Looking At Construction’s Tomorrow

The role of suburbia, cities and construction itself will change rapidly; The one certain thing: It’ll be a booming industry

By Harold Manson, Architectural Consultant

Construction always has been—and probably always will be—a primary means by man to satisfy his basic needs and express his highest aspirations.

One needs only to look at houses, fortresses, cathedrals, and rocket gantries as examples of the many ways that man worked to modify his world, to enhance his environment . . . and to protect himself and his loved ones from the harshness of nature.

And man did this with a sense of grandeur . . . with a sense of unrelenting purpose . . . with a devotion to the excitement of a grand design becoming reality.

After each disastrous war, growing in intensity and destructiveness, the first shout was, “Let us rebuild!”

Today, one hears predictions of the death of construction. Fuel and energy shortages, inflation, changing habits in home and work . . . all alleged to spell doom for the industry.

What outrageous nonsense! What rubbish!

Construction today stands on the precipice of the greatest expansion, the greatest opportunity it has never enjoyed.

Furthermore, the challenges we face have freed the architect and the constructor from many of his past limitations. To obtain even a slight glimpse of tomorrow’s architecture, we need look only at the possibilities opened by the new materials and systems and at people’s physical and social needs during the years ahead.

Where’s the City In the future

One enigma facing the construction industry, of course, is the city.
“Doom! What outrageous nonsense! Construction today stands on the precipice of the greatest expansion . . . opportunity it has ever enjoyed.”

Traditionally the city has functioned as the primary demonstration for architectural and building expression. But the future of the city is now somewhat cloudy.

World population will likely double within the next 35 years, providing an enormous impetus to an already explosive growth situation. Throughout the 70s—and continuing into the 80s—the tendency for building heights to increase went on unabated and we may safety predict skyscrapers of 100 to 160 stories as becoming commonplace.

The energy/oil syndrome will place economic emphasis on the complete building environment, giving new strength and vitality to the concept expressed by Buckminster Fuller as “buildings are machines for living.”

Particularly in Chicago and New York we are seeing single buildings as complete entities. They provide apartments and living areas while at the same time other floors give way to offices, factories, i.e., where the building’s inhabitants work.

The need to commute, indeed the cost to commute and battle the traffic congestion, will provide cities with the task of packing more and more people into the available space.

Still, urban sprawl may continue, yielding up subcontinental situations such as “Boswash”—that urbanized area running from Boston to Washington — or “Sanfan” — the same situation between San Francisco and San Diego.

What gives the cities such a cloudy future is the attitude among many that cities are already unmanageable and virtually uninhabitable monstrosities. As a consequence, many are still fleeing the metropolis for the countryside where they feel that technology has eliminated many of the reasons for needing to maintain physical proximity of large numbers of people.

Yet, the growing cost to commute, to transport, to go from one place to another spurs on economic coagulation.

Most social planners have confi-
World population will likely double within the next 35 years, providing an enormous impetus to an already explosive growth situation.”

The supervision of the germination of seed, the distribution of nutrients, and the harvesting of the fruit could all be controlled by computers—the same as is now done in controlling the production of industrial goods.

The technology of walls and ceilings—both interiors and exterior—is adequate to provide for large buildings where acres of floors may someday produce more and better foodstuffs than an area of farmland.

It was alluded to earlier, but trans-
through the lobby of a John Portman-designed hotel lobby. The greenhouse-like Hyatt Regency Hotels demonstrate that sunlight and green plants can be introduced into the center of a building, yet residents remain protected from rain and cold.

As population of man diminishes the character of outside air (fresh air is an inaccurate term used less frequently in the 80s), the need to control interior environments grows.

For this reason, planners foresee a future perhaps where city after city is developed on a linear basis, connected with small local transportation belts to outside clusters. The inner city would be domed, or function as "a city within a city".

Remodeling of Cities Will be Extensive

While magnificent visions exist for the future of the cities, existing urban centers will undergo continued revitalization with the future city transitioning gradually. Old buildings won’t be destroyed pell mell to make way for the new, modern structures. They’ll be retrofitted—especially in the energy conservation areas to remove the stigma of nearly one-third of fuel usage devoted to heating and cooling buildings.

Housing—the dream and so-called right of every North American to have his own individual home—provides the most serious problem.

Despite the great technological strides of the past few decades, the average single-family dwelling still requires some 70,000 nails and 30,000 individual components, almost all of which are assembled on-site.

With inflation, interest rates, land availability, energy, and a host of other late 20th Century inhibitors, housing will need to undergo the most radical alterations. Future housing will need to combine new conceptions of living space with the use of new manufactured components and construction methods.

Building a house today is little different that it was in the days of the guilds. High labor has practically forced home building into the lower cost and non-union areas.

The efficiencies of scale simply have been unavailable. Now the construction industry is taking new looks at cities and at houses.

Xerox's futuristic "Living-learning Center" in Virginia is already in place and housing 1,014 students.

(In next month's edition of CONSTRUCTION DIMENSIONS, Author Manson will review some of the new technologies which are rapidly forcing their way into the industry and show the way for future construction.)