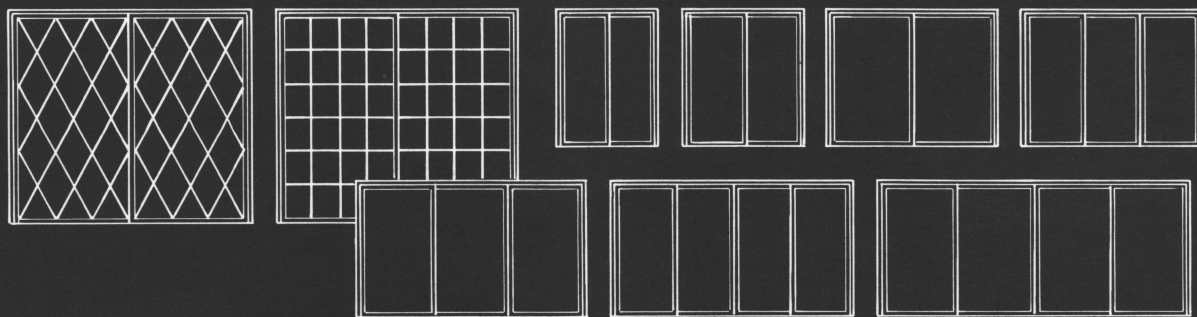


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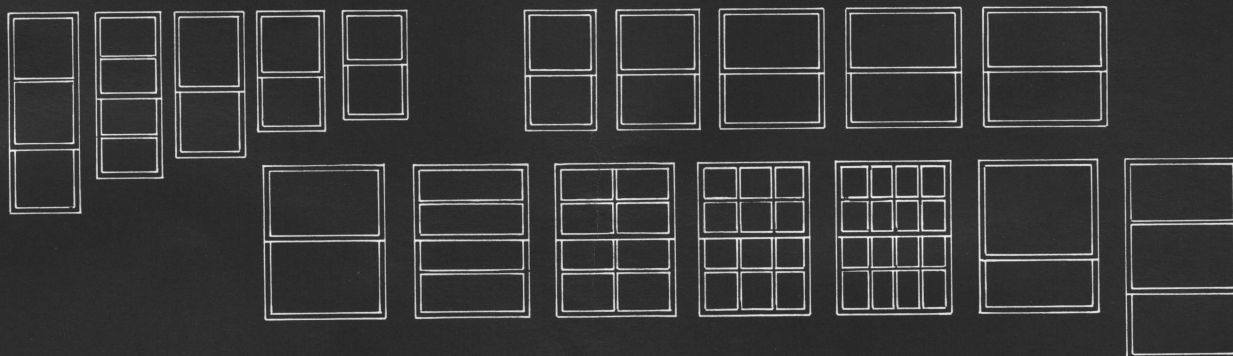
MARCH/APRIL 1973

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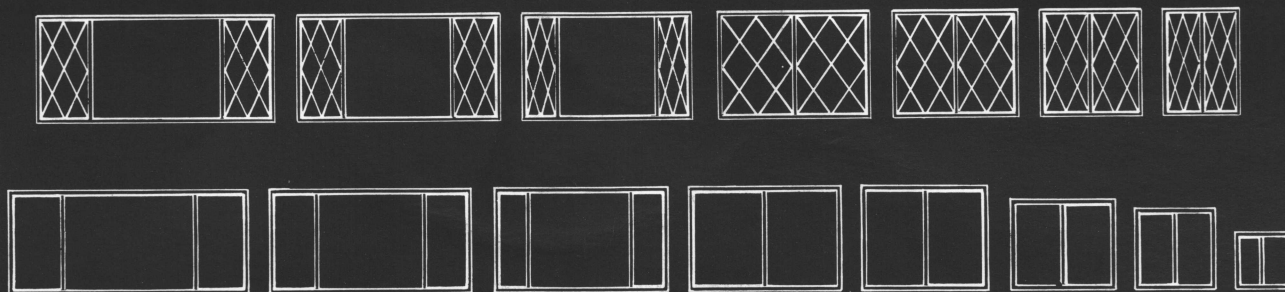




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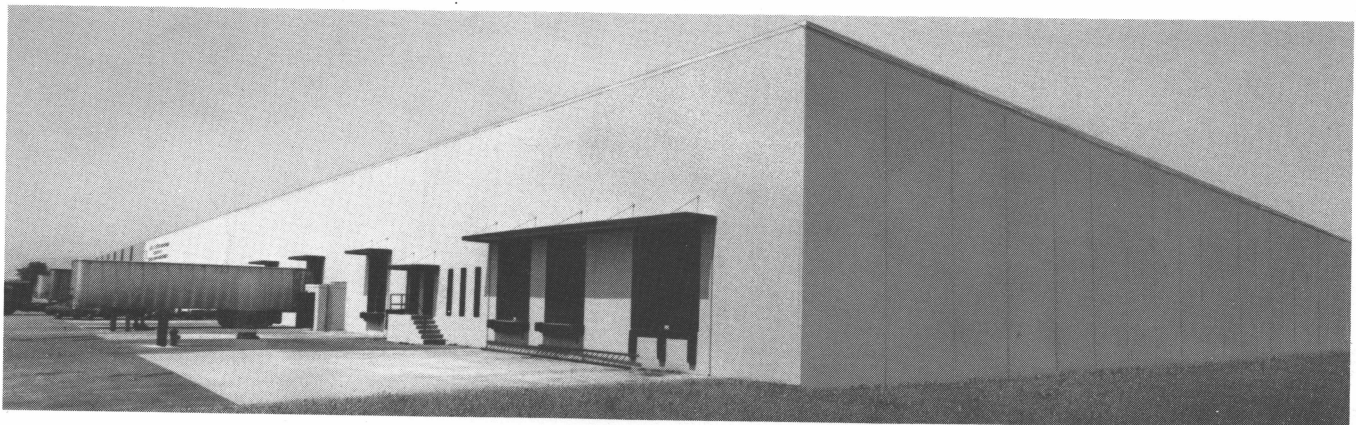
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NORTH CAROLINA ARCHITECT



MARCH/APRIL 1973
VOL. 20, NOS. 3 & 4

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THE CONVENTION: ARCHITECT-CLIENT RELATIONS

The state's architects are doing less restoration work than might be expected, according to the judgment of the distinguished jury that selected 1973 architectural awards for the N. C. AIA chapter.

"Because of the Southern heritage and tradition, we were unanimously surprised by the lack of renovation and restoration," said New York City architect-juror Hobart Betts at the awards banquet Feb. 9 highlighting the 59th winter convention in Charlotte. The jury, however, did find one restoration to recognize among 47 entries in the competition.

The three-day meeting featuring a theme of "Architect-Client" relationships drew the largest winter convention crowd ever—175 architects—for activities that began Feb. 8 with registration, followed by a social evening at the "Top of the Tower" of the Jefferson First Union Building, Charlotte's new 32-story high-rise.

Talks got underway Friday morning when two corporate clients discussed what they expect of architects. After lunch and a welcome by Mayor John M. Belk of Charlotte, the architects heard a tough appraisal of the profession by New York office builder-landlord Melvyn Kaufman. "You're designing for the kings — you've forgotten the people," said Kaufman.

After Friday night's banquet, an unexpected snowfall wiped out the final activity Saturday afternoon, a visit to the Carowinds Theme Park under construction outside the city.

The final speakers, however, state agency clients Carroll L. Mann Jr. of the N. C. Department of Administration and school planner Dr. J. L. Pierce of the Department of Public Instruction, appeared on schedule, Saturday morning.

The corporate clients who spoke Friday morning, chief architect Torwald Torgersen of Container Corporation of America and engineer Max Cardiff, International Business Machines' director of field real estate, indicated their companies handle construction differently. The Container Corporation architectural staff does considerable preliminary planning before outside architects are brought in.

Both, however, had sound advice for the profession. Said Torgersen:

—Have an easily accessible and attractive office showing creativity even if the furniture is second-hand.

—Have a meaningful and well-designed brochure. "Some I receive I can't throw away fast enough," he said.

—Keep in touch. But don't be

phony or gushy, and don't "stop in" unless you're asked to.

Cardiff said his office considers these points in the selection of architects:

—Design quality. Brochures on file help in making the decision on quality.

—Economy. The design should be devoid of unnecessary decorative features.

—Understanding of a local community. "Wherever possible, we try to use local architects," he said.

Cardiff said IBM expects the architect to stay within the budget allotted.

He concluded: "Experience tells us many architects won't admit they have weaknesses in such lines as interior decoration or food design service. But there are two points to remember: we expect the architect to make some mistakes and we expect to treat him fairly."

In a question-and-answer period, both clients said their bidding is completely competitive and the low bidder "absolutely will get the job." Both open the bids privately and don't furnish the losers a list of bids. One delegate suggested "the only thing a losing contractor gets is an education" but failed to convince the corporate clients
(Continued on page 13)

NCAIA 1973 HONOR AWARDS PROGRAM

While everyone else was Christmas shopping in New York, two NCAIA members arrived in the city loaded with the Chapter's entry booklets for the Honor Awards program. Jeff Huberman and "Abie" Harris reported that the jury labored long and hard to reach

a decision on the award recipients. Pictured here, hard at work, are James Stewart Polshek, Ulrich Franzen and Hobart Betts with Awards Committee Chairman Jeffrey Huberman. The jury decisions are presented on the following pages.



HONOR AWARD

NORTH CAROLINA NATIONAL BANK
PARK ROAD AT ABBEY PLACE
CHARLOTTE, NORTH CAROLINA
WOLF ASSOCIATES ARCHITECTS
CHARLOTTE, NORTH CAROLINA

Jury Comments: Excellent plan or solution to a difficult problem. The strong 45 degree architectural geometry works well with the vehicular requirements on this long narrow site. This permits a large scale access for the automobile to gracefully co-exist with a smaller scale access for pedestrians. The angular interior geometry works equally well to separate teller booths and give drama and excitement to the building section.



AWARD OF MERIT

CEDAR TERRACE OFFICE PROJECT
3333 CHAPEL HILL BOULEVARD
DURHAM, NORTH CAROLINA
JOHN D. LATIMER & ASSOCIATES
DURHAM, NORTH CAROLINA
Roger H. Clark, AIA, Design Architect
Trout and Riggs Construction Co., Inc., General Contractor

Jury Comments: The project was appropriately scaled to the surrounding community, that the massing of the units reflected the irregular nature of the site and provided a series of interesting and exciting rhythms and well supported by the window proportions and clean detailing. There is a clear transition between entrance walkways and building elements. The attention given to graphics and site lighting were also applauded.



AWARD OF MERIT

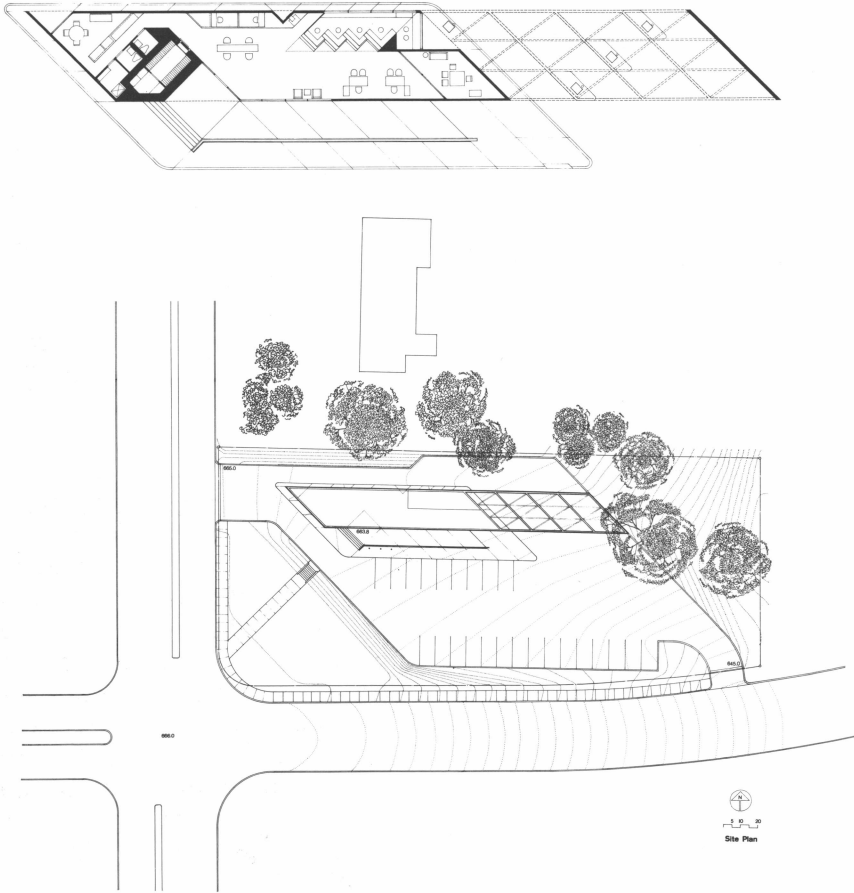
RESTORATION AND OFFICE INTERIORS, LATTA ARCADE
CHARLOTTE, NORTH CAROLINA
WOLF ASSOCIATES ARCHITECTS
CHARLOTTE, NORTH CAROLINA

Jury Comments: Commendable for doing less than more. The selection of light fixtures, office designations, graphics and particularly the color scheme were all accomplished with respect and concern for the delicacy and scale of the existing interior.



HONOR AWARD

North Carolina National Bank, Branch Office



Architect's Statement Concerning Design Problems and Solutions:

The site is a parcel of a once large estate, with all but the family home now sold to commercial operations. The home is adjacent to the bank site.

The design intends to recognize and express the bank's prediction that a large majority (81%) of the anticipated transactions at this branch will be from the drive-in positions. By carving the automobile lanes out of the volume of the building, it becomes literally a "drive-in" bank.

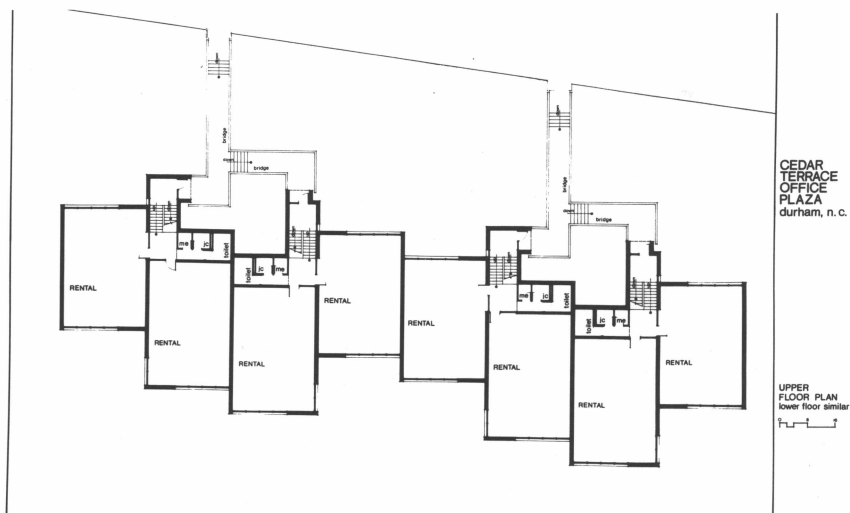
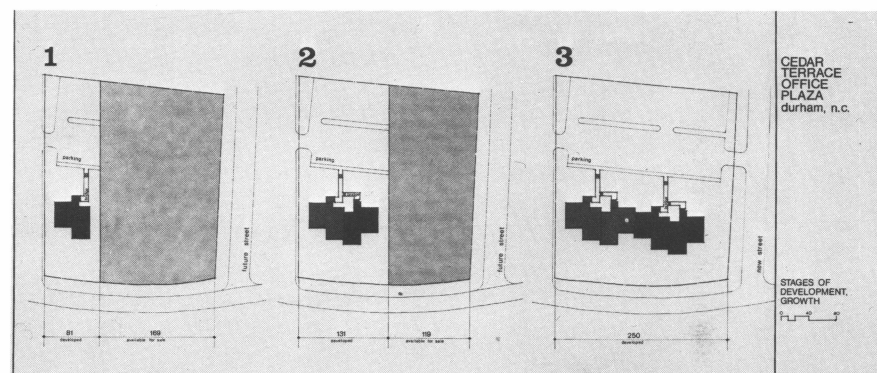
The configuration allows diagonal movement through the site and also preserves the large tree mass in the northeast corner leaving it contiguous with the trees in the adjacent home site.

The flat, tall building volume turned facing the direction of the street traffic is in scale with the automobile and acts as a symbol for the automobile oriented nature of the facility.



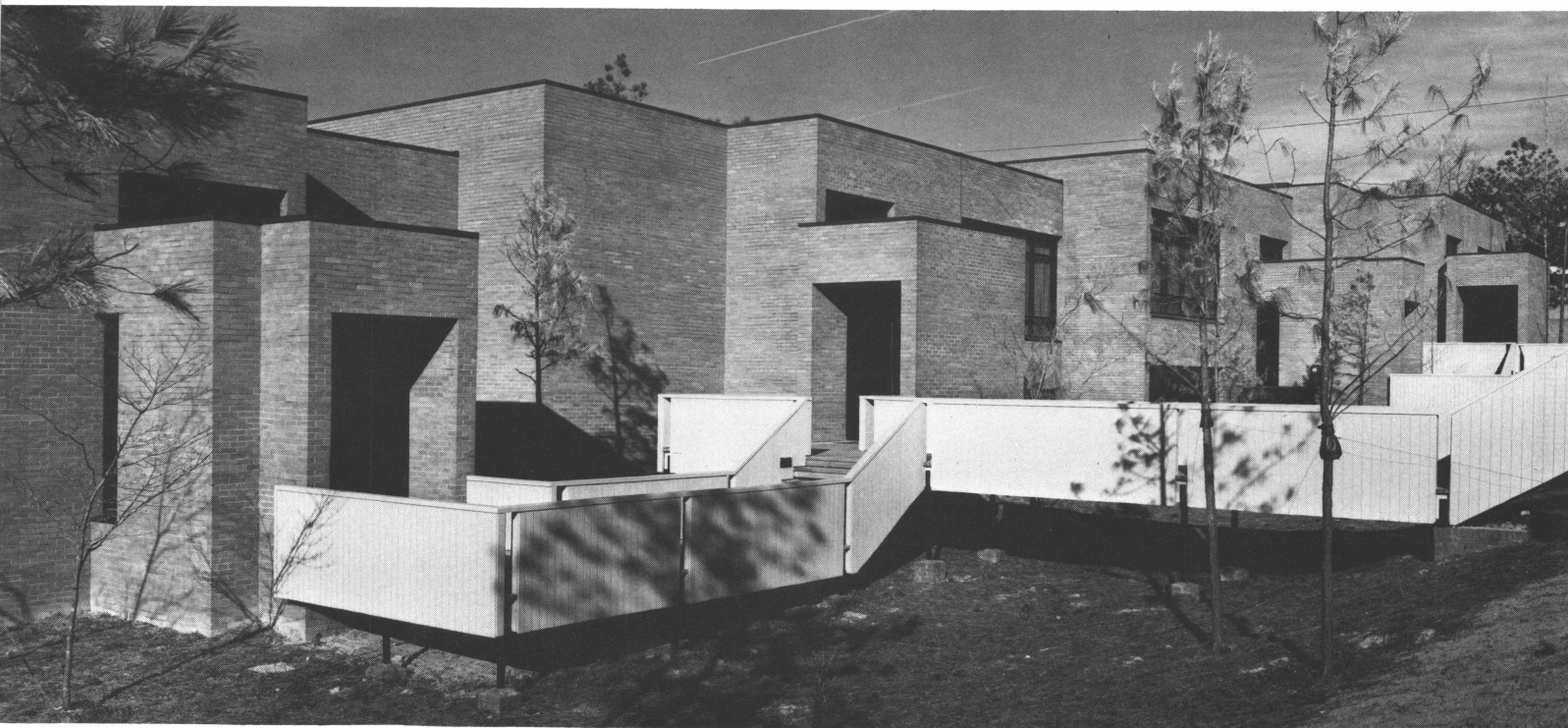
AWARD OF MERIT

Cedar Terrace Office Plaza



Architect's Statement Concerning Design Problems and Solutions:

The basic problem was the design of a speculative office building that could be built in stages permitting the client to build as space was leased and thus reducing the economic risk. It was required that at the end of each development stage, the project would be considered complete and that any future growth would be carried on with minimum disturbance to the occupants from previous stages. In an effort to further minimize the economic risk, the first two stages were designed to utilize only a portion of the land. An effort was made to emphasize the stages and autonomy of each unit by permitting the units to step down the hill, as well as staggering each unit by a common increment. A common lobby was provided outside by creating an "in-between" space that was common to all units, so the bridges serve in this capacity.



AWARD OF MERIT

Restoration and Office Interiors

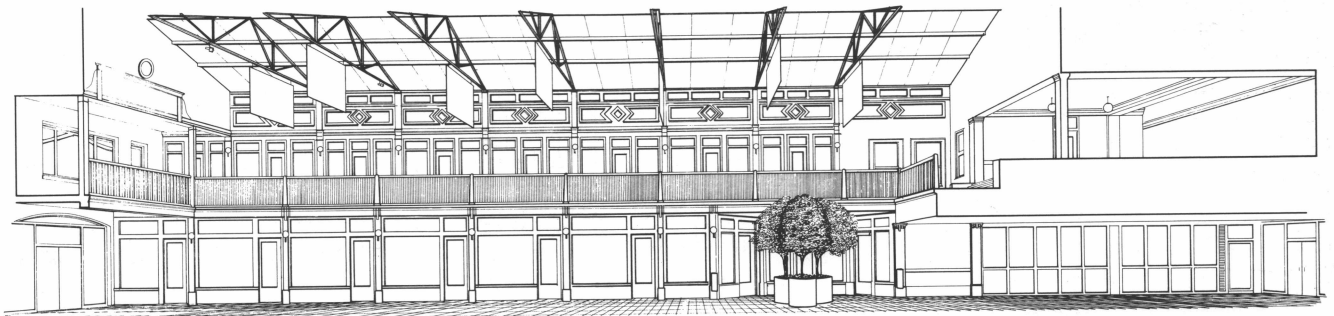
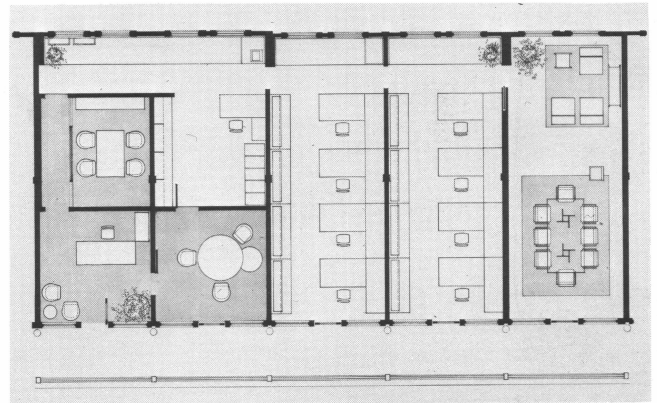


Architect's Statement Concerning Design Problems and Solutions:

The inherent charm of this Arcade Building, built in 1911, led the Architect to encourage the owner to restore this handsome building. The Arcade provides a major inter-block pedestrian link between a large Utility Company and secondary office space and the primary business/retail street of the City.

The first floor of the Arcade had been turned over to Real Estate offices, rather than for its initial use as small boutiques. Upon expiration of these leases, it is hoped that shops may again benefit from the heavy pedestrian flow through the Arcade.

The Architects of the restoration also have developed their offices on the second floor of the Arcade, gradually expanding from bay to bay, to its present size, including the large conference room, designed especially for presentations and slide shows to clients. The whole office was designed to maximize the efficiency of various tasks.



The Convention

Continued from page 9

that they should change their policy.

The question of "why industry is so unrealistic in the amount of time it allows for the design and construction process" drew a response from Cardiff that "Quality is not based on length of time." "We try to give him (an architect) the time he needs for the concept stage; then we draw the line for working drawings," said Cardiff.

Torgersen said his firm wanted the architect to be "actively engaged" on the project at all times and so "we don't like to leave it too long."

Both speakers indicated their companies do work with different-sized firms and have good relationships with both small and larger firms.

Cardiff said at IBM, which has done a lot of building in North Carolina, "we've done our darnedest to give architects freedom of artistic expression."

Torgersen said his firm does ask for outright drafting services sometimes. He said in a fairly restricted working arrangement, architects are successively offered guidance, assistance, and direction as necessary.

At the annual awards presentation, Wolf Associates of Charlotte took two of three architectural awards, receiving an Honor

Award, the highest given, for a North Carolina National Bank building at Park Road and Abbey Place in Charlotte. The building is in the shape of a trapezoid.

The jury, which included Ulrich Franzen as chairman and Columbia University dean of architecture James Stewart Polshek, cited the bank building for its "strong geometrical approach" and said it "works well on a long narrow site."

The firm headed by Harry Wolf III, also received a 1973 Award of Merit for the restoration of the 1912 Latta Arcade and the offices of Wolf Associates, the jury commending it "for doing less rather than more." The Latta Arcade is a building whose original architecture was influenced by London's Grand Central Palace Exposition building of 1851.

Betts said the jury members had not known that both the bank and the restoration were by the same architect. He cited the "Excellence of the firm in handling two very different projects in two very different ways. It is indicative of the highest level of design discipline."

John D. Latimer and Associates of Durham received a 1973 Award of Merit for the Cedar Terrace Office Project at 3333 Chapel Hill Blvd. in Durham. Betts said the building design created "interesting and excit-

ing rhythms" and the jury took special note of contrasting walkways.

Charlotte Photographer Gordon H. Schenck Jr., a one-time architecture student at N. C. State University, was recognized in the collaboration awards program for his "mastery of the art of architectural photography." Awards committee chairman Jeff Huberman said Schenck's nomination cited his understanding of the architect's aims and goals.

Ernie Wood of the Raleigh News & Observer received the chapter's press award for the most outstanding article on architects and architecture. His story concerned the Burroughs-Wellcome building at Research Triangle Park.

National AIA president S. Scott Ferebee Jr. and Mrs. Ferebee of Charlotte and incoming chapter president Bertram King Jr. and Mrs. King of Asheville were honor guests at a reception before the awards dinner.

Special plaques awarded at the dinner recognized Ferebee, retiring chapter president B. L. Freeman, and Betty Silver, executive director of the state chapter who has recently been named an honorary member of the American Institute of Architects. Mrs. Freeman also received an engraved silver tray.

ATTENTION-GETTING PEOPLE'S CHAMPION: MELVYN KAUFMAN

by Jane Roehrs



If there's anything New York City builder-landlord Melvyn Kaufman wants to destroy, it's architectural myths. Particularly the long-faced, dead-serious, sacrosanct type the leading architectural magazines foster and perpetuate.

A self-appointed People's Champion, Kaufman flailed away during a lecture at the N. C. AIA Chapter's recent winter convention in Charlotte, at things "the architect sees that are not there." He also touched on some things he said the architect misses seeing.

According to Kaufman, a partner in the William Kaufman Organization founded by his father:

—It's a myth that more than half the Lever House site in New York City was given over to walks and gardens (it's more like one-fourth, he says).

—It's a myth that the 1967 Ford Foundation building had public space that was "put inside the building" with a wall around it. ("How do you make a public walk and put a wall around it?" he asked indignantly.)

—It's a myth that Boston's Governmental Plaza, designed by no less than six architects, is "accessible" and "provides involvement" for the users. ("I wouldn't cross that plaza without food and water!" exclaimed Kaufman, showing a slide of a desert-like expanse of brick-laid plaza. "And you know what that bunker (it's really a library) says? It says don't go un-armed.")

—It's a big myth that New York's handsome Seagram Building carries out the "less is more"

principle of architect Mies Van Der Rohe. (Kaufman says the building has a "fake curtain" to hide a slop sink and a service elevator and a screen on top that is pure decoration to hide the air conditioning equipment. A landscaped area outside was designed "to keep the people the hell off," he said.)

—Further, says Kaufman, it's a myth that either the architect or the client is entirely responsible for the present state of things: "It takes teamwork to make an ugly building."

It adds up to the biggest shame of all: that architects are designing only for the corporate and governmental kings, said Kaufman. "You've failed the second clients, the people," he charged.

"And where were you when two million mobile homes were built?"

So, who is Kaufman and how did he become a People's Knight? Some probing by reporters turned up a few answers but didn't dispel the mystery:

Q. Have you studied architecture?

A. I have studied architecture all my life on my own but not formally.

Q. When did you start all this?

A. I never made a dollar on my own (outside the family business) until five or six years ago when I began speaking and getting these honorariums.

Q. Have you lived in New York City all your life?

A. I was in Colorado for awhile. And Utah.

Q. Where do you live now?

A. In a house in Mamaroneck, L. I.

Q. Would you like a filling station on your corner?

A. It would depend on the filling station. Well, maybe I'd have to think that one over.

Q. What would be your reaction to a quiet, non-commercial type shopping center in the midst of a residential area?

A. I'd say, "How's business?"

So Kaufman is not an easy man to pin down. But he appears to be a man obsessed with architecture. When he arrived in Charlotte and his hosts attempted to take him on a conducted tour, he broke away and strode the streets of Downtown Charlotte on his own with a camera, busily making a photo record of what he saw.

Later, he agreed to go with reporters to the top of the convention motel to look down on the city and talk about it.

From there, he picked out the jail as the nicest building: "It says 'stay out,' " he said. He picked out neighboring buildings which he said "look like a jail" but aren't.

He confessed that Disneyland, where each of the buildings has a recognizable character, "is my holy place." He called it "the only city planned and functioning. What happened is orientation toward people."

(He also praised the "natural redevelopment" in the Society Hill area in Philadelphia.)

Finally, Kaufman called Downtown Charlotte a mausoleum and its skyscrapers unnecessary because the city doesn't have a density problem.

"They just want to get their names up there so people can see them," said Kaufman, proving that it takes one to call one.

Kaufman, himself, has another way of attention-getting.

Kaufman uses humorous art work and off-beat features verging on the gimmicky to get people to notice his buildings. And to enjoy them.

At the Kaufman Office building at 77 Water Street, NYC, a sculpture of a Sopwith Camel sits on a rooftop Astro-turf landing strip with a wind-sock nearby. A spacious plaza with pools, sculpture, cafeseating and turn-of-the-century candy store takes the place of the conventional marble or travertine lobby.

The plaza is warmed in winter by "heat trees" (tree-like heating lights) and the lobby was moved upstairs to the mezzanine.

In other human interest touches, a window-washing rig has been turned into a great yellow bird, and bright elevators with neon lights give passengers' faces a weird and conversation-provoking color.

At 127 John St., people entering the Kaufman building have to go into a tunnel first. One rooftop has a gravel mural of a bird and a pussy cat that people in higher offices can look down on. Air conditioning and other service equipment on the roof has been brightly painted and lighted so it is easily visible through window walls and suggests modern kinetic sculpture.

Kaufman's favorite building is a put-on. Inspired by a building he once saw in Genoa, he did a restoration of an old four-story townhouse in downtown New York, painting it a tasteful white with trim of blue for fake painted-on shutters. "It's a medical building and the shutters say that joy and health care are not mutually exclusive," he said.

In the newest Kaufman building on Third Ave., he plans an unusual touch for New York City: an entrance with a front porch.

Sometimes Kaufman tries to "wipe out" a pretentious facade by putting up bright canvas canopies, thereby accenting use instead of shape.

"It's junk," he says of the buildings made of the 20th century's wattle of panels and rails. "Wipe it out!"

"Fake" and "Junk" are words Kaufman uses a lot and he wishes he could get architects to use the words more. "Why don't they admit it's junk?" he asks. "Why all this pretentiousness? Why can't they laugh at themselves?"

He employs architects for his own buildings and sometimes goes to theatrical designers too.

Although he admires load-bearing walls, he says panels-and-rails construction is the only kind that makes sense in today's technological society in view of costs. But he calls the buildings "non-buildings" because the whole thing unscrews.

"The city is the architect" is a phrase he often uses as he refers to the limits of space the city imposes and even the approximate shape a building may be. We're still building the same type building because it was the most economical within the line that the city said was the shape, he said.

But whatever the other requirements you can change the lobby of an office building, says Kaufman. Forget granite walls and terrazzo floors (thereby eliminating the expensive structure to support them) and you can have an entire lobby and 10 pieces of people-appeal artwork for half the price, Kaufman says. The artwork must have a sense of humor to generate warmth and friendliness. His rule is no serious art. Give people space to sit in, to walk around in, to have fun in.

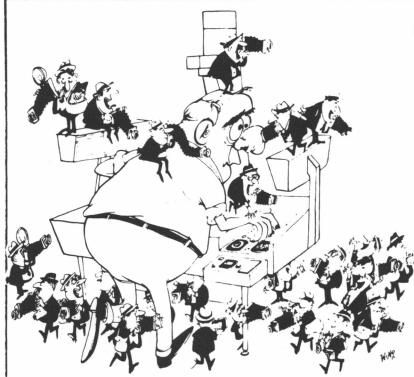
So how's business, Mr. Kaufman?

Just great. The offices are full. "And people even come to visit my buildings on the weekends," said Kaufman. ■

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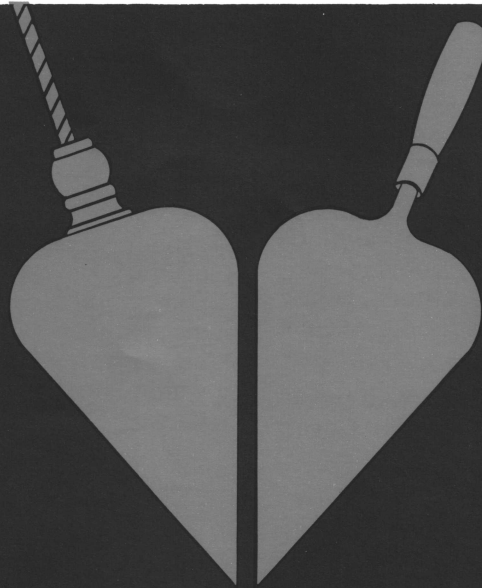
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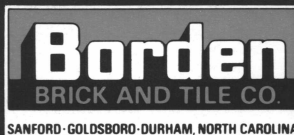


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Honors Announced



Betty W. Silver of Raleigh has been elected to Honorary Membership in The American Institute of Architects. The national honor is extended to a maximum of ten persons each year who are outside the architectural profession, but "who have rendered a distinguished service to the profession of architecture".

Mrs. Silver, a native of Edenton, is Executive Director of the North Carolina Chapter of The American Institute of Architects and is editor and publisher of *North Carolina Architect*, a bi-monthly magazine which has received a number of regional and national citations. In 1971 she directed a national architectural editors' conference in Washington. She is a past president of the Carolina Society of Association Executives. In addition, she has been active in historic preservation, serving on the Board of the Wake County Historical Society and as a member of the Colonial Dames in the State of North Carolina. She is listed in *Woman's Who's Who in America*. Recently, she was appointed by the county commissioners of Wake County to fill one of two vacancies on the Wake County Planning Board. She became the first woman to serve on the planning board.

Mrs. Silver, who resides at Midway Plantation, is married to Charles Hinton Silver and they are the parents of three sons.

The Honorary Membership will be presented in ceremonies at the annual convention of the American Institute of Architects in San Francisco on May 7.



Architectural photographer Gordon H. Schenck, Jr. was presented the Collaboration Award from the North Carolina Chapter of The American Institute of Architects during the Winter Convention of the Chapter held in Charlotte in February.

A native of North Carolina, Schenck is an engineering graduate of NC State University where he was "scared out of architectural-engineering curriculum by Dean Kamphoefner". He joined the Engineering Department of Southern Railway's Charlotte division and was later Assistant Division Engineer in Louisville, Kentucky; New Orleans, Louisiana; and Greenville, South Carolina.

In 1964 he gave up railroading and returned to Charlotte to establish the practice of architectural photography, combining his interests in photography and design. Schenck has presented programs on architectural photography to the Professional Photographers of North Carolina and the Knoxville, Tennessee Chapter of AIA. Currently serving as an officer of the Architectural Photographers Association, he is also a member of the American Society of Magazine Photographers.

Photographs by Schenck have been published in *Architectural Record*, *Architectural Forum*, *Southern Living*, *House Beautiful*, and many times in *North Carolina Architect*.

Jury Comments: Continued outstanding excellence in the field of architectural photography reflects his personal involvement in each project and portrays a labor of love in his efforts to capture, through photography, the spirit and soul of the designing architect's creativity.

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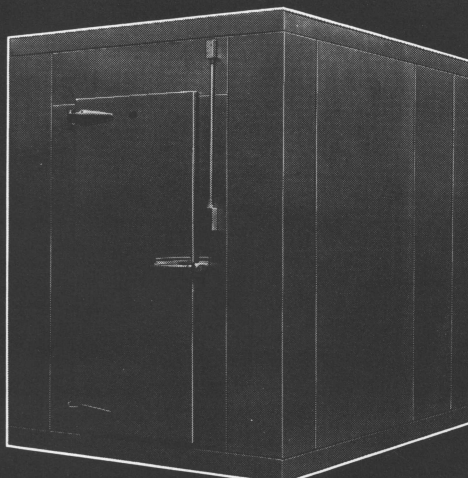
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FORCES OF CHANGE IN THE CONSTRUCTION INDUSTRY

By
A. W. Kitchens, President
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These are exciting times for construction, times that pose both challenges and problems to many segments of the construction industry. Traditional roles are shifting, and new opportunities are emerging to improve the production of our structural environment.

There is a growing awareness that to produce construction better, faster and at reasonable cost requires a greater interrelationship between the various component groups involved in the construction process itself. As a result, there has been a steady fusion of the interests of the owner, the design professional, the contractor and the manufacturer.

Forces like these are steadily reshaping the construction industry and, as one critic carped, finally moving it into the Twentieth Century. That comment is rather a harsh one, and not really justified. Unlike most other industries, construction has faced many unique external obstacles, hurdles created in good faith by the very communities it has tried to serve, which have impeded its ability to provide the best quality product at the lowest cost. What other industry has been tied to outmoded zoning and building codes? The very structure of the construction industry — its fragmented, localized nature, its forced overdependency because of building codes and union restrictions on on-site operations and labor forces — has acted as a limitation on its growth and its ability to be as innovative as it might.

Looking ahead to the year 2000, we will have to provide urban environments for as many additional people as we have in our cities today. We're talking about

a minimum of 238 million urban dwellers by the new century, or over 80 per cent of the total U. S. population. Some even estimate the number will top 90 per cent.

Operating in tandem with this mounting social force are the economic forces developing out of the spiraling cost of construction and the general inability of the industry to effectively control this factor. This has led to owners in the private as well as public sector taking matters into their own hands and demanding changes in the construction process that will drastically reduce the time required for completion of a project and thereby its cost. The owner has become the prime mover behind the changes that are shaping the construction industry and relationships that exist between the various segments.

The owner is emerging as a new and potent force. Some call this the Age of the Owner, others identify the period as the Revolt of the Owner. By owners, I mean private sector developers and corporate consumers of construction, as well as public agencies on the federal and state levels.

Private owners have steadily grown in size. The scope of their operations is larger, and they are increasingly more involved in large scale, multiple-building developments, such as housing complexes, community and industrial centers, and new towns. The Federal Government itself has become a powerful new force for change, principally through the activities of the General Services Administration, the Department of Housing and Urban Development, and the Department of Health, Education and Welfare.

Today's owner of multiple and repetitive projects, private as well as public, is vastly more

sophisticated than ever before and is no longer willing to accept the status quo.

Aiding him in this quest are forward-thinking architects and engineers concerned equally about the impact of construction costs as well as the quality of design. Over the past decade, the design professional in many ways has become much more of a collaborator, aiding owners to find new ways to cut the construction time of multi-building projects.

The owner, however, has been a major factor in **utilizing** techniques and concepts to improve the process and organization of construction. More and more owners over the years have turned to the negotiated general contract, as a way to shorten construction time. This approach enables the contractor or subcontractor to enter a project at an early, influential stage. Many owners today are taking this concept a step further, and turning to a closer-knit, more fully-integrated approach best described as the "building team."

Essentially, the building team approach is intended to produce better coordination and cooperation between the various members of the construction group, namely the architect, contractor and manufacturer.

With the architect pointing the way, the owner has embraced fast track scheduling. It involves letting out selected subcontracts, either by competitive or negotiated bid, and starting actual construction while the balance of design and working drawings are still in progress. This approach can drastically shorten construction time.

More and more, owners are turning to management concepts and techniques. No doubt, much of this is due to the experience brought to the industry only re-

cently by a new breed of owner. And that owner is the business corporation seeking new avenues to profits. From both within and without the building products field, major corporations are entering the construction industry.

Where is all this leading, as owners, in the broadest sense, assume a more dominant role in the construction process? Perhaps the most significant is the new function of construction management, also sometimes referred to as project management, which owners have virtually invented to better cope with the entire problem of scheduling and cost control.

The Construction Manager is emerging as the owner's voice, agent and purse string. His role is to clarify the time and cost consequences of decision and design options, as they occur. Moreover the Construction Manager is involved in construction scheduling, prepurchasing of materials, advising on contractors and contract awards. In addition, he coordinates the direction of all construction activities, including those of producers of systems and subsystems, and makes or expedites the owner's decisions at key points as the project develops.

Through construction management, the government hopes to trim lengthy and costly federal construction schedules that, according to some estimates, require up to twice the time it might have taken a private owner to complete a similar building. By using a construction manager on its projects, the GSA believes it can effectively cut bureaucratic red tape, increase management flexibility and centralize project responsibility.

The government, therefore, having few of the alternatives available in the private sector, is spearheading the practical applications of the construction

management function. It's still too early to tell how much of this approach will carry over into the private sector, or even how broadly construction management will be used throughout the massive, public construction market. There's little doubt, however, that the construction manager we see emerging on the scene is bound to have pronounced effects in many sectors of our industry.

The government's involvement began about two years ago, when the GSA reviewed its construction programs and issued a report recommending that these programs be vigorously restructured. This was followed by GSA's award of its first construction management contract for a \$37 million law enforcement training complex. After this the agency selected a second construction management group to oversee the development of three Social Security buildings, involving some \$97 million in construction, located in Chicago, Philadelphia and San Francisco. Although these projects span a continent, GSA is treating them as a **single** process and is utilizing performance specifications and building systems.

Arthur Sampson, Acting Commissioner of GSA and former head of its Public Building Service, expects that these efforts will stimulate building systems development. The market is large enough to attract manufacturers or combination of firms to bid on the systems contract, he believes. Since systems performance standards are compatible with needs of general and office buildings, even bid losers would benefit by having systems that could be marketed in the private sector or to other federal agencies which take the systems route.

Another continuing trend is the growth of the design/construct firm, which is also known as package builder, turnkey opera-

tor, or, simply, design and build firm. They respond to owner demands by guaranteeing that a facility will be built by a specific date and at a particular cost. They also provide the owner with a complete package of services.

The design/construct firm is able to provide owners with a centralized, single responsibility, and a predictable price and schedule. Some owners, such as the Environmental Protection Agency, are looking in this direction and at construction management as alternate ways of achieving objectives of performance, schedule and cost control.

The practice of architecture is in a state of flux, as the profession responds to new challenges and new demands. In general, architectural services are expanding to include construction management, real estate, interior designing, engineering and planning.

The larger architectural firms are expanding by acquiring these new capabilities themselves, or merging with other firms. In addition, some are merging with major corporations. Spokesmen for the profession believe greater use will be made of performance specifications, as both owners and architects attempt to cope with the mounting number of building products now available. This will enable design professionals to focus more on their discipline, and assume responsibilities of systems coordination and construction management. The large A/E firm will also possess the increased leverage to demand improved or custom designed products from manufacturers.

An indication of the key role assumed by the architectural/engineering firm is the GSA project mentioned earlier, construction of three Social Security buildings, with heavy emphasis on the use of systems design and components. An executive architect/engineering firm is in-

involved, plus a regional A/E firm for each building. The task of the executive A/E firm is to oversee appropriate design portions of the buildings that involve systems components, and advise systems manufacturers about the constraints they will be working under. The responsibility also includes the design of a standard building system that will put the least restriction on the local architects responsible for the esthetic design, working drawings and specifications for the non-system elements.

The contractors' position in the industry is also changing, as this important segment responds to the urgent need for speedier construction.

Increasingly, general contractors are negotiating directly with owners to execute projects for a flat fee or on a cost-plus basis. Such negotiated arrangements, usually occurring at the beginning of a project, enable the general contractor to become a building team member and advisor early in the picture. He is able to contribute his expertise and advise on methods of construction. This early involvement permits fast track scheduling and multiple bids to be used.

The contractor often performs the function of construction manager, but his future role is uncertain as increased demands are made of the construction management function. Right now the responsibility for this management function is up in the air. It is now being performed by architects, cost consultants and owners themselves, in addition to contractors.

While these groups vie for greater construction management and control functions, the manufacturer of building products and materials is left pondering what new factors will now influence the production, marketing, distribution and acceptability of his wares.

By manufacturer I include not only the producer of traditional

on-the-shelf products, but those who apply mass production manufacturing methods in an effort to reduce construction time and the reliance on expensive field labor.

If spokesmen such as Bob Hastings are correct in their anticipation of building teams headed by design professionals, manufacturers then will gain a unique opportunity to join the team in the capacity of problem solvers rather than vendors. Design teams, responding to increased pressures of quality, cost and time on construction, will then rely more on producers able to meet performance specifications and also guarantee in-place performance of systems or subsystems. It will afford manufacturers an opportunity to join the team in its early stages, and receive a professional fee for the counsel they provide. Later, as the project progresses, there may also be an opportunity for producers to negotiate for the manufacture and even installation of the particular system.

For many years the new technology available to the industry—the application of industrialized methods and mass production techniques to construction—has faced an uphill battle of restrictive codes and regulations, union opposition, and even customer acceptance. But the urgency to meet the nation's critical social needs, coupled with a far more unified effort than ever before to reduce costs by accelerating the construction clock, has stimulated experimentation with, entry into and acceptance of building systems.

Despite progress in systems construction technology, its degree of use relative to traditional construction methods in housing, for instance, remains small. Excluding mobile homes, modular construction—and by this I mean prefabricated shells or modules joined together like building blocks at the site—accounts for only a few per cent of

all housing units produced in the U. S. But the market for this type of industrialized housing is growing fast.

Manufacturers now have opportunities that didn't exist a few years ago to market systems and products, despite code obstacles, through the efforts of public agencies such as New York's Urban Development Corporation, which is trying to attract manufacturers into the market. UDC, which has the power to override local building codes, is turning to private industry to provide proven, production-ready systems and products for use in low and moderate income housing and construction throughout New York State. Since it has the ability to offer a large, aggregated market for factory-built housing units and components, UDC believes it can attract modular housing producers who otherwise have been hampered by the lack of a dependable market to justify the large start-up and capital equipment expenditures necessary for mass production.

A sense of excitement has entered our industry, as the entire process of construction undergoes a dynamic change. We're learning that what is necessary is a far greater integration of interests—interests of the owner, the design professional, the contractor and the manufacturer. And this integration of interests is necessary not only for the proper functioning of this industry, but its very ability to produce and deliver the structural environment our nation requires.

The owner, public and private, has become the dominant force for change. And the need for more efficient production, the ability to produce our product better, faster and cheaper, is leading to a shifting of roles and responsibilities that will add a new vitality to the entire construction industry and all who share in it.

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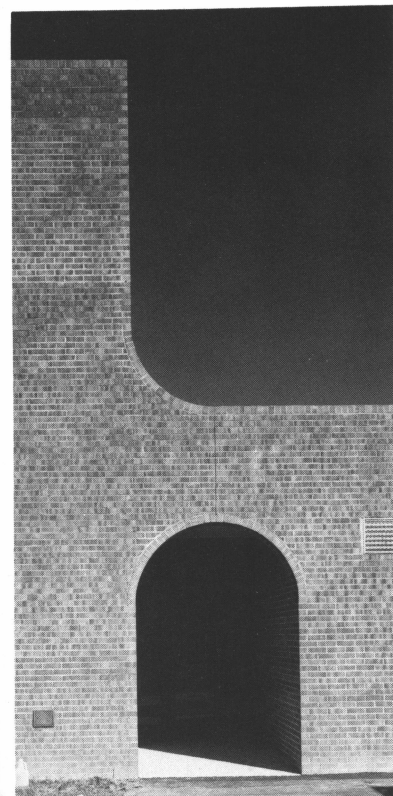
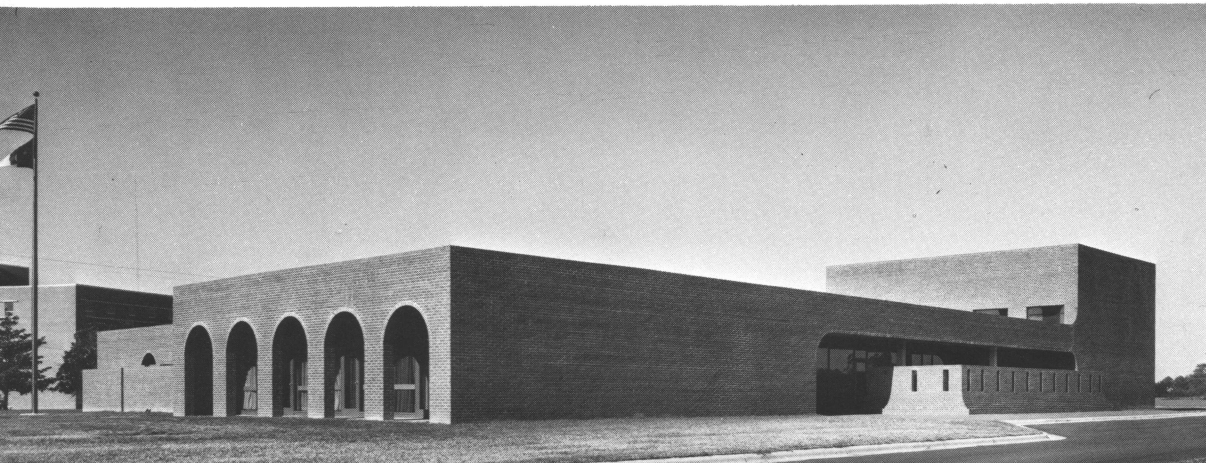
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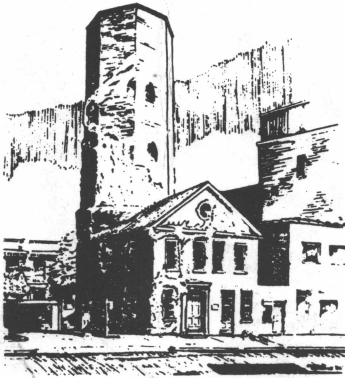
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