SECTIONAL PLANNING OF SPLIT-LEVEL HOUSES

14 HOUSES DESIGNED FOR THE CONVENIENT USE OF COAL AND COKE

REPORT OF RESIDENTIAL PLANNING PROJECT
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REPRINTED FROM "HOUSE DESIGN AND SUBDIVISION PLANNING"

ISSUED BY THE SMALL HOMES COUNCIL
UNIVERSITY OF ILLINOIS · URBANA, ILLINOIS
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Report of Residential Planning
Project of the University of Illinois
Department of Architecture.

Presented at the Sixth Annual
Short Course in Residential
Construction conducted January
17 and 18, 1951 under the auspices
of the Small Homes Council and
the Division of University Extension.

Reprinted from the short course
proceedings, "House Design and
Subdivision Planning", copyrighted
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Price: 25 cents
About a year and a half ago, the Small Homes Council published a circular, "Homes Planned for Coal or Coke." This bulletin shows four houses specifically designed to make the use of solid-fuel heating convenient. The National Coal Association offers complete working drawings of these houses to the public.

Of the four houses, the Split-Level house (sometimes called "staggered-level" or "divided-level") seems to arouse the most interest. More requests have been received for this house to date than for any other of the four.

Because of this, and also because of the distinct advantages of the split-level scheme, we made further studies of this type of house.

Three Basic Levels

Different methods of using the split-level scheme have been proposed, but the arrangement we have found most suitable for our purposes always shows three basic levels—a living level, a utility level, and a sleeping level. The living level is the main floor; it is situated slightly above grade. The sleeping level is adjacent and up one-half flight of stairs. The utility level occupies the space below the sleeping level.

It is interesting to note, in passing, that several persons attending last year's short course commented on the desirable features of the staggered-level arrangement. What are the inherent advantages of this type of plan?

First, the activity areas of the house are well-defined and well-located. The sleeping space is separated from the rest of the house; the living area is closely integrated with the outdoors; the utility area is placed in the least expensive space. Some women like to clean different sections of the house on different days; this house is ideally planned for this organization. Many women like the idea of going upstairs to the bedrooms—the raised floor gives a greater feeling of privacy, quietness, and security, and actually provides these.
This plan gives these benefits without excessive stair-climbing.

Second, and we have no facts to prove it, but the house should be economical. There's just the right amount of basement. (We call it the "utility level" rather than the "basement" because it can be so much lighter than the usual basement.) Foundation depths are little more than those required for basementless construction. Framing is simple.

Third, the scheme also offers exceptional advantages for our special interest—good planning for coal and coke utilization. Through proper planning, the fuel bin is located so that direct truck-to-bin delivery is possible. The ash-removal route is direct and short.

**A Builder’s House**

In designing our split-level plan, we set as a goal a house which could be used in a builder's development—a house of two basic sections which could be varied in plan and appearance to adapt to various sites. We started with three sections: two living-kitchen sections and one bedroom-utility section.

The living level might be termed the daytime portion of the house; space is provided for living, dining, food preparation and laundry. The main entrance is at this level and adjoins the hall which connects the other levels. Our basic living section is 20'-0" x 20'-0", giving an 11'-0" x 13'-6" kitchen-laundry (which rates well under the Small Homes Council kitchen rating system), and an 11'-0" x 20'-0" living-dining area. The other living section is really the same; it is merely a reversed section to give flexibility in arranging plans.

Here is the first utility-sleeping section we used. Its dimensions are 22'-0" x 22'-0" to give adequate space for a twin bedroom and a double bedroom. This also results in a utility level with space for a garage, fuel bin, heating unit, water heater, storage cabinets, and an optional location for the laundry equipment.

**Arrangements of Sections**

Now let's take a look at some of the plans. This first plan, house SF-5, is the simplest arrangement of the two basic sections. (Incidentally, "SF" stands for "Solid Fuel", as these houses are all designed for solid-fuel heating.) When attached in line as the sections are in this plan, the house may be placed on a 65-foot lot. The preferred orientation would probably be on a north-facing lot; thus the living room would open out to the south at the rear of the house. A west-facing lot would also be suitable. Note the compact and efficient circulation arrangement. The front entrance leads to all parts of the house. One possible exterior is shown in this perspective. With a different roof design, it would look similar to this.

*See illustration.*
This is actually the sketch for house SF-6. The plan of the house SF-6 is identical with SF-5 except for the use of the reversed living section.* This plan allows a lot more flexibility in location for orientation, as the living room has three open sides. This scheme also offers a distinct advantage in that the plumbing is concentrated in one wall. The light in the kitchen is not as good as in the other scheme, but it is quite satisfactory.

*House SF-7 consists of the two basic sections used in the first house you saw, only in this case they have been offset four feet. The offset adds interest to the appearance of the house from the front and sides, and also gives a distinct space for the addition of a terrace at the rear of the house. Note the direct truck-to-bin fuel-delivery arrangement. The sill of the delivery window is 5'-0" above the driveway. This means a mechanized fuel delivery (by conveyor) can be accomplished easily.

*House SF-8 is similar to house SF-7 with three differences: the bedroom section has been rotated 90 degrees; a separate garage has been attached at one side of the house; and the area in the basement originally allotted to the garage is now a recreation room. The elevation of the house would look like this when a gable roof is chosen.

*House SF-9 is designed for those who wish to de-emphasize the garage. In this plan, the garage is set well back and the living section set forward. The living-room proper is at the front of the house so that the most appropriate orientation for this house would be on a south-facing or east-facing lot. When the sections are widely offset, as they are in this case, the flat-roof system seems to be advisable.

Flexibility of Planning System

These first five houses have been assembled from the two basic living-room sections and the one utility-sleeping section. Others may be assembled in a similar manner for different conditions. This gives you some idea of the flexibility of this planning system.

We next designed a garage-sleeping section with a stairway in the rear instead of the front and called this section US-2*. It is also 22'-0" x 22'-0". Our next series of houses are based on the use of this section. It actually proves more flexible in some cases than the original section.

*The first house of this series is the SF-10, which is a combination of the L-1 and US-2 sections with the garage at the side of the house rather than at the front. This could be utilized on a corner lot or could also be turned on the lot so that the garage faces the street. House SF-11 is about the same as this one except that the reverse living section is used.*

* See illustration.
In some unusual instance, it might be desirable to have a garage which would open to the rear. In this case, house SF-12 would be one answer.* It makes use of the L-2 living section. House SF-13 is the same except for the L-1 living section.*

*House SF-14 is an interesting plan with the garage offset in a forward position. This is an especially useful plan in those areas where the emphasis is on private living in the garden at the rear of the house. The staggered plan forms a natural area for the expansion of the house if desired.* Once again, with the radical offset in the plan, the flat roof seems the most suitable means of covering the house. Changing the living section produces house SF-15.*

Solid-Fuel Heating Systems

This plan, as all other plans, provides for either stoker— or hand-firing of the solid-fuel heating unit. There is adequate space for any type of heating unit—forced warm-air, hot-water, or steam. Space is also provided for a masonry chimney (3" x 12" flue liner) or for a prefabricated chimney. Note also that the ash-removal route is short and direct.

*House SF-16 has been designed with a separate garage. Here the utility—sleeping section is forward with the living area again at the rear away from the street. The garage has been placed in such a manner as to form a patio between the garage and the two sections of the house. The garage driveway is next to the utility section, so that fuel delivery can be accomplished quite simply. House SF-17 is similar, but with a change in living sections.*

*House SF-18 has a partially covered court, or patio, between the garage and the two-story section of the house. This forms an interesting entryway to the house proper. In this particular plan, the fuel—delivery window is located on the turn-around in front of the garage.

We also designed two more utility—sleeping sections* which are 24'-0" x 24'-0". *These sections provide a three-bedroom sleeping level. The sections may be attached to the living sections in place of the US-1 and US-2 sections when a larger house is wanted.

While the emphasis of this report has been on split-level houses, we have also worked on other types. Two plans for one-story houses are included as examples of solid-fuel heated homes. One of these has a basement and the other is basementless.

Working drawings for these houses are now being prepared and will be ready for distribution March 1, 1951. If you are interested in complete blueprints for any of these solid-fuel heated houses, write to:

National Coal Association
303 Southern Building
Washington 5, D. C.

*See illustration.
LIVING-KITCHEN L-1

L
20'-0" × 11'-8"

13'-4" × 8'-0"

LIVING-KITCHEN L-2

K
8'-0" × 13'-4"

11'-8" × 20'-0"

SECTIONS L-1 AND L-2

20'-0" × 20'-0"

-65-
SLEEPING LEVEL

BR 13'-0" x 10'-0"

BR 13'-0" x 11'-8"

UTILITY LEVEL

SECTION US-1

22'-0" x 22'-0"
SLEEPING LEVEL

UTILITY LEVEL

SECTION US-2
22'-0" x 22'-0"
WHEN A 3-BEDROOM HOUSE IS DESIRED, SUBSTITUTE THIS SECTION FOR SECTION US-2