FORMIGLI PRECAST CONCRETE BUILDING SYSTEMS ARE THE ANSWER.

Factory-produced building systems mean less initial outlay . . . fastest return on investment . . . less cost in every way. Call us now for proof that we can cut down skyrocketing construction costs.
Fact or fiction?

America's 43 nuclear plants saved the equivalent of 3 billion gallons of oil this past winter.

It's a fact! The nation's utilities would have had to burn the equivalent of an additional three billion gallons of fuel oil during the four winter months if the nation's 43 nuclear electric generating units were not in operation. The world's precarious energy supply situation clearly reveals the true importance of nuclear power in our quest for energy self-sufficiency.

Reducing our dependence on foreign oil. America's 43 nuclear units now in operation represent slightly less than 6% of the nation's total electric generating capacity. But a record total of 39 additional nuclear reactors were ordered by utilities during the past year as it became clear that the best technology currently available to reduce our dependence on foreign oil is nuclear electric generation.

PSE&G's first four nuclear units will save the equivalent of 48 million barrels of oil a year. PSE&G is part owner of four nuclear generating units that are scheduled to be in operation by 1976. Together, these nuclear units will save the equivalent of 48 million barrels of oil a year. This is roughly equal to 900 million gallons of gasoline.

Other important advantages. No present conventional method of producing electric power is as clean as nuclear. That's important environmentally. America's own domestic supplies of uranium, the nuclear fuel, are adequate for at least 40 more years or until alternate sources of generation are likely to become practical. Nuclear generation also provides more opportunities for economical operation.

When will the energy crisis end? There is no question that the present energy crisis is not short term. It will be with us for a long time. Furthermore, the Mid-East oil situation only accelerated the problem. It did not create it. Nuclear power will provide increasing opportunities for the United States to become self-sufficient in energy supply in the future.

We urge your support of PSE&G's nuclear energy projects to produce more electricity for you.

PSE&G
The Energy People

FREE NEW BOOKLET!

A new, full-color booklet, "The Salem Generating Station," describes how nuclear energy will produce an increasing amount of electric power in the future. Simply return the coupon below for your free copy.

Public Service Electric and Gas Company
P.O. Box 1080 Newark, N.J. 07101

Please send me a free copy of "The Salem Generating Station."

Name ____________________________
Address __________________________
City ____________________________ State ______ Zip ______

RETURN THIS COUPON NOW!
She's answering the lobby door.

Apartment Door Answering Service (ADAS)—a lobby-to-apartment security system that allows tenants to identify and admit visitors using their regular telephone—even if the phone is already in use. It's another innovative service from the people who pioneered telephone communications.

It's fast, efficient and convenient. Visitors use regular lobby phones to identify themselves. The tenant can answer from the security and privacy of her own apartment. From any room where there's a telephone. No special intercoms or panel speakers necessary.

While it's ideal for planned new construction, ADAS is also easily adaptable to existing buildings. No special wiring, equipment or devices are needed in tenants' apartments. And multiple entrance coverage is available.

For more information on this service, simply fill in the coupon below. Or, call Stan Clapp at (201) 649-3356.
Look into our crystal ball and see that New Jersey's vast industrial development and growth is steadily increasing. Industries will continually need newer and improved facilities! If you're planning to build or remodel, write us into your next 'Building Specifications' separately! We are SMACNA NEW JERSEY. The sheet metal contractors that strive for 'total responsibility'. You can be sure of proven standards in all your sheet metal requirements. Our men are trained and skilled in fabrication, installation and testing within national accepted standards. SMACNA WHO? SMACNA us, of course!

SMACNA NEW JERSEY
SHEET METAL BY THE BOOK BUILDS BETTER
What are New Jersey gas companies doing about the natural gas shortage? What are our most urgent needs? When will the natural gas crisis end? Should you include natural gas in your future plans? What can you do to help relieve the shortage?

You'll find the answer to these and other questions in our free "energy crisis kit." Send for it. And if you have any further questions about the availability of natural gas as it relates to your specific future needs, please contact your utility.

FREE!
Energy Crisis Kit
For your free kit, write to any of the member companies of the New Jersey Gas Association.

ARCHITECTURAL INFORMATION SERVICES

The New Jersey Society of Architects maintains an extensive resource center at its Executive Offices in East Orange. Of particular interest to those who might be intending to build are such booklets as You and Your Architect, a Statement of the Architect's Services, or How to Find, Evaluate, Select, Negotiate with an Architect. All are available at no charge on request.

110 Halsted Street, East Orange, N.J. 07018
6 Our Shrinking Resources
7 New Fellows
8 North Brunswick High School
9 Newark's "Floating City"
10 Mercedes Benz
11 Graphics Forum
12 Architectural Photography
14 Barrier Free Design
16 Crane Restoration
18 Land Use
20 Many Faces of Architecture
23 People
Our Shrinking Resources

RICHARD BOTTELLI, AIA
Chairman, Editorial Board

Long service station lines, extended delivery schedules and the soaring cost of money, goods and energy have suddenly taken the issue of our shrinking resources from the think tanks and symposiums to the bars and back fences. As a nation accustomed to resource abundance since our founding, the realization that we are entering into a new order of social and economic development comes as quite a shock. This resource abundance, coupled with relatively cheap energy and capital and aided by increasing technical sophistication has enabled us to produce a built environment which defies the rational approach within which a less privileged society must operate.

The visitor traveling throughout this country is confronted by similar new building designs which respond neither to local materials or regional climatic conditions. A national building products market and the use of extensive mechanical equipment has enabled us to produce structures which can exist in spite of their settings rather than in partnership with them. Anyone who has experienced the cool welcome of the thick walled abode buildings of New Mexico and Texas or the fire warmed interior of the carefully sited and sheltered New England frame farm house realizes how much we ask of technology (and its energy consumption) to make our new building habitable.

With the current heightened awareness of the consequences of their building decisions, architects, building users and related public officials should be able to move rapidly toward a more responsible design approach. This approach will require that a building or land development's life cycle cost (reflecting maintenance, energy consumption and its economic and environmental impact) must be weighed in addition to initial cost. Life cycle costing will undoubtedly increase initial building and development costs, but its benefits will continue to accrue to building users and the communities in which they are located.

Land abundance, our greatest national resource, has shaped the patterns of our physical development toward a throw-away psychology for settlements which no longer meet the current life style goals of the mobile portion of society. Discarded urban centers and neighborhoods have been left behind for use by those unable to afford mobility, a problem of which New Jersey, the nation's most densely populated state, is acutely aware. In this magazine are proposals for a massive development in New York built upon its existing transportation infrastructure and for new residential land use approaches responsive to improved resource utilization. Recent commitments of the State of New Jersey and the Port Authority for expanded mass transit facilities should also be helpful in stabilizing northern urban centers and allowing for a more rational pattern of required new development.

In discussing the near term future and how we shall respond to continued population growth and economic expansion, most design professionals and legislators tend to focus on the technical aspects of resource conservation and reordered priorities for new development to avoid repeating past excesses. Such action is mandatory and will no doubt produce a more effective utilization of our national resources while slowing down the carnage of our natural environment. In an urban state like New Jersey, however, this effort must be coupled with concerted action to exploit the resources already available in our built environment. We cannot afford a throw-away psychology. The replacement of discarded cities, structurally sound buildings, established transportation systems and their related social fabric cannot be justified. Adaptive building use and the preservation of neighborhood structure must become a primary thrust in our built-up areas conserving both the utility of already spent resources and the architectural and social heritage of our past.

The challenge of building with full recognition that we are employing resources which may not be replaced is an exciting one since the quality of our decisions will have a profound impact on the lives of succeeding generations whose heritage is our legacy.
Two New Jersey architects have been elected to the College of Fellows of The American Institute of Architects: David R. Dibner of West Orange and Kenneth D. Wheeler of Denville.

Apart from the Gold Medal, which may be presented each year to one architect from any part of the world, Fellowship is the highest honor the Institute can bestow on its members. Fellows of the AIA may use the initials FAIA following their names to symbolize the esteem in which they are held by their peers.

Mr. Dibner has devoted a large part of his time and energy to increasing the public awareness of architecture. As Adjunct Associate Professor at Seton Hall University, he teaches a course titled "Architecture: Dynamic Force in Contemporary Society," designed to develop an understanding of architecture and the forces that shape the physical environment. A regular speaker in a lecture series sponsored by the New Jersey Society of Architects, he has spoken on a variety of architectural topics to adult schools around the state. He has also served as chairman of the editorial board of "Architecture/New Jersey," the official publication of the New Jersey Society of Architects.

A registered architect in New Jersey, New York and Texas, Mr. Dibner is registered with the National Council of Architectural Registration Boards, and is a licensed Professional Planner in the State of New Jersey.

Mr. Dibner has been affiliated with The Grad Partnership since 1966 and is the partner responsible for general management and project development.

He has served as a director of both the New Jersey Society of Architects and of the Newark-Suburban Chapter of the American Institute of Architects.

He is also a member of the Documents Board of the AIA, participating in the development of many new standard forms and documents, and is chairman of its Interior Design Task Force. In addition, Mr. Dibner has served on numerous AIA committees at local, state and national levels.

Dibner studied Civil Engineering at Brooklyn College and received his Bachelor of Architecture degree from the University of Pennsylvania.

Mr. Wheeler's efforts were largely responsible for the recent establishment of a Community Design Center in Newark. He was heavily involved in the organizing and funding of the center, as well as in the search for a location and an executive director. He is currently a member of the center's steering committee. Under his leadership, the New Jersey Society of Architects was instrumental in establishing a new school of architecture in New Jersey.

His experience in architectural practice has been unique. Successful project management in the U.S. led to his being selected to head a Paris office responsible for more than $100 million worth of construction over a two-year period. This led directly to further work in the United Kingdom, where he directed several branch offices for another three years.

Both architects are partners in the architectural firm, The Grad Partnership, with offices in Newark.

In 1972 he was elected president of the New Jersey Society of Architects. He is also a member of the Society of American Military Engineers and the Building Research Institute.

A registered architect in New Jersey and New York, Mr. Wheeler is a licensed Professional Planner in New Jersey, a Certified Fallout Shelter Analyst and is registered with the National Council of Architectural Registration Board.

A graduate of Brooklyn Technical High School, Mr. Wheeler received his professional training at the New York University School of Architecture.

He has written articles which have appeared in Engineering News Record, AIA Journal and Architecture, New Jersey.

Both as a concerned professional and familyman, Mr. Wheeler is also very much involved in his local community and church activities.
North Brunswick High School was selected as the New Jersey School of the Year for 1973 in a school building awards program conducted by the State Department of Education. Awards were presented to the North Brunswick Board of Education and the architects, Meyer and Laudadio, at the annual school facilities workshop held by the Bureau of Facility Planning of the Department's Division of Field Services May 7 in Cherry Hill.

Serving as judges were Russell I. Grimm, director of research, planning and evaluation for the City of Newark, Del.; Dr. Basil L. Hick, director of school planning for the State of New York; and Dr. Thomas E. Robinson, former president of Glassboro State College. Grimm served as chairman of the judging panel.

Criteria used by the judges included the school's educational adequacy, site utilization, environment for learning, flexibility and expansibility and esthetics.

In citing the North Brunswick High School, the judges said, "The building contains a wide variety of facilities whose nature and scope encourages a wealth of academic, physical and vocational opportunities and choices. By providing an elevator and convenient and adequate parking spaces, the planners have made the rich resources of the building reachable by the physically handicapped and usable by community groups and for community activities."

The judges also said that the building was a product of intensive participation of many individuals and groups, that the central location of the learning resource center invites fullest possible use, that the commons area, intended to be the student core of the school, is replete with visual and comfort features and that the swimming pool offers an additional opportunity for learning.

The North Brunswick school is designed for a capacity of from 1500 to 1700 high school students.
The Newark Redevelopment Authority introduced a proposal in August, 1973 for a 330 acre multi-use project to revitalize and stimulate growth in the south Broad Street section of the city, and to eventually serve as a link between the existing downtown business and shopping areas and the Port Authority of New York and New Jersey's expanding airport-seaport complex. Property for "Gateway 2000," as the project will be called, would be assembled primarily through the acquisition of air rights, and the resulting construction would focus about a main plaza level elevated an average of sixty feet above the existing grade. The project's concept and its schematic design were developed by the office of Porter and Ripa of Morristown.

Gateway 2000's elevated plaza measures approximately 1,800 feet by 7,400 feet, bordered on the north by U.S. Route 22, on the east by a line two blocks beyond the main line of the Penn Central Railroad, on the south by Lincoln Park, and on the west by Frelinghuysen Avenue. Grade level construction directly associated with this complex would be limited to its power plant and a major transportation center (connecting automobile traffic on the area's primary arteries with bus lines, the Penn Central Railroad, PATH, and possibly the Newark subway system and the Erie Lackawanna Railway), allowing the remaining area to continue to develop as one of primarily light industry. Immediately above would be three levels of parking, the uppermost including an electric bus line. No provisions have been made for the automobile on either of the two plaza levels, limiting mobility to either walking or a "personal rapid transit" system, which will be hung beneath the main plaza level. It is anticipated that this system, utilizing cars of limited capacity, could eventually be linked directly to Newark Airport and the central business district.

The proposed development on or above the plaza levels would include: 10 office buildings, varying in height from 3 to 34 floors and totaling 8 million square feet; 11 residential apartment buildings, varying in height from 8 to 18 floors and totaling 4 million square feet; a total of 4.2 million square feet of shopping and service facilities, comprised of 1,400,000 square feet of department stores, 900,000 square feet of smaller stores, 100,000 square feet of restaurants, 1,000,000 square feet of hotel space, and 800,000 square feet of school and nursery facilities; a 600,000 square foot convention hall; 300,000 square feet of theaters; and a 600,000 square foot sports center. Gateway 2000's estimated daily residential, office, and commercial population is projected to exceed 137,000 persons.

A phased construction project is projected to span a 20 year period, with early stages concentrating on the acquisition of property for the complex's foundations and air rights. It is anticipated that much of the traditional difficulties associated with this process will be either eliminated or abbreviated because of the fact that an estimated 55 percent of the land within the project's borders is presently vacant and that a large portion of the remaining structures are either unoccupied or in need of major repair. Those holding either the property or air rights would have the option of either selling them outright to the Gateway 2000 Corporation or trading them for shares in the Corporation. Since the northern portion of the future site is far more densely populated than the rest (with an estimated 4,000 residents), construction would begin along the project's southern border, near Lincoln Park, and proceed in phases, northward, building over the meadows, the Penn Central, and elements of the State highway system, allowing maximum time for air right acquisition above residential property.

The project's estimated cost, based upon 1973 figures, is $2.5 billion dollars. While a portion of this money would be from federal and state sources, it is anticipated that the bulk of required revenue would originate from private sources. The Redevelopment Authority cites two recent projects as precedents of financial involvement from this sector: the $60 million dollar Gateway, funded by the Prudential Insurance Company, and the redevelopment of the Washington Park area by Mutual Benefit Life, estimated at $100 million dollars.
The same standards of excellence in engineering and innovative workmanship that have given Mercedes-Benz its reputation in the automobile industry have gone into the planning and construction of the new headquarters building for Mercedes-Benz of North America in Montvale.

Located on a 20-acre site bordering the Garden State Parkway, the 141,000 square foot three level building has a facade made up almost entirely of reflective glass which mirrors the natural surroundings. The glass areas are offset by vertical core elements of charcoal brown brick which contrasts with the luminosity of the reflective glass.

The building maintains a low profile by nesting into the surrounding terrain. It leads into, and is partially hidden by the wooded areas that separate it from the Parkway. This location and use of materials enables the building to blend into the natural rural setting of the area.

The entire building was designed around the concept of "office landscaping", and is completely open and free of partitions. Work groups are separated by moveable low partitions which act as visual and acoustical dividers. Telephone and electrical receptacles are in carpet covered boxes in the floor. The luminous ceiling incorporates acoustical baffles for maximum attenuation. The trapezoidal work stations were custom designed to reflect the light and open philosophy of the "office landscape", and to provide unlimited flexibility to the interior.
The Graphics Forum Incorporated, was formed in 1970 as the service and interior design element of J. Robert Gilchrist and Associates, AIA, Architects, of Hackensack with offices located in Continental Plaza, Hackensack. The architect in charge of design was Michael T. Callori, AIA, a partner in the Gilchrist firm.

The sense of order inherent in the planning of the offices is evident in the openness of the plan which provides total visibility from one end of the working area to the other. Beyond the glass entrance door and sidelight lies the reception space which serves as a gallery for current projects, an interview area and a waiting area. The two end walls are of roughsawn cedar planks placed on the diagonal, extending through the corridor and into the conference room. The opposite wall of the conference room is of smooth, flat cork squares, functional as a display surface and complimentary to the cedar planking. The glass interior wall of the conference room and principal’s office opens the areas visually while still providing needed acoustical privacy.

The projects illustrated on this and the facing page exemplify some of the current work of our members.
One paramount problem common to all kinds of photography, according to Otto Baitz of Cliffwood, is weather, which affects the texture and intensity of light.

A specialist in the photography of architecture and interior design, Baitz says that given ideal weather and plenty of sunshine the photographer is on his own, using his particular skills and style to translate the architect’s wishes.

Baitz likes to consult with his client before shooting. Ideally, he wants to work so closely with the architect that the latter’s wishes become his own. The trick then is to record the exterior or interior as a work of art, and this involves not only technical know-how but also a sense of the dramatic.

“The result must be planned from beginning to end,” he says. “The elements of lighting, angle, attention to on-site detail, exposure time and laboratory handling are woven together to produce the desired effect. The click of the shutter is only one small action.

“The architectural photographer must approach his work as one would a piece of fine art or sculpture. Practical values must be represented, of course, but it is the artistic eye that appreciates, and therefore reproduces, the beauty and excitement which can be architecture.”

This double purpose — utility and art — is not always simple to realize in a single frame. Baitz’s track record is excellent. He uses natural light most often, a battery of lenses and judicious filtering of his three principal cameras, a 4x5 Calumet view camera, a 2-1/4x2-1/4 Hasselblad and a Nikon single-lens reflex. Occasionally Baitz uses artificial light for auxiliary purposes, but rarely as a main source, even indoors.

Baitz says a good architectural photographer needs to be flexible enough to adapt his style to the expectations and requirements of his clients. Once a basic understanding has been established, however, “The photographer should be given the necessary latitude for artistic expression.”

The operative word always is “quality.” The good lensman knows the important role his pictures will play in portfolios, brochures, competitions, conventions and corporate advertising. He knows he must exercise the same time, effort and thought into putting a building on film as the architect did in drawing it on the board.

“It is, therefore, imperative,” Baitz avers, “that an architect be aware of what he can expect from his photographer and of how carefully he should choose the man.”

1. Bryant College, Providence, R.I. The darkened foreground and sky place an importance on the structure, with cross-lighting to create form and structure. J. Robert Hillier, architect of Princeton.


5. Holmdel (N.J.) High School. The ceiling detail is indirectly emphasized by the resultant pattern of light which adds interest and texture to the wall. Phillips-Kaufman, architects of Morristown.


Barrier-Free Design

Planning For The Handicapped

Although most of us would not recognize the International Symbol of Access, to a handicapped person it represents a welcome oasis in the desert of architectural barriers which comprise our typical environment. It not only designates buildings which have been designed to be accessible to handicapped people, but when displayed on doorways, restrooms or parking areas it indicates that in these particular areas they will be able to function with freedom and ease. Exactly how necessary such ease of accessibility and mobility are in terms of the program of any given building can best be appreciated when one considers that an estimated 10% of our population are either permanently or temporarily handicapped. And for the rest of us, the removal of the usually encountered architectural barriers would make our lives considerably easier. Perhaps each architect and building owner should spend one full day in a wheelchair, going about his normal duties in his normal place of business, as is required of all GSA architect-trainees.

Surprisingly enough, the importance of cost as a constraint upon barrier-free construction appears to be substantially exaggerated and applies more to the removal of barriers in existing buildings rather than to their elimination in the design stage of new buildings. A study made for HEW by the Department of Urban Studies of three new existing structures — a civic center, city hall, and multi-story hotel — indicated that each of these buildings could have been constructed in a manner that would have provided total accessibility for less than one-tenth of one percent of construction costs. (Guidelines used included only basic modifications conforming to the American National Standard Specifications which would not detract from the aesthetic appearance or affect the normal functions of the buildings.) Another federal survey, by the Public Buildings Service, determined that while individual building elements which are designed for the handicapped may cost slightly more than comparable elements which are not so designed, the additional cost will usually disappear when these elements are integrated into a total building design, especially since manufacturers have begun to incorporate features to accommodate the handicapped in their standard manufactured products. For buildings in which elevators and toilet facilities on each floor are a functional necessity, there would ordinarily be no additional cost involved in providing a barrier-free environment.

Just what constitutes an architectural barrier and what can be done to remove individual obstacles? Numerous provisions must be incorporated into a building to make it completely barrier-free. However, the Easter Seal Society stresses four provisions which are essential:

1. All people, including the physically handicapped, must be able to enter and leave the facility. This can be accomplished by designing one main entrance so that it is either ramped or at ground level. (If a ramp is used, there should be a level platform at the top — preferably a minimum of 5' x 5' to permit a person in a wheelchair to open the door outwards.)

2. All doors should be easy to open and have a clear opening of no less than 32 inches.

3. If a building is multi-storied, access should be provided to all floors. (This requires an elevator large enough to accommodate a wheelchair. Escalators are not satisfactory substitutes. Studies have shown that escalators are a safety hazard for handicapped people.)

4. Barrier-free buildings must provide adequate public rest room facilities. Not all public rest rooms need to be equipped with such facilities, but at least one men's and women's public rest room on each floor should be designed to meet the needs of handicapped people. In addition to properly equipped toilet stalls, sinks (with insulated piping so that people without sensation in their legs will not burn themselves), towel dispensers, and mirrors should be at a height accessible to people in wheelchairs.

Although the above provisions will, in most instances, provide acceptable accessibility, there are many additional features in and around buildings that can make a handicapped person's life more independent and comfortable. These provisions include reserved parking for handicapped drivers; a ramped curb, preferably as close as possible to the reserved parking area; public walkways at least 48" wide and uninterrupted by steps or abrupt changes in level; vestibules devoid of steps and with a minimum depth of 6'-6" clear between inner and outer
doors; switches and controls for light, heat, ventilation, windows, draperies, door locks, fire alarms, and all similar controls placed within the reach of individuals confined to wheelchairs; water fountains and public telephones capable of serving both the able-bodied and the handicapped; and hand rails that are sturdy and that are 32" above the surface level of the floor.

Commitment to barrier-free design means awareness of the problems barriers create and commitment to incorporate barrier-free provisions whenever possible into all building designs.

The New Jersey Easter Seal Society's campaign to eliminate building barriers consists of informing architects, building owners, builders and legislators of the problems faced by the handicapped. "The major obstacle we have encountered so far is a lack of awareness," added Alan Kemp, Director of the Barrier-Free Program. "Barrier free buildings are an asset to everyone, for the able-bodied and the handicapped. Even a completely fit person would rather walk up a ramp than climb stairs. It is also important to remember that a physically handicapped person is not necessarily one who has been confined to a wheelchair all their life. Today or tomorrow, any one of us could become temporarily or permanently disabled as the result of an accident or illness."

For additional information write to The Easter Seal Society for Crippled Children and Adults of N.J., 9 Terminal Road, New Brunswick, N.J. 08902.
The Crane House
A Restoration

J. L. BERRALL, AIA

1. Street facade today.


3. Today: The Attic School Room


5. The warming kitchen today

6. Rear view: The house is ready to go to its new site. Note exterior walls full of stone.

7. Rear view showing antique kitchen and connecting wing.

8. Before: Main staircase, late Greek Revival.

9. After main staircase refurbished. Rear door replaced by another door found in the house.


In 1965 not many people in Montclair knew about the Crane House or cared about its future, but there was a small group that appreciated its rare architectural qualities, and recognized it as a lone survivor of Montclair's earliest days. This group, which became the Montclair Historical Society, took possession of the house, and over an eight year period converted it from a sadly decomposing building into a carefully restored, well maintained, semi-public museum.

After it acquired the house, the board of trustees met twice a week to thrash out restoration policy and figure out ways to finance it. Naturally there were many arguments, and it soon became evident there were two schools of thought. One school, which I shall refer to as purists, believes that:

1. Any and all restoration of old buildings should be done only after research has uncovered structural elements of the same style and same period in time, in surviving New Jersey buildings.
2. Old brick, old wood, and mortar made from crushed oyster shells, should be used to the stern exclusion of all latter day materials.
3. The addition of ells, wings etc. for utilitarian purposes, even though archaeologically correct in style, should be avoided, if such additions did not exist originally.

The other school, which I shall call the aesthetes, holds that:

1. Since a restored historic building is to be a show place to which, presumably, many visitors will flock, it should be appealing to the eye as well as interesting because of its historic associations.
2. Liberties may be taken with existing construction, and adaptations made, if they eliminate ugly and discordant features of old disasters resulting from incompetent planning and design. This seeming rudeness is acceptable only if the changes are carried out with skill and grace in the style of the period.

On the Montclair Historical Society Board the purists out-number the aesthetes. The purists subscribe to a dogma that is considered fundamental by many architectural historians. It is this: "It is better to preserve than to restore, better to restore than to reconstruct."

A practicing architect, long dedicated to designing buildings that will have a pleasant visual impact upon the beholder, finds it hard to subscribe unreservedly to this pronouncement. We have found that even the most devout purists ignore the evidence, and espouse aesthetic deviations from time to time.

And so it has come to pass that the present state of Crane House results from balanced consideration of these varying points of view.

When we got the house, the stair hall was quite undistinguished. A garish stained glass window, badly placed, two feet off center in the end wall, didn't help matters. The stair woodwork suffered under several coats of dark red varnish. The front door had one large pane of plate glass. It was definitely twentieth century.

We removed the stained glass and installed a tall arched window in the center of the end wall.

We stripped the varnish and stain from the newel, balusters, and handrail, and refinished them in light stain and dull varnish. The wood appears to be mahogany.

We stripped pink linoleum from the stair treads and uncovered the fine white pine below. After scraping and sanding, we stained and varnished these too.

We had a special hip raised panel door made to replace the plate glass front door.

We ripped up several hundred feet of modern oak strip flooring and found, as we expected, well worn wide planks of white pine below. All flooring and stair treads were then scraped, filled, stained, and varnished. In the process we replaced about three hundred feet of pine plank. Today it is hard to tell the new from the old.

There was quite a lot of work to do on the fireplaces. Three of the first floor mantels and frames were black marble, funereal in appearance, and badly cracked. In the fourth room, known as the Warming Kitchen a beautiful Adam style mantel was in place against the chimney breast. The fireplace itself was blocked up with brick, for when a central heating system was installed some time in the last century, the flue from the furnace below was run up through the fireplace to save the building of an additional chimney.

We removed the black marble frame from the Dining Room, substituted black slate facing, and installed our Adam mantel there. We then ran our new boiler flue up through the Dining Room fireplace, and bricked up the opening. This done, removal of the brickwork in the Warming Kitchen fireplace disclosed a large cooking fireplace with brown stone jambs and wrought iron eyelets for support of a crane. We believe this room was the original 1796 Kitchen, and that the other Kitchen, housed in a separate wing, was built later, probably around 1810.

We believe the only stair in 1796 was the simple back one built entirely outside of the center hall, as was the custom in many other New Jersey houses of the period. However, we decided to restore and preserve the late Greek revival center hall stair. It was probably built in 1844, when the house went through a general remodelling.

We were given two fine antique Federal-Period mantels to replace the two broken-down black marble mantels in the north rooms. This called for a bit of revamping of the fireplace openings, so the mantels would fit.

The fact that we bricked up the Dining Room fireplace in order to use its flue for our new boiler, dismayed many of our Trustees. However, a skilled cabinet maker adapted the design of a fireplace closure in the American Wing of The Metropolitan Museum to this opening, and though many still grieve, the effect of the closure together with the fine Adam Mantel framing it, is generally admired.

Perhaps the strongest justification for saving the Crane House lies in the educational program developed by several of our women members for the public benefit. Attired in period costume they demonstrate open hearth and beehive oven cooking for student groups all through the year.

This program has been made possible by the rebuilding of the separate Kitchen. We had H.A.B.S. measured drawings from which to work, so faithful reproduction was not difficult. We needed a resident caretaker, so we decided to make a place for him in the old servants' bedroom above the kitchen, and add a modern bathroom. We provided also a modern Kitchenette and Sitting Room in a one-story connecting wing.

In the Attic, exposed rafters are cantilevered across two lines of girders and halved together at the ridge. There is no ridge rafter.

A generous donor gave us books, desks, benches, stove, slates, etc. from an early nineteenth century school. This popular exhibit is installed in the Attic.

Today it can be truly said that many people know about the Israel Crane House, and appreciate its historic significance.
Land Use

New Jersey may be entering "a new framework" with respect to planning, zoning and general land use as the result of four court decisions rendered or pending.

In the opinion of Charles K. Agle of Princeton, an architect and community planning consultant, these rulings may form the basis for improvement in human ecology and the character of municipalities at a time when the state needs them most.

On one hand, Agle said, the United States Supreme Court recently reaffirmed and broadened prior decisions establishing the authority of municipalities to regulate land use.

On the other hand, three New Jersey cases now pending must soon be decided. One involving Mount Laurel, now before the State Supreme Court, centers on specifications dealing with multiple housing, which must be defined. In a Madison Township case also before the high courts the question of intensity of development is at issue.

A case involving Bedminster, the first in the state based on the ability of land to support population, is now before lower courts.

If the decisions favor supporters of saner land use, Agle said, local planning and zoning boards would have the tools and discretion to implement three major concepts.

One is the "open-space cluster," under which building lots in a neighborhood would be slightly smaller than they are now, with the saved land collected into a parcel of usable open space.

Another would be planned residential neighborhoods incorporating a balance of housing types and open space, as against housing "projects," and the third would be density-controlled by a "floor-area ratio."

"It would be helpful to have a pattern of different densities laid out on a statewide basis," Agle said, "so that each municipality would be less threatened by its neighbors."

More than most states, Agle continued, New Jersey has seen a massive dislocation of natural resources, and developments of inferior quality, mainly because of the real-estate tax burden and resulting local chaos. The Legislature now has this under consideration as the result of an order from the N.J. Supreme Court.

The state needs, either through legislation or the courts, Agle declared, swift attention to the changing family requirements of its population, since the demographic picture with respect to housing types is changing.

With a lower birth rate and longer life span, with family and marriage patterns undergoing change, housing requirements are altering, and with them other community and environmental needs that affect the geographic planning patterns throughout the state.

The architect's role in all this, Agle said, must not be underestimated. In his view, professional planners should also be architects, or at least experts in "intensity of structure." Architects ought also to be considered not merely designers of buildings, but of environment, and their services as such should be involved in the municipal structure on a permanent basis.
COMPARATIVE AREAS: LOT·BUILDING·OPEN SPACE

RECENT ORDINANCE

NEW ORDINANCE

STANDARD

ALTERNATE 1

*OPEN SPACE CLUSTER

ALTERNATE 2

*TWIN HOUSES. SAME F.A.R.

350' size lot
5 Acres

350' size lot
3 Acres
2% F.A.R. - 4,000 sf.

350' size lot
3 Acres 1/1 acre open
2% F.A.R. - 4,000 sf.

60' size lot
1/2 acre / 2 1/2 acres open
3% F.A.R. - 4,000 sf.
(twin houses/ two floors)

PARATIVE AREAS: LOT-BUILDING-OPEN SPACE

OPEN SPACE CLUSTER
ILLUSTRATIVE DIAGRAMS OF 90 ACRE TRACTS IN R 3

NO OPEN SPACE

Standard size lots.
Surplus private land.

18 ACRES OPEN SPACE

Next smaller size lots.
Golf, streams, paths, tennis
& other play in linear pattern.

OPEN SPACE CLUSTER

NEXT SMALLER SIZE lots. Larger sizes of greater
open space but somewhat less lateral privacy.

OPEN SPACE CLUSTER 90 ACRES
OPEN SPACE 18 ACRES

PLANNED RESIDENTIAL NEIGHBORHOOD 90 ACRES
OPEN SPACE 75 ACRES
Many Faces of Architecture

Careers in architecture may take many forms — evidence of the dynamic quality and comprehensive scope of the profession. The architect of today may find his practice in a large or small office, working for governmental or private clients and involved in such varied occupations as teacher, community worker or preservationist. The range of interest is as broad as the problems of the physical environment which need solving.

All trained as architects, those pictured here are representative of just a few of the many directions architecture may take. Let them tell you in their own words about their thoughts on their profession.

Is it possible to develop a process that would distribute an awareness of architecture to all levels of mankind and that would impress upon them the need for a continual commitment toward solving urban, rural as well as environmental problems? The Trenton Design Center serves as an environment where an active dialogue between "user" and "designer" takes place.

What does it all mean? Architecture should not be experienced by a gifted few — instead, we, as practitioners, educators and advocates, should actively begin to instill the idea within all sectors of society that architecture is indeed human oriented and can be shared as well as understood by all.

SANDRA MOORE
Trenton Design Center

Architecture, also, can be working with buildings of our past. The preservation of these buildings is everyone's responsibility; the actual restoration is the task of an architect, trained as an architectural historian.

A restoration can be purely academic, restoring the building to its original historic appearance, and serving as a model of our past. More often the restoration will make useful an old building, giving it a new life through a compatible adaptive use. The original form and detail of the building is retained. At the same time an efficient and workable space is provided for its function.

Essential to the entire effort is an integration with the environment. The restoration of a single building cannot be successful if it is not compatible within its environment.

CHARLES R. TICHY
Architectural Restoration Consultant

The development of design programs and their implementation constitute my major role as resident architect for a large insurance company. With several projects in the design or construction stages at any one time, my work load is constantly changing, from developing computer room security systems to coordinating interior designs to researching building components. Perhaps the most interesting aspect of my position is having the opportunity, along with a highly qualified in-house staff, to work with various architectural firms, each with its own philosophy and personality, to assure a successful building that fits the functions of the corporate family.

R. BRUCE DOLD, AIA
Associate Director of Architecture
Prudential Insurance Co. of America
In order to effectively shape the forms which the built environment will take, the architect must be an active participant in the pre-design project analysis. I usually find this time spent with a client organization, establishing functional goals and the strategy and tactics for their implementation, the most creative in the entire assignment. During the past few years as a consultant, I have advised: A large London-headquartered corporation on a decentralization strategy; a major New York bank on the form its retail branch offices should take; and the citizens of a flood-ravaged town on the strategy for rebuilding their central business district. The problems are as varied as the clients but the opportunity of leading a client team in a problem-solving atmosphere is one I always find stimulating.

RICHARD BOTTELI, AIA
Bottelli Associates
Architects/Planners

The practice of architecture by a small office in an urban environment presents the opportunity for an architect to become exposed to various social, economic and physical problems. Typical new construction projects include schools, housing, industrial buildings and churches. A substantial amount of alteration work is given to the smaller office and although this type of work is not particularly satisfying to the architect, it does fulfill a desperate need by clients with a limited amount of money.

The small, urban architectural office usually faces a scrambling, day to day existence. His clients' economic situation does not allow the architect to project his offices' growth beyond six to eight months. With all the problems the small office faces, it is still very gratifying to see the results and impact a completed project can have upon the urban environment and the lives in the community.

REGINALD C. HALE, AIA
Brown & Hale, Architects

Working as an architect for a governmental agency can be a rewarding experience. State government, through its various agencies, is becoming more and more involved in planning, stimulating new housing, redevelopment and code enforcement. These agencies are now aware that having an architect and planner on the staff to help evaluate the feasibility of projects and various grant programs can be of extreme value in insuring the success of a program. Although completely divorced from any drawing work, my position does offer a sense of satisfaction in seeing an agency of state government support a new program from feasibility to reality.

ART LANGE
New Jersey Dept. of Community Affairs

Serving the community as building inspector gives a unique opportunity to serve the profession of architecture at a "grass roots" level. Well designed buildings often have had to suffer under the sword of arbitrary enforcement of local codes. As an architect, I can appreciate these problems and aid the profession by sensibly enforcing local codes and regulations. At this time, with a country-wide trend toward greater governmental control of construction practices, it becomes even more important that enforcement personnel be professionally trained people with sensitivity to architecture, engineering, planning and the arts.

FRANK D. MILETO, AIA
Building Inspector
City of Clifton

Editor's Note: A travelling Exhibit on this subject has been designed by George Cedeno, AIA, with assistance from David R. Dibner, FAIA, primarily for use at schools sponsoring career days.
Undoubtedly the prime reward of a teaching career in architecture lies in its challenge to develop the latent creative talents in one’s students while providing them with the necessary tools and skills with which to design the physical environment of the future. Fringe benefits are infinite: Academic income can be happily augmented in a consultant capacity or as a practicing architect. And within our universities there is a concentration of many disciplines allied to architecture which provide constantly widening horizons for one’s own architectural development and awareness.

HENRY A. JANDL, FAIA
Princeton University

Much more basic research is needed in the fundamentals and phenomena influencing building design. Too little is known, for example, about the nature of wind forces, fire and smoke behavior, designing for energy conservation or even what constitutes the optimal environment. Ongoing studies in these and many other areas would benefit everyone, and should be supported at public expense, as they are in other countries.

The urgent need for such work has long been recognized, and more architecturally trained people should become involved in it. I’m sure they would find it rewarding, as I have.

WAYNE F. KOPPES, FAIA
Architectural Consultant
Basking Ridge, New Jersey

Large, complex building projects are most challenging to an architect. Since this challenge appeals to me, my career in architecture has been with architectural firms employing 50 or more people. Our firm has almost 100 people with architectural training. Teams of 10 or 15 architects, designers and draftsmen work closely in the design of a building or complex of buildings, with many other professionals available for consultation and advice.

And, because of the complexity of our projects, we meet and work with people in many fields: educators, business leaders, politicians, doctors, manufacturers, etc. Each project brings with it new people and new learning experiences. Thus, architecture is never dull and static.

KENNETH D. WHEELER, FAIA
The Grad Partnership
Architecture Engineering Planning

Whether today’s architect is self-employed, a member of a group practice, or a staff member of an organization, he must assume his place as one of several participants in a program team from the inception of that program through its entire development. The advantages of being a staff architect are many: numerous and varied resources within the organization from which they draw experience, information, highly specialized services and technical skills, all readily available; the opportunity to contribute to design programs of a scope and significance not often commissioned to all architectural practice groups; and a stabilized professional status that offers the opportunity for a productive career and the ultimate satisfaction of personal accomplishment.

JOSEPH M. KUDER, JR., AIA
Supervising Architect
Camping & Engineering Service
National Office
Boys Scouts of America
Olaf Stechow, AIA, has been elected president of the New Jersey Chapter of Construction Specifications Institute; William M. Brown, AIA, to a seat on its Board of Directors. Mr. Stechow is a partner in the Newark firm of Corbett Thornberg Stechow Jordan. Mr. Brown is a partner of Brown and Hale in Newark.

Donald J. Gatarz, AIA, President of NJSA, addressed the convention of the N.J. State Building and Construction Trades Council AFL-CIO in Atlantic City in June. Mr. Gatarz is a partner in the firm of Eckert-Gatarz in North Brunswick.

Dante D’Anastasio, AIA, has been named Chairman of the Bicentennial Committee for Pennsauken Township. Mr. D’Anastasio is the senior partner of the firm of D’Anastasio, Lisiewski and Tarquini, AIA, of Camden.

David R. Dibner, FAIA, was elected Vice President of the newly-organized New Jersey Chapter of the Society of Architectural Historians. Mr. Dibner is a partner in the Grad Partnership of Newark.

Joseph Branca, AIA, has been named Architectural Advisor to the newly-formed AIA Student Chapter at the New Jersey School of Architecture on the campus at NCE in Newark. Mr. Branca has his own practice in Nutley.

Thomas R. Flagg, was elected to the Board of Trustees of the National Institute of Architectural Education in New York. Mr. Flagg conducts his own practice in Leonia.

Eleanore K. Pettersen, AIA, was named to the Energy Crisis Study Commission by Governor Byrne. Miss Pettersen is in private practice in Saddle River.

Thomas Remick, AIA, conducted a session on Fast Tracking at the Facilities Workshop of the N.J. State Department of Education, held in Cherry Hill in May. Mr. Remick is a partner in the office of James Goldstein and Partners of Millburn.

Jacob Shteir, AIA, has been appointed by the President of the American Institute of Architects to the National Inquiry Committee, charged with the responsibility of investigating allegations of misconduct by architects.

Milton S. Augenblick, AIA, recently announced the opening of his office at 201 Lower Notch Road, Little Falls, N.J.

Robert P. Juengert, AIA, has relocated his office to 10 Banta Place, Hackensack, N.J.

Charles Fitch, AIA, Architect/Planner announced the removal of his Office to 495 Main St., Metuchen, N.J. 08840.

Cassandra Carroll, AIA, has opened her own office at 117 Sherman Ave. in Glen Ridge.
We welcome further inquiries on providing prices for standard and custom designs for furniture and planters. We invite you to consider the possibilities of combining fiberglass, wood and concrete. Phone (203) 677-9777

CUSTOM CASEWORK
St. Charles Manufacturing Co.
St. Charles, Illinois

For storage FLEXIBILITY...for storage CONVENIENCE
for storage UTILITY...for storage BEAUTY

We are your authorized St. Charles dealer/designer

VAN BEUZEKOM KITCHENS
301 Lafayette Ave, Hawthorne, N.J.
(201) 427-7111

ST. CHARLES DESIGNER KITCHENS, INC.
5 Post Office Place
Chatham, N.J.
(201) 635-8766

OBERHOLTZER KITCHENS
Rte 309 Coopersburg, Pa.
(215) 282-3777

ARISTOCRAT KITCHENS by DAVIS
52 St. Hwy 33, Trenton, N.J.
(609) 587-2400

ROSners KITCHENS, INC.
1700 Malton Pike
Cherry Hill, N.J.
(609) 663-0200

SPECIFY ST. CHARLES UNITS
The ultimate in casework adaptability for

Churches
Rectories
Parsonages
Convents
Seminaries
Monasteries
Novitiates
Housing Senior Citizens
Apartment Houses
Sorority and Fraternity Houses
Motels
Country Clubs
Service Clubs
Community Centers
Recreational Centers
YMCA-YWCA
Lodges
Doctors' Offices
Mortuaries
Veterinaries
First Aid Stations
Test Kitchens
Research Kitchens
TV Stations
Utility Showrooms
Banks
Savings & Loan Associations
Jails
Fire Stations
Armories
Dairies
Court Houses
Public Libraries
Museums
Executive Kitchens
Employee Lounges
State Homes for Boys
State Homes for Girls
Children's Homes
Juvenile Homes
Nurseries
Orphanages

Your St. Charles dealer is kept constantly aware of the latest storage techniques through frequent sessions of field and factory schooling by St. Charles designers. You can enlist the assistance of a St. Charles dealer at the earliest stages of planning — and rely on his help to render detail plans once the basic needs and ideas have been clearly defined.
There's little doubt that steel ranks second to none as an all-around construction material... one so versatile, durable and strong that no other medium even approaches its capacity on a pound for pound or square foot basis. Steel offers the architect and construction engineer unlimited design latitude... freedom to depart from the ordinary. No job is too big or too small. Steel enhances design potential, while continuing to provide the framework for inspired contemporary construction, as it has for the past 50 years.

But what of the men who translate the skill and vision of the architect and designer into living dimension... who employ years of knowhow to fabricate and erect today's cities and tomorrow's skylines from the mightiest metal of them all?

The Structural Steel and Ornamental Iron Association of New Jersey, is interested in sharing its technology and experience with steel firms in the industry and with the architectural field in building for the future. With a free exchange of ideas and the ability to discuss better ways to do things, the structural steel industry and the architectural profession can better serve the public.

All steel firms, architects and engineers who are interested in receiving a brochure about the Structural Steel & Ornamental Iron Association of New Jersey, Inc. may do so by writing to the S. S. and O. I. A. of N. J., 15 Washington Street, Newark, N. J.
...the time saved when you insist on the world's most carefully trained piping craftsmen for your next construction job. It's easy to save time... which means dollars. Simply specify a MCIC mechanical contractor. He hires only the best, the union pipefitter and plumber.

When you hire the firm with union craftsmen, you're sure they know their jobs. They offer the most advanced skills because they've come up through the most advanced technical training available. They don't make the costly, time consuming mistakes that come from piecemeal, haphazard training.

Select an MCIC contractor with union craftsmen. They'll save you plenty.

Isn't it about time to think more about time?

Mechanical Contracting Industry Council of New Jersey
101 South Harrison Street
East Orange, N.J. 07018