

wetting by rain as so often occurs in summer. Temporary shelters do provide good working conditions for house builders, but so far a light, portable shelter designed for repeated re-use has not been developed. Shelters which can only be used once or which must be dismantled and then re-erected have been found too expensive for general use.

On other projects including larger residential units, shelters are widely used. The great advantage of using a shelter to enclose all or a portion of the work is that it permits the contractor to carry on without interruption under conditions selected to ensure maximum quality and productivity.

Most enclosures make use of transparent plastic films. Sometimes the plastic is used only as temporary hoarding for door and window openings or as window strips, but often the whole enclosure is covered with polyethylene. Other enclosures use panels of plywood or building board which are later recovered and used in construction. Tarpaulins are still widely used. Recently, plastic tarpaulins have been introduced which have the great advantage of remaining flexible at low temperatures. The transparent plastics also have the great advantage of trapping solar heat so that the temperature inside enclosures covered with polyethylene may be as much as 45 degrees above outside air temperatures during sunny weather. This often provides all the heat that is required during the daytime. In very cold areas, additional insulation may be obtained with two layers of plastic to provide an air space to reduce heat loss during cloudy, windy weather and at night.

Shelters can be grouped in two general classifications. There are those which are self-supporting such as the laminated-arch plastic-covered enclosures. The second type of shelter uses the existing frame of the building for support. The most common type is the enclosed scaffold suspended from outriggers on the roof. This external working platform is raised from one story to the next as work progresses. Another method of enclosing the