The first all-metal private house built in America, with outer walls faced with aluminum, will be one of the striking new types of homes on view at the Exhibition of Modern Architecture which opens to the public at the Museum of Modern Art on Wednesday, Feb. 10. The house was designed as a home for Wallace K. Harrison, one of the architects of Radio City, at Syosset, Long Island. The architects were A. Lawrence Kocher and Albert Frey.

The house was designed especially to meet the needs of present-day living. It was so devised as to give better light and air with mechanical and conveniences and efficiency of arrangement, unusually in the average country dwelling.

The aluminum which faces the outside walls is in the form of sheets slightly ribbed so as to break glare and to care for expansion and contraction in varying temperatures. The aluminum is backed with insulation that makes its three-inch wall more effective in excluding heat and cold than the customary heavy masonry. Windows of ultra-violet glass extend the entire width of rooms to make them as well-lighted as the sun porch. Privacy is maintained by shades.

The main living rooms are above the ground level, reached by a short flight of stairs. The ground floor serves for entrance, hallway, heater room and garage. There is also a porch within the ground area that is related to the garden. The living room floor, which corresponds to a second floor of the usual house, commands an advantageous view of the garden by reason of its upper level. The main living room is duplex and extends through the width of the house with one end entirely glazed from floor to ceiling height of 17 feet. At the other end is a dining area which can, if desired, be converted into additional living space.

The bedroom, exercise room and bathroom are separated by a folding partition. When this partition is pressed back, one enjoys the outlook of a window 22 feet in length. This makes one room of a three-room suite, with ample space for circulation.
More than half of the ground area covered by the house is regained by means of a flat roof which serves as a luxurious garden terrace. It is partly covered and partly open to the sky. The supports for the terrace roof frame the view in three directions.

The house has no supporting outside walls as is the case in the usual brick-built dwelling. The supports are six slender columns that are within the area of the house. These columns uphold cantilever beams from which the outside walls are suspended. The structure of the house is largely of aluminum beams or girders that in turn support a steel-deck floor, insulated and surfaced with rubber and linoleum flooring.

The architects point out that the house is constructed of materials readily available as standard and in a manner that is a complete departure from tradition. "The styles of the past are disregarded in an attempt to attain convenience, ease of living, attractiveness of outlook and a logic of quiet and pleasant existence," says Mr. Kocher.