 15 GALLON TANKED UNITS.

WATER HEATER: 15 GALLON TANKED UNITS. ELECTRIC UNDER-CLICKER OR DROP-INS IN DOUBLE UNIT TYPE.

WASTE: GALLON, STAINLESS STEEL, COPPER, OR PLASTIC AS APPROVED BY LOCAL code.

PLUMBING: PROVIDE 2" SDR 2" DRAINage.

HEATING AND VENTILATION:
HEATING: 80,000 BTU GAS-FIRED FORCED AIR FURNACE. RETURN AIR IN THE FLOOR AND DUCTWORK IN THE CEILING, 10 YEAR WARRANTY. PROVIDE A Baffle IN THE WALLS TO DIRECT THE AIR INTO THE LIVING ROOM AND BEDROOMS. PROVIDE AIR DUCT SIZES AS RECOMMENDED BY MANUFACTURER. BATHROOM EXHAUST: ALLOW 100.00.

ELECTRIC WIRING AND FIXTURES:
ELECTRIC WIRING: SERVICE OVERHEAD, 100 AMPS. SERVICE PANEL WITH SIX BRANCH CIRCUITS AND THREE GROUND CIRCUIT.

ALL WIRING IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.

INSULATION:
INSULATION: 1" RIBBED WALL WITH INSULATION VAPE PARA" BARRIERS. WALLS: 1" RIBBED WALL WITH INSULATION VAPE PARA" BARRIERS.

FINISH HARDWARE: WITH PURPOSE DOORS AND WINDBRUSH.

FINISH: 1/2" CONCRETE OVER 2" AGGREGATE FILL STEEL NAIL FINISH.

LANDSCAPING: PLANTING, NAILS, SEEDS, AND FINISH GRADING: BY OWNER.

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