Big Contractors Have Shied Away From Residential Markets But the New Exterior Insulated Wall Systems Offer Possibilities

By Robert Damoro, Architect AIA
Architecture and Communications Consultant
STO Industries, Inc.

At a time when America needs millions of houses that can’t be built because construction costs are too high for the average buyer, something has to be done to bring sanity to the situation.

If this something isn’t done quickly, it’s not hard to forecast the coming extinction of the low and moderate-cost house. A major mortgage banker just told me that this eventuality is already beginning—that the only affordable dwelling for the low and medium-income family is fast becoming the multi-unit complex such as the common-wall rowhouse or the condominium.

Before this article offers one solution to the problem, let’s look at the problem itself.

To those of us trying to design and construct “better building at lower cost”, it seems incredible that today’s house construction still adheres to materials and methods developed centuries ago. Most houses, traditional or modern, developer or custom-built, are put together with an unbelievable complicated, piecemeal, lengthy, handmade process that fashions complex building sections and unreasonable connections of cut lumber, nails, sheathing-wallboards-siding-shingles, interior and exterior paint, cover-up moldings, flashing, caulking, etc., etc. This continuing complexity of house construction is driving costs sky high for values that go lower and lower. Labor and materials costs are the unavoidable constants that must be served; space and quality have become the variables that are sacrificed.

The same point can be emphasized this way: a top housing agency calculated that it takes over 50,000 parts to build the average small house. Their time and methods analysis program showed that this average house is made of 6,730 separate pieces of 366 different materials held together by 43,800 fasteners! Multiply these surprising numbers by today’s costs of materials and labor, and the resulting problem becomes a hopeless nightmare. Will we wake up?

One Solution?

“Better building at lower cost” will come when we discard outmoded, complicated and costly building practices, and when we then change to a fundamentally new design philosophy with a new kind of construction made of fewer parts and simpler assemblies.

I am not suggesting a theoretical brave new world concept, there are real and practical answers all around us. Every now and then new products and systems come on the scene to offer opportunities to rethink the whole building process. Yet, too often, the building community looks the other...
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way, sticks to old habits, and fails to take advantage of these new possibilities. Today, one such building system that exists for the taking is particularly important in any consideration of finding a way to build affordable houses.

This construction system has proven itself over the last 20 years in Europe and is fast coming into use in the U.S. while used extensively in commercial and industrial building, it hasn’t been used to any extent in house construction where it could well be a major contributor toward “better building at lower cost”. This building system is truly an example of efficient construction practice coming from the use of “fewer parts and simpler assemblies”.

The system is available locally wherever you are, it’s easy to use, it doesn’t need fancy equipment, it doesn’t require close tolerances, it goes in place quickly, it’s beautiful in many colors and textures, it’s economical, it can be used below grade in addition to its normal above-grade usage, it’s virtually maintenance-free, it’s watertight and seamless, and it offers the greatest energy efficiency of any building system on the market.

Is this Superman’s world? Hardly, it’s better! It’s real.

It’s the new synthetic resin coated polystyrene exterior insulation system—the insulation system that goes on the outside of the building where it belongs!

The following presents its use as a building system, as outlined by architect Henry Iggena, whose words come from much practical experience with the system:

“Exterior polystyrene rigid insulation with protective synthetic resin coating is comparatively new in this country, but this system was developed in Europe more than two decades ago. There it has been used success-
vides innumerable textures and finishes. Further, the ease and accuracy with which the polystyrene board can be cut and formed allow any building configuration the designer wishes.

Damage to a building facing during construction, or later on by vandalism, is a constant serious problem for building owners. Damage like chipping and cracking, or vandalism with paint spray cans, is very difficult to remedy on most building materials; but such damage to this system is easily remedied by patching and repainting the surface with acrylic coating.

Finally, while this system is very successful when site applied, prefabrication of the system is the ultimate way to use it because it provides great control of quality, schedule, and cost.

After much experience with the system of polystyrene rigid insulation with synthetic resin coating—site applied and prefabricated—it is hard to think of returning to earlier systems of construction."

Architect Henry Iggena’s statement is worth remembering—“After much experience with this system . . . it is hard to think of returning to earlier systems of construction.”

The point to this article, “better building at lower cost” through “easy assembly and fewer parts” now comes into focus with the use of this system, particularly for houses. The few parts of this system, easily assembled, replace the complicated and expensive materials and methods commonly used to insulate and weather-enclose houses.

Furthermore, because the system is on the outside of the house and is not centered within the walls, the framing of these walls can be reduced to a much lighter and thinner structure which, in turn, decreases overall cost. Finally, the synthetic resin coating used on the outside of the exterior insulation system is equally ideal for the interior walls and ceilings.

These cost-cutting practices are available to one and all—architect, contractor, craftsman. Those who take the trouble to investigate and use the new synthetic resin coated polystyrene exterior insulation systems will reap many benefits, and the building practitioner who makes the most of this system will certainly lead his field toward the “better building at lower cost” so sorely needed by those millions waiting for an affordable house.

Need more information?
Write to: Exterior Insulation Manufacturers Association (EIMA), 1133 15th Street, NW, Washington, DC 20005