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JOURNAL OF THE VIRGINIA SOCIETY OF THE AMERICAN INSTITUTE OF ARCHITECTS

SEPT./OCT. 1984

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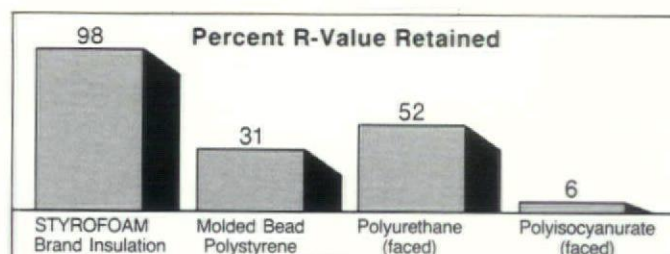
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IN THIS ISSUE

17 Virginia Society AIA News

27 New Members

83 Travelers' Guide

84 For the Record

89 Index to Advertisers

ARTICLES

5 Architectonica—by Eason Cross, Jr., FAIA

7 Commentary—by Marvin J. Cantor, AIA

9 Hot Line for Energy Know-How—by William A. Briggs, AIA

11 Our First Fling with Solar—by H. John Schell, AIA

12 Welcome to Super Market '84—by Michael L. Ramsey

14 Northern Virginia Chapter, AIA, 1984 Design Awards

55 Egg & Dart—by Ralph Snell, AIA

ENERGY CONSERVATION/SOLAR

28 MUSCARELLE MUSEUM OF ART
Abbott Associates, Architects and Planners

43 YORK RIVER STATE PARK VISITOR CENTER
Abbott Associates, Architects and Planners

33 MARANATHA RUN
Alternatives in Architecture

46 EMERGENCY EQUIPMENT STATION,
WASHINGTON NATIONAL AIRPORT
Shriver & Holland Associates

35 LANGLEY FEDERAL CREDIT UNION
Rancorn, Wildman and Krause, Architects

50 ARBORETUM MAINTENANCE FACILITY
Lawrence Cook, AIA and Assoc., Architect

37 LAMMERS HOUSE
Lawrence Lammers, AIA—Architect

40 TOWER ENTERPRISES OFFICE BUILDING
The Design Collaborative

53 POLICE & SAFETY BUILDING, ODU
The Design Collaborative

GENERAL PROJECTS

58 POLICE DEPARTMENT BUILDING,
BLACKSBURG
Smithey & Boynton

71 OLD DONATION MEDICAL CENTER
Walsh Ashe Associates, Inc.

61 ARA SERVICES
Walsh Ashe Associates, Inc.

73 SOUTHERN ISLE OF WIGHT COMMUNITY
CENTER
John B. Farmer, AIA

62 THE BANK OF ALEXANDRIA
Brown, Donald, LeMay & Page
Architects/Planners

75 MULTI-PURPOSE EDUCATIONAL & SPORTS
COMPLEX, NORFOLK STATE UNIVERSITY
Shriver & Holland Associates

65 VISTA INTERNATIONAL HOTEL
Holle, Lin & Shogren Architects, P.C.

79 PORTSMOUTH ORTHOPAEDIC CENTER
HBA Architects

COVER

Pictured is the "Solar Art" wall at Muscarelle Museum of Art, College of William and Mary, Williamsburg. The project, designed by Abbott Associates, Architects and Planners, is presented on page 28 of this issue. Cover photograph by Carlton Abbott, FAIA.

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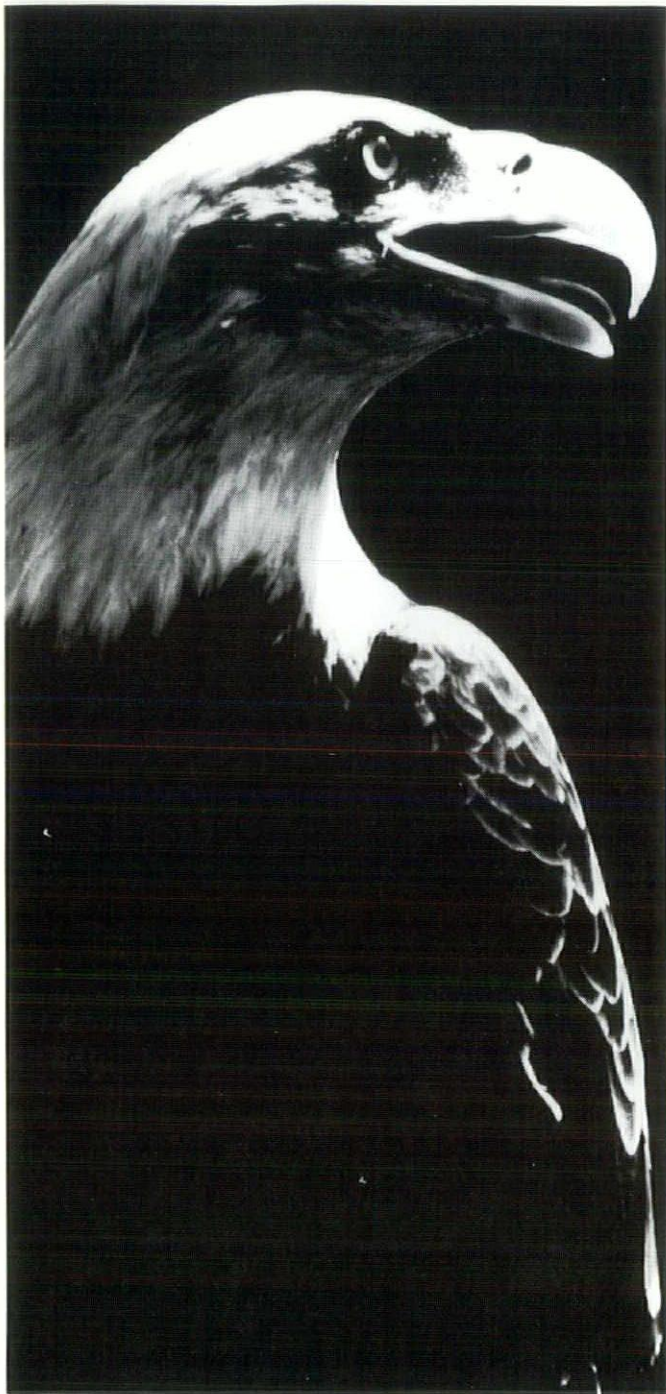
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Quiet please. We're giving plenty of peace and quiet to America's great Bald Eagle. Recently, we donated 539 acres in Delaware's Great Cypress Swamp to The Nature Conservancy. This tract of land shelters a nest of bald eagles and also harbors the headwaters of the Pocomoke River, a National Wild and Scenic River. This donation makes it possible for the eagles to roost undisturbed and protects the river, too. Chesapeake has also set aside acres in Virginia's Northern Neck to preserve a Heron Rookery. And we donated more than 100 acres of land to the Boy Scouts in Goochland County, Virginia. As a company that makes its business from healthy forestland, it's only fitting that we should protect the forest's rarest creatures—whatever the species.



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architectonica

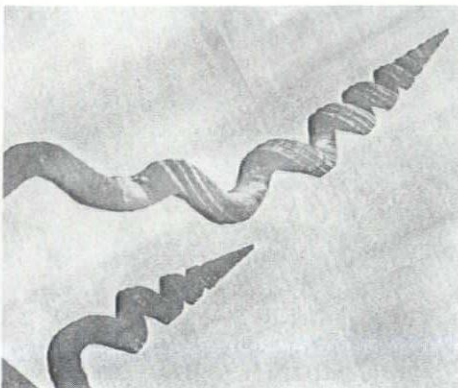
Shells As Architecture

"Architectonic" (Ar-ki-tek-ton-ik): Having to do with architecture, construction, or design.

"Architectonica perspectiva" (Ar-ki-tek-ton-i-ka per-spek-ti-va): Sundial Shell, found on SE Atlantic beaches. A flat spiral shell, banded with regular brown growth rings, the underside is slightly indented, forming a miniature spiral stair.

Shell are truly tectonic, as the scientist who put the Latin name to the Sundial recognized. Their thin-shell structure copied by man in reinforced concrete vaulting, is extremely strong in relation to their weight and shell thickness—as eggs are also. They are a model of efficiency of material; their logarithmic curves are sensuously beautiful. Each one is the result of a marvelous built-in computer program which directs the mollusk's pattern and rate of growth.

Consider the Architectonica perspectiva. This little gastropod starts independent life about the size of a pinhead. "Grow in a spiral," says genetic architect DNA (biology short hand for genetic material). "Grow counterclockwise," says DNA. "Manufacture shell material starting here," says DNA. "Start making a shell tube with a diameter of 2 millimeters and shell thickness of 6 microns. Proceed to increase both the tube diameter and wall thickness logarithmically," says DNA. "During periods of strong signals from the moon, increase rate of growth and pigment manufacture, reducing growth and pigment flow when moon wanes," says DNA. "When light levels drop below 5 lumens, come forth to feed. When the tide is out, move away from the shore. When touched, retract into tube and close opening with operculum," says the DNA computer tape, "and stay away from oyster drills." Would that every builder I work with responded so precisely to specifications.



Vermicularia spirata

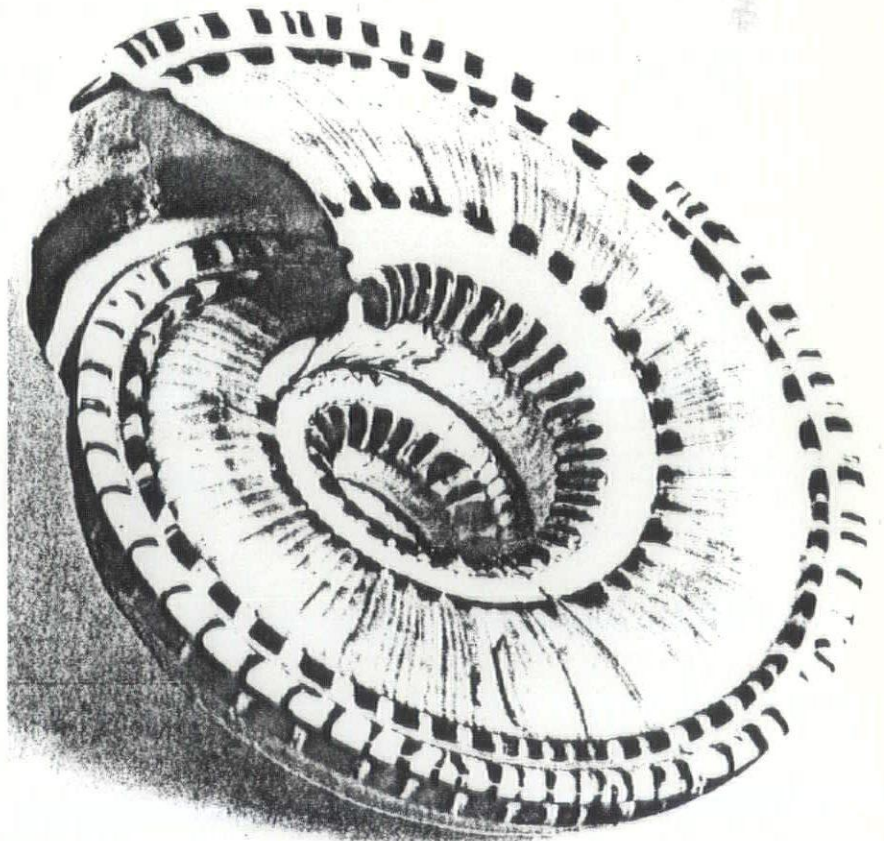
There is another shelled mollusk whose pattern of growth is especially fascinating, a little fellow whose common name is Worm Shell. This one starts off very obediently, neat, orderly, and predictable. He builds an elongated spiral cone with regular longitudinal ribbing along the tube. Whorl after whorl, his construction increases until middle age, when all at once, something in the communication mechanism from DNA breaks down. Not everything goes haywire, just that one genetic bit which says, "Spiral counterclockwise." Worm continues to produce new shell tubing in logarithmic progression, only it detaches from the previously built coils and wanders about in a completely unpredictable three-dimensional stagger.

What happens? Does the Worm get deaf to those instructions sent in over 20,000 cycles? Does one silicone chip in the genetic computer go bad at the same point in development in every Worm? No two Worm shells once past the break

point in orderly development are alike; the tube meanders are set by the outside environment rather than by internal programming. It's the sort of construction an architect sees in nightmares.

The Carrier Shell goes beyond the process of building a unique structure from within by attaching, at regular intervals, empty shells of other mollusks to the top surface of its own carapace. The result is great camouflage, for a Carrier Shell looks like so much flotsam. Perhaps the idea is decoration, purely from a mollusk's point of view. In either case, the DNA message is this: "Today, you must go find an empty shell about 2 centimeters in diameter, hoist it up to the new-forming lip of your shell, and cement it in place." That's an astounding message to send a gastropod!

Eason Cross, Jr., FAIA



Architectonica perspectiva



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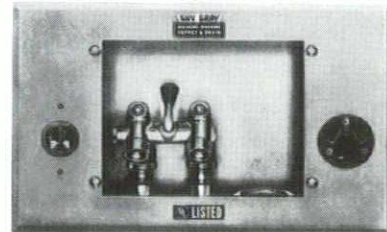
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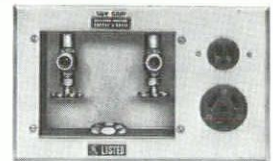
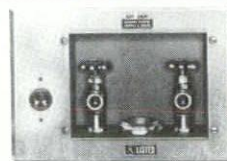
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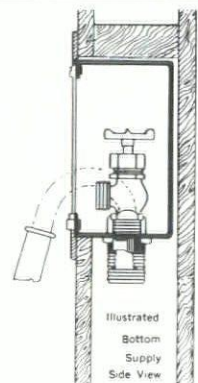
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<< COMMENTARY >>

by Marvin J. Cantor, AIA

Energy, Energy, ENERGY!

If a single word were to be selected to characterize our "advanced civilization" during the last ten years or so, there couldn't be one word more apt than . . . ENERGY! ENERGY shortage, ENERGY availability, ENERGY conservation, alternate ENERGY sources, renewable and non-renewable ENERGY sources, solar ENERGY, ENERGY, ENERGY, ENERGY . . .!

Unfortunately, a temporary glut of oil on the world markets coupled with internecine squabbling among the most prolific oil producers temporarily taking their minds off how "to gouge the west," has contributed to a general lessening of the crisis fears in the western world on problems of energy production. But to one such as I, remembering the "A" coupon during World War II years entitling one to a few gallons of gas a week, and the car lines at gas stations during the mid and late 'seventies' oil shortages, the long range outlook for non-renewable sources of energy such as oil appears to be bleak indeed!

As sources are depleted and populations increase, an ineluctable progression of scarcer and more expensive fuel sources must develop. The "so-called western world" has been made a little more appreciative of the concerns and struggles of the African natives of the Sahel trying to scratch out a meager subsistence and looking for scraps of wood twigs to serve as fuel for their cooking and washing needs, by this world energy shortage, albeit on a much more complex and sophisticated level. The handwriting is on the wall if we would but take time to read it; and solving the energy crisis is one of today's most pressing concerns for our modern civilization.

Answers?

NUCLEAR FUEL while full of promise is also full of unsolved problems relating to the general stability of the environment, the health of people around it, and the disposition of the fuel's by-product wastes.

OIL is a fuel, the bulk of which is in the hands of unpredictable, erratic stewards with a long history of feuding, jealousies and vindictive actions with particular emphasis against the "West," and in the final analysis, a finite material source.

COAL is a possible alternative—but its use is not particularly "clean," efficient, or convenient, and although more readily available to the "West" than oil, is nevertheless a non-renewable finite source.

WOOD—although renewable—tackles a material which is more important (at this moment in history) to society for its uses as a construction material or its very presence as an aesthetic feature on the earth's surface. As a fuel it is terribly inefficient with many problems controlling its by-products of ash and fumes to reduce its polluting effect on the surrounding ozone.

WATER—Hydro-electric power—while clean, renewable (as long as we have rainfall), and inexpensive at the source, is extremely limited to specific geographic areas and can only supply a very limited amount of energy to those few happily endowed areas having this source.

GEO-THERMAL. At the moment more wind power is generated in the U.S. Senate than in commercial or residential energy applications. Its future use is still indeterminate, but thus far it has

shown problems with consistency (it doesn't blow all the time the way water falls or flows) and in economic terms of producing usable amounts of energy.

Soooooooo . . . we come to SOLAR; clean, renewable (in terms of our civilization it is an inexhaustible source), plentiful, available to all without pre-conditions or special terms, devoid of polluting by-products, no dangerous health hazards (except excessive tanning) . . . it's there for the asking. So far the hardware in use to convert solar energy to practical electrical and heating use appears to be the most troublesome aspect of this development. But, certainly a civilization that has put man on the moon, opened the apocalyptic doors of the atom, and conquered some of man's most pestilent diseases, can in time solve this virtual "handyman" problem! My own pet direction is towards having a trouble free, simple, economically produced solar cell that will convert sunlight to electricity at costs far below that now being paid for electricity produced by coal, oil and nuclear material—although right now this direction is not producing any promising results—still, whatever direction solar energy development takes, there can be no question that solar energy development is the direction of the future!

Marvin J. Cantor, proprietor of the Fairfax, Virginia architectural office, Marvin J. Cantor, AIA & Associates, is a former president of the Northern Virginia Chapter, AIA. Cantor is currently chairman of the Virginia Society, AIA Public Relations Committee.

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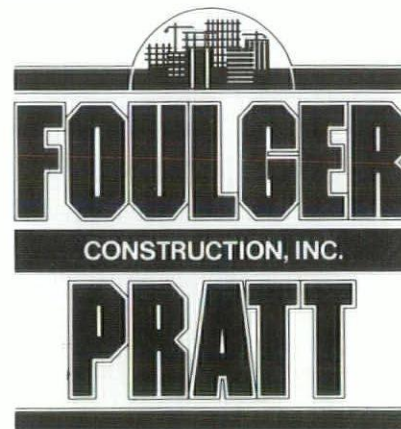
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Hot Line for Energy Know-How

by William A. Briggs, AIA

From 1978 through 1981 the U.S. Department of Energy provided some 2200 grants to a cross-section of Americans having good ideas for saving energy through the Appropriate Energy Technology Small Grants Program and succeeded in attracting more than 45,000 applications for these grants of up to \$50,000 each. These applications equal more than one-half the number of people who watched the opening of the 1984 Olympics where some older uses of appropriate energy were displayed.

Virginia was, of course, among these contributors of "good ideas" and according to our cooperative DOE informants, Stephen G. Thomas in Washington and George Everett in Butte, Montana, both of the Energy Department's NATAS (National Appropriate Technology Assistance Service), Virginians were awarded 30 of the 184 grants received within our entire Region III, which includes Delaware, Maryland, Pennsylvania, Virginia, West Virginia and the District of Columbia. Individual grants made in Virginia ranged from under \$1,000 to somewhat over \$45,000, and proved to be slightly above average at \$12,702 per grant.

These Virginia grants embraced most of the assigned technologies: Such home and construction related projects as Insulated Trombe Walls, Kindling from Industrial Waste, Sailmill Water Pump, Solar Greenhouse, Solar Shading/Daylight Device, Tin Can Solar Collector, Waste Water Heat Recovery and Water-Source Heat Pump received grants.

All the funded projects have been completed and documented with the exception of a few which will be finished by the end of this year. Some selected projects have been published. In February a 20-page Analysis of the Program was compiled giving operational statistics and outline descriptions of the 100 sub-categories, covering all awards.

The Program close-out was effective as of 1981. No similar grant-inclusive program is currently being considered by the Department of Energy. This major production fulfilled its assignment in terms of public awareness, and in regard to energy availability, use, need and dependence.

Also it offered to any citizen a rare commodity: Funding the opportunity to introduce and display concepts, to build, demonstrate and measure, even to patent/copyright, and commercialize innovations in techniques for applications of a precarious resource. A public service that would be well used if continued.

The Department of Energy's contribution, of course, remains on-going; and in many of the directions that often concern the Architect.

Most important is the activation of the toll-free number for information on countless Energy facets. From 10:00 A.M. to 7:00 P.M. in this area, one need simply to phone NATAS at 1-800-428-2525.

The broad scope, and the Who, What, When, Where and How of DOE's appropriate and available services are most appropriately indicated in the Department's own words (see box) from a recent announcement.

Q: Who can use NATAS?

A: NATAS is available to anyone in the United States. It can be most useful to energy innovators, homeowners, small businesses, farmers, state and local governments, non-profit organizations, and educational institutions.

Q: How do I use NATAS?

A: You can call NATAS toll-free on weekdays; the service is not available on weekends or national holidays.

1-800-428-2525
(1-800-428-1718 in Montana)
or write to NATAS

U.S. Department of Energy
P.O. Box 2525
Butte, Montana 59702-2525

Q: What services does NATAS provide?

A: NATAS provides three primary services: general information responses, engineering/scientific technical assistance, and commercialization technical assistance. NATAS works closely with other Federal, State, and local programs to coordinate these activities.

Q: What is engineering/scientific technical assistance?

A: NATAS can answer technical questions and help solve problems related to energy conservation and renewable energy uses. NATAS can assist with such things as energy conservation planning, design assistance, system trouble-shooting, safety reviews, etc.

Q: What are some examples of engineering/scientific technical assistance?

A: NATAS can help with questions and problems such as:

- ranking conservation options for cost-effectiveness,
- planning energy management for communities,
- trouble-shooting moisture and ventilation problems in energy-efficient housing,
- evaluating waste heat recovery options,
- analyzing a stream for microhydroelectric potential,
- comparing solar system designs and components.

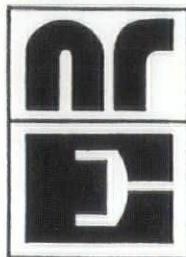
Q: What is commercialization technical assistance?

A: NATAS can help entrepreneurs develop the business side of energy-related appropriate technology by providing business information and direct business assistance. NATAS can assist with such things as acquiring financing, product patenting, licensing, marketing, business planning, and business organization development.

Q: What are some examples of commercialization technical assistance?

A: NATAS can help with questions and problems relating to:

- moving a product through the patent process,
- writing effective loan applications,
- developing a business plan,
- identifying and working with venture capitalists,
- applying for Federal, State, or foundation funding,
- evaluating licensing options.



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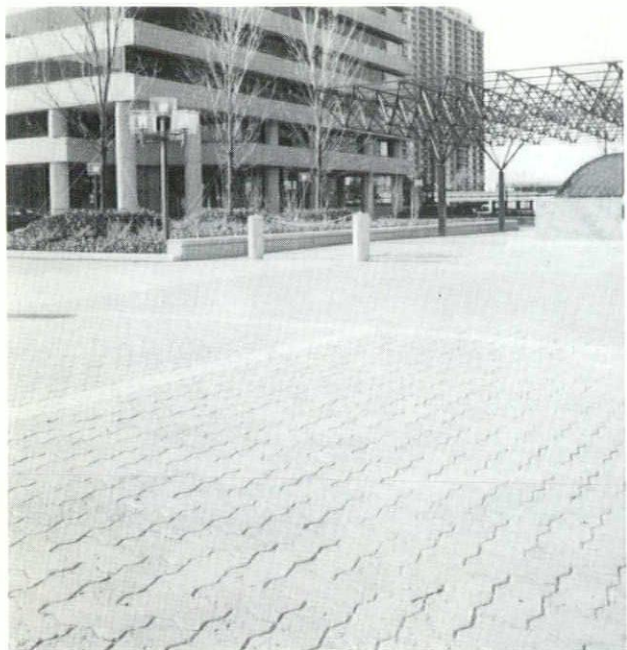
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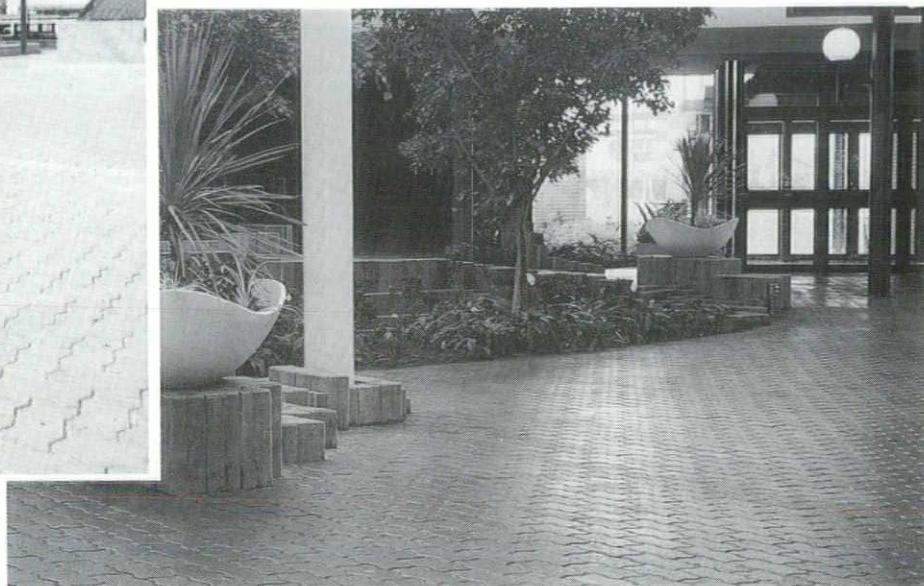
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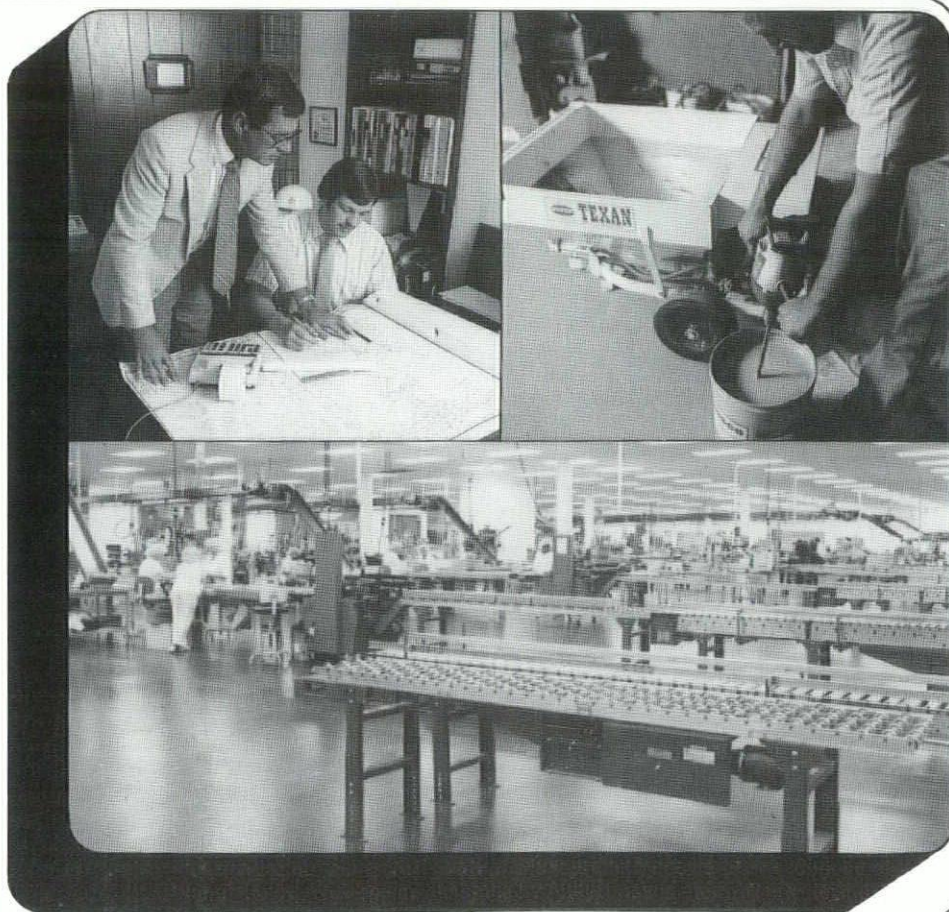
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Our First Fling With Solar

by H. John Schell, AIA

The oil embargo of 1974 convinced a number of Americans that solar heated homes were a sensible response to shortages and higher costs of conventional heating fuels. Using the sun to heat buildings was, of course, not a new idea. Going back to prehistoric times, man probably realized that a cave facing south had better heating performance than other orientations. However, it was not an inherited memory of a cozy cave that brought solar heating back to our attention in 1974. A wave of enthusiasm for solar homes had spread across the country in the 1940s. Although short lived, the idea and the design techniques developed then were carried in the minds of a few until the country was ripe for rediscovering it. The story begins in 1933...

Hoping to follow the grand success of its World's Fair in 1893, the City of Chicago held another fair to remember in 1933 and '34 called the "Century of Progress Exhibition." The Exhibition was a showcase for the technological advances that promised a bright and prosperous future. Among the many houses constructed for the fair was one, "House of Tomorrow," by Chicago architect George Fred Keck. The house, similar in concept to Buckminster Fuller's Dymaxion house, had a shop-fabricated steel frame and walls of 90 percent glass. The wisdom of the day argued against glass in great amounts because of the extreme heat losses associated with it. This did not deter Mr. Keck, however. It was, after all, to be a dream house; a house concerned with a new look and a new experience. The practicality of the design would hardly be questioned. No one would live in the house and, by the time everyone could have a house just like it, technology would have certainly solved the problems of heating it. He might have known that Libby-Owens-Ford Glass Company was, at the time, in the midst of research to develop a successful double-pane glass unit. But he was not expecting what he observed on that winter afternoon.

The temperature in Chicago had been in the 20s all day. George Keck arrived at the "House of Tomorrow" to supervise some repairs and found the workmen in shirt sleeves perspiring. He also found that the heating system had not been running since morning.

Inspired by the possibilities suggested by this discovery, Mr. Keck began his investigation of

the principles of solar design. Greenhouse owners told him that on clear winter days the heating system would not operate during the day, no matter what the outdoor temperature. The local weather bureau told him that 50 percent of the winter days were sunny and that five to 50 percent of the sun's heat was available on cloudy days. He also learned of the sun's varying positions through the seasons and how eaves could be used to control the penetration of the sun's rays into a house. With this information and the ability to minimize night heat loss with Libby-Owens-Ford Thermopane glass (available in November of 1937), Mr. Keck began designing solar houses. By 1940 he had designed a dozen houses embodying these principles. The Illinois Institute of Technology initiated a year-long study of one of them and with the issuance of its findings the national interest in solar began.

On December 12, 1943 a story appeared in *The Baltimore Sunday Sun* titled "Sun Is The Fireman In New Glass homes." The lead paragraph announced some startling results from the IIT study. In January of 1942 with temperatures ranging from 5° below to 17° below zero, IIT recorded that a house by George Fred Keck in Homewood, Illinois had maintained at least a 70° indoor temperature without the aid of a furnace from breakfast time to after 8 P.M. In fact, the temperature inside the house had reached 85° during that day. Fuel savings for solar homes of up to 30 percent were projected, depending upon the number of "sunshiny" days. Solar houses were also praised for the positive psychological effects of daylighting and integrating the indoors with the outdoors through the large expanse of glass. When the *Reader's Digest* condensed the *Sun* article in its January 1944 issue under the title "The Proven Merit of a Solar Home," the subject became a popular item in the national news. Newspapers and periodicals, radio and movie newsreels brought the story of more glass and less gas to the American public.

Although the conservation of energy-concerned Americans as a part of the war effort, the new experience of light and view was the principal draw to solar houses. The excitement of a new type of house served to distract people from thinking of the war. And, of course, it would eventually be over. And fuels that were rationed would be abundant.

In any case, people were asking for solar houses. Libby-Owens-Ford, whose Thermopane glass was a major element in the designs, found itself besieged with requests for information about their design and construction. The company recognized that the design of solar buildings relied on specific information about orientation, geographic location and weather patterns and was not interested in providing general information which could lead to unsuccessful designs and possibly harm the reputation of their product. In an effort to encourage that responsibility for these architectural aspects be assigned to professionals, LOF sponsored a program in which an architect was selected from each state and the District of Columbia to design a solar house responsive to the particular climate and lifestyle of the area. These designs were published in "Your Solar House" in 1947 (the Virginia house by A. Laurence Kocher of Williamsburg). The book was intended to inspire the potential home builders to the possibilities of solar housing and to direct them to knowledgeable professionals. It said, "When you plan a solar house, go to an architect in whom you have confidence, give him all the information you can gather about the kind of house you want, so that he will know exactly what you are seeking."

Looking back on the housing that was built in the wake of this hoopla we find that a solar house did not become the house of choice for the American public. Architects did not become the gurus of solar design and as time went on had less and less to do with single family housing. Why? Well, the war ended. The supply of fuel became plentiful. And the people asked for what really attracted them in the first place—picture windows.

We face a different set of circumstances today. The need for conservation in the 1940s was a temporary condition. There was always an end in sight, energy sources to rely on when it was over. We are now aware that our options in 1984 should be based on the premise that any end we have in sight is one which we will determine.

ABOUT THE AUTHOR—H. John Schell, AIA, of Keystone Architects, Alexandria, is currently chairman of the Virginia Society AIA Energy Committee.



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Welcome to Super Market '84

Roanoke Offers Exciting Urban Atmosphere In the Heart of Virginia's Blue Ridge Mountains

by Michael L. Ramsey

An exciting rebirth has occurred in the heart of Virginia's Blue Ridge Country. At the center of this renewed spirit is the Roanoke City Market—one of the country's oldest curbside farmers markets in continuous operation since the middle of the Nineteenth Century.

Market Square and Market Street are lined with farmers Monday through Saturday each week, and the sidewalks are filled with business people, housewives, visitors, students and artists as part of this unique setting. Market Street and the other streets surrounding Market Square are filled with restaurants, shops and art galleries offering a nice counterpoint to the fruits, vegetables, bedding plants and flowers being sold on the street.

Market Square is the site of many of the area's festivals as thousands of people gather outside to celebrate New Year's Eve, the fall harvest, or the coming of spring. The Market is also the site of Center-in-the-Square, a multi-million dollar arts and sciences complex.

Center is home of the Roanoke Museum of Fine Arts, Mill Mountain Theatre, the Roanoke Valley Historical Society, the Roanoke Valley Science Museum, Hopkins Planetarium and the Roanoke Valley Arts Council.

This structure will be of special interest to architects for many reasons.

Center-in-the-Square is housed partly in the McGuire Building, a renovated 1914 warehouse, and partly in a new structure which also contains a parking garage with pedestrian access to each floor of the older structure.

The McGuire Building floors are supported by pillars set 12 feet apart from each other. These pillars presented a major design challenge since they could not be removed, yet each of the galleries needed open space to display paintings, sculpture, artifacts, and scientific exhibits. The clever positioning of walls has made most of the columns effectively disappear and provided the open spaces needed by the resident organizations.

Connecting the old and new buildings is a stunning five-story staircase which is suspended over the atrium lobby. The staircase is connected to the older structure and to the parking

garage by balconies with hanging plants cascading over the side. And the entire effect is heightened by skylights over the atrium which allow light to play on the structure throughout the day, creating a changing work of art every day.

During Super Market '84, there will be an exhibit in the Roanoke Museum of Fine Arts of Best architecture—the clever designs used at so many of the catalogue stores of Best, Inc.

Center-in-the-Square is a good example of how old and new can work effectively together to enhance economic development. Indeed, this structure stands as a symbol of the renovation of Downtown Roanoke.

Downtown Roanoke is the core of a metropolitan area with a population of about 250,000, and as such its economic health is vital to the continued growth of the entire Roanoke Valley. In 1979 a plan was developed to revitalize the downtown area—a plan which included reviving some of the older buildings as well as erecting new structures. The plan, called "Design '79," was developed by the architectural firm of Moore, Grover, Harper, an innovator in such programs.

The success of Design '79 is evident to people who visit Downtown Roanoke, especially those who may have seen the area in the mid-70s when the downtown area had begun to decline.

Design '79 was successful for many reasons, but one of the chief causes of the success was the innovative method of involving the entire Roanoke Valley as the "client" for the project. A storefront office was opened where citizens could come in and chat with the architects about their ideas for downtown, and several prime-time television shows allowed people to call the local CBS affiliate, WDBJ-TV, and make proposals, some of which were rendered into drawings on the air by Charles Moore, senior partner of Moore, Grover, Harper.

So, when the plan was implemented, there were no surprises. Instead, citizens watched eagerly for each new step of the project to be completed. The result is an inviting urban environment which preserves some of the heritage of the area while showing the progressive nature of the Roanoke Valley with excellent examples of well-developed urban spaces such as Colonial Plaza—a nine-story office building in a pleasant park-like setting.

On the edge of Downtown Roanoke, on a hill between Hotel Roanoke and the Roanoke Civic Center, stands St. Andrew's Roman Catholic Church, a registered state and national landmark.

St. Andrew's Church was built in 1902, just 20 years after the parish was established. Mass for the parish was first conducted in a railway passenger car by a circuit-riding priest. Roanoke's rapid growth at the turn of the century was accompanied by a rapid growth of the parish. A rectory, convent, school and church were built. The original church was soon too small, and the current building was erected.

St. Andrew's is a High Victorian structure adapted from French Gothic sources. It is made of Ohio sandstone brick, chosen because it resists dirt and is very durable—an important consideration at the time since Roanoke was a busy railroad center with steam engines and factories belching smoke around the clock just a few blocks away from the church.

The interior of the church is richly decorated with painting which carries out the theme of the church—"I am the vine, and you are the branches." A large altar of Carrera marble sits in the apse and the nave is resplendent with hand-carved bas relief Stations of the Cross and stained glass windows from the Meyer Glass Factory in Germany.

Standing behind the church is the belfry of the original building which houses the original church bell. This bell has a unique sound since it was cast not by a bell foundry, but by members of the parish in the railroad foundry. The bell, which is now rung only to signal a victory by the Roanoke Catholic High School football team, sounds like a bell from a railroad steam engine.

While in Roanoke, you may want to visit the Roanoke Transportation Museum, official transportation museum of the Commonwealth of Virginia, and one of the most comprehensive collections of transportation equipment in the Eastern United States. The Transportation Museum is home base for the streamlined steam locomotive J-611 (built in Roanoke) which now pulls special excursion trains from the Great Plains to the Atlantic Ocean and from the Great Lakes to the Gulf of Mexico.

Nearby, to the North, you will find the world-famous Natural Bridge of Virginia, and near the Bridge is historic Lexington, burial place of Confederate Generals Robert E. Lee and Stonewall

ABOUT THE AUTHOR—Michael L. Ramsey is director of the Roanoke Valley Convention and Visitors Bureau.

Jackson and home of the renowned George C. Marshall Library and Museum.

To the East along U.S. 460 is Appomattox, site of Lee's surrender to General Grant. Also east of Roanoke you will find Red Hill, last home of American patriot Patrick Henry, first governor of the Commonwealth.

Scenic Peaks of Otter and historic Mabry Mill are just a short drive from Roanoke along the Blue Ridge Parkway (the Peaks to the north, the mill to the south). You can also tour two of Virginia's 16 wineries in the mountains near Roanoke—Chateau Morrisett is on the Parkway near Mabry Mill; MJC Vineyard is near Blacksburg on the North Fork of the Roanoke River.

South of Roanoke is Smith Mountain Lake, offering 22,000 acres of fishing, sailing, boating and skiing. Near the lake is the birthplace and boyhood home of American educator Booker T. Washington, founder of Tuskegee Institute.

The Roanoke Valley provides history, arts, recreation, fine dining, and ample entertainment—a fitting combination of Old Dominion culture to welcome Super Market '84.

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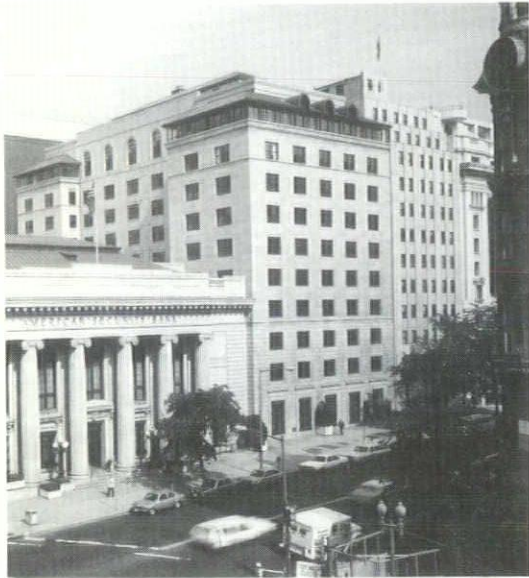
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NORTHERN VIRGINIA CHAPTER OF THE

1984 DESIGN AWARDS



1.

Variety was the keynote when the Northern Virginia Chapter of the Virginia Society, AIA presented their Design Awards for 1984 at a dinner meeting held in the atrium of VVKR Incorporated's new headquarters building.

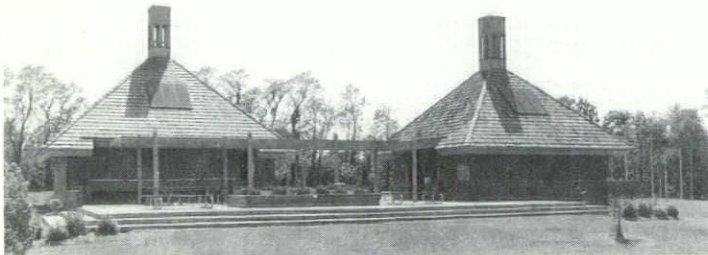
Five design projects were chosen from 48 entries by a three-member jury. The five winners chosen to receive Awards for Excellence in Architecture include a spa addition to a northwest Washington residence, a concession stand/restroom complex in Occoquan, a residential re-use project in Middleburg, a new state office building in Annapolis, MD, and the renovation of a 60 year old bank headquarters building in downtown Washington.

Semon S. Samaha, AIA was chairman of this year's Design Awards program, and awards were presented to the winners by Paul H. Barkley, AIA President of the Virginia Society, AIA.

Members of the jury were: Carlton S. Abbott, FAIA, of Abbott Associates in Williamsburg; Chloethiel Woodard Smith, FAIA, of Chloethiel Woodard Smith & Associates Architects, Washington, DC; and John T. Regan, who is now Dean of the School of Architecture, University of Miami in Florida (formerly Director of the VPI & SU Washington/Alexandria Center, College of Architecture and Urban Studies.)

AWARDS FOR EXCELLENCE IN ARCHITECTURE

1. AMERICAN SECURITY BANK, Washington, DC
VVKR, Inc., Alexandria, Architects
George Hyman Construction Co., Bethesda, MD, General Contractor
2. CONCESSION STAND, Occoquan Regional Park, Occoquan
Brown, Donald, LeMay & Page Architects, Alexandria
Sully Construction, Leesburg, General Contractor
3. GUEST HOUSE, SPRINGFIELD FARM, Middleburg
James F. Tucker, AIA, Warrenton, Architect
J. D. Eicher, Warrenton, General Contractor
4. SUZANNE'S SPA, Washington, DC
James William Ritter Architect, Alexandria
Frontier Construction, Washington, DC, General Contractor
5. MARYLAND DEPARTMENT OF AGRICULTURE HEADQUARTERS BUILDING, Annapolis, MD
VVKR, Inc., Alexandria, Architects
Dashiell & Sons, Salisbury, MD, General Contractor
Featured in September/October 1983 VIRGINIA RECORD



2.

AMERICAN INSTITUTE OF ARCHITECTS

FOR ARCHITECTURE

In addition to the Design Award presentations, Chapter Honor Awards and Craftsman Awards were presented at the meeting.

The chairman for the Honor Awards Program for 1984 was Eason Cross, Jr., FAIA. Craftsman Awards were included in this program.

Thomas L. Kerns, AIA, President of the Northern Virginia Chapter, AIA presented the Honor Awards. The honorees were:

- EDGAR C. BERRY, JR.—Award of Honor
- WALTER A. BROWN
- MARVIN J. CANTOR
- WAYNE L. HUGHES—Recognition of Service to the Chapter
- ROBERT I. ABRASH (Posthumously)—Recognition of Outstanding Achievement.

Craftsman Awards were presented by Eason Cross, Jr., FAIA to the following:

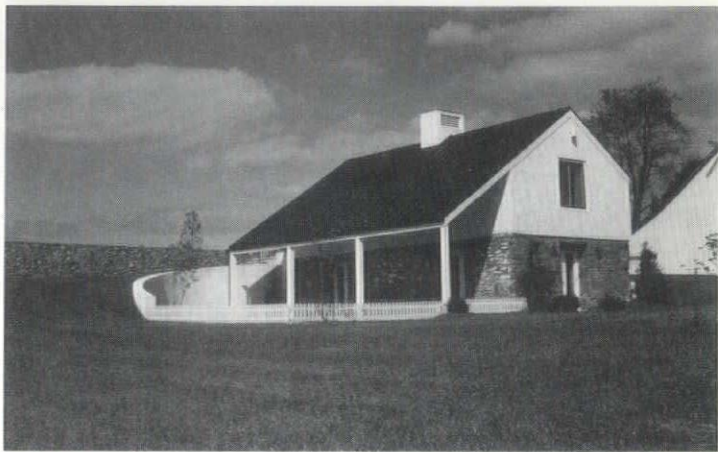
GEORGE BRINKLEY, Mason—Donald Blue Masonry, Fairfax, for Prospect Street House, Kerns Group Architects;

JESSE WILLIAMS, Ironworker—American Fabricators, Clinton, MD, for Prospect Street House, Kerns Group Architects;

MARSHALL J. GARRETTE, Ironworker—James Steel Fabricators, Inc., Alexandria, for 219 Restaurant, David R. Rosenthal, AIA, Architect;

JUDITH INGLESE, Ceramic Artist—Leverette, MA, for Rockville Municipal Swim Center, Hughes Group Architects; and

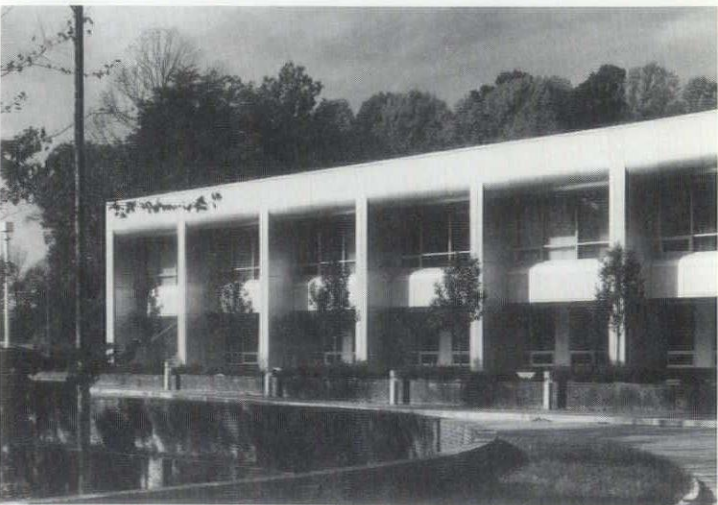
C. R. McCALLEY, Carpenter—Alexandria, for Beckhorn Residence Addition, Cross and Adreon Architects.



3.



4.



5.

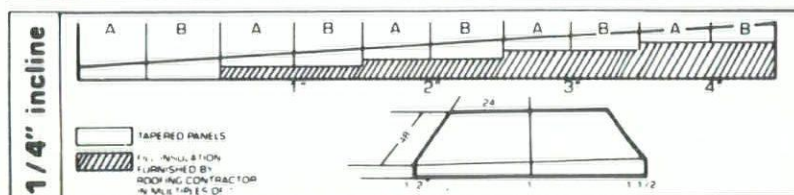
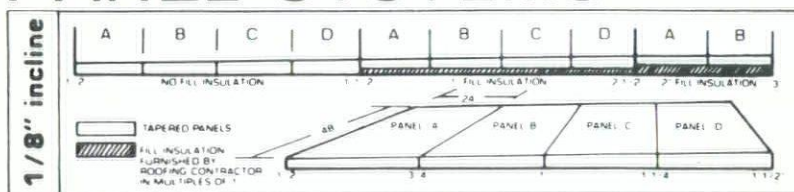
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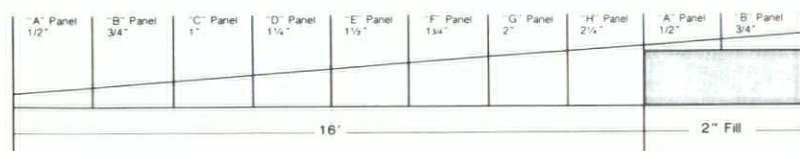
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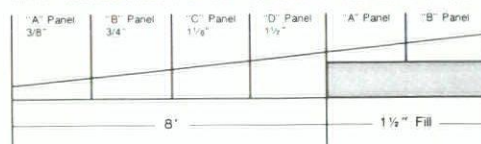
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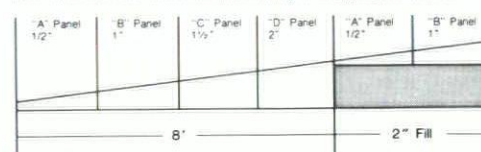
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VIRGINIA SOCIETY AIA NEWS

COMPETITIONS AND AWARDS

Virginia Beach Architects Among Winners of 'Governor's Energy Awards'

Governor Charles S. Robb presented awards to Virginia's 10 most innovative and successful energy-saving efforts at a ceremony in the Governor's Office, June 27, 1984. Virginia's top 10 were then submitted to the Department of Energy (DOE), in Washington, DC, to receive national recognition and to compete for special awards. THE DESIGN COLLABORATIVE of Virginia Beach was one of the 10 firms honored. Laszlo Aranyi, AIA, President of The Design Collaborative, accepted the award for the firm.

Sponsored by the Commonwealth's Office of Energy and Emergency Services and the United States Department of Energy, the program was open to any individual or non-federal organization that has introduced an energy-efficiency innovation in conservation or renewable resource technology. Of special interest were those accomplishments that had high potential for transfer to other groups.

AWARD WINNERS

Virginia's 10 Energy Awards Competition winners were:

S & B Development Company of Virginia RICHMOND

Developed Solar I, a model community of 202 passive solar homes. Solar I provides affordable solar homes. This development proved that solar design is not only appropriate for custom homes, but production houses as well.

Virginia Van Pool Association, Inc. WOODBRIIDGE

Promoted independently-owned and operated van pools in the state. This private organization was active in van pool deregulation, and now offers insurance programs, van financing and the formation of van pools.

The Design Collaborative VIRGINIA BEACH

An architectural firm with an outstanding record of designing energy efficient, passive solar homes and offices. For seven years they have been active in educating others in passive solar applications and advocating the use of passive solar strategies.

University of Richmond RICHMOND

Implemented a peak sharing cogeneration system in 1983-84, which takes previously wasted heat and uses it to reduce electrical demands at the university.

University of Virginia Center for Economic Education CHARLOTTESVILLE

Prepared a series of lessons for secondary schools on energy economics that can easily be incorporated into existing social studies and science courses.



ENERGY AWARD WINNERS: (left to right) C. Michael Henry, AIA; Edward R. Roehm, AIA; Edward G. Lazon, AIA; Laszlo Aranyi, AIA; and Richard J. Fitts, AIA of The Design Collaborative, Virginia Beach. (Photo by Rosalind Anglin)

City of Harrisonburg HARRISONBURG

Developed a resource recovery system which converts garbage to steam for heating and air conditioning James Madison University buildings. Utilizes a previously wasted resource which eases the burden on area landfills.

Energy Services, Inc. QUINTON

Performed an energy efficiency study of the New Kent County school system which resulted in a 53 percent reduction in energy use by modifying HVAC systems.

Sam Moore Furniture Industries BEDFORD

Installed a system which converts discarded wood dust and scraps into energy for boilers which provides heat for the company and reduces their annual oil use.

Riverside Hospital NEWPORT NEWS


Uses exhaust fan heat recovery units to reclaim 60 percent of heat that was previously wasted.

National Energy Education Day Project RESTON

A year-round program of energy education activities and events for students and adults. The project emphasizes the importance of energy education in the state's schools and encourages the development of comprehensive and ongoing energy conservation programs.

The Design Collaborative submitted their application on May 1, based on their seven-year advocacy position of passive solar architecture. Members of the staff have won five awards in the last five years for energy conserving design.

Through teaching and public speaking efforts, and through the medium of over 50 solar semi-



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nars, The Design Collaborative has put passive solar "on the map" in Tidewater. Their design credits include a number of "firsts" in Tidewater:

- First major passive solar building (Central Library of Virginia Beach, 90,000 square feet, opening 1986)
- First national award winning passive solar homes
- First passive solar speculative office building (their own headquarters at 2940 North Lynnhaven Road in Virginia Beach)
- First passive solar subdivision (six models

designed for Salt Marsh Point in Virginia Beach)

- First passive solar rehab project (Kesser Dental Clinic on Little Creek Road in Norfolk, conversion of an abandoned filling station)
- First passive solar mental health facility (prototype housing for Volunteers of America in Virginia Beach)
- First passive solar office park (Denbigh Solar Office Park in Newport News, six modules for leaseable office space, developed by Dr. Mark Babcock)

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Design by Richmond Architect Wins 'Owner of the Year' Award

The Commonwealth of Virginia Department of Taxation has been announced as a winner in *Building Design and Construction* magazine's first "Owner of the Year" competition. The Department of Taxation building (*Virginia Record March/April 1983*) won the "Category I: Best Balance of Cost Effectiveness and Design Sensitivity" award.

Designed by the Richmond firm of Glave Newman Anderson, Architects, P.C., the project was nominated by Samuel A. Anderson III, a principal in the firm. Winners in the competition are selected in four categories on the basis of nominations from other members of the building team—architects, engineers and contractors—and on the basis of specific projects in which they each were involved.

Other winners were: Category II: Energy Conservation—Control Data Corporation, for the Control Data Energy Technology Center, nominated by Lawrence N. Hawthorne, AIA of Henningson, Durham & Richardson, Inc.; Category III: Most Positive Impact on Environment—St. Paul Port Authority, for St. Paul Energy Park, Central Energy Plant, nominated by Owen Beatty of Toltz, King, Duvall, Anderson and Associates, Inc.; and Category IV: Best Building Team Leader—Urban Investment & Development Company, in joint venture with Equitable Life Assurance Society, for 333 Wacker Building, nominated by Harry F. Anderson of Perkins & Will.

Highfill Wins Writing Award

C. Page Highfill, AIA, President of Highfill-Smith Associates Inc. Architects, Engineers & Planners of Richmond has just been awarded the \$2500 first prize in the FUTURE IDEAS CONTEST—DESIGN REPROGRAPHICS—VISIONS OF TOMORROW, with his magazine article entry.

The contest was sponsored by PLAN and PRINT Magazine, published by the International Reprographic Association, Inc. and the American Institute for Design and Drafting. Final judges were August E. Straus, AIA, from California, Edward Powers Jr., CSI from Nashville, and Gary M. Gerlach, AIA from Texas.

The winning article can be found in the September issue of PLAN and PRINT.

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Upcoming . . .

Building Stone Institute Announces Its 9th Annual Architectural Award Program

Established in 1977, the Tucker Architectural Award is presented annually to honor those architectural firms whose excellence in concept and design have contributed significantly to American architecture.

The Award Program is open to all architects, designers, contractors and others who feel their projects, or other projects with which they are familiar, have achieved the ideal of excellence and incorporating the use of natural stone.

December 1, 1984 is the final date for submitting entries for the 1985 Tucker Architectural Award Program which will consider entries in six categories. CATEGORY I: A non-residential structure completed within the last 5 years. CATEGORY II: A non-residential structure completed at least 25 years ago and still in use today. CATEGORY III: A residential structure (single family or multi-family) completed within the last 5 years. CATEGORY IV: Landscape in non-residential, multi-family or single-family site development completed within the last 5 years. CATEGORY V: Landscape in a non-residential site development completed within the last 5 years. CATEGORY VI: Restoration or Renovation project completed within the last 5 years.

The criterion is *excellence*. Excellence in concept, design, construction and use of natural stone.

An independent panel of architects traditionally constitutes the Tucker Awards Jury. Previous jurors have included: Douglas Brenner; Samuel Brody, FAIA; John H. Burgee; William Conklin, FAIA; John Morris Dixon, FAIA; Richard Foster, FAIA; M. Paul Friedberg, AFAL, AIP; Hugh Hardy, FAIA; Charles G. Hilgenhurst, FAIA; Malcolm Holzman, AIA; John M. Johansen, FAIA; A. Eugene Kohn, AIA; William H. Livingstone, Jr., AIA; Frank C. Marcellino; William Pedersen, AIA; Alan Ritchie; Herbert L. Smith, Jr., AIA; Robert

A. M. Stern, AIA; Danforth Toan, FAIA; Walter F. Wagner, Jr., FAIA. The members of the 1985 Jury will be announced later this year.

Submissions: Each submission should be placed in an 8½" x 11", 3-ring binder and should include a description of the project, photographs and details, project location (exact address), completion date, name and address of the architect, general contractor, stone supplier, stone installer and building owner.

Black and white or color prints, transparencies and original 35mm slides, or a combination thereof, are welcome. Allowance should be made for the Committee to cover the name of the architectural firm involved in the project before the jurors examine the entry.

Entries should be shipped to arrive not later than December 1, 1984 to: TUCKER AWARDS, Building Stone Institute, 420 Lexington Avenue, New York, New York 10170. Official Entry Forms can be obtained by writing to the above address.

There is no limit to the number of entries submitted by any individual or firm. There is no entry fee.

The awards take the form of a stone sculpture known as the "Tucker." The competition is judged by an independent panel of jurors. Presentation of the "Tuckers," the industry's most prestigious award, will take place in New York on April 26, 1985.

All entries shall be returned after the awards have been announced and presented.



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Student Architectural Competitions—1984

The Virginia Concrete Masonry Association sponsored Student Architectural Competitions at the following schools:

- VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY
College of Architecture & Urban Studies

Prizes totaling \$1000.00 and engraved plaques were awarded to the following students:

ROBERT D. STACK—First Place—\$1000.00

GREG SMITH—Honorable Mention

EDWARD P. CLIMO—Honorable Mention

TODD C. BERG—Honorable Mention

- UNIVERSITY OF VIRGINIA
School of Architecture

Prizes totaling \$1000.00 and engraved plaques were awarded to the following students:

JOHN PETER ORGREN—First Place
STEVE JOHN SCHOTTLE—First Place

PETER ROBERT KUTSCHA—Second Place
ANDREW SCOTT THOMAS—Second Place

The Awards were given by a sponsoring member of V C M A at special awards ceremonies at the respective schools, and the prize-winning designs and models were displayed at the Annual Convention Meeting of the Virginia Concrete Masonry Association in June at Virginia Beach.

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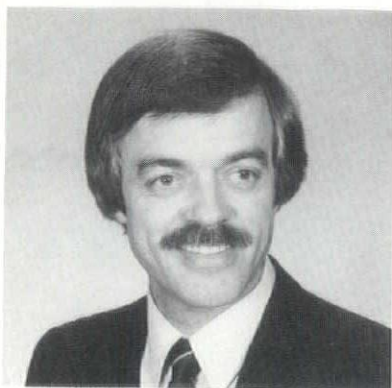
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PERSONNEL AND OFFICE CHANGES



J. Fletcher Barnes, AIA

New Firm Established

J. Fletcher Barnes, AIA, former president of Barnes and Folck, Architects, P.C., has established Barnes and Associates, P.C. The new firm has offices on International Parkway in Virginia Beach.

Mr. Barnes has been a principal in his own firm since 1977. He holds a Bachelor of Architecture from North Carolina State University and is a member of the Tidewater Virginia Chapter of the American Institute of Architects.

New Firm in Hampton

On Monday, July 30, 1984, Alternatives in Architecture, P.C., Hampton's newest and youngest architectural firm moved to its new office at 21-A East Queens Way. The firm, presently with a staff of four, is committed to and fully involved in the revitalization of Hampton's historic downtown area. Alternatives in Architecture, P.C. is presently involved in at least 10 ventures in Olde Hampton, the first of which is Jonathans Landing, a unique townhome complex under construction along Eaton Street, across from City Hall. The firm is in the process of designing a permanent office building of its own, also to be in Olde Hampton.

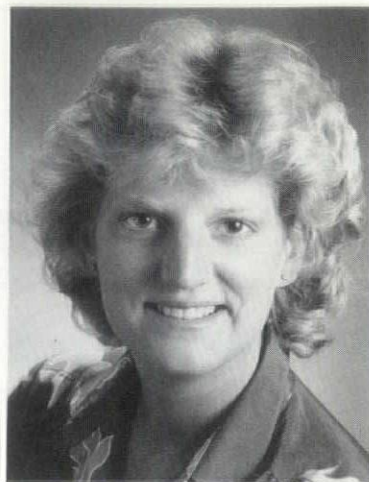
The president and founding principal of the firm, Cleveland L. Murphy, AIA has eighteen years of experience in architecture, most of which were spent in the Tidewater Area. The philosophy of Alternatives in Architecture, P.C. is based on Mr. Murphy's desire to achieve excellence in architecture. The Hampton City Council has cited one project, Park Place, as being a design which fully captures the essence of what is appropriate in Old Hampton. Another project in Poquoson is featured in this issue of *Virginia Record* magazine.

Rebecca A. Holden Joins Dills-Ainscough

Dills-Ainscough and Associates are pleased to announce that Rebecca A. Holden has joined the firm as Interior Designer and Manager of the Interior Division.

The Interior Division has been organized to meet the demands of clients for comprehensive architectural/interior design services. The firm is currently involved in several projects which include the architectural and interior design of the new Juvenile and Domestic Relations District Court building for the City of Virginia Beach.

With a degree in interior design from Virginia Commonwealth University, Rebecca has considerable experience in the design of interiors, including furniture selections, space planning, and graphics. Her experience includes services for banks, private offices, medical and institutional facilities. She was previously associated with Litton Office Products.



Rebecca A. Holden

New Firm in Stephens City

Cecil King AIA Architect has announced that he is now engaged in the general practice of architecture with offices at the Golden Rule General Store, Rt. 642, Stephens City, Virginia.

Mr. King is a member of The American Institute of Architects, the Interfaith Forum on Religion, Art and Architecture, and is certified by the National Council of Architectural Registration Boards.

Inquiries may be addressed to P.O. Box 2243, Winchester, Virginia 22601-1443 or Telephone 703-869-1540.

STAFF ADDITIONS

Donna E. Frame and Gerald C. Scott, Sr. have joined the firm as drafting technician and office manager respectively.

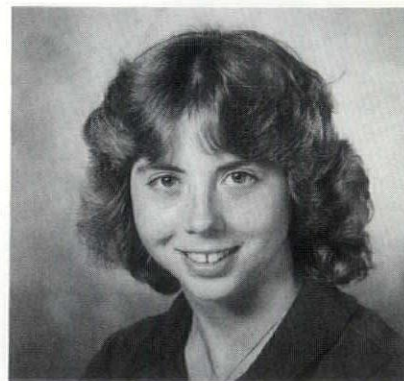
Miss Frame is a native of Boyce and is a graduate of Dowell J. Howard Vocational School. She will be attending Virginia Polytechnic Institute and State University this fall.

Miss Frame's special skills include CAD-CAM and designing private homes. She was previously employed by Virginia Department of Highways & Transportation, Stephens City, Headquarters.

Mr. Scott is a native of Lebanon, Ohio. He attended the Ohio College of Applied Sciences in Construction Technology at Cincinnati, Ohio. He was previously employed by Kamstra, Dicker-

son & Associates, in Reston, as their Project Manager for the Howard County Courthouse Renovation and Addition in Ellicott City, Maryland. The project was exhibited in the AIA magazine 1983 Architecture for Justice.

Mr. Scott is also the Pastor of a church in Luray and in Winchester. He has specialized in schools, churches and renovation projects.



Donna E. Frame



Gerald C. Scott, Sr.

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Sawyer Named Associate

Julian B. Sawyer, Jr., AIA has been named an associate with the architecture, planning, and interior design firm of Walsh Ashe Associates, Inc., Virginia Beach.

Mr. Sawyer is a graduate of Virginia Polytechnic Institute and State University, College of Architecture. He is a member of the American Institute of Architects and holds a certificate from the National Council of Architectural Registration boards.

Since joining the firm in 1979 Mr. Sawyer has served as architectural project manager on a variety of commissions.

W. Thomas Vaughan, AIA Heads Firm's New Office

Lewis/Wisnewski & Associates, Ltd., an Alexandria-based architectural firm, has opened a Fairfax County office.

W. Thomas Vaughan, AIA is directing operations at the new office. Mr. Vaughan joined Lewis/Wisnewski in 1982 and has been project architect for the Renaissance Park Complex adjacent to Dulles Airport.

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INFORMATION AND SERVICES

NCARB Reaffirms Education Requirement

In separate actions taken at its recent annual meeting in Portland, Oregon, NCARB reaffirmed the professional degree requirement as the education standard for issuance of Council certification and adopted a set of educationally-based standards and criteria, completion of which will be accepted in lieu of the accredited degree in architecture. These actions resolved one of the most serious historical issues that has faced the Council for many years.

The significance of these actions is two-fold:

1. They ensure that the requirement of a first professional degree from an NAAB-accredited program—adopted at the 1980 NCARB annual meeting to become effective July 1, 1984—is now securely in place as the education standard for NCARB certification.

2. They provide candidates who lack the accredited professional degree with a tabulation of the requisite architectural and general education subject areas, and with identification of acceptable systems through which such non-degree education may be acquired.

In developing the concept whereby non-credit architectural and general education can be accepted by NCARB for certification, the Education Evaluation Committee (EEC) has sought to recognize the primacy of the accredited professional degree, earned in a formal academic setting, as the preferred academic background for the practice of architecture. Satisfying the education requirements through the non-matriculating education system, the EEC notes, will not be an easier course to follow than acquiring the accredited degree. Indeed, the education requirements are based, in effect, on the accredited degree. The standard to be achieved, according to the EEC, is that which is expected

of intensive programs of architectural studies normally associated with schools of architecture found within universities.

The basis of the member boards' nearly unanimous support for these actions was the report and recommendation of the Education Evaluation Committee. Headed by NCARB Past President Sid Frier, FAIA, the Committee was charged "to establish education criteria for approval by NCARB in order to assess the education of candidates for NCARB certification without an accredited degree, and to make such education criteria available to member boards that wish to use the criteria for evaluating candidates for registration without an accredited degree."

The education standards for certification will be published in a new NCARB *Circular of Information No. 3*, to be released by January, 1985.

ORINGDULPH TAKES OFFICE

Robert E. Oringdolph of Portland, OR, assumed the presidency of the National Council of Architectural Registration Boards at the organization's 1984 Annual Meeting in Portland. He succeeds Ballard H. T. Kirk, Columbus, OH.

Other officers elected at the meeting, NCARB's 63rd, are: Theodore L. Mularz, first vice-president and president-designate, Aspen, CO; Robert L. Tessier, second vice-president, Agawam, MA; Walter T. Carry, treasurer, Atlanta, GA. NCARB's secretary, William Wiese II, Burlington, VT, continues in the second year of a two-year term.

The 1984-85 regional directors are: George B. Terrien, New England, Portland, ME; Gilbert D. Cooke, Middle Atlantic, Baltimore, MD; Herbert P. McKim, Southern, Wilmington, NC; Donald E. Sporleder, Mid-Central, South Bend, IN; C. James Balderson, Central, Overland Park, KS; and Laura N. Cronenwett, Western, Denver, CO.

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New Law Firm to Assist Architects/Engineers

Philip R. Croessmann and Henry J. Lawrence Jr. have left their positions at The American Institute of Architects to form the law firm of Croessmann & Lawrence. The practice will be limited to the real estate industry with its primary emphasis on architects and engineers, and will provide a full range of services tailored to meet the needs of design professionals. The firm's goal is to assist A/E clients in their daily practice to increase profitability and financial stability.

Mr. Croessmann is a member of the New York and District of Columbia Bars. He holds a Bachelor of Architecture degree from the University of Oregon and a Juris Doctor degree from Syracuse University. For several years he worked in architectural firms and most recently served as a director of the Government Affairs Department and as the Deputy General Counsel at the American Institute of Architects.

Mr. Croessmann has taken a particular interest in the business aspects of A/E practice and professional liability. He serves on the Executive Committee of the Securities and Exchange Commission, Small Business Forum on Capital Formation, and has served as the AIA staff representative to the International Engineering and Construction Industry Council and the Committee on Federal Procurement of A/E Services. He is a member of the American Bar Association, the Real Estate Section of the District of Columbia Bar Association, and an associate member of the Virginia Society, American Institute of Architects.

Mr. Lawrence is a member of the Florida Bar. He holds a Bachelor of Science degree in Architecture from California Polytechnic State University, and a Juris Doctor degree from California Western School of Law. He has been employed with architecture, engineering and law firms, and most recently served as director of the Government Affairs Department and director of the Codes and Standards Division at the American Institute of Architects. While at the AIA he also assisted with the development of AIA standard contract documents. He served as the AIA staff representative to the major national model building codes and standards organizations and President Reagan's Commission on Housing.

Mr. Lawrence is also president of Bison Corporation, a consulting firm specializing in construction claims and litigation support, architectural and environmental research, and legislative and governmental monitoring. He is currently active in building codes and regulatory activities, is a member of the Indoor Air Quality Project Committee of the National Institute of Building Sciences (NIBS), the NIBS Common Code Format Project Committee and Products Approval Committee, the American Society for Testing and Materials Committee E-6.25 on Overall Building Performance, and the Architecture and Engineering Performance Information Center Legal Advisory Committee. He is a member of the American Bar Association and an associate member of the American Institute of Architects.

The firm is located at 1015 Fifteenth Street, Suite 700, Washington, DC 20005.

LETTERS

Mr. Paul H. Barkley, President
Virginia Society, AIA

Dear Mr. Barkley:

It is always nice to be recognized and Fredericksburg is, indeed, indebted to the *Virginia Record* magazine for such exceptional attention received in your May-June 1984 issue.

Most impressive is the amount of historic preservation-rehabilitation work that is occurring in the state. The *Virginia Record*, at least this issue, could almost be called a magazine on Historic Preservation. As a preservationist, I am delighted that architects are looking to preservation as a discipline which is essential to maintaining today's stability and establishing tomorrow's integrity.

Working with you has been a pleasure and I shall anticipate furthering our relationship with the Virginia Society of the American Institute of Architects.

Thank you again.

Very truly yours,

SUSAN FORD JOHNSON
Executive Director
Historic Fredericksburg
Foundation, Inc.

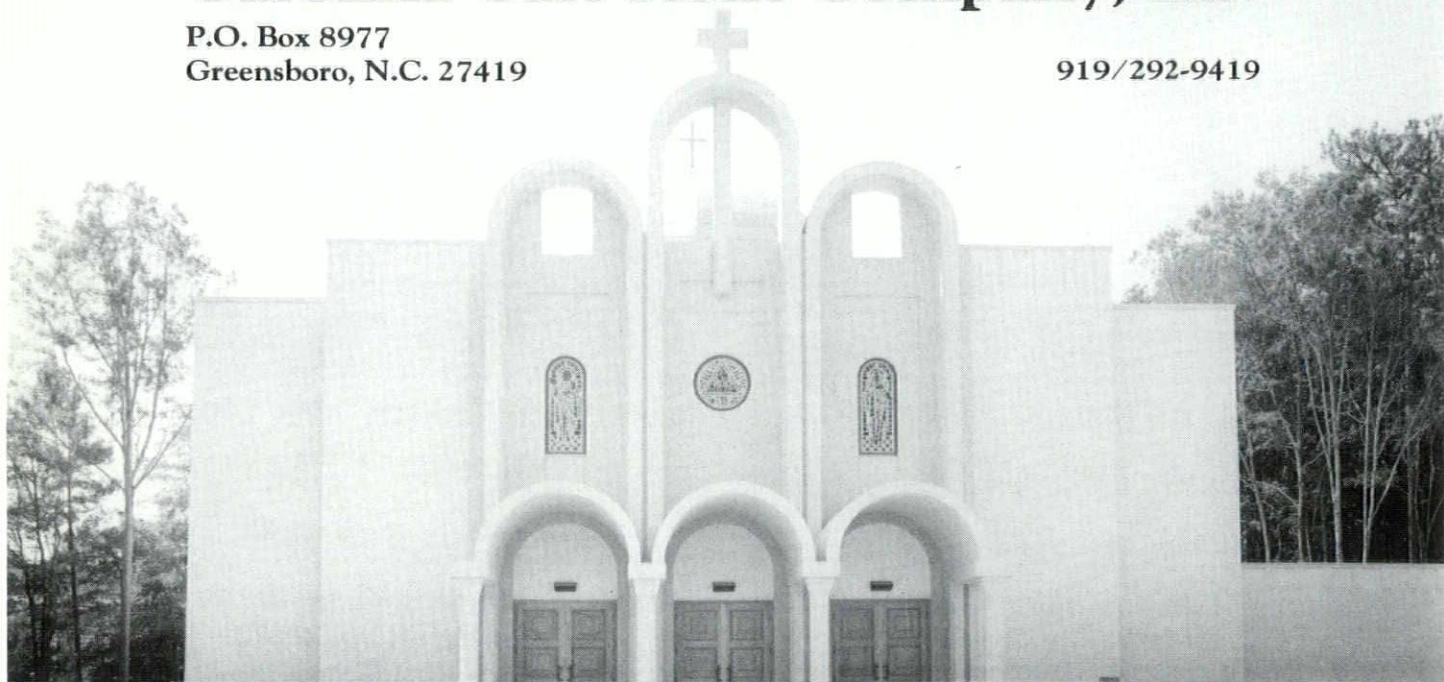
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'Super Market '84'

Plan to Attend the 1984 VSAIA Fall Meeting!

The Virginia Society of the American Institute of Architects cordially invites you to Super Market '84, the 1984 Annual Meeting and Convention. Hotel Roanoke will be the Convention Headquarters. Several events will also be taking place in the newly completed "Center in the Square" and the Roanoke Civic Center.

Architects, development, and design awards will be the major subjects of this convention. The mood will be festive, the seminars thought-provoking and rewarding, and the accommodations first class. Following the President's Reception, at Center in the Square, entertainment will be provided during Thursday evening's activities. The VSAIA Annual Business Meeting, Committee Meetings and other business sessions will provide a forum for input of ideas from members and should be informative for all. State Design Awards will be presented on Friday afternoon, no doubt giving a good overview of current architectural trends in Virginia. Friday's activities will be capped by the Annual Noland Awards Night, featuring presentation of the Society's top honor to one of its own. Other awards to be given will include recipients from throughout the Commonwealth, and special recognition will be given to the Society's two newest Fellows.

A mountain-top tour and hospitality suite are planned for spouses and guests, while the convention is in progress. And, as things wind down Saturday, Virginia Tech and Tulane will be kicking off with a busload of AIA members and guests in attendance.

EXHIBITS

Products and Services—The fifth annual VSAIA exhibition of architectural products and services will be the biggest and best ever, with an expected 60+ firms manning nearly 80 booths, demonstrating the latest in building products, services, and architectural office aids. The exhibition has been one of the most highly-acclaimed parts of past meetings (over 95% positive rating). Meeting times have been designed to maximize the opportunities available for viewing.

Special Exhibits—Each of the in-state architectural schools and some from neighboring states, have been invited to prepare an exhibit of student work. In addition, many Society activities and programs will be featured in special exhibits.

LOCALE

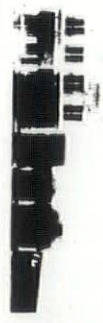
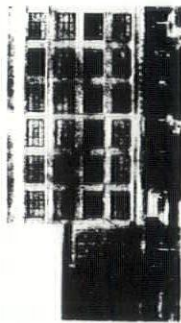
The scenic Roanoke Valley, set in the rolling Blue Ridge Mountains provides the backdrop for this 1984 Convention. Centered in downtown Roanoke, this year's meeting will enjoy the energy of the newly revitalized market area. Center in the Square and the Farmer's Market provide an urban experience that is truly unique.

Market Area Tour conducted by the Roanoke Historic Society will enhance your knowledge and enjoyment of the distinctive area. Lodging provided at *Hotel Roanoke* will be an experience in itself. There are few establishments left in the country that provide the same combination of history, charm and elegance. Finally **Bus Tour of the Blue Ridge Parkway** will be conducted on Friday morning with a lunch and stop at the Peaks of Otter. Beautiful panoramas of the mountains and alleys can be breathtaking at this time of year. **Arrange-Your-Own Entertainment** of all varieties exists in the valley, and folks from the Blue Ridge Chapter will go out of their way to make you feel at home. So, pack some dress clothes and your blue jeans for a trip to the Roanoke Valley in the heart of the Blue Ridge.

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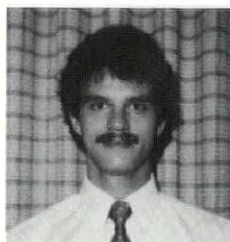
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Blue Ridge Chapter
With Sherertz, Franklin, Crawford,
Shaffner, Roanoke



VICTOR E. SISSON, III, Associate
Blue Ridge Chapter
With Sherertz, Franklin, Crawford,
Shaffner, Roanoke



KEVIN L. BERTHOLF, Associate
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With Sherertz, Franklin, Crawford,
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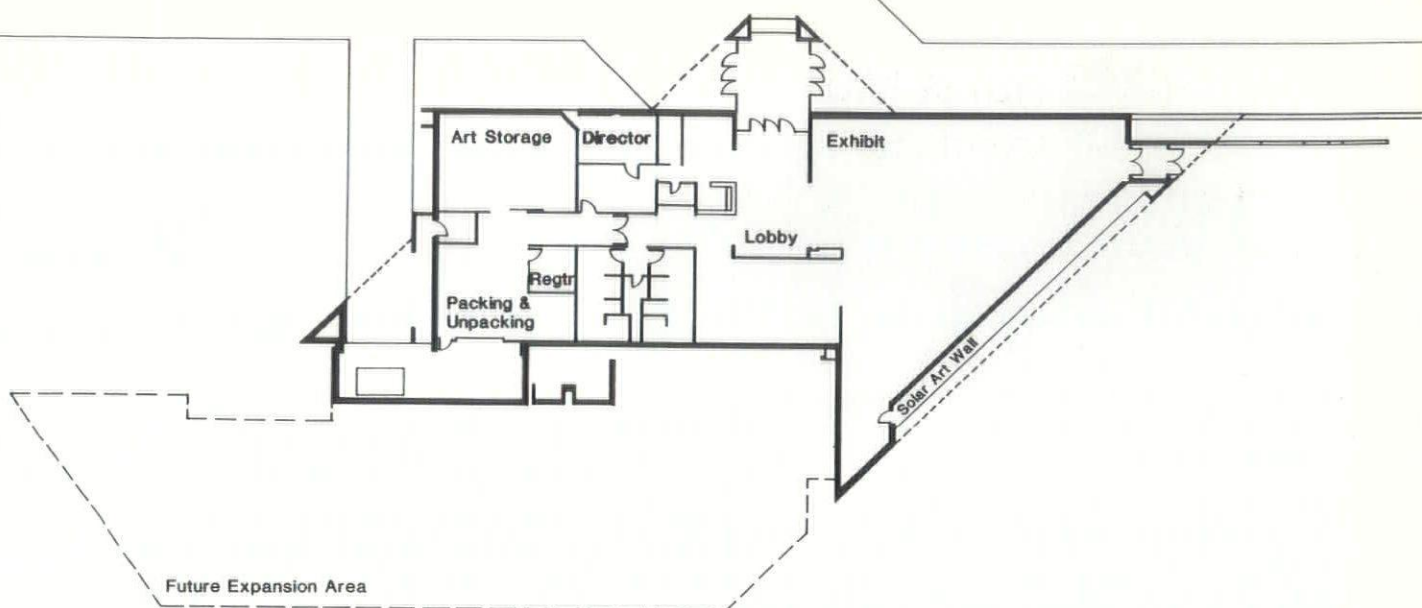
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PROGRAM

To construct an art museum to house and exhibit the College of William and Mary art collection. The museum should include all the elements necessary for an accredited museum operation. The museum should include flexible large and small gallery spaces for changing exhibitions, an art storage area, receiving room, and a covered loading dock. The project budget should be built from limited private donations and should be completed for under one million dollars. The building should be designed to anticipate early future expansion, which is currently nearing construction.





SITE

The building site selected is located on the campus of the College of William and Mary adjacent to the performing arts building, the fine arts department, and is on a major pedestrian route into the campus. The area of the campus has high public visibility to encourage visitation from the town of Williamsburg.

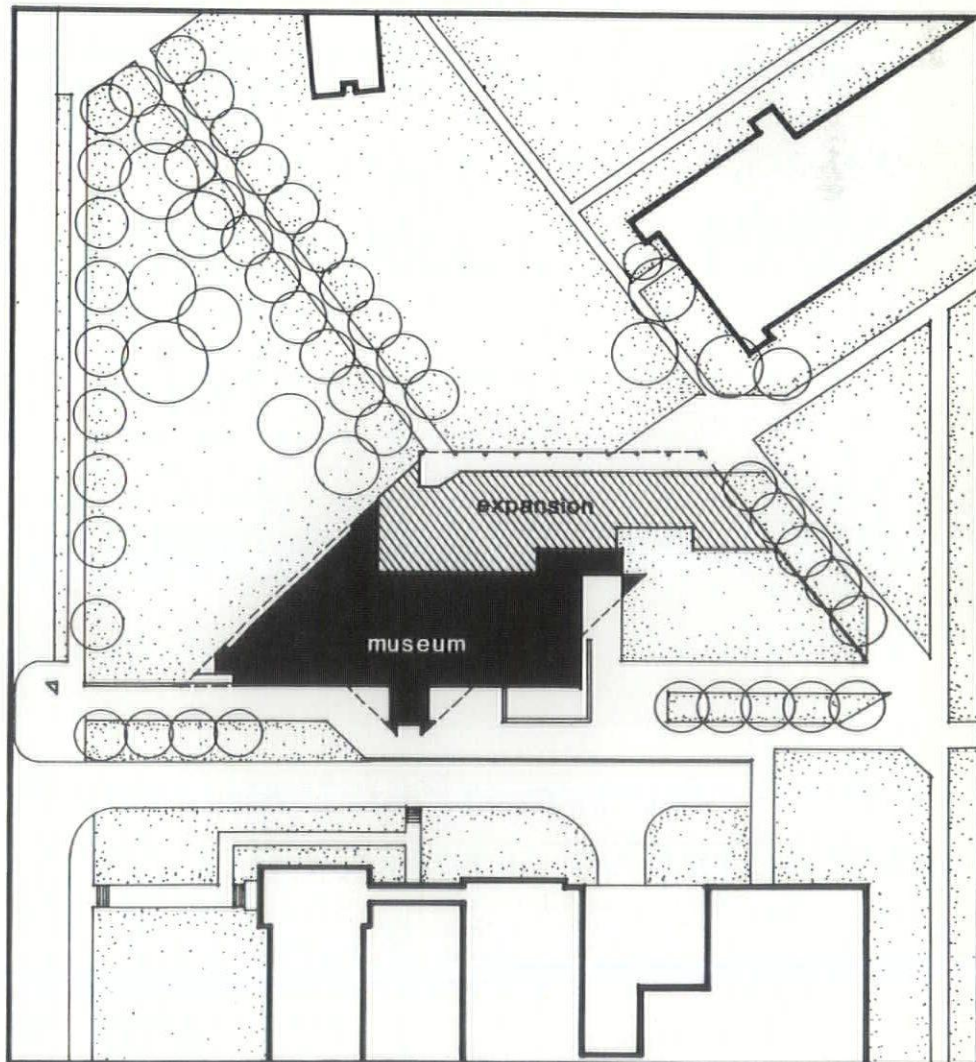
SOLUTION

The museum was sited so that the entry lobby would define and engage the existing primary pedestrian route. A large and a small gallery were provided to one side of the lobby, with the administration, restroom, art storage and receiving areas to the other side. The west facade was developed to accept a second phase of construction, currently projected to begin this fall. A south facing passive solar wall generates the 45 degree angle with the entry facade. The "solar art" wall will provide about 20% of the building's heat. Various artists will be periodically invited to color the water storage tubes in the wall. The first "solar art" color design was done by Washington artist Gene Davis. The college's existing language of limestone and brick was reinterpreted with the detail being intentionally more playful than its neighbors.

Cochran Construction Co., Inc. of Hampton was general contractor and handled concrete work and carpentry.

SUBCONTRACTORS & SUPPLIERS

Dudley S. Waltrip and Sons, Inc., Williamsburg, excavating, paving contractor & foundations; Greenbrier Farms Landscaping, Inc., Chesapeake, landscaping materials/contractor; Virginia Steel, Inc., Hampton, reinforcing; Benson-Phillips Co., Inc., Williamsburg, concrete supplier & masonry supplier; J. D. Hammond, Inc., Newport News, masonry contractor & stonework contractor; Solite Masonry Units Corp., Chesapeake and Old Virginia Brick Co., Inc., Salem, masonry manufacturers; Flamingo,





Riverton, mortar; Guille Steel Products Co., Va. Beach, steel joists; Carlisle Construction Co., Inc., Carlisle, PA, roofing; and Waterfront Lumber Co., Inc., Newport News, millwork & cabinets.

Also, Libbie-Owens-Ford, Toledo, OH, glass; Binswanger Glass Co., Newport News, glazing contractor; Republic Steel Corp., Cleveland, OH, metal doors & frames; Kawneer Co., Inc., Niles, MI, window wall; Seaboard Building Supply Co., Va. Beach, hardware supplier; Paul's Plaster and Acoustics, gypsum board contractor, plaster contractor & acoustical treatment; Tile Shop, Newport News, ceramic tile & slate flooring; Painting Concepts, Inc., Newport News, painting contractor; Sherwin-Williams, Williamsburg, paint manufacturer; Williams Fire Sprinkler Co., Inc., Chesapeake, sprinkler contractor; Colonial Mechanical Corp., plumbing/heating/ventilating/air conditioning contractor; Edison-Price, New York, NY, lighting fixtures supplier; and Swing Electrical Co., Inc., Newport News, electrical contractor.



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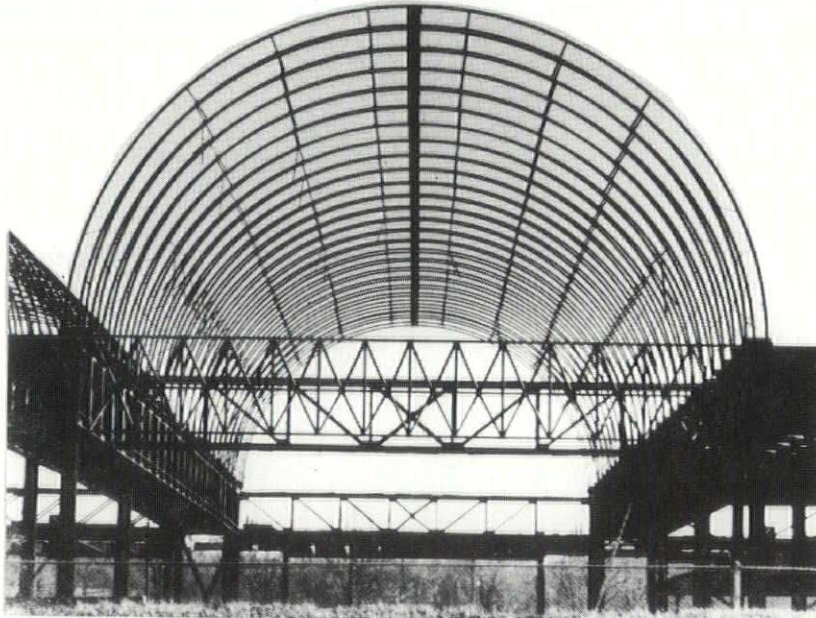
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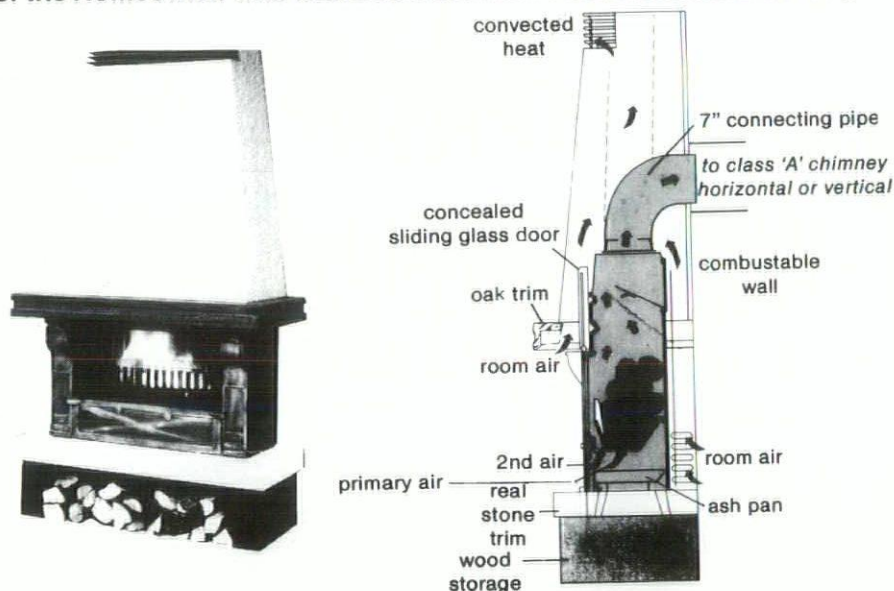
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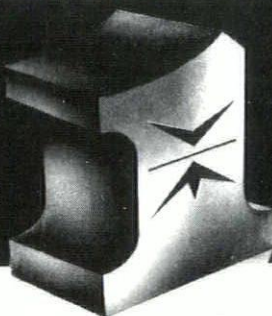
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Maranatha Run

Alternatives in Architecture, P.C./Cleveland L. Murphy, AIA

Murphy Residence • Location: Poquoson

**Project Architect, Cleveland L. Murphy, AIA •
General Contractor, Alternative Designs •
Photography, Daniel Wentz.**

THE PROGRAM

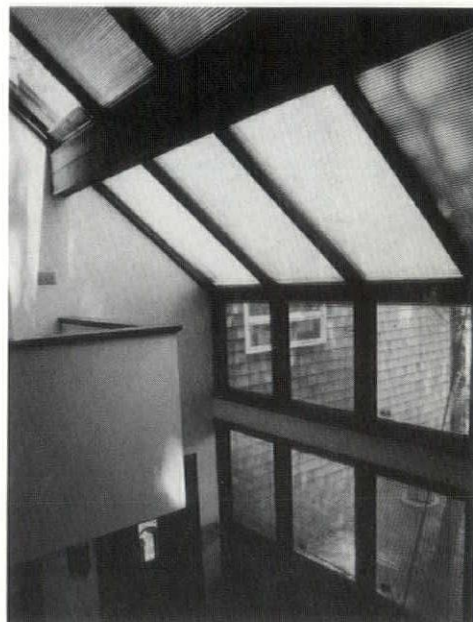
- Residence for a family of five.
- Architect's studio.
- Passive solar and daylight design.
- Visual harmony with traditional waterfront Poquoson buildings.

THE SITE

A relatively level, one acre, heavily wooded rural site with vehicular access at the southeast corner. A major site restraint is the drainage ditch and 20' drainage easement which divides the site in half.

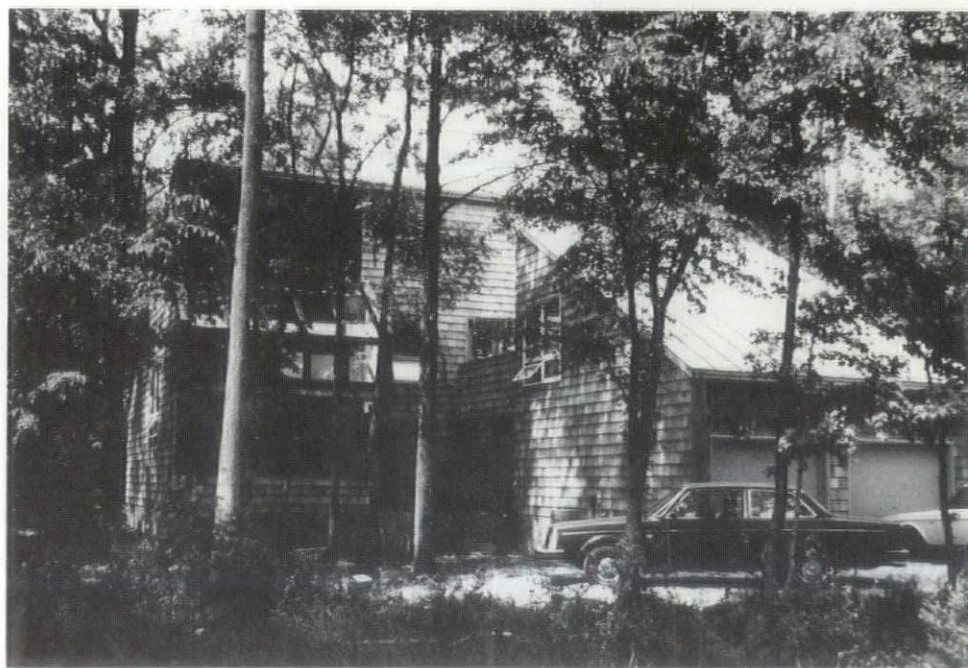
THE PROJECT

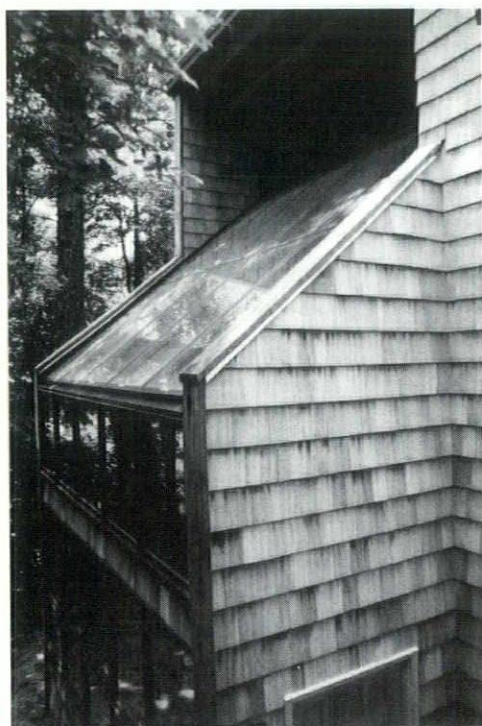
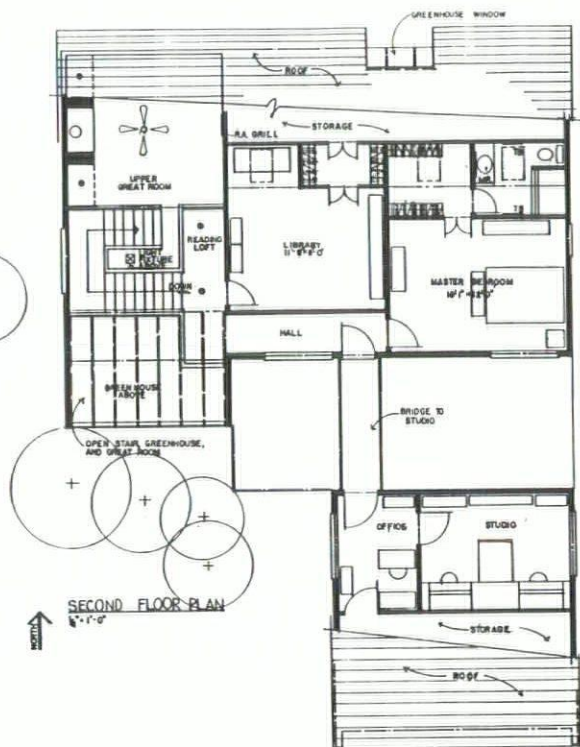
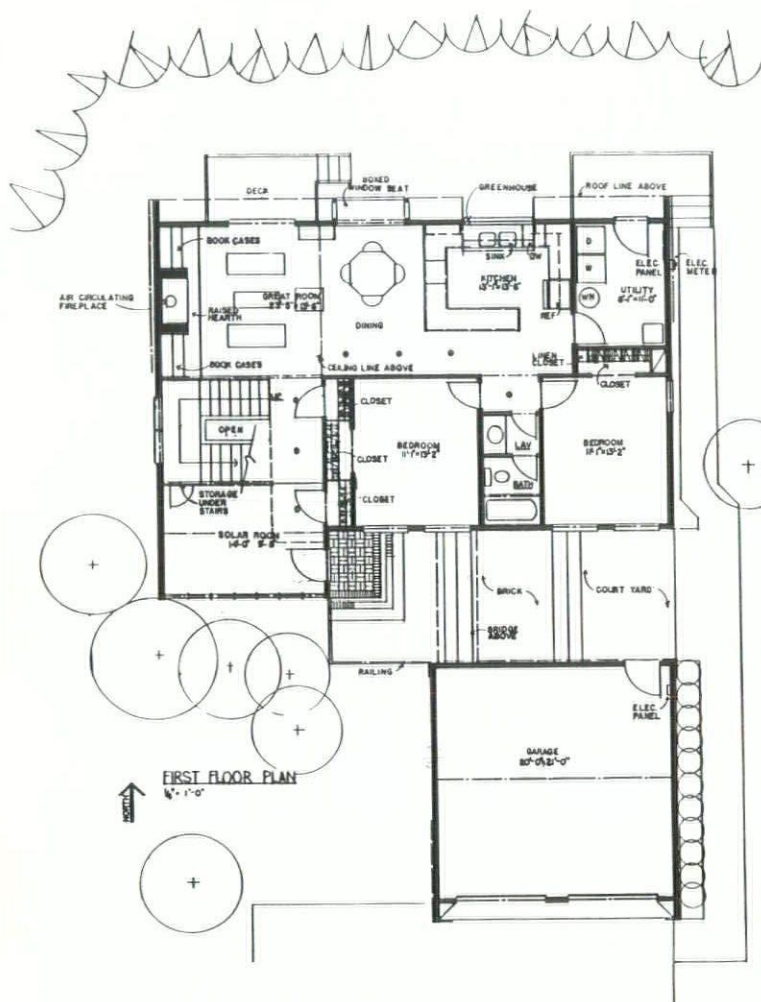
The project consists of two buildings: the studio/garage, and the house, connected on the second level by a bridge. The approach path brings one first between the two structures, then under the bridge, onto the porch and directly into the two-story solar room. Visitors of the studio climb the stairs in the solar room and cross the bridge to the studio, above the garage. This journey completely displays the solar room to all office visitors, yet the privacy of the home is not compromised, since the family spaces are located beyond the stairway or out of the view of office visitors.



The project is a design which explores the potential use of passive solar heating, passive cooling and daylight design. The windows of the solar room are exposed to the southeast breezes and the studio/garage is positioned to block the northeast winds. This also develops the open space for southwest day and night winds which are collected by the open windows at the second level of the greenhouse. The southwest winds, which pass through the solar room over the stair, continue toward the rear sliding glass door, creating a passive cooling effect throughout the first floor family room and dining room.

The upper windows of the solar room provide daylighting to the second floor hallway and the great room beyond the stairway. The lower two banks of windows allow direct solar gain to the floor of the solar room, which is constructed of a layer of concrete thermally coupled to the tile floor, which was selected for its thermal properties. This system effectively aids wintertime heating without creating extreme temperature differentials, and is controlled by slim shade blinds on each window, as well as by seasonal defoliation of the trees outside. The angle of the overhang above the solar room provides addi-





tional summertime shading while fully allowing the lower winter sun to enter the house.

The solar technology incorporated in the house is balanced by the use of traditional materials such as brick, stained cedar shakes, and a standing seam metal roof. The result is a functional and aesthetic expression respecting the traditional homes of the watermen of lower Poquoson.

The general contractor for the project was Alternative Designs. Excavating, foundations and concrete work were handled by the architect.

SUBCONTRACTORS & SUPPLIERS

(Newport News firms unless noted)

Hall-Hodges Co., Inc., Norfolk, reinforcing; Benson-Phillips Co., Inc., concrete supplier; Paul Randolph, Hampton, masonry contractor; Solite

Masonry Units Corp., Chesapeake, masonry manufacturer; Jones & Ball, Inc., Hampton, masonry supplier & mortar; Bird & Son, roofing; Davenport Insulation, Inc., roof/wall/foundation insulation; and Jeffrey Miller, carpentry & caulking.

Also, Waterfront Lumber Co., Inc., millwork, metal doors (Stanley) & frames & wood doors; Kitchen Towne, Div. of Towne Distributors, Inc., Norfolk, cabinets; Pella Virginia, Inc., Hampton, glass, windows & window wall; Jim Young, gypsum board contractor; Bill's Carpet, Hampton, carpet; Sheffield Painting, Poquoson, painting contractor; Hampton Paint Mfg. Co., Inc., Hampton, paint supplier/manufacturer; Southern Plumbing & Heating Supply, Inc., plumbing fixture supplier; Perfection Plumbing & Heating & Air Conditioning, plumbing/heating/ventilating/air conditioning contractor; Peebles Supply Corp., lighting fixtures supplier; and W. O. Moore, Poquoson, electrical contractor.



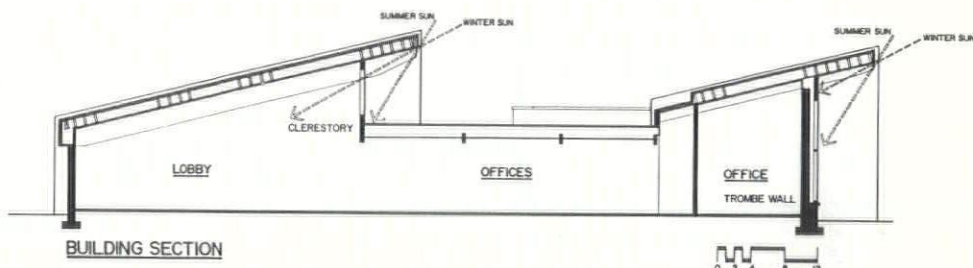
Langley Federal Credit Union

Rancorn, Wildman and Krause, Architects

Denbigh-York Branch • Location: Newport News

Landscape Architect, H. Eugene Roberts, RWK • Interior Design, Carole G. Wydur, RWK • Site Engineer/Surveyor, Rancorn, Wildman & Krause • Structural Engineer, Stroud, Pence and Associates • Mechanical/Electrical Engineer, J. W. Alred • General Contractor, C. W. Lockwood & Sons, Inc.

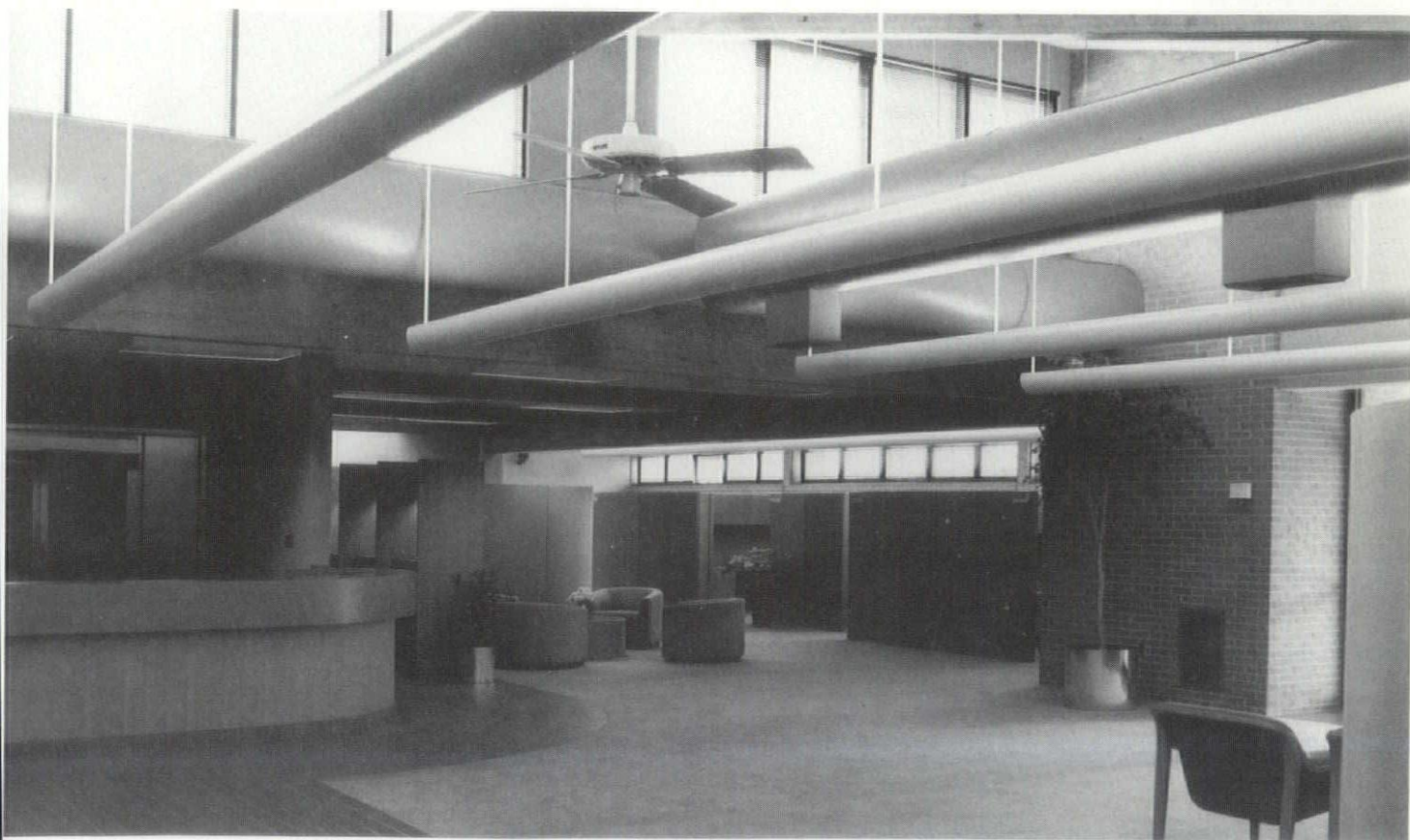
Langley Federal Credit Union's new Denbigh-York branch in Newport News serves many of the government employees living in this rapidly expanding area. The new facility includes passive solar heating systems and natural daylighting among other energy conserving features. The structure itself has approximately 6,000 sq. ft. with six inside teller stations and four drive-in windows.

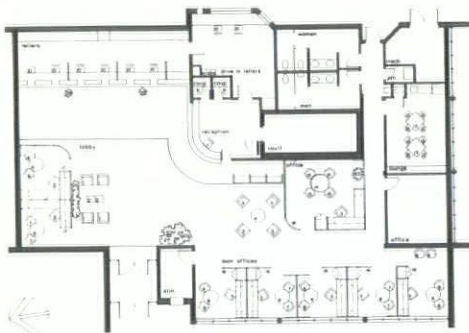


Passive solar elements designed into the new structure include a 350-square foot Trombe Wall along the southern building edge. This wall consists of solid masonry behind insulated glass which is designed to act as a heat absorber for collecting low angle winter solar radiation. In the summer an extend roof shades the glass

area from the higher sun position of that time of the year. The northern building edge contains no glazing.

The lobby space inside the Credit Union has a large clerestory open to solar radiation similar to the Trombe wall described above. In this case





however the sunlight directly enters the interior space of the building. This method of collecting direct solar heat also opens the lobby space to a considerable amount of natural daylight, in effect lessening the need for artificial light and thereby saving electricity. The clerestory opening is some 300 square feet of insulated clear glass. It is protected from the summer sun by an extended roof overhang.

The passive solar design features of the Credit Union added no more than five percent to the construction cost of the building. The solar system will consist of materials and components that require little or no maintenance.



The big advantage to the solar design is a projected substantial savings in electricity use over a conventional building of a similar size. A gas-fired boiler serves as the backup heating/cooling system.

C. W. Lockwood & Sons, Inc. of Hampton was general contractor for the project.

SUBCONTRACTORS & SUPPLIERS

Other Hampton firms were: Millers Contracting Co., Inc., masonry contractor; C. H. Morgan Co., carpentry; Able Systems, Inc., plaster contractor; Pompei Tile Co., Inc., ceramic tile; South-eastern Tile & Rug Co., Inc., resilient tile; C. R. Benford, plumbing contractor; and McDonald Garden Center, interior planting.

From Newport News were: Tidewater Nurseries, Inc., landscaping contractor; Basic Construction Co., paving contractor; Ducks Roofing Co., Inc., roof deck; Peebles Supply Corp., plumbing fixture supplier; and Hans Spilde Mechanical, HVAC contractor.

Norfolk firms were: Hall-Hodges Co., Inc., reinforcing; Commercial Woodwork & Interiors, Inc., millwork; Walker & Laberge Co., Inc., glass; J. L. Christian Painting Co., Inc., painting contractor; and Diebold, Inc., specialties.

Others were: H & P Hardware, Portsmouth, hardware supplier; Cherry Rug Co., Portsmouth, carpet; Robert F. Harris, Inc., Grafton, electrical contractor; and Morton Marks & Sons, Inc., furniture contractor.

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Lammers House

Lawrence Lammers, AIA — Architect

Location: Reston

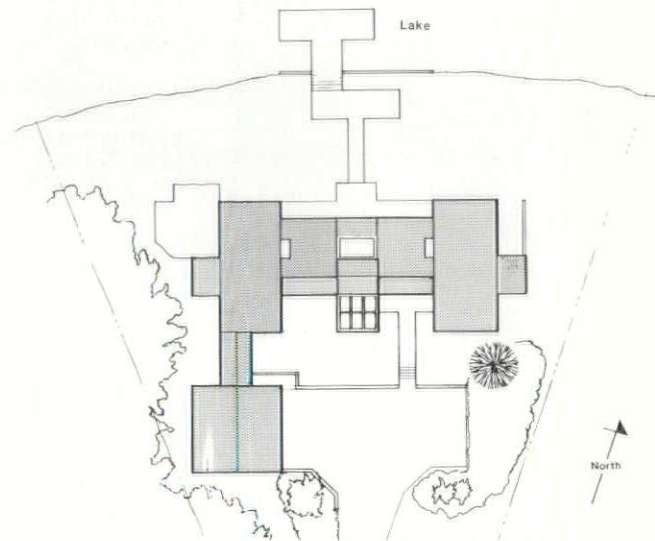
Landscape Architect, Tom Nelson • Site Engineer/Surveyor, Charles Johnson • Mechanical Engineer, Lee Eisenhower • General Contractor, Lawrence Lammers • Photography, Linda Rutledge.

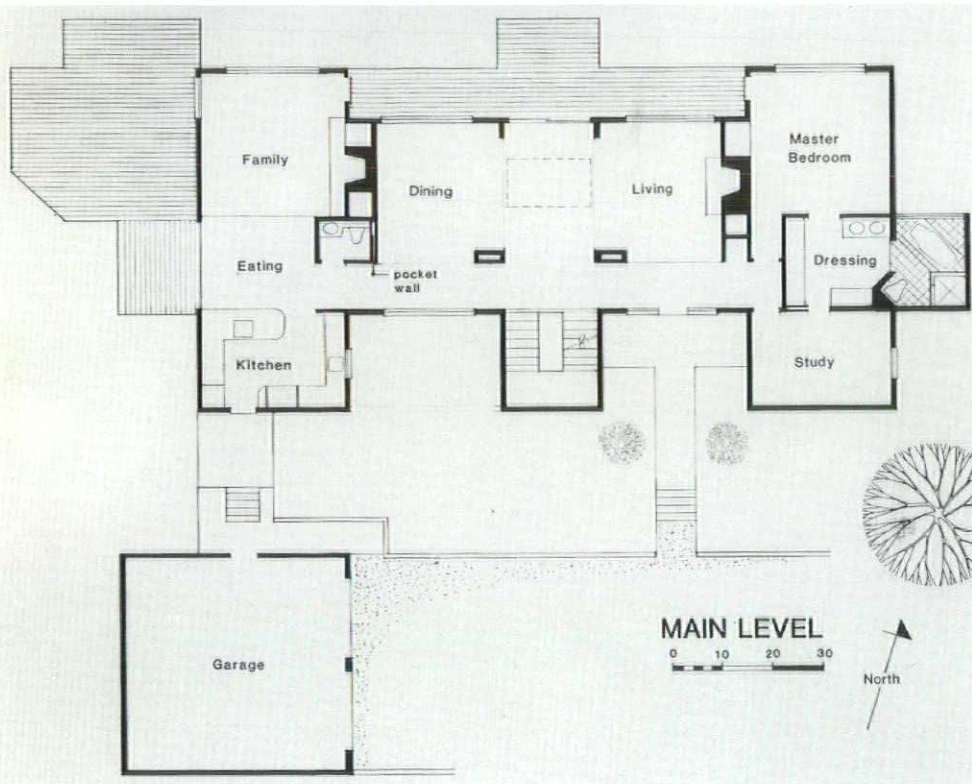
SITE

The house is located on a third-acre, pie-shaped lot which slopes from the front of the house down to the lake. Trying to capture the view of the lake to the north and still let southern light into the living areas presented a real design challenge.

CONCEPT

In order to take advantage of lake views, all major rooms are located on the north side of the house and have a clear view of the lake. The two-story structure separates the adult living and sleeping areas on the main level from the teenage children's areas on the lower level. The





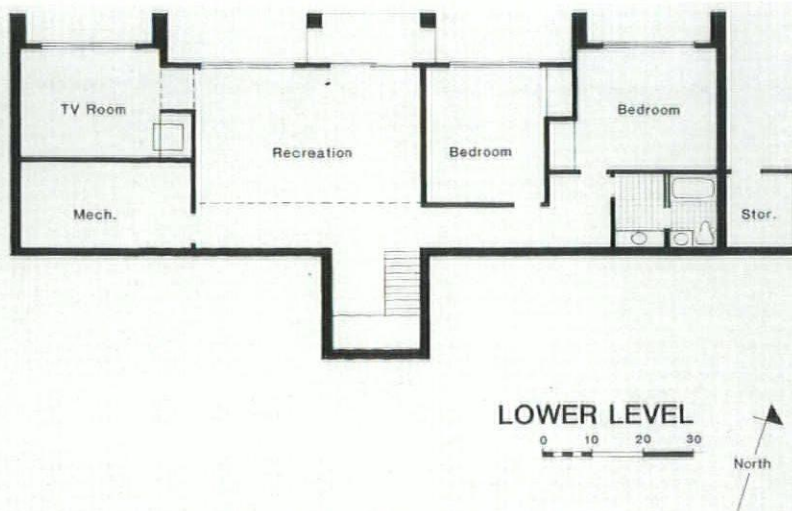
lower level, half underground has a direct access to the lake through the recreation room. All major rooms on the main level have cathedral ceilings offering an open atmosphere in each room. The center spine corridor has an eight foot ceiling which creates a horizontal connector link element between the rooms. The stairwell which is on the south side of the house contains three skylights that let light penetrate all the way to the lower level and create a light well element which ties both levels together vertically.

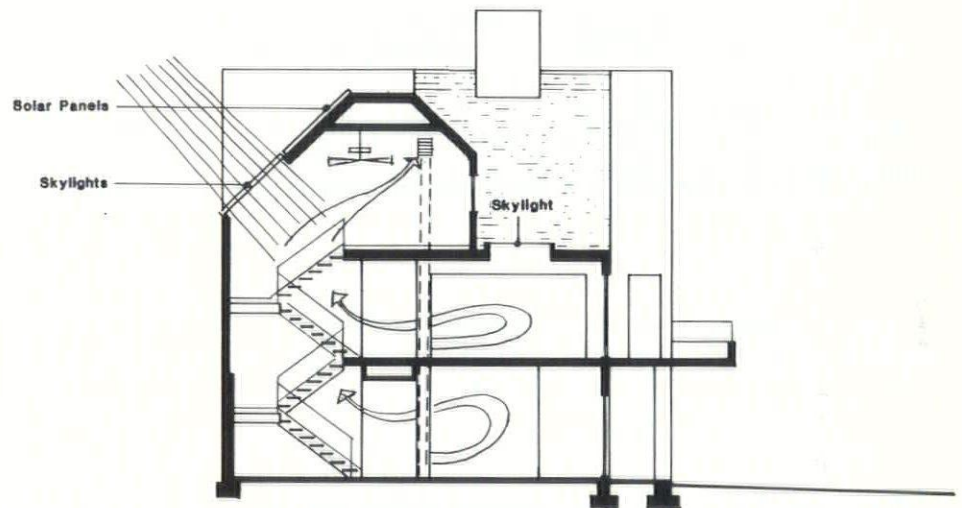
EXTERIOR

The exterior depicts a sense of quiet elegance and relates well to the surrounding neighborhood. The double A-framed roof structure and the massing of the building is symmetrically detailed around the stair tower and solar panels. The solar panels were carefully designed as an integral part of the tower structure.

ENERGY CONSERVATION MEASURES

Since the view is to the north, care was taken to thoroughly consider energy saving means and still capture the panoramic view. The kitchen and family room areas can be closed off from the rest of the house by closing the pocket wall thus retaining the heat within the space. The exterior walls are 6" frame construction with both fiberglass insulation and a monolithic polyethylene sheet seal. All windows throughout the house are triple pane thermal insulated Andersen wood windows. All window and door frames are foam sealed. The exterior stairwell acts as a plenum for warm air to rise as it is heated by sun which penetrates through the modified lower set of solar panels. The warm air is captured high in the loft area and is blown back down to the lower levels of the house via wall return ducts. The three top solar panels are active units, and are used for generating heat for the hot water system. A wood burning stove is located between the T.V. room and the recreation room on the lower level with a air plenum





SECTION

directly over the stove. The air is drawn in from the outside and into the central air return ducts where warm air is then distributed throughout the house. The long horizontal corridor on the lower level allows for an air supply plenum overhead for horizontal distribution of air throughout the house.

The architect/owner, Lawrence Lammers, AIA of Reston, acted as his own general contractor.

SUBCONTRACTORS & SUPPLIERS

Toobar Construction, McLean, excavating; Tom Nelson/Senecafalls, Vienna, landscaping contractor; Haines Paving Co., Inc., Herndon, paving contractor; Wayland Blanton, Nokesville, foundations; Kevin Teer, Annandale, concrete contractor; Herndon Concrete Associates, Herndon, concrete supplier; Cherrydale Cement Block Co., Inc., Herndon, masonry supplier, mortar & waterproofing; Luck Stone Center, Sterling, stonework supplier; G. E. James, Jr., Goldvein, steel roof deck; Hercules Iron, Fairfax, miscellaneous metal & handrails; and Western Cedar Roofing, Inc., Woodbridge, roofing.

Also, Davenport Insulation, Inc., Alexandria, roof/wall/foundation insulation; D & L Construction, Inc., carpentry; Herndon Lumber & Millwork, Inc., Herndon, structural wood; Hayes Lumber & Hardware, Vienna, millwork; Burger Cabinets, Herndon, cabinets; Morgan Millwork Co., glass (Andersen Windows) & wood doors; Enclosures Unlimited, Inc., Sterling, glazing contractor; Sheets, hardware supplier; John Worner, Springfield, gypsum board contractor; Kemper, carpet; William Boorman, Alexandria, painting contractor (Duron paints); Douglas Distributing Corp., Washington, D.C., equipment; Thomas Somerville Co., Fairfax, plumbing fixture supplier; Neil Myer, plumbing contractor; Sun Ray Inc., Annandale, heating/ventilating/air conditioning/electrical contractor; Interstate Electric Supply Co., Inc., Fairfax, lighting fixtures supplier; York, electrical equipment supplier.





Tower Enterprises Office Building

The Design Collaborative/Edward R. Roehm, AIA — Architect

Location: Virginia Beach

Project Architect/Designer, Edward R. Roehm, AIA • Landscape Architect, Craig Siska • Interior Designer, Uschl Mednick of Uschl Designs • Site Engineer/Surveyor, William C. Overman & Associates • Mechanical/Electrical Engineer, Vansant & Gusler, Inc. • Energy Consultant, D. W. Abrams, P. E. & Associates, Inc. • General Contractor, L. J. Hoy, Inc. • Photography, Louise Overman.

A group of engineers in the civil engineering firm of William C. Overman and Associates made the decision to have a highly energy-efficient office built to their exact spatial requirements. A site with a good south orientation was selected by the owners. Architect, Edward R. Roehm, AIA, was selected to design the project.

The firm is involved in the full spectrum of civil engineering, including planning, and has many highly specialized requirements, including space for a wide variety of printing activities.

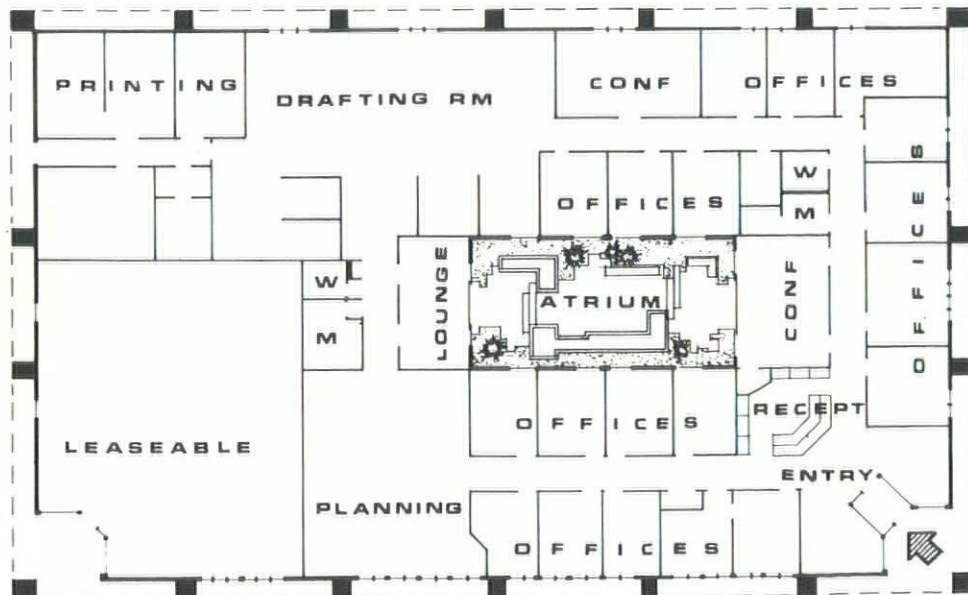
The 11,400 square-foot building is a single-story steel frame structure with brick veneer and Dryvit exterior finishes. A variable air volume H.V.A.C. system servicing many zones elimi-

nates hot and cold spots, a situation that had plagued the owners in their last building. The vestibule, with its air-lock entry, eliminates drafts at the reception area.

The design approach was to maximize daylighting, with some emphasis on direct solar gain. A total of 12 skylights located in critical areas eliminates the need for any artificial lighting (other than task lighting) in the entire building.

An 800 square-foot atrium in the center of the building provides a pleasant landscaped area into which the main conference room, employees' lounge, and the principal's office may look. Simple trusses made of two-inch steel tubing are spaced four feet on center to accommodate standard size glazing panels, greatly reducing the cost of the space. Convection cooling is aided by the peaked roof soaring to 20 feet in the center. Constantly changing light and shadow patterns due to the movement of the sun, give the space a variety of appearances during the day. Under the ideal sunlight and humidity conditions in the atrium, yucca, pencil cactus, a fernlike retro-cactus, ficus, marginatas, crotans, and cornplants thrive as a tropical garden. Bluestone pavers lend a coolness to the collection of exotic plants and frame reflecting pools containing three fountains. The atrium, while obviously an asset in the winter season, was a concern to the architect for its potential to overheat in the summer. To remedy the situation, a continuous vent at the ridge line, plus a mechanical ventilating system controlled by both a humistat and a thermostat, eliminates heat build-up in the warmer months.

Pella windows with slim shades were used on the east, south, and west sides to prevent glare on the work surfaces and eliminate heat gain in the east and west ends. Since cooling is more critical in buildings of this type, the overhangs





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were calculated to shade the windows from May through September.

In the drafting and planning areas, the structural, mechanical and electrical systems are left exposed and are painted in bright, cheerful colors of blue, apricot and soft gray. This exposed system style, which began with the California warehouse renovations of the '60s, is quite effective in this building in that it allows a 12-foot ceiling for a generous feeling of spaciousness. An open landscape plan was used in the planning area where large drawings are worked on by team effort. Light fixtures in this area have fluorescent tubes that reflect upward toward the structural steel ceilings, as well as

downward. Light reflected off the white enameled surfaces of the ceilings is soft and diffuse, giving almost a look of daylighting to the planning area at night.

L. J. Hoy, Inc. of Norfolk was general contractor and handled foundations, concrete work, and carpentry.

SUBCONTRACTORS & SUPPLIERS

From Norfolk were: Winkelman, Inc., paving contractor; Commonwealth Masonry, Inc., masonry contractor; Norfolk Iron & Wire Works, Inc., steel erection; Built Up Roof Systems, Inc., roofing; Campostella Builders & Supply Corp., millwork; Engineering Steel Equipment Co., cabinets; PPG Industries, Inc., glass & storefront; Door Engineering Corp., metal doors & frames; Ferrell Linoleum & Tile, Inc., ceramic tile & resilient tile; and Howard E. Marquart Co., toilet partitions.

Virginia Beach firms were: Sadler Materials Corp., concrete supplier; Pella Virginia, Inc., windows; Byler Plumbing Co., plumbing contractor; Bay Harbour Mechanical Ltd., heating/ventilating/air conditioning contractor; and Eagle Electric Corp., electrical contractor.

Others were: Interior Systems of Virginia, Inc., Chesapeake, gypsum board contractor & acoustical treatment; Smith-Gerloff Painting & Decorating, Inc., Chesapeake, painting contractor; Luck Stone Company, Newport News, architectural stone & trim; and Tab Company, filing system.

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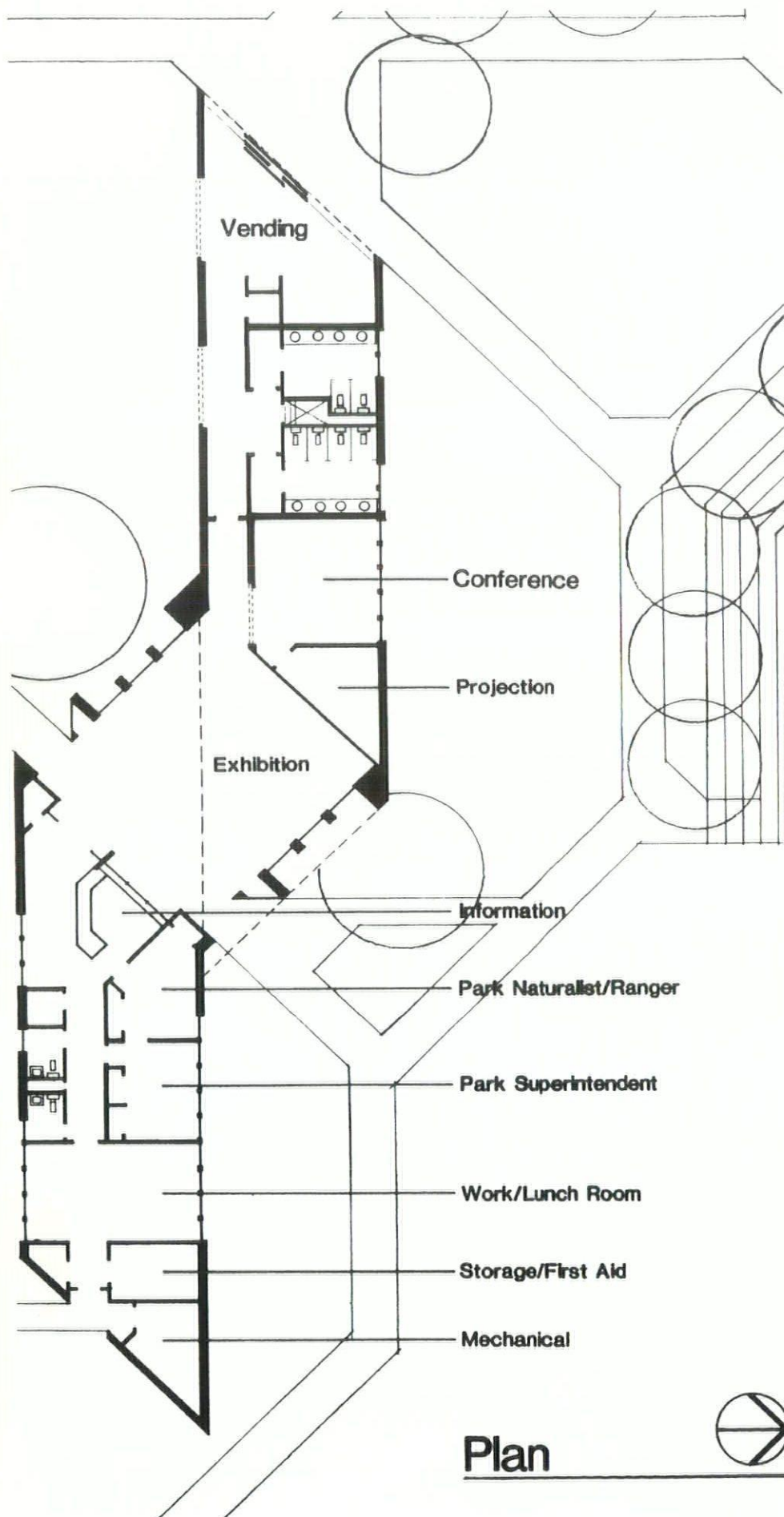
York River State Park Visitor Center

Abbott Associates, Architects and Planners

Location: Croaker, Va.

Project Architect/Designer, Carlton Abbott • Structural Engineer, Randall Strawbridge, Inc. • Mechanical/Electrical Engineer, Bowman and Associates • Geotechnical Engineer, Herbert and Associates, Ltd. • Other Consultant, Deward M. Martin and Associates, Inc. • General Contractor, Joseph S. Terrell, Inc. • Photography, Carlton Abbott.





PROGRAM

To develop a seasonal visitor center for a state park which is in full operation during daytime hours in the Spring through Fall, and maintains an operating park ranger's office year-round. The public areas in the visitor center provide park orientation displays and provide restroom facilities. The visitor center functions as the central facility for York River State Park, with picnic shelters, trails and a boat launching area included in later phases.

SITE

The building site is on an old plantation, with gently rolling woodlands and fields bordered by marshlands and a narrow beach on the York River. The building is on a high bluff above the confluence of Taskinas Creek and the York River. The site provides vistas to the river and inland across rolling farmlands.

SOLUTION

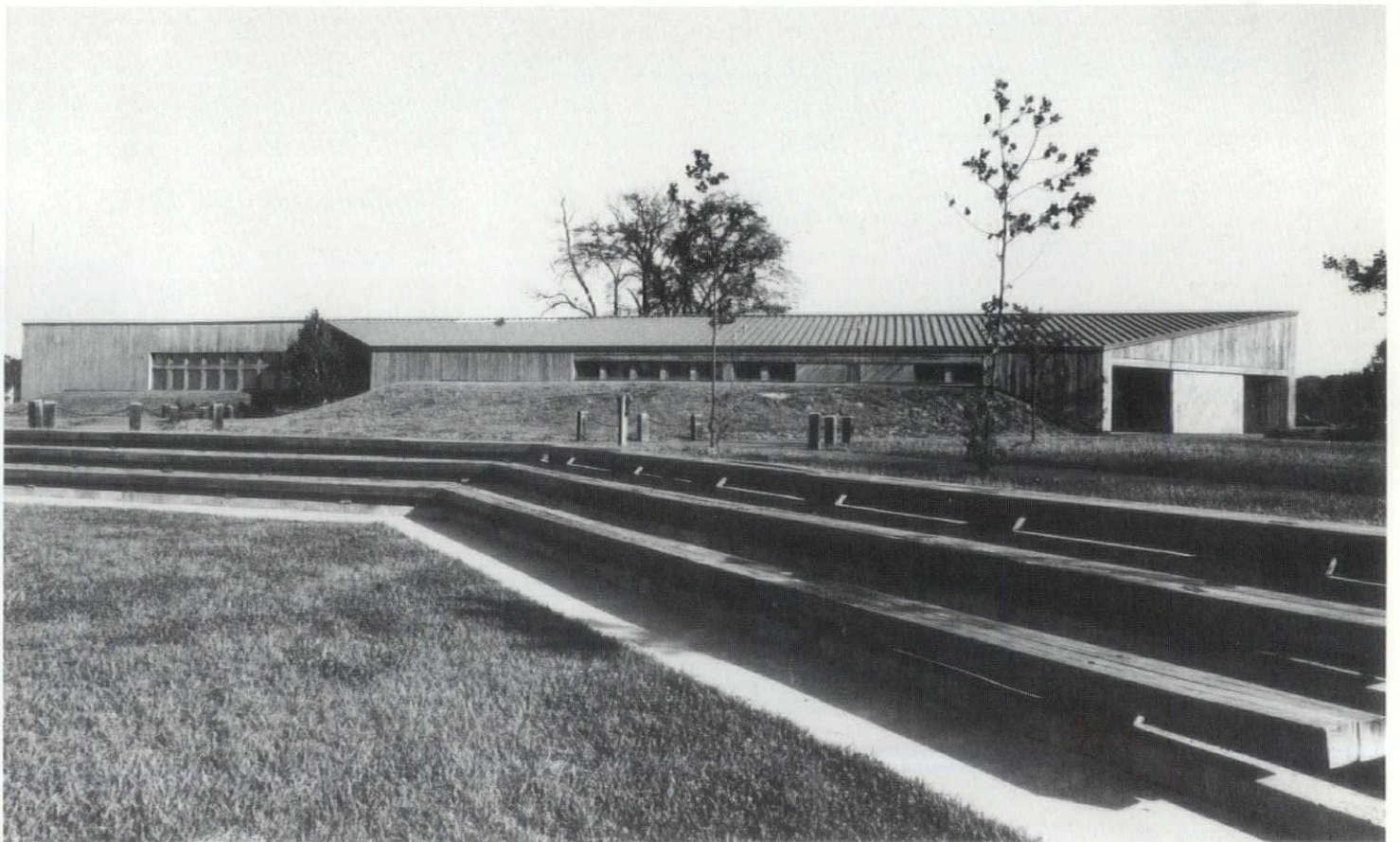
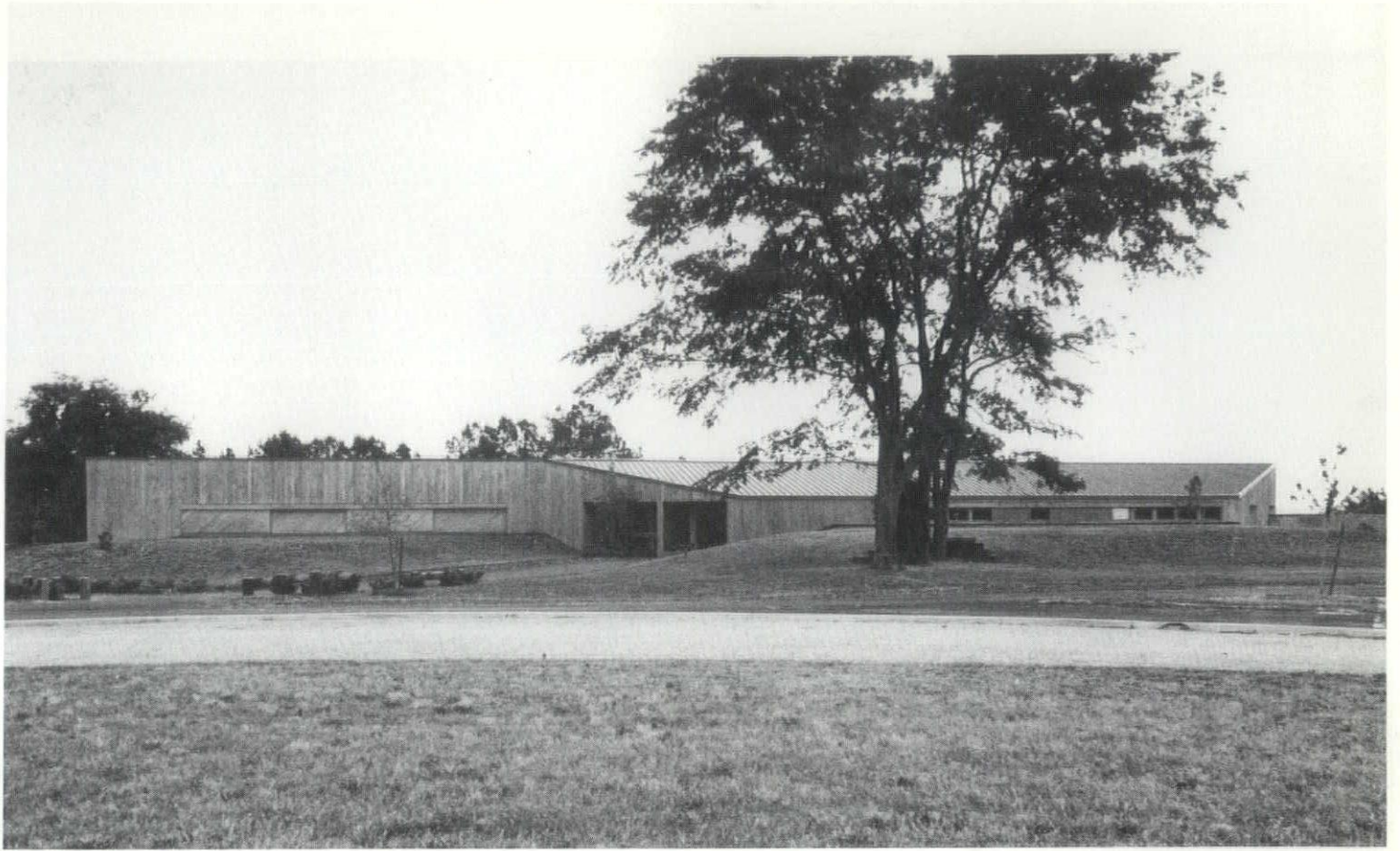
The building was organized on one level under two intersecting shed roofs. The intersection of the shed roofs at the center of the building provide the main public entry and orientation space. The visitor is led by the displays to an exit in the opposite side of the area and a vista of the York River. The low profile of the building, accentuated by earth berms against the walls, the natural wood siding inside and out, and the siting combine naturally with the site and the rural setting. The building can be divided into two separate areas to allow the ranger office to continue operation while the seasonal public spaces are shut down.

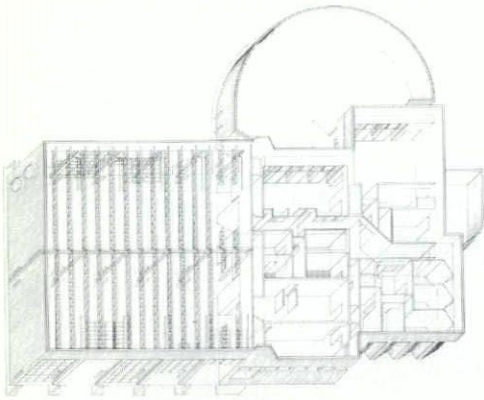
Joseph S. Terrell, Inc. of Williamsburg was general contractor for the project and handled concrete work, handrails, carpentry, millwork, paneling and caulking.

SUBCONTRACTORS & SUPPLIERS

David E. Hooker Construction Corp., Williamsburg, excavating, paving contractor & foundations; Tidewater Nurseries, Inc., Newport News, landscaping materials/contractor; Hall-Hodges Co., Inc., Norfolk, reinforcing; Chisman Concrete, Hampton, concrete supplier; Suffolk Concrete Products, Suffolk, masonry manufacturer; Empire Block, masonry supplier; and Perma-Clad of Georgia, Inc., Doraville, GA and Interior Systems of Virginia, Inc., Chesapeake, roofing.

Also, Lancar Timber Fabricators, Inc., Milford, structural wood; Raleigh Cabinet Shop, Williamsburg, cabinets; Door Engineering Corp., Norfolk, metal doors & frames; Amarlite, windows & storefront; Tile Shop, Hampton, ceramic tile, terrazzo & resilient tile; Shaw Paint & Wallpaper Co., Inc., Hampton, paint & special wall finish; Engineering Steel Equipment Co., Norfolk, specialties; Noland Co., Newport News, plumbing fixture supplier; Williamsburg Mechanical Corp., Williamsburg, heating/ventilating/air conditioning contractor; and Wayland Smith Electrical Contractor, electrical contractor.





Emergency Equipment Station

Shriver and Holland Associates — Architects

Location: Washington National Airport, Washington, D.C.

Project Architect/Designer and Landscape Architect, Shriver and Holland Associates • Site Engineer/Surveyor, Basgler and Associates, P.C. • Structural Engineer, Fraloli-Blum-Yesselman, Inc. • Mechanical/Electrical Engineer, Vansant and Gusler, Inc. • Airport Consultants, Ralph H. Burke Associates • General Contractor, Jonal Construction Company • Photography, Lawrence S. Williams.

SITE PARAMETERS

PROGRAM REQUIREMENTS

The new Emergency Equipment Station (E.E.S.) for Washington National Airport replaced the existing EES facility which was undersized and located in the path of future airport development. The purpose of the new Emergency Equipment Station is to house the firefighters, paramedics, and their emergency equipment in a location on the airfield from which they can respond immediately to both aircraft emergencies on the ground and to structural fires and other emergencies at other parts of the airport.

The site is a flat grassy area surrounded by aircraft, taxiways, ramps, and parking aprons. The critical criteria influencing the development of the building concept were: 1) minimum response time of personnel during an emergency; 2) provisions for a living/office environment within a noisy and highly industrial context; 3) development of a building vocabulary which responds to both the industrial nature of the surrounding facilities and the residential/industrial function of the facility; and 4) an energy efficient building utilizing passive solar principles.

Program requirements consisted of a new 13,654 square foot building complete with employee access road, parking for 25 cars, five double depth equipment bays, hose drying racks and pit, sleeping quarters, kitchen and dining room, training and recreation areas, administrative offices, and an alarm/control room.

DESIGN SOLUTION

Site selection parameters dictated siting of the facility on the airfield southwest of the South Terminal Satellite Building. Site pavement and parking have been designed to permit both aircraft and groundside emergency equipment vehicles to leave the site at high speed simultaneously in two directions.

The unique criteria of locating a living environment in the middle of an airfield resulted in the perception of the building as inward looking, creating an "oasis" within this highly undesirable setting. An ivy covered, landscaped recreation court provides pleasant views from the dining and recreation rooms.

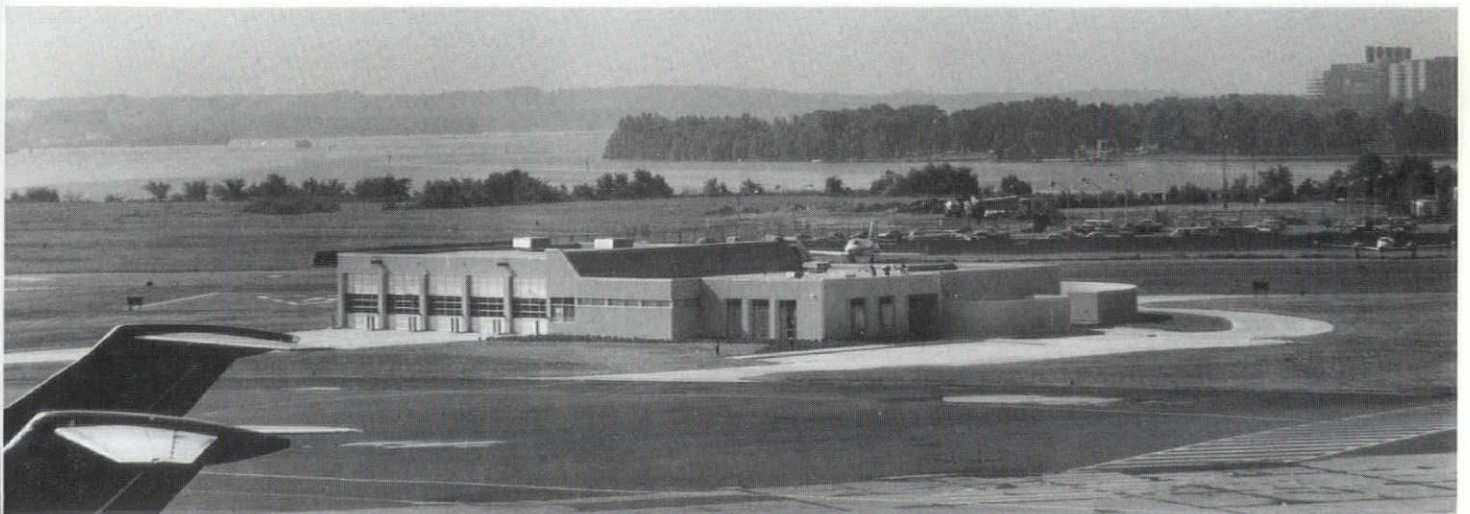
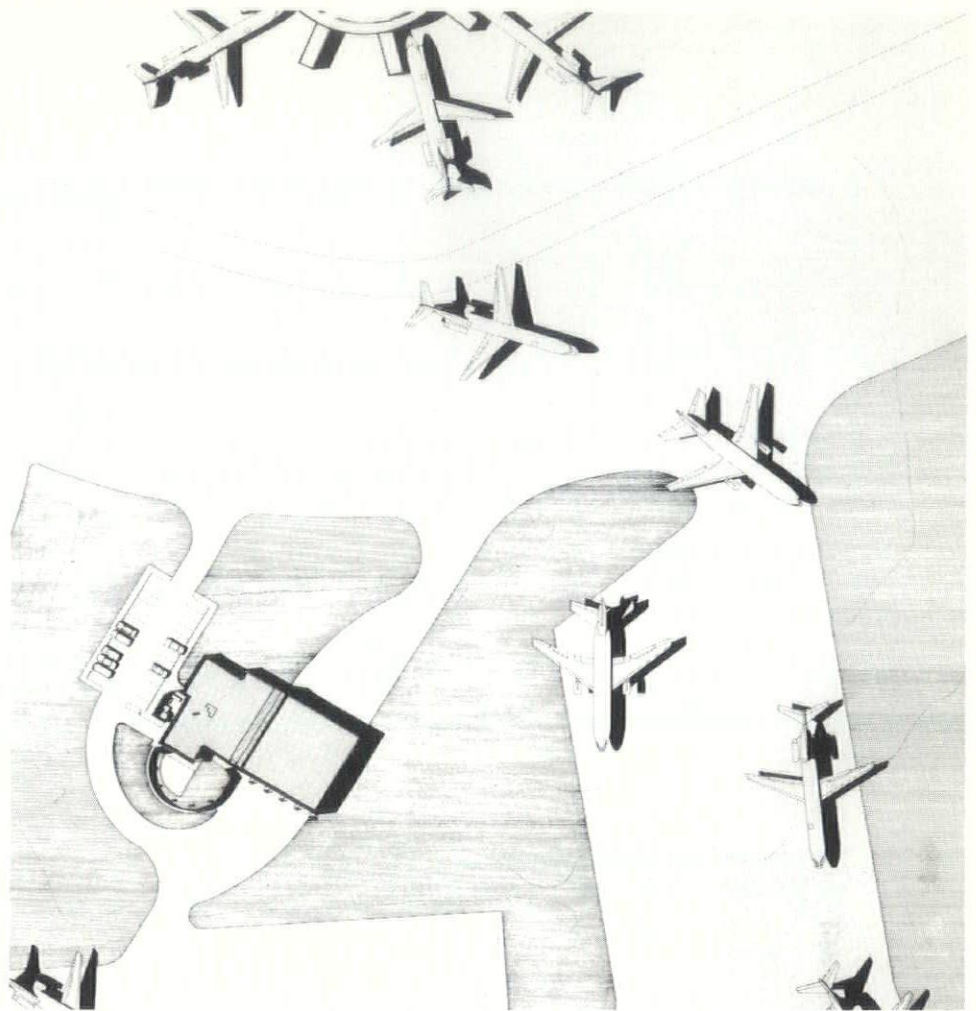
For reasons of economy and speed of construction, the building is constructed of structural



steel framing with metal siding. As future growth of the facility is anticipated, structural steel best facilitates expansion of the equipment bays to the west.

A single story scheme was utilized to minimize the response time of personnel in the event of an aircraft emergency in the following ways: 1) all exit foyers splay open in the direction of travel; 2) equipment bays are straight stacked to reduce travel distance; and 3) the elimination of stairs, level changes or vertical poles reduces the possibility of injury to staff.

Activity areas are separated from the quiet sleeping and office areas by the primary egress corridor leading to the equipment bays housing the emergency vehicles. The equipment bays act as acoustic buffers and have been placed between the aircraft warm-up and take-off areas on the site and the "living area" (offices, sleeping, dining, and recreation). This living area is in turn shielded from the equipment bays by storage areas and the alarm room, which can monitor activities in both the equipment bays and on the airfield.



The sleeping area which may be occupied during the daylight hours is located on the north side of the building where light is most easily controlled. Fenestration is therefore minimal and acoustic glazing is utilized to minimize noise from the exterior. The large living areas (dining and recreation rooms) are south facing with insulating glass to utilize the winter sun for heating, and provided with a three-foot overhang to reduce the solar gain in the summer. The eight-foot-high curved recreation court wall shields the dining area from low west sun, and office windows are oriented to take advantage of the northern light.

The resulting building form is a response to energy, aircraft noise levels, and an industrial vocabulary of building materials. The criteria was also instrumental in the selection of the metal panel building envelope, which was utilized to provide the necessary durability and resistance to the harsh airport environment while blending within the surrounding context of metal panel construction.

Jonal Construction Company of Silver Springs, Maryland was general contractor and handled excavating, paving, foundations, concrete work, steel erection, carpentry, and painting.

SUBCONTRACTORS & SUPPLIERS

Welch Pile Driving Corp., Virginia Beach, piling; Thomsson Steel Co., Beltsville, MD, reinforcing; Virginia Concrete Co., Inc., Springfield, concrete supplier; A. E. Paoletti, Inc., Potomac, MD, masonry manufacturer; Supreme Concrete Block, Inc., Hagerstown, MD, masonry supplier & mortar; Washington Stair & Ornamental Iron Works, Inc., Washington, DC, steel supplier; H. H. Robertson Co., Stockton, CA, steel roof deck & metal siding; The James Myers Co., Inc., Beltsville, MD, roofing & roof insulation; Apache Building Products Co., Linden, NJ, wall & foundation insulation; and Herndon Lumber & Millwork, Inc., Herndon, millwork, cabinets & wood doors.

Also, Tremco Maintenance Service Corp., Cleveland, OH, caulking; Hamiton and Spiegel, Inc., Tuxedo, MD, sheet metal; AAA Thermal Win-

dows and Doors, Fairfax, metal doors & frames; Kawneer Co., Inc., Harrisonburg (Niles, MI), windows & storefront; Builders Hardware Corp., Rockville, MD, hardware supplier; A C and S, Columbia, MD, plaster contractor, gypsum board contractor, acoustical treatment, resilient tile & carpet; Sherwin-Williams Co., Williamsburg, paint supplier/manufacturer; Thomas Somerville, Co., Washington, DC, plumbing fixture supplier; EFX Incorporated, Murkirk, MD, sprinkler/plumbing/heating/ventilating/air conditioning contractor; Interstate Electrical Supply Co., Inc., Fairfax, lighting fixture/electrical equipment supplier; and Ennis Electric Co., Inc., Manassas, electrical contractor.

And, Automatic Sprinkler Corp. of America, Cleveland, OH, fire extinguishing system; Billings & Birkhead, Inc., Crofton, MD, overhead door controls; American Amplifier & Television Corp., Alexandria, sound systems; Simplex Time Recorder Co., Washington, DC, fire alarm systems; and Overhead Door Corp., Lewistown, PA, overhead doors.

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Arboretum Maintenance Facility

Lawrence Cook, AIA & Associates — Architect

Location: Vienna, Va.

Owner, Northern Regional Park Authority • **Project Team:** Larry Cook, Joe Taylor, Joan Thomas, Victor Luz & Francis Wood • **Land-
scape Architect,** EDAW Inc. • **Structural En-
gineers,** Advance Engineer Ltd. • **Mechanical
Consultants,** Brian Ford & Associates • **Elec-
trical Consultants,** Alex R. Perez and Asso-
ciates • **Civil Engineers,** William H. Gordon
Associates, Inc. • **General Contractor,** Doyle,
Inc.

A beautiful 70 acre tract of farmland was donated by Mr. and Mrs. Gardiner Means to the Northern Virginia Regional Park Authority to be developed into an Arboretum over the next several years. The first of several buildings to be constructed at the Arboretum is the central maintenance facility from which the staff will operate. It consists of three parts as shown on the floor plan:

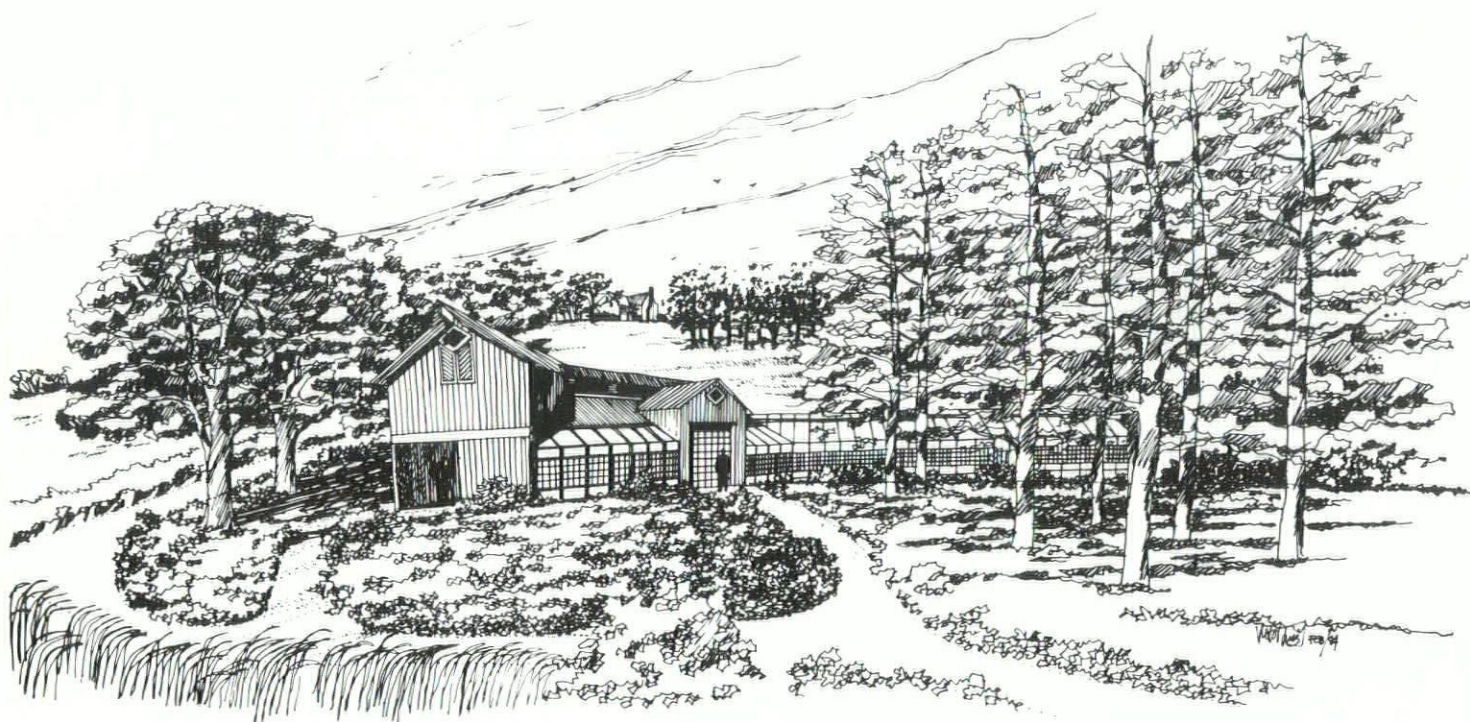
1. The existing 1,200 SF barn which is being renovated to shelter tractors, trucks and heavy equipment on the ground level, and bulk storage on the loft level;
2. The new 2,000 SF building which will provide for the needs of the employees, a greenhouse to germinate seedlings, and secure storage rooms;
3. The future 3,000 SF greenhouse for year round growing.

The floor plan shows four "layers" of spaces related to solar gain: The greenhouse facing due south for maximum solar gain; the employee facilities; the corridor with clerestory light; and the storage rooms on the north side. Mechanical heating by means of a heat pump will be provided only in the employee facilities and work bay. Mechanical cooling will be used only in the office/lounge. Major energy features include the greenhouse with roll down insulating screens, the Trombe wall with selective surface,

and the clerestory with windows and vents. Minor energy features are the self-venting roof, eutectic salt tubes, destratification fans, insulated shutters, earth berm, and reflective gravel beds. The functioning of these various features are explained below by season.

WINTER MODE

During the day the sun heats the greenhouse, the Trombe wall and the eutectic salt tubes. The Trombe wall absorbs and stores solar radiation. A small recirculating fan moves the excess heat from the greenhouse into the occupied spaces. At night the screens are pulled down to lessen the rapid loss of heat from the greenhouse. The south facing side of the Trombe wall is coated with a selective surface of black film which increases absorption of solar energy and also causes the wall to transmit heat inward by reflecting outward radiation. The Trombe wall releases about two-thirds of its stored heat to the employee spaces and one-third to the greenhouse, thus preventing night freezing. The eutectic salts absorb solar heat during the day and release it at night through a phase change process from liquid to solid. Tubes of eutectic salts are approximately three times as effective as the Trombe wall per equal surface area. The interior spaces also receive some direct gain of solar heat through the clerestory windows. The destratification fans return the hot air which rises into the clerestory space. The earth berm insulates the north wall.



SUMMER MODE

The greenhouse vents are opened for the season allowing a continuous flow of air which greatly improves plant growth while preventing the space from overheating. The sunscreens are kept down on sunny days to reduce excessive sunlight which causes unwanted heat gain and burns the plants from over exposure. The Trombe wall assists in summer cooling by shedding heat at night as cooler air moves across the wall. The following day the Trombe wall absorbs heat out of the space. The clerestory vents release excess heat day and night. Heavy cooler air enters through windows, forcing the lighter warm air to rise and exhaust through the clerestory vents. The roof vent system reduces the highest roof temperatures above the roof insulation by about 30°F on a sunny afternoon.

Daylighting is provided through the clerestory windows which allow winter sunlight to shine both directly and reflectedly into interior spaces. The partitions are open above the 8'-0" wall height. The occupied spaces are also daylighted through windows and glass block facing into the greenhouse. Beds of light colored gravel along the south and north walls greatly increase daylighting through diffused exterior reflection.

MATERIALS

For the structural shell, exposed concrete block was selected for solar storage mass, durability,

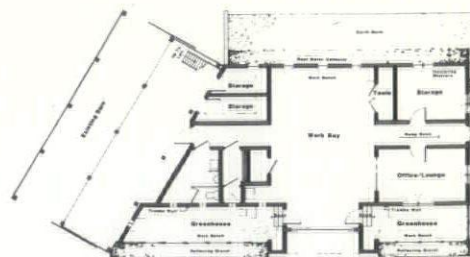
minimal maintenance, and economy. The exterior of the shell is wrapped with 2" rigid insulation board and sheathed with wood board and batten to match the existing barn. The floors are exposed concrete. The attic and roof are standard wood framing, sheathed with plywood, and clad with inexpensive sheet metal farm roofing. The greenhouse and oversized garage door are custom built from standard dual glazing components including operable windows below the growing shelves and top vents. All windows are operable for natural ventilation, dual glazed to lessen heat transmission, and covered with interior insulated shutters.

The owner's requirement of low "life cycle costs" is met by minimal energy consumption year round, low maintenance costs over long and short terms, and a reasonably low initial cost.

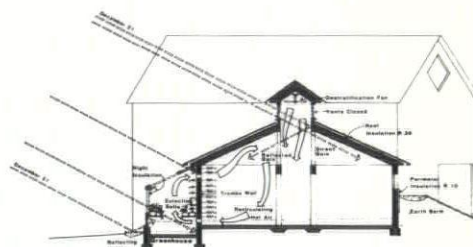
Doyle, Inc. of Alexandria is general contractor for the project.

SUBCONTRACTORS & SUPPLIERS

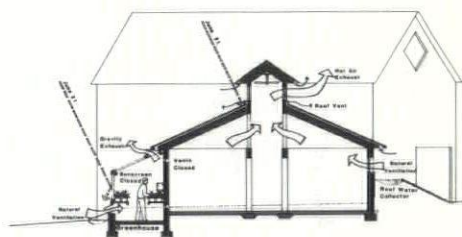
Ivan Dutterer, Hanover, PA, millwork; Merkli & Lester, Inc., Haymarket, water & sewer utilities; Innamorato Construction Corp., Alexandria, masonry; James A. Cassidy Co., Beltsville, windows; Mona Electric, Clinton, MD, electric; and Brown & Decatur Plumbing & Heating, Inc., Manassas, plumbing.



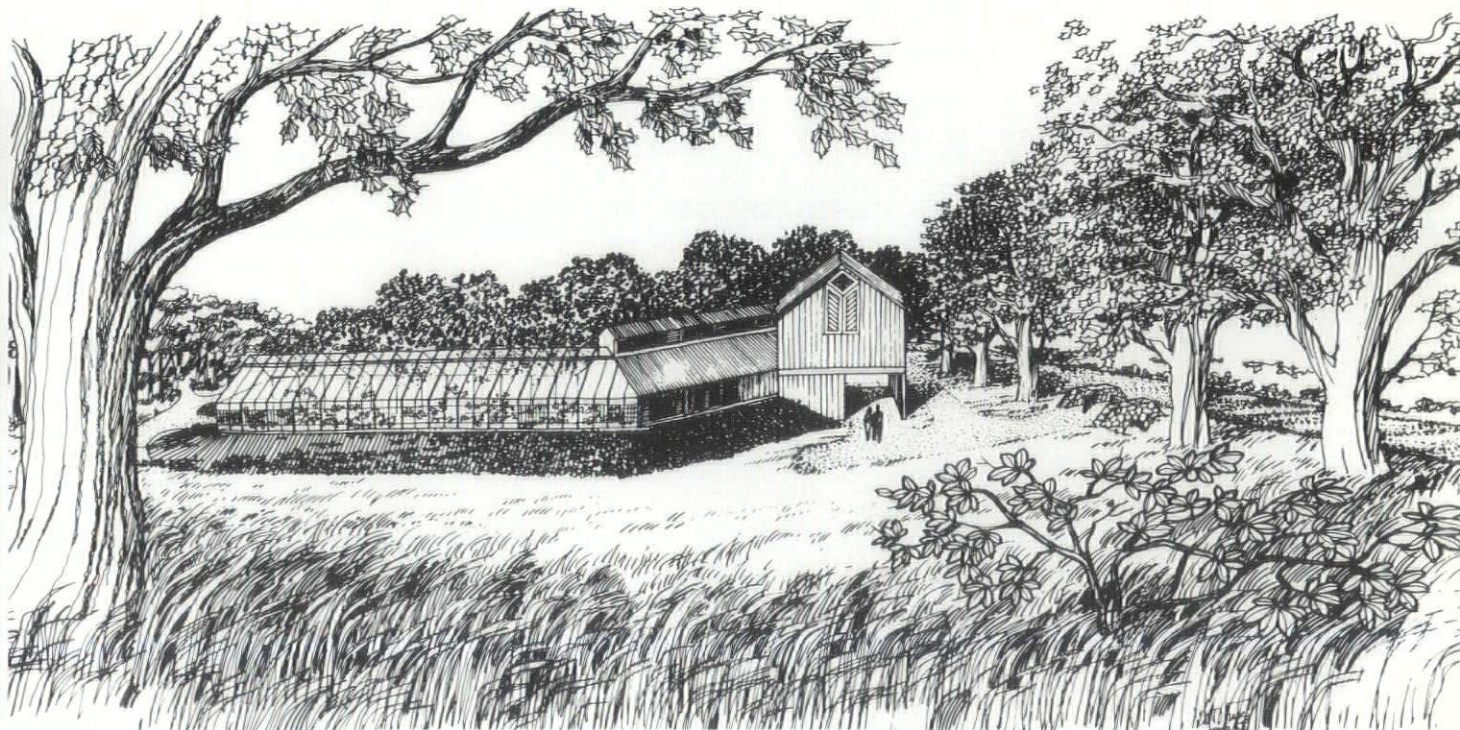
Floor Plan



Winter Section



Summer Section





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Arboretum Maintenance Building
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Public Safety Building & Information Center

The Design Collaborative — Architects

Location: Old Dominion University, Norfolk

Project Architect, Richard J. Fitts, AIA • **Mechanical/Electrical Engineer,** Old Dominion Engineering • **Structural Engineer,** Stroud-Pence & Associates, Ltd. • **Soils Engineer,** ATEC Associates of Virginia, Inc. • **General Contractor,** Forterra Corporation • **Photography,** Edward G. Lazon, AIA.

This 3,200 square foot building replaces the outmoded Public Safety Building of 800 square feet which was erected during the '50s. It fulfills the function of a Campus Information Center as it is a place visitors pass through when they arrive on campus. It is the building that represents Old Dominion University to the newcomer and the first-time visitor, so it had to harmonize with the rest of the campus. The exterior materials are red brick and cream-colored synthetic stucco, chosen to match the nearby new Administration Building.

The building is expected to save 50% on energy bills through passive solar heating and natural daylighting. It is designed so that all the habitable spaces get south light. Clerestory windows above the roof bring light into the center of the building. Most of the offices are on the south side of the building, with less frequently used rooms on the north, such as the bathrooms, janitor's closet and locker rooms. Enough natural daylight is provided by the sun so that electric lights are not necessary, except at night and on extremely cloudy days. Much of the heat is provided by direct solar gain. Brick walls and tile floors act as thermal mass, retaining and releasing heat into the rest of the building. Because the building is in use 24 hours a day, the occupants receive natural heat from this thermal mass as it is slowly released into the interior spaces for several hours after the sun has set.

Materials and equipment were selected for low maintenance as well as initial cost and appearance.

There was a problem with the soil, mainly composed of junk fill, which required some "Yankee ingenuity" on the part of the engineers. Sinking fifty-foot pilings would have been very expensive, so the structural engineers proposed excavating a five-foot pit, lining the pit with a



synthetic mesh known as "geotechnical fabric," backfilling the pit with compacted sand, and placing conventional spread footings on the sandfill. The geotechnical fabric provides stability by keeping the sand from filtering through into the inferior soil, thus providing a firm foundation.

The new building has inspired many favorable comments from visitors and employees alike, but perhaps the most favorable result of its being there was to inspire Sid Roberts, Professor of Mechanical Engineering at ODU, to establish and direct a program of energy monitoring for the building, on which one of his students is writing a Master's Thesis. Professor Roberts said of the project: "We are attempting to make the space a living laboratory to study energy flows," and he enumerated some of the various types of devices—about 30 sensors in all—which were installed to measure the temperature of the air, envelope surfaces, etc. both inside and outside the building. One instrument, called a pyranometer, measures "solar flux" throughout the building. The goal of all this measurement is to determine ways to make the passive solar building more efficient by learning how to "use" it better. Until there are actual

measured loads for energy assessment of a building, estimated loads are used, based on statistics of similar buildings under similar conditions. Because the new Public Safety Building is in use 24 hours a day, they want to determine heating and cooling loads for any given time of the day or night under many different conditions. "We want to keep people comfortable," said Roberts, "but in a way that minimizes the use of bought fuels."

This is the first state-owned building that has the potential of proving the extent to which various features of passive solar design work to save energy.

Forterra Corporation of Virginia Beach was general contractor and handled reinforcing, miscellaneous metal, waterproofing and foundation insulation.

The owner, Old Dominion University handled sodding, seeding, etc., landscaping, carpeting, paint and painting.

SUBCONTRACTORS & SUPPLIERS

Virginia Beach firms were: Dozier Enterprises, Inc., excavating; Sadler Materials Corp., con-

crete supplier; Creative Structures, carpentry; The Shed, millwork & cabinets; Insulation Service Co., wall insulation; Byler Plumbing Co., plumbing contractor; and Eagle Electric Corp., electrical contractor.

From Norfolk were: W & M Masonry Contractors, Inc., foundations & masonry contractor; Addington-Beaman Lumber Co., Inc., structural wood & wood doors; Glass Corp., glass & glazing contractor & storefront; Ferrell Linoleum & Tile Co., Inc., resilient tile; Electrical Suppliers, Inc., lighting fixtures supplier; and Noland Company, electrical equipment supplier.

Chesapeake firms were: Oliver Jacobs Construction, concrete contractor; Hitech Roofing Services, Inc., roofing; Chesapeake Door & Hardware, metal doors & frames; Mid-Atlantic Supply, Inc. of Virginia, windows; Chesapeake Door & Hardware, hardware supplier; Charlie Jones, Inc., plaster contractor & gypsum board contractor; and Aircon Ltd., heating/ventilating/air conditioning contractor.

From Portsmouth were: K & P Caulking & Window Cleaning Co., caulking; and Interior Specialty, acoustical treatment.

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'Images'

by Ralph Snell, AIA

"Lawyers are ambulance chasers . . ." "Politicians are crooks . . ." "Used car dealers are swindlers . . ."

Images, images. But what's the image of the architect?

Take a look at "the architect" in pop culture:

In the movies, Paul Newman played him as the valiant fighter of towering injustice (contractors).

In the TV advertisements, she plays basketball while her computer churns out perspectives and bubble diagrams.

In the novel that's required reading for any young architect, he's the gifted artiste turned arsonist.

In the magazine ads, he's sending out drawings by overnight carriers because he's obviously missed a deadline.

On television, he's the dizzy fellow with a talking horse.

It's a confusing mass of images to sort through.

But what are architects really like? What do architects really do? How do we tell the real story?

To help you all out I've taken the liberty of developing a concept for a weekly television series about architects. Now, I don't see it as some dry documentary series hosted by someone with a snooty British accent. And I don't see it as an epic mini-series (isn't that a contradiction?) tracing generations of architectural lineage. And it's not quite an hour-long nighttime soap about who's sleeping with whom at the office.

Obviously then, it's a sitcom.

How's this:

An associate professor of architecture at the University has decided to get back in touch with reality—away from the fantasy world of a college campus—to go back to work in an architect's office, in fact, to go back to work in the office where he did his apprenticeship 10 years ago.

It's entitled "Back to the Drawing Board."

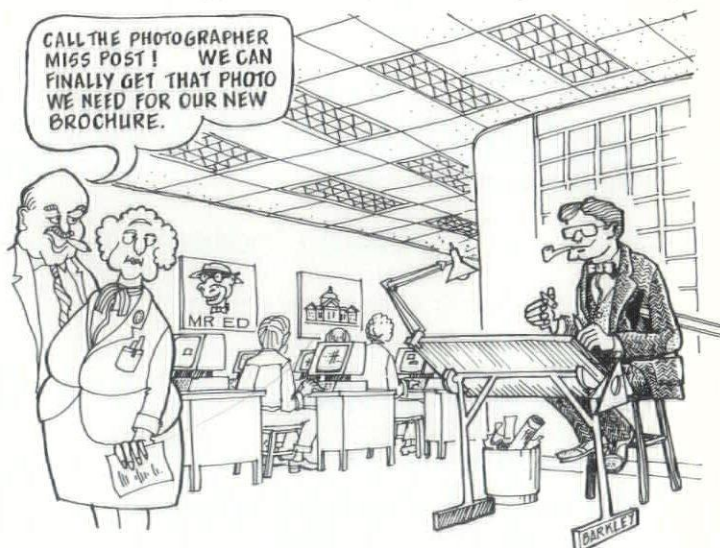
A few words about the opening sequence. You know, when they roll the credits—title, stars, etcetera, and play the catchy theme song. (Maybe we can get Maureen McGovern to do it.) Anyway, the opening shot is of your typical ivy-covered collegiate-Gothic type building. In rapid sequence, we see our hero (flash: "Timothy Bottoms Starring In" [in Helvetica Medium]) standing before a class of students in the design studio suddenly capping his felt tip and running out of the building. The next picture has him getting

off an elevator, and looking satisfied as he gazes at the firm's name and logo etched on the glass wall ahead. He pushes open the mullionless glass door and stands before the receptionist (sitting in front of a fully saturated blue wall, at a rosewood desk adorned only with a bowl of violets and a nail file) and looks satisfied. Next he's in the drafting room (flash title: "Back to the Drawing Board"). Next we see more rapid sequence shots (flash: "Also Starring") of each of the continuing characters. Finally, we see a picture of our hero standing in the drafting room suddenly capping his felt tip, and looking satisfied. Cut to commercial.

Our hero needs to be someone who can look boyish, bookish, professorish, and appropriately architectural. He'll wear wire rim glasses, jeans, tweedy jackets with suede patches on the elbows, and shirts of a fully saturated blue color. His name? How about Todd Logan?

Our show needs to be set in a college town, preferably one that hasn't been featured in a TV sitcom before. Maybe Charlottesville. Or Ithaca. Or Columbus.

Cincinnati would have been perfect—a funny sounding name, Northern—too bad it's already been featured in a sitcom. So have Boulder and



UPON HIS RETURN TO PRIVATE PRACTICE, PROFESSOR TODD LOGAN BROUGHT TO HIS NEW ARCHITECTURAL FIRM AN IMAGE THEY HAD LONG SOUGHT.

Minneapolis. And Lawrence was nuked. Our opening credits wouldn't ring true if we used Charlottesville or Ithaca. They don't have elevators, do they? So Columbus it is.

How about our supporting cast? The principal in the firm has to be a gruff, but lovable, type. We need a sexy receptionist. And some intense young designer. And a Brazilian woman architect with half-interest in a turquoise jewelry boutique. And maybe some former students. How about if we make one former student our hero's supervisor—a former student to whom he had given a particularly difficult time. That should be good for some plot complications.

PLOT, oh gosh, I forgot about that. We could certainly develop some storylines around:

"The Deadline"—A thirty-five million dollar job has to go out next week. It's about time we started it or at least started figuring out how we can get an extension. (Perhaps this could be a two-parter.)

"The Brochure"—Everyone runs around yelling, "We gotta get us a better brochure!"

"The Job Visit"—The contractor tells our hero he will cut a new piece of tempered glass right now. Our hero smiles—he caught the contractor pulling a fast one—he knows that nothing gets done "right now."

"The Model"—The glue won't stick, the cars are the wrong scale, and someone is attacking a Schefflera to decorate the landscape.

"The Résumés"—It's May. The office tries to guess how to put together the résumé that arrived designed like a jigsaw puzzle.

"The Consultant"—The mechanical/electrical engineer is late. No wait, perhaps this could be a continuing theme through our series.

"The Cost Estimate"—someone is busy doing a detailed area take-off. It's come out differently 17 times. Someone else is inflating a 1958 cost estimating guide. The calculator only has room for seven figures.

About what the residuals might be, don't you think?

END

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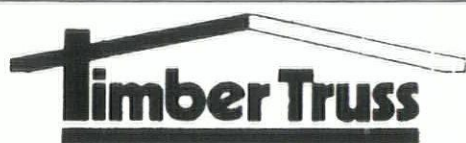
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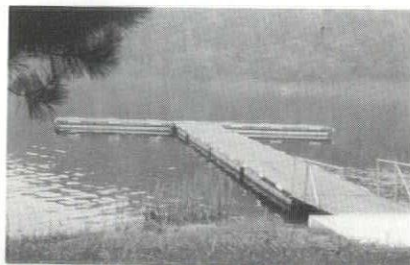
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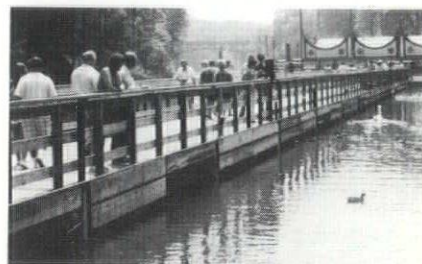
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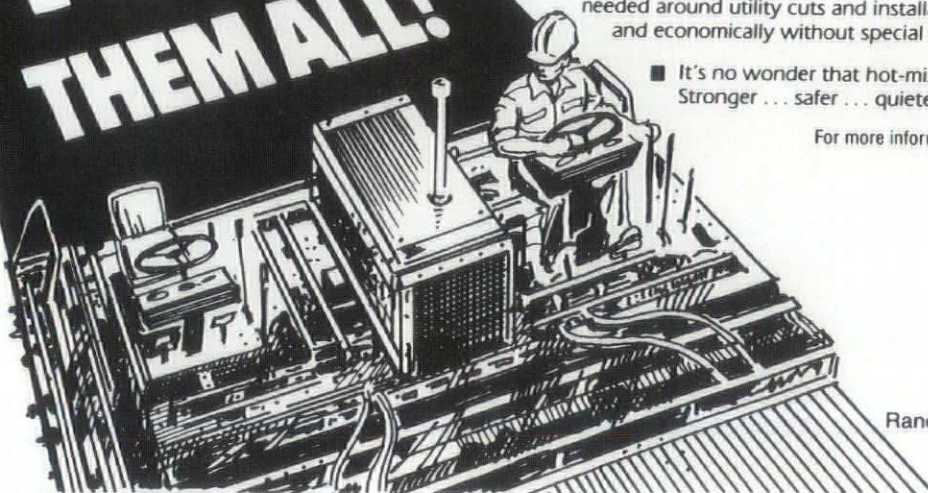
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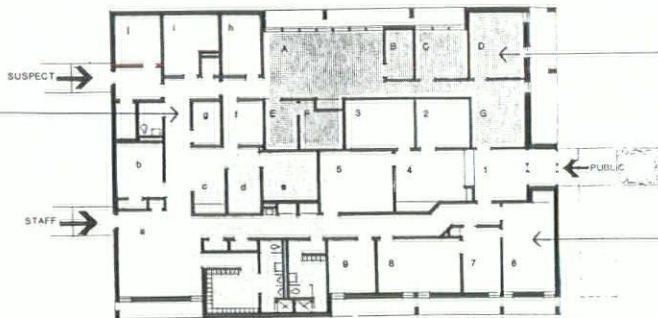
Police Department Building

Smithey & Boynton — Architects

Location: Blacksburg

Structural/Mechanical/Electrical Engineers,
Smithey & Boynton • General Contractor,
Creative Construction & Development Corp.
• Photography, Smithey & Boynton.

UNIFORM SECTION
a Assembly
b Sergeant
c Processing
d Secretary
e Lieut
f Interrogation
g Breathalyzer
h Evidence Storage
i General Storage
j Holding



INVESTIGATIVE SECTION

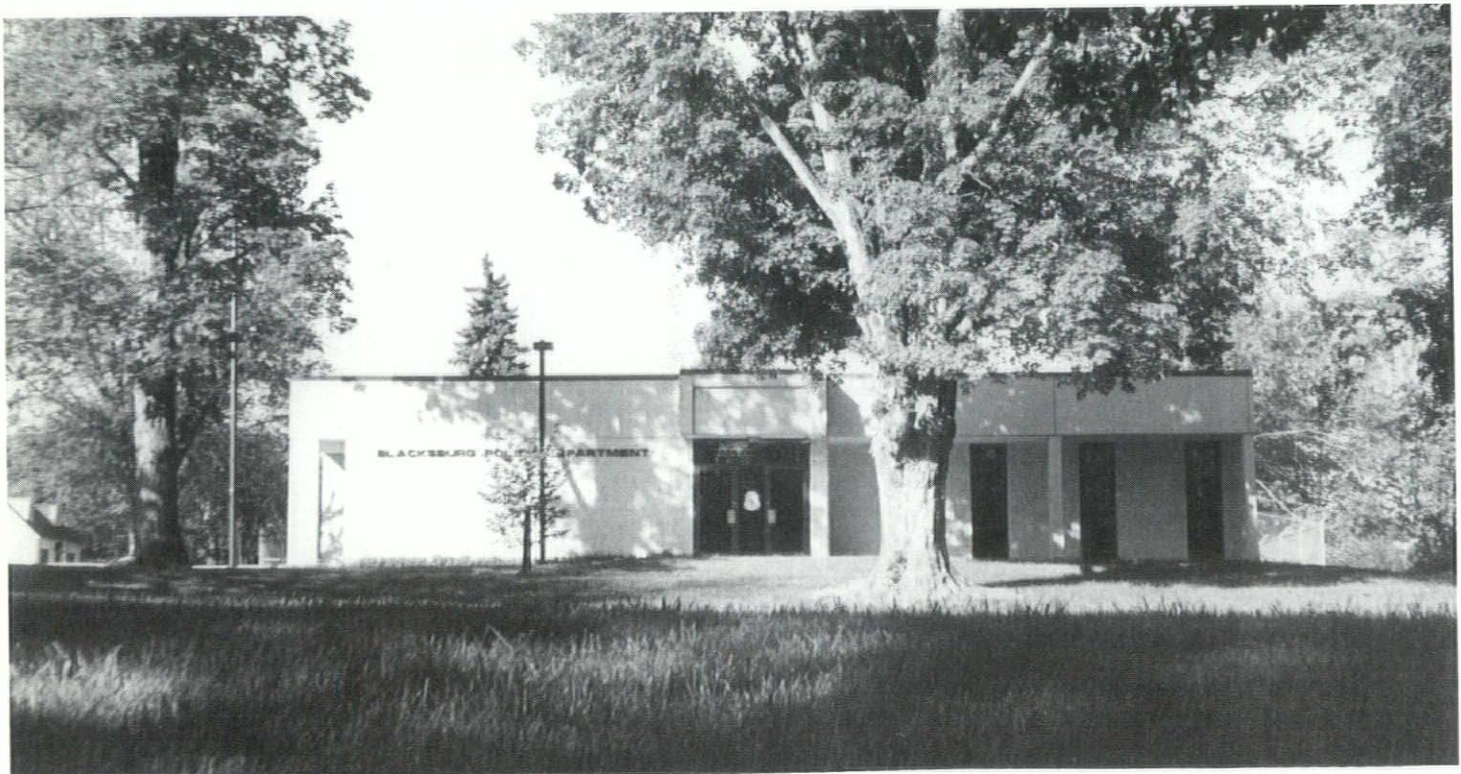
A. Detectives
B. Polygraph
C. Sergeant
D. Lieut
E. Evidence Off
F. Lab
G. Secretary

ADMINISTRATIVE SECTION

1. Public
2. Sergeant
3. Records
4. Complaints
5. Dispatchers
6. Chief
7. Secretary
8. Conference
9. Lieut

The new, one-story Police Headquarters building was part of the recent Capital Improvement Program for the Town of Blacksburg, which also included a new Community Recreation Center, Additions to Fire Station #1 and alterations to the Municipal Building. Formerly occupying a limited space in the basement of the Municipal Building, the police department was moved to a separate facility across Draper Road from the Municipal Building as a terminating element of an existing mini-park which links the two buildings.

The headquarters building, containing 6,700 square feet, is arranged to furnish ample space for the internal tasks of each of the three sections—Administrative, Investigative and Uniform—and at the same time, permit convenience of interaction between these sections. Suspects are "booked" at the station, but are not detained, as no cells are provided. If detention



becomes necessary, the prisoner is transported to the county detention facility at Christiansburg, eight miles distant. Careful attention was given to the separation of the processing and interrogation of suspects from all contact with the public. The public's use of the building is generally limited to the lobby, the chief's office and the conference room. Complaints are registered from the lobby over a counter with bullet-resistant glass separation.

Just beyond the complaints room is the communications center/dispatchers area, which represents the nerve center of the station. A glass wall between the two rooms allows night-time supervision of the lobby by the dispatchers, permitting some reduction in staffing. The communications center has convenient access from the uniform section, from which there is heavy traffic.

Located in a buffer zone between commercial and residential areas, the new building presents to the town a modern, efficient facility to house its law enforcement personnel. Quick vehicular access to all traffic arteries is possible, with Main Street only 1½ blocks away. Anticipating the future growth of the municipality, provision was made for a later second floor addition to the building.

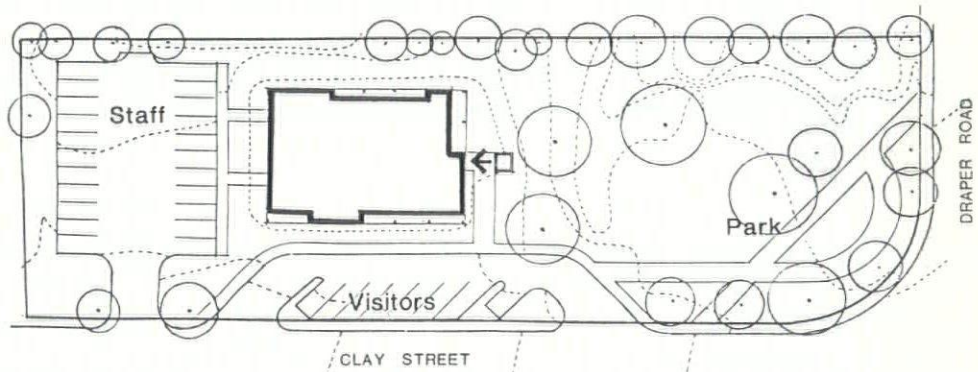
Creative Construction & Development Corp. of Roanoke was general contractor and handled masonry work, roof and wall insulation, and caulking.

SUBCONTRACTORS & SUPPLIERS

(Roanoke firms unless noted)

Anchor Construction Co., Newport, excavating; Valley Steel Corp., Salem, reinforcing; Architectural Concrete Products, Inc., Daleville, precast concrete supplier; Lynchburg Steel & Specialty Co., Monroe, steel joists; Leonard Smith Sheet Metal & Roofing, Inc., Salem, built-up roof & sheet metal; McClung's, Salem, millwork & wood doors; and Diamond Glass Corp., Salem, glass, glazing contractor & windows.

Also, Seybar, Inc., Martinsville, hardware supplier; A & H Contractors, Inc., plaster contractor, gypsum board contractor & acoustical treatment; DeHart Tile Co., Christiansburg, ceramic tile; Discount Carpet Center, carpet; C & B Painting & Decorating Co., Pound, painting contractor; Lee's Lines Ltd., specialties; Bud Weaver Heating & A/C Co., plumbing/heating/air conditioning contractor; and Alvis Electric, Inc., Christiansburg, electrical contractor.



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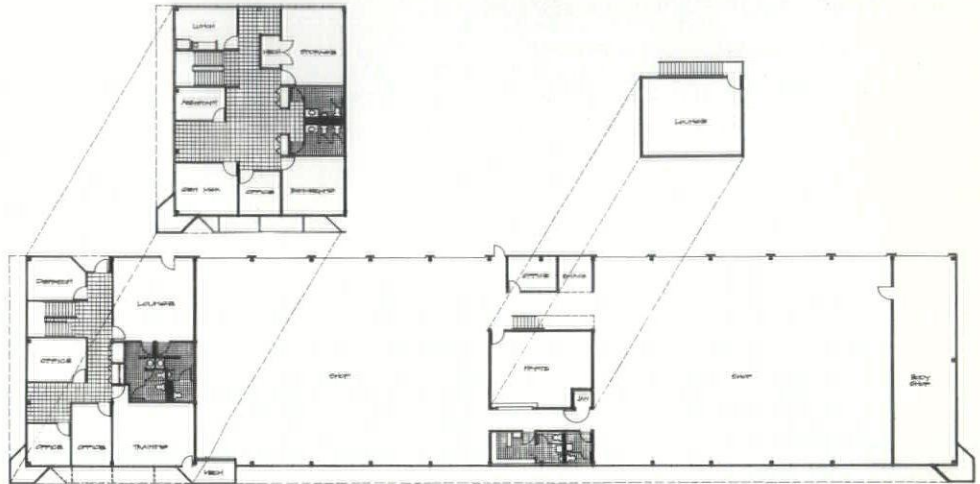
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ARA Services

Walsh Ashe Associates, Inc. — Architects

Administrative Offices and Maintenance Facility • Location: Norfolk

Project Architects, Michel Ashe, AIA and Charles E. Heilig, III, AIA • **Landscape Architect,** Edward G. Carson & Assoc., Inc. • **Site Engineer/Surveyor,** Engineering Services, Inc. • **Structural Engineer,** Ablouness, Cross and Bradshaw, Inc. • **Electrical/Mechanical Engineer,** Old Dominion Engineering, Inc. • **General Contractor,** Nical Construction, Inc. • **Photography,** Huffman Studio.



PROGRAM

Administrative offices and maintenance facility for the 200 bus fleet of ARA Transportation, provider of public school bus service for the City of Norfolk, on a flat 7.8 acre site in a large industrial park.

DESIGN

Continuous glazing, shielded from the sun by a deep overhang on the west and south elevation, wraps around the administrative offices, driver training center and drivers' lounge clustered together on two floors at the west end of the building. Double-height shop areas, each containing five maintenance bays are located on each side of a service core consisting of parts supply toilets, offices and snack area. A lounge is located above the parts supply. A continuous clerestory window provides natural light over the maintenance area. A standard steel frame encloses the 20,000 square foot facility and is clad with two different configuration metal panels. Deep rib corrugated siding is used on the corner elements and overhanging cornice to establish the overall form of the building in the flat landscape. Flat metal siding is used as background surface continuing the plane of the continuous glazing.

A small decorative element, painted ARA corporate orange, identifies the administrative block from the street and acts as a sunscreen for the glazing in the first floor administrative area.

Nical Construction, Inc. of Norfolk was general contractor for the project.

SUBCONTRACTORS & SUPPLIERS (Norfolk firms unless noted)

Winn Nursery, Inc., landscaping materials & landscaping contractor; Rea Construction Co., paving contractor; J. M. Briggs, Inc., Va. Beach, concrete contractor & concrete placing; Hall-Hodges Co., Inc., reinforcing; Sadler Materials Corp., concrete supplier; Snow Jr. & King, Inc., masonry supplier; Norfolk Iron & Wire Works,

Inc., steel supplier; Roof Engineering Corp., built-up roof; Door Engineering Corp., metal doors & frames; and Walker & Laberge Co., Inc., window wall.

Also, J. D. Wells, Inc., Va. Beach, gypsum board contractor; Bay Tile & Carpet Co., Portsmouth, ceramic tile; Colonial Painting Co. of Tidewater, Inc., Va. Beach, painting contractor; E. B. Sams Co., Inc., plumbing contractor; Baker & Co., heating/ventilating/air conditioning contractor; Todd Electric Co., electrical contractor; Ordway Construction Co., Inc., Va. Beach, site utilities; Powell-McClellan Lumber Co., Inc., lumber;

Jones & Frank Oil Equipment Corp., fuel oil & gas tanks; Paul C. Applewhite Corp., concrete finish; and Lone Star Cement, Inc., precast drain supplier.

And, Addington-Beaman Lumber Co., Inc., lumber; Whitlock Brothers, Inc., tool rental; Griffin Cement Contractor, concrete forming; Hercules Fence Div., Aluminum Specialties Co., Inc., chain link fence; Montgomery Doors, Inc., overhead door supplier; Engineering Steel Equipment Co., bathroom partition; and Mechanical Equipment Applied Systems, Inc., mechanical supplier.

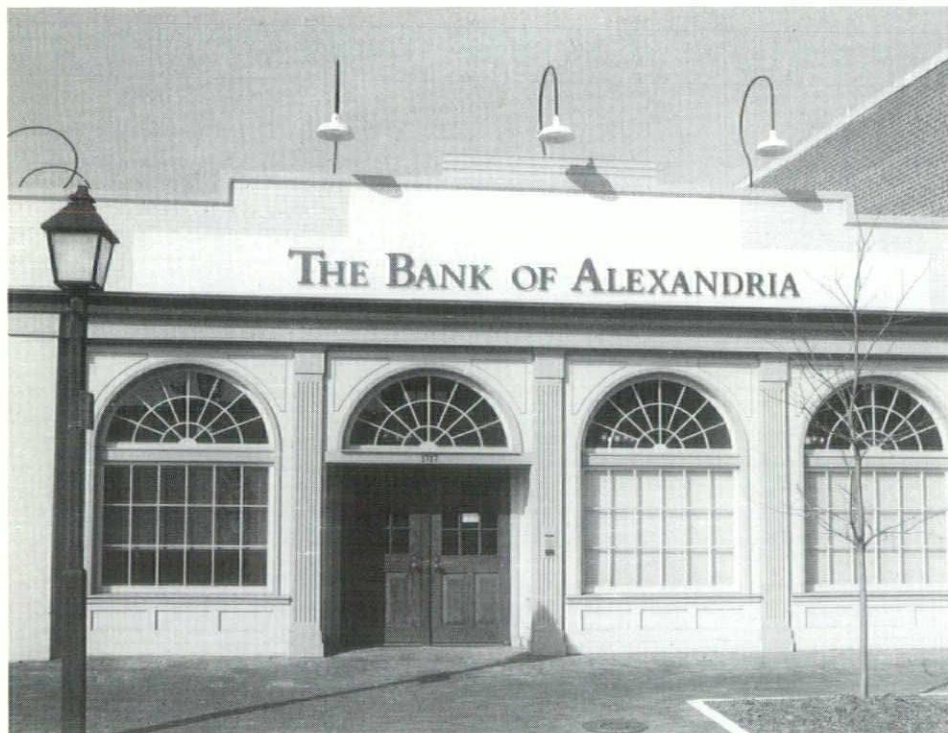


The Bank of Alexandria

Brown, Donald, LeMay & Page — Architects/Planners

Location: Alexandria

**Project Architect/Designer, Walter A. Brown/
Scott W. Sterl • Interior Design, Top Recker •
Mechanical Engineer, Leland D. Eisenhower,
Ltd. • General Contractor, A & R Construc-
tion Co., Inc. • Photography, Douglas
Brewer.**



The Bank of Alexandria, chartered in July of 1982, has located its first facility in the renovated storefront building previously occupied by the Western Auto Supply Company on King Street in Alexandria. The Victorian influenced design of the public spaces of this 5400 sq. ft. building features the reuse of the existing pressed metal ceiling, and the installation of hardwood raised paneling and mouldings, etched glass, marble counter tops, paddle fans, light fixtures and reproduction brass hardware.

PROJECT PROGRAM

Four basic activity areas were defined in the program presented by the owner: Customer Service (tellers, automated teller machine, check writing desk, etc.); Customer Assistance (new accounts, safe deposit, etc.); Loan Processing; and General Operations (office space, employee lounge, storage, etc.). Time and programming constraints required a fast-track approach to construction, therefore the project was divided into three phases. Phase One consisted of the demolition work and the construction of the new vault. Phase Two involved the complete remodeling of the interior space and exterior facade. Phase Three was comprised of the interior millwork package. The fast-track construction process resulted in the construction being completed within the time frame established by the bank.

PROJECT SOLUTION

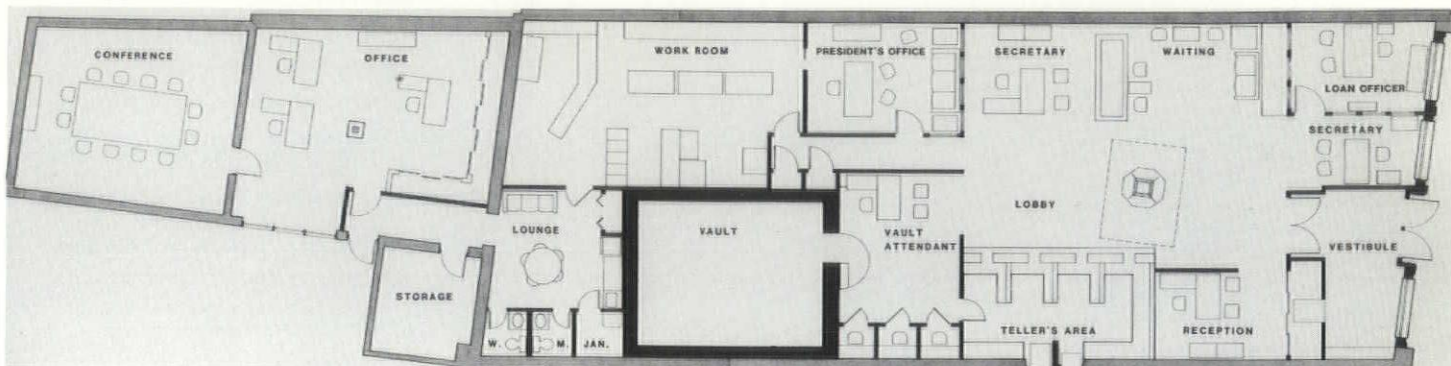
The building shell was structurally sound and offered column-free space with a ceiling height of approximately 13'-0" within which the programmed spaces were organized.

The existing pressed metal ceiling was preserved in all the public spaces of the building.

A decision was made to separate the office areas adjacent to the main lobby with window sections to express the three dimensional spatial qualities of the area and to maintain a feeling of openness.

A complete insulation package was added to the building envelope and a new multi-zone gas-fired HVAC system was installed. Reversible paddle fans were located along the south-facing front offices and entry, to help counter the stratification in the high ceiling areas.





Office and general work areas are lighted with fluorescent fixtures while the lobby, entry and front offices are lighted with incandescent chandelier and combination chandelier/paddle fan fixtures. One of two original 5'x11" skylight openings was reopened to bring additional natural light into the interior lobby space. Artificial lighting is also supplemented by the natural light from the large south-facing glass area in the building's south facade.

Exterior design consists of repair of existing elements on the west and north facades and the installation of a large glass panel providing daylight to the previously windowless rear office areas. The west facade parapet was modified to recall the form of the existing parapet on the south facade.

The south (street) facade was totally redesigned. Existing glass storefront and recessed glass entry doors were replaced with a series of wood and glass arched windows located within the framework of the existing cast stone facings. Applied fluted wood pilasters and mouldings, with stained hardwood raised panel entry doors, complete this design treatment.

A graphic design recalling the arched forms of the street facade was painted on the highly visible west facade. These arched forms incorporate the drive-up automatic teller machine and the night depository which are under a protective bullnose canvas canopy.

Applied metal signage is located in a recessed stucco panel on the south facade and on brick on the west facade. Both signs are lighted by RLM fixtures on curved metal stem supports.

A & R Construction Co., Inc. of Leesburg was general contractor and handled carpentry and gypsum board work.

SUBCONTRACTORS & SUPPLIERS

Multi-Con, Inc., Silver Spring, MD/Springfield, concrete contractor & reinforcing; Hallmark Iron Works, Inc., Newington, miscellaneous metal; Alonzo Ours, Jr., Manassas, built-up roof; J. B. Eurell Co., Beltsville, MD, roof insulation; Congressional Cabinet, Gaithersburg, MD, millwork & wood doors; Canac Cabinets, Spring-

field, cabinets; Dulles Glass Co., Inc., Manassas, glass; Lamar & Wallace, Inc., Landover, MD, window wall; W. T. Weaver & Sons, Washington, DC, hardware supplier; Southern Floors & Acoustics, Inc., Manassas, special flooring; Consolidated Plumbing Service, Inc., Fairfax, plumbing contractor; Paige Corp., Fairfax, heating contractor; Alexandria Lighting & Supply, Inc., Alexandria, lighting fixtures supplier; and National Electric, Inc., Fairfax, electrical contractor.

Also, Diebold, Inc., Bethesda, MD, bank equipment & security system; Marble & Tile Works Co., Inc., Rockville, MD, marble supplier & installation; Supreme Fan, Rockville, MD, ceiling fans; Wasco, Sanford, ME, skylight manufacturer; Washington Canopies, Hyattsville, MD, canopy; Victorian Glassworks, Kensington, MD, etched glass; Accurate Alarm Service, Alexandria, security system; Fleet Care, Inc., Springfield, brick and wood cleaning; and R & R Venetian Blinds, Inc., Alexandria, window coverings.





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Holle, Lin & Shogren, Architects, P.C.

Location: Washington, D.C.

Partner-in-charge, Henry C. Holle, AIA • Project Architect, Robert Bruce Shogren, AIA • Consultant Architects, Smith & Williams Group/Wayne R. Williams, FAIA • Owner, Washington International Associates, an affiliate of I.D.I. and Hilton International Co. • Structural Engineers, Dragan-Areng Associates/Peter Dragan, P.E. and Veljo Areng, P.E. • Consulting Engineers, GHT Chartered, Ltd./Thomas Roach, Project Officer • Interiors—Ballrooms, Function Rooms Restaurants, Guestroom—Graham-Solano, Ltd./John Graham, Joe Morello, Project Manager • Special Suites/Interiors by Hubert de Givenchy • Lighting Design, Wheel & Gersztuff Associates/Lesley Wheel, I.A.L.D. • Fire Protection Rolf Jensen & Associates, Inc./William A. Webb, P.E., Joseph L. Scheffey, Project Manager • Surveyor, John J. Allen Associates/Al Savage • F.F. & E. Contractors, International Design Contractors/John Futch • General Contractors, Majestic Builders Corporation/Charles J. Damron, Construction Manager, and Dave Bunnell, Superintendent • Photography, Bob Bennett.

The site would have been problematical for an office building, a 12-story building across a 30 foot wide alley to the rear, blank walls of similar height to either side, and a maximum allowable height of 130'. And yet, the 27,000 s.f. lot supports, in 14 stories, 420 rooms, several restaurants, meeting rooms, lounges, a ballroom for 700 persons, and all the back-of-the-house facilities as well as parking, that together translate into the programmed four-star hotel.

The solution was an atrium by necessity, the desired effect the ambience of an elegant urban square with a definite American flavor. By contrast, the exterior is stark. The dominant features of the facade are two concrete towers framing a 5,000 s.f. window. Differing from other designs, most of the hotel's windows face the atrium turning the view to the inside, while corridors are located along the exterior wall. However, the building is still related to the street. The southern sunlight passes through the atrium and large window to the entrance and sidewalk which would otherwise be in almost continuous shade. The window glows like a lantern between the towers and the same effect is continued





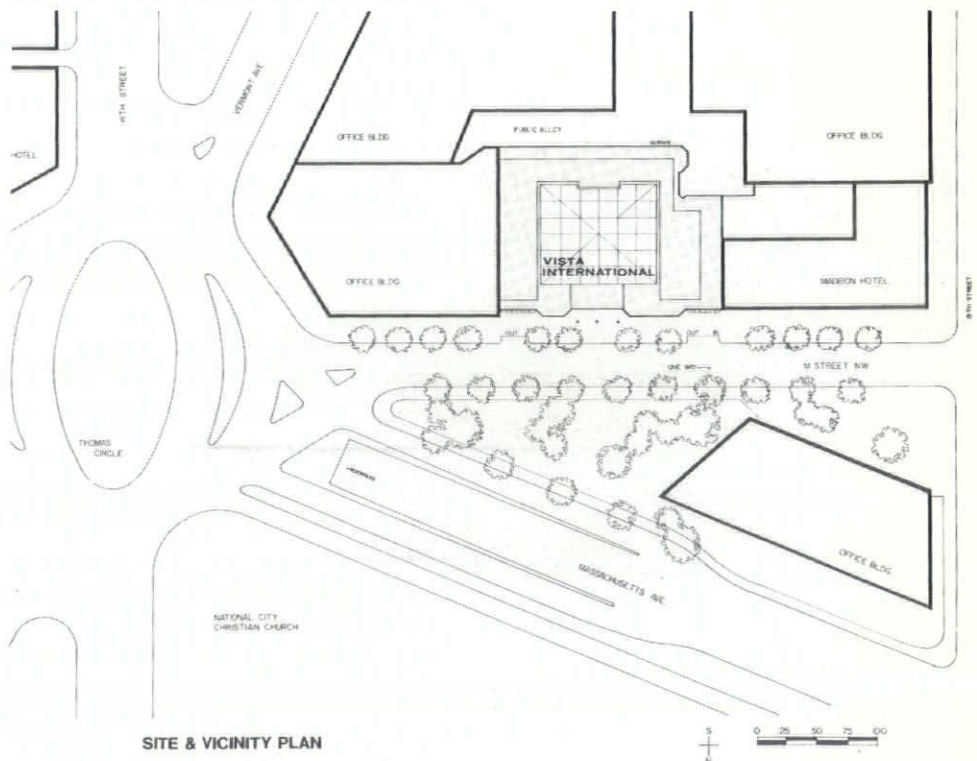
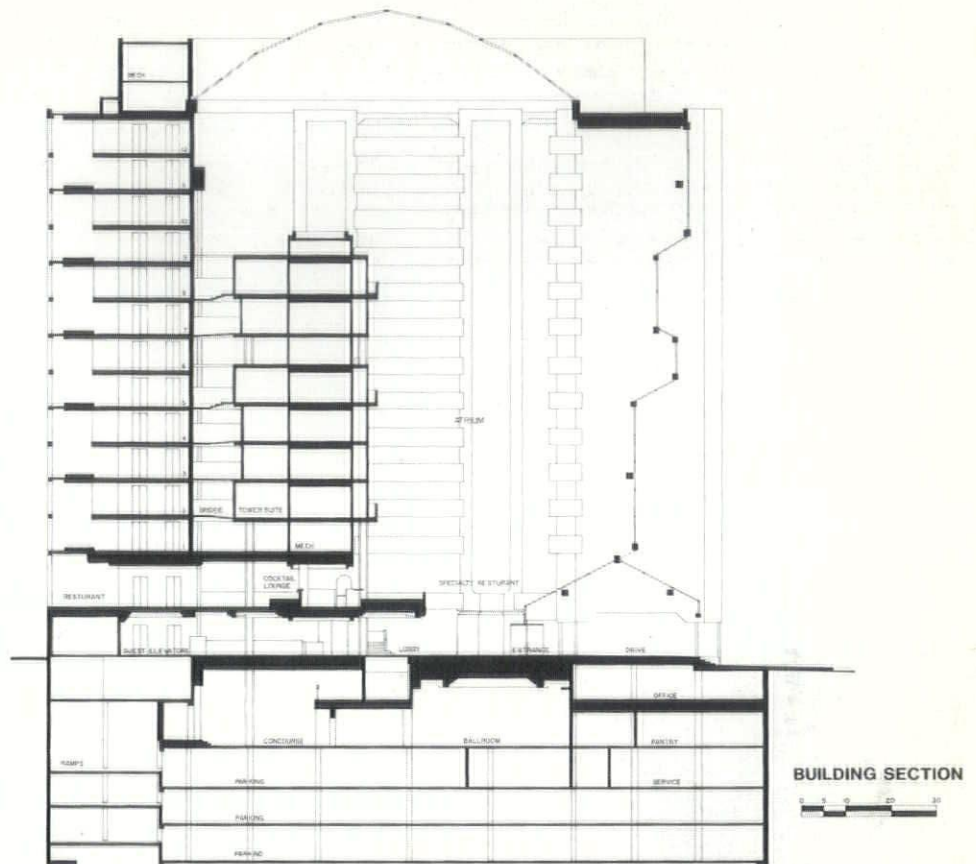
when the lighted inside walls and the dome begin to glow as the sun settles.

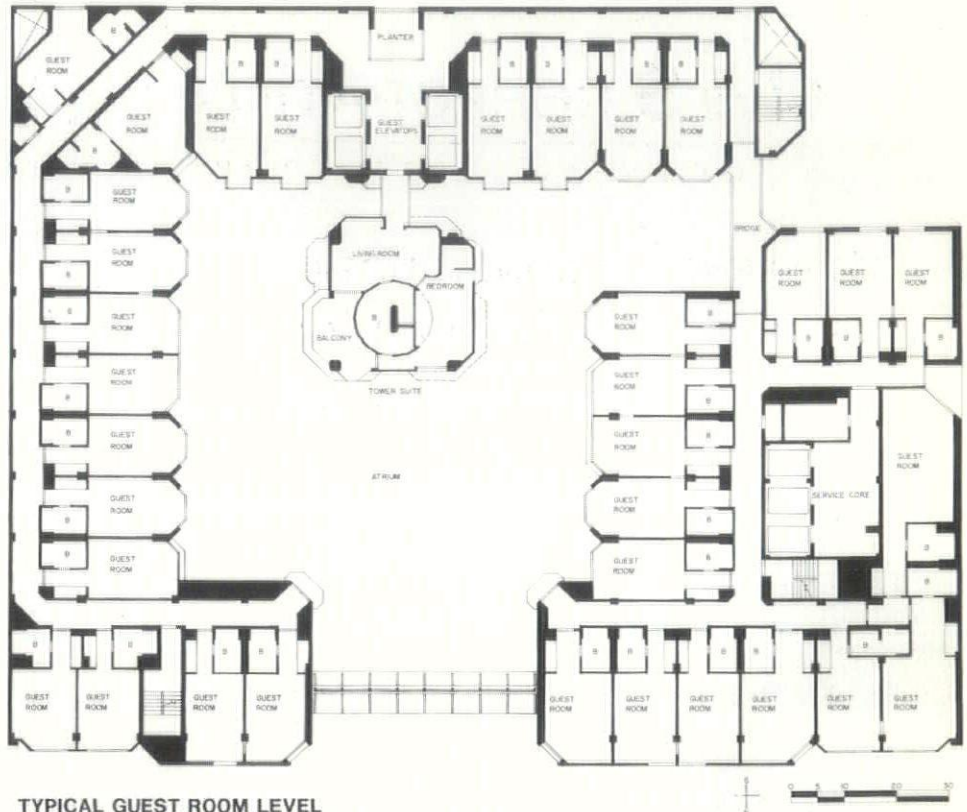
Upon entering the driveway the towers act like gateways through which one emerges into light and space. You have arrived when you glimpse all of the lobby atrium. The single building surrounding the atrium appears as many adjoining structures, subtly different both in facade treatment and coloration. Hard and rough exterior materials, street lights, and exposed concrete, reinforce the outside feeling, while more precious materials and refined details set aside special areas meant to be inviting, comfortable, and intimate.

The atrium is covered by a glass dome and its central feature is a free standing tower connected only through bridges to the main building. The tower is designed both as a sculpture as well as a living space, since it encompasses several hotel suites. Most of the tower is clad in dark reflecting glass and shimmers both in direct and reflected light. An effort was made to carry the impact of the atrium below grade by providing openings in the floors allowing for spectacular views from the ballroom concourse, which is two levels below the lobby, to the dome 170 feet above and beyond to the sky. Escalators and a grand stair dramatically pierce these spaces.

The second floor of the hotel is occupied by restaurants and dining rooms with its center being a floating lounge that projects proscenium-like over the lobby. The setting is that of a stage designed for people to be seen and to observe the other actors. To complement the openness of the scheme the specialty restaurant offers elegant dining removed from all activity and, on the first floor, a pub is tucked into a remote corner. The open feeling of the atrium is repeated in the corridors of the hotel floors. Directly behind the elevator tower are two-story-high greenhouses allowing light to enter into the very center of the building. The corridors traverse glass bridges from one section of the building into another and terminate at both ends into Romeo and Juliet balconies overlooking the atrium.

The design team was augmented by the hotel operators' technical staff and representatives of the general contractor. Time schedules and the construction budget of \$22,000,000. were met.



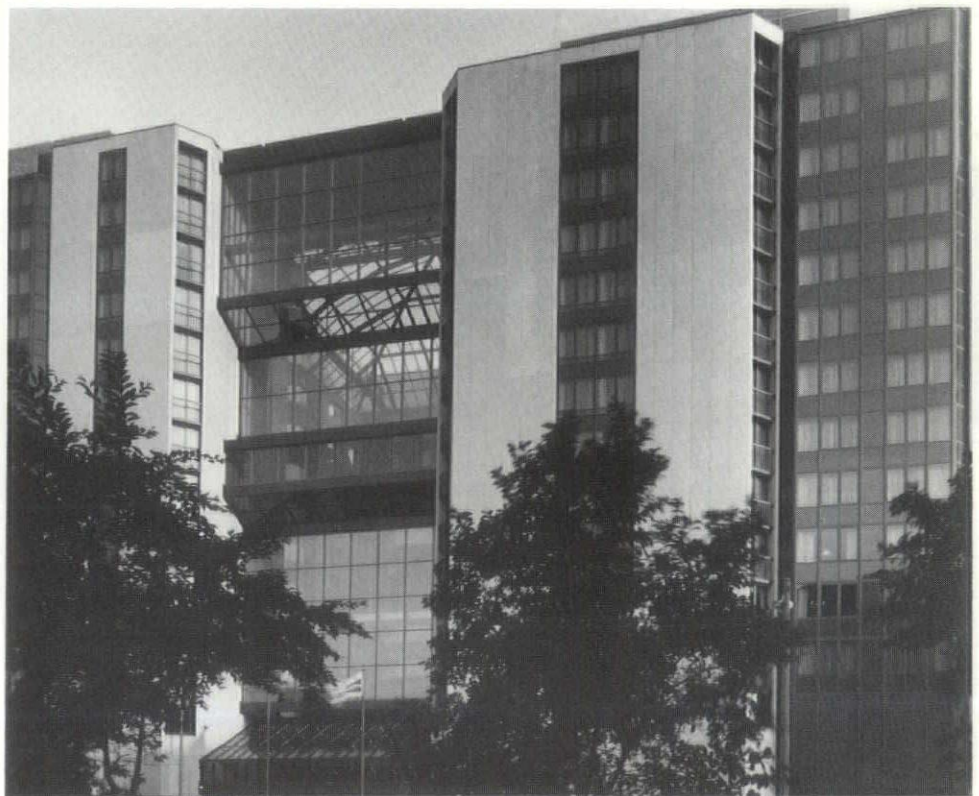


TYPICAL GUEST ROOM LEVEL

Millwork, base & crown moulding; American Door Co., mould frames—entry doors; Design & Production, closet shelving—refrig. units, maid linen stations & interior millwork; A & K Woodworking, wood built-in items; The Martin Co., waterproofing; Franklin Marble & Tile Co., waterproofing—tile, ceramic tile—baths, commercial tile—quarry & marble for millwork; Davenport Insulation, Inc., thermal insulation; Max Greewald & Sons, Inc., roofing; A. S. Johnson Co., Inc., grilles & louvers & P.H.V.A.C.; and Lord & Burnham, Ltd., skylight, dome and north curtain wall.

Others were: Wilcox Caulking Corp., sealants & caulking; Swigin' Door, Inc., metal doors & frames, interior wood doors & suite entrance doors; Metropolitan Industries, mirror closet doors, tower suites—wall covering & mirrors; Overhead Door Co., overhead garage doors; American Plate Glass Co., spandrel glass partition, vitrines, glazing & lounge glass ceiling; Contract Hardware, hardware finish; Uniqey International, entry locksets; S. DiGregorio & Son, Inc., gypsum & drywall; MBM Ceramics, ceramic soap & grabs; Diener's Linoleum & Tile Co., Inc., resilient base core, resilient flooring & wood floors; and Alxa Painting, painting.

And, Progressive Wallcovering, wall covering labor; Berthel, Inc., special coatings; Dixon/Global, toilet partitions; Schoenfelder/Hufcor, folding partitions; Mickey Cohen Associates, toilet accessories; Barbee-Curran, parking equipment; Big Stuff, Inc., bailor & compactor; Trashmasters, linen chutes; Gesmar Corp., vanities & tops; White Machine Co., auto coat rail; Richmond Lumber Co., Inc. (Rockville), & General Electric Co., residential equipment; Canterbury Designs, clock; Guardian Fire Protection, fire system/kitchen; Jerry Carter/Artist, finish stair #1; Aquacraft, healthclub-saunas; Westinghouse, elevators & escalators; Schultz & Melits, firefighting devices; Dynalectric Co., electrical work; and Dynalectric Co./Dominion, light fixtures.





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Old Donation Medical Center

Walsh Ashe Associates, Inc. — Architects

Location: Virginia Beach

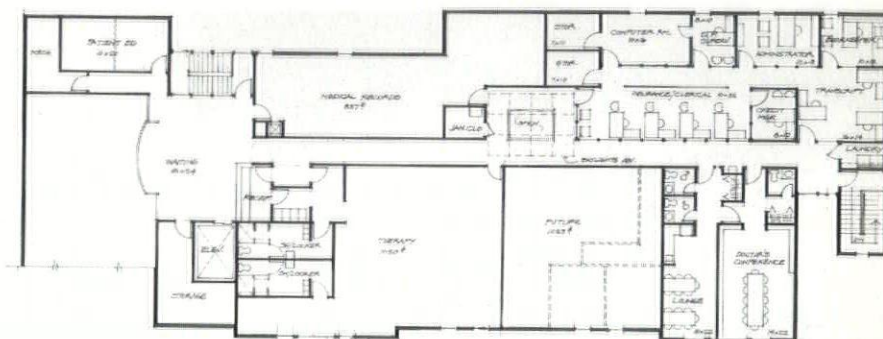
Designer, Michel C. Ashe, AIA • Project Architect, Louis A. Sanders, RA • Landscape Architect, Edward G. Carson & Assoc. • Interior Designer, Chasen's Business Interiors • Site Engineer/Surveyor, Gallup Surveyors & Engineers • Structural Engineer, Abiouness, Cross & Bradshaw, Inc. • Mechanical/Electrical Engineer, Old Dominion Engineering, Inc. • Geotechnical Engineer, Professional Services Industries, Inc. • Radiation Shielding Consultants, Medical Physics Consultants of Virginia • General Contractor, H & S Corporation.

PROGRAM
Offices for a large orthopedic surgery group practice as the first phase of developing a triangular, flat, wooded, four-acre site fronting on a major suburban thoroughfare, and bordering a large residential area.

DESIGN
Responding to its context, the 19,000 square foot building repeats the two-story massing typical of the neighborhood and repeats other residential elements, such as the clapboard vinyl siding, pitched roof, six-over-six windows, and front porch.

The physical therapy department waiting area overlooks the double-story main waiting area under large skylights. The x-ray department waiting area also receives natural light through an open light well in the administrative area lobby above.

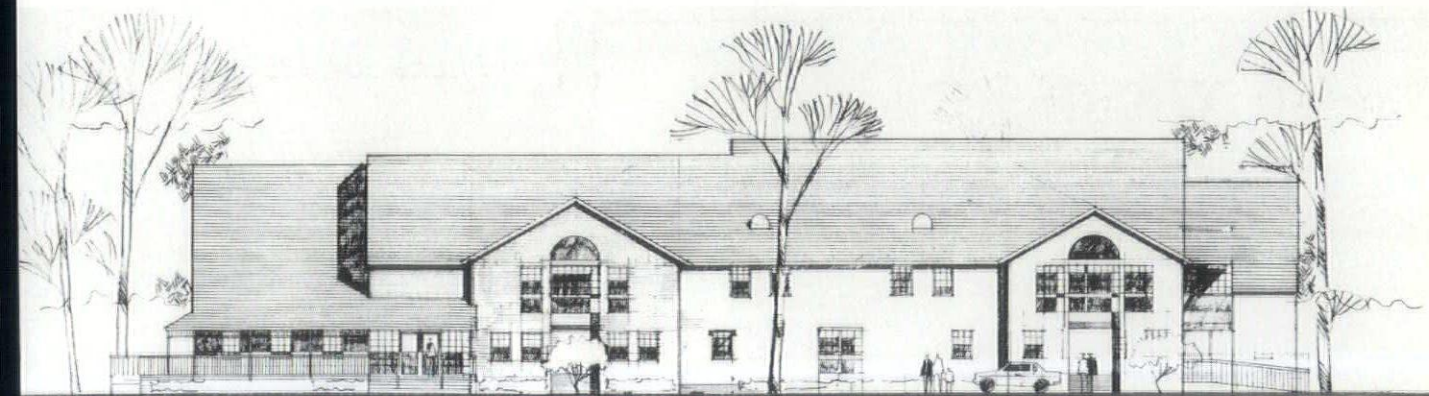
Examination rooms are grouped directly adjacent to doctors' offices, all of which have exterior views, on one side of a central circulation spine. X-ray, cast and operating rooms are read along the circulation spine opposite the examination rooms. All administrative offices



SECOND FLOOR



FIRST FLOOR



WEST ELEVATION

and physical therapy rooms are on the second floor directly accessible by elevator from the main waiting area.

Building layout is zoned to allow the independent operation of a weekend clinic utilizing the south entrance.

H & S Corporation of Norfolk is general contractor and is handling foundations, concrete work and caulking.

SUBCONTRACTORS & SUPPLIERS

Other Norfolk firms are: Winn Nursery, Inc., landscaping materials & landscaping contractor; Rea Construction Co., paving contractor; Hall-Hodges Co., Inc., reinforcing; Sadler Materials Corp., concrete supplier; Doyle Brick Co., Inc., masonry supplier; Virginia-Carolina Steel, Inc., steel supplier & miscellaneous metal; Door Engineering Corp., Steelcraft metal doors & frames & Stanley, Rixson, Von Duprin, Russwin, Security Door Control, Trimco, Ives, Pemko, Alladin & Nafco, hardware suppliers; Ferrell Linoleum & Tile Co., Inc., ceramic tile; Brown

Mechanical Corp., plumbing/heating/ventilating/air conditioning contractor; Graybar Electric Co., Inc., Miller, Capri, Penteco, Lightalarm, MWC & Prescolite, lighting fixtures supplier; and Construction Specialties, Inc./Howard E. Marquart & Co., brick vents.

From Virginia Beach are: Werner-Thompson Construction & Development Ltd., carpentry & gypsum board contractor; Mid-Atlantic Glass Corp., glazing contractor; Pella Virginia, Inc., windows; Gateway Painting & Contracting Co., painting contractor; PPG Industries, Inc., paint supplier; Commonwealth Elevator Co., Inc., elevator; Virginia Beach Electric Service, Inc., electrical contractor; Forrest Exterminating Service, Inc., termite control; Chesapeake Bay Contractors, Inc., fire water system, water service piping & sewer collection system; Senco Products, Inc., rough carpentry; Commonwealth Elevator Co., Inc., (DA Matot, Inc., Chicago, IL), dumbwaiters & (CEMCO, Inc., Plumsteadville, PA) elevator; and Schell Supply Corp., supplied Elkey, Kohler, Mustee, Delta & Symmons, plumbing fixtures.

Others are: W. L. Birsch, Inc., Chesapeake, excavating; Sprinkle Masonry, Inc., Chesapeake, masonry contractor; Brick & Tile Corp. of Lawrenceville, Lawrenceville, masonry manufacturer; J. D. Miles & Sons, Inc., Chesapeake, roofing, waterproofing & sheet metal; Davenport Insulation, Inc., Newport News, Certainteed roof & wall insulation; Suburban Floors, Richmond, acoustical treatment; Bay Tile & Carpet Co., Portsmouth, resilient tile; PPG Industries, Inc., Pittsburgh, PA, paint manufacturer; Conti & Wood Sprinkler Co., Inc., Mechanicsville, sprinkler contractor; Trus Joist Corp., Richmond, roof joist; Shoffner Industries, Inc., Burlington, NC, roof trusses; Armstrong, vinyl base & vinyl tile; Mosson, vinyl treats; U. S. Tile, ceramic tile; Certainteed, vinyl siding; U. S. Gypsum, gypsum board & acoustical ceiling; Roanoke Engineering Sales Co., Inc., Richmond, projection screens & toilet accessories; Tansey Company, Tarpon Springs, FL, toilet partition manufacturer; Bar Ray Products, Inc., Brooklyn, NY, X-ray shielding; Fredrick Air Conditioning & Refrigeration Co., Utica, NY, heat pump; Evapco, closed circuit coder; Carrier Corp., Syracuse, NY, heat pump; and Draper Screen Co., Inc., Spiceland, IN, projection screens manufacturer.



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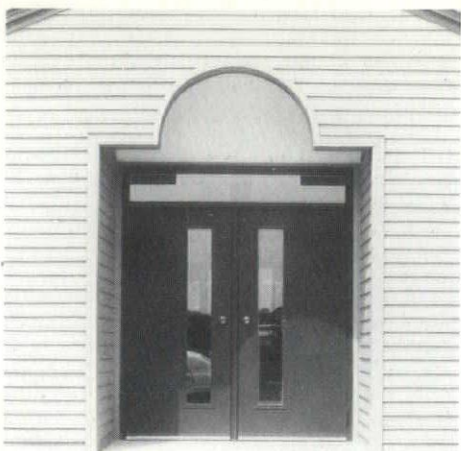
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Southern Isle of Wight Community Center

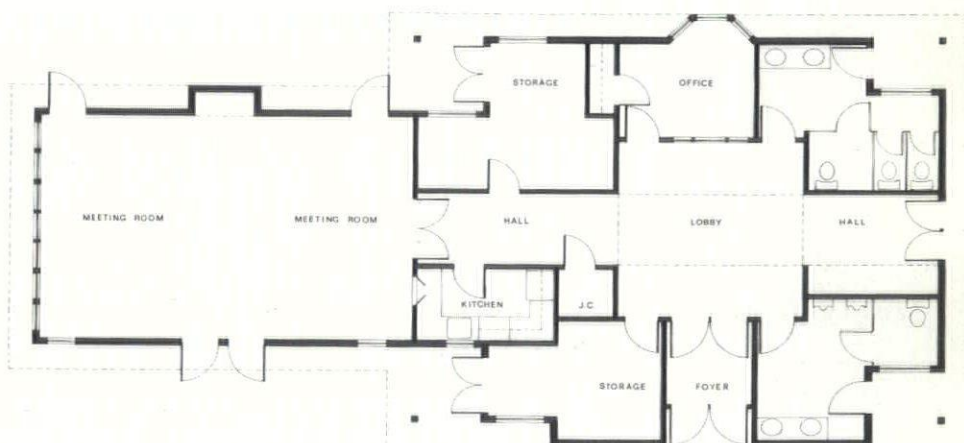
John B. Farmer, Jr., Architect, P.C.

Location: Southern Isle of Wight Recreational Park, Isle of Wight County

Project Designer, Robert R. Whitesell • **Structural Engineer,** Dunbar, Milby & Williams • **Mechanical/Electrical Engineer,** Systems II • **General Contractor,** G. P. Jackson • **Photography,** John B. Farmer, Jr. • **Plan,** Kamlner & Thomson, Inc.

The Southern Isle of Wight Recreational Park and Community Center was finished in 1983 under the guidance of Alan S. Nogiec, Director of the Public Recreational Facilities Authority. The park, designed by L.P.D.A., Inc., and the Community Center, designed by the office of John B. Farmer, Jr., AIA, serve the citizens of southern Isle of Wight County in the area of Franklin, Virginia.

Primarily the Community Center is used for recreational activities by youth, adults and



senior citizens, and is geared toward passive recreational programming. It marks the entrance to the park, an active place for tennis, basketball and other sports. The center functions as a self-contained facility and as a support facility for the park by providing an administrative office, storage and toilets. Additionally, the Community Center is used for voter registration, voting, and by the Social Services Department for several of its programs. Funding to build the center was obtained by disposing of a surplus recreational facility and provided by local donations from private sources.

The structure was built with a slab-on-grade, wood frame walls and partitions, exterior painted wood siding, wood roof trusses and asphalt shingles. Interior finishes include painted gypsum board walls and ceilings, acoustical lay-in ceilings, VAT floors, and ceramic tile in the toilets. The meeting room can be divided into two smaller rooms, each with exterior access, by an operable wall. The meeting rooms may thus be used separately from the rest of the building. The central lobby is surrounded by indirect valance lighting and extends up to a clerestory monitor with natural

wood ceiling. From the bay window in the office, the park official on duty may survey the exterior activities of the park. Future plans call for expansion of the playing fields as demand arises.

G. P. Jackson of Suffolk was general contractor and handled excavating, foundations, concrete work, masonry work, roof and wall insulation, carpentry, millwork, cabinets, caulking, gypsum board, and painting.

SUBCONTRACTORS & SUPPLIERS

Franklin Concrete Products, Franklin, concrete supplier & masonry supplier; Heffington Roofing, Suffolk, roofing; Tri-City Building Components, Inc., Kernersville, NC, structural wood (trusses); The Ceko Corp., metal doors & frames; Seaboard Building Supply Co., Va. Beach, hardware supplier; Bay Tile Co., Portsmouth, ceramic tile & resilient tile; PPG Industries, Inc., Pittsburgh, PA, paint manufacturer (interior); Hampton Paint Mfg. Co., Inc., Hampton, Siding-In-A-Can (exterior paint); Flowers School Equipment Co., Inc., Richmond, operable wall; Peebles Supply Corp., Newport News, plumbing fixture supplier; Rawlings & Co., Courtland, plumbing/heating/air conditioning contractor; General Electric Co., Newport News, electrical equipment supplier; R. F. Scott, Smithfield, electrical contractor; Lowes of Suffolk, Suffolk, framing materials; and Electronic Sound & Equipment Co., Newport News, fire alarm system.

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Multi-Purpose Educational and Sports Complex

Shriver and Holland Associates — Architects

Location: Norfolk State University, Norfolk

Associated/Consulting Architect, Livas and Associates • Project Architect/Designer/Landscape Architect/Interior Designer/Cost Consultant, Shriver and Holland Assoc. • Site Engineer/Surveyor, R. Kenneth Weeks Engineers • Structural Engineer, Fratelli-Blum-Yesselman Assoc. • Mechanical/Electrical Engineer, Vansant and Gusler, Inc. • General Contractor, W. M. Jordan Co., Inc. • Photography, Lawrence S. Williams, Inc.

SITE PARAMETERS

PROGRAM REQUIREMENTS

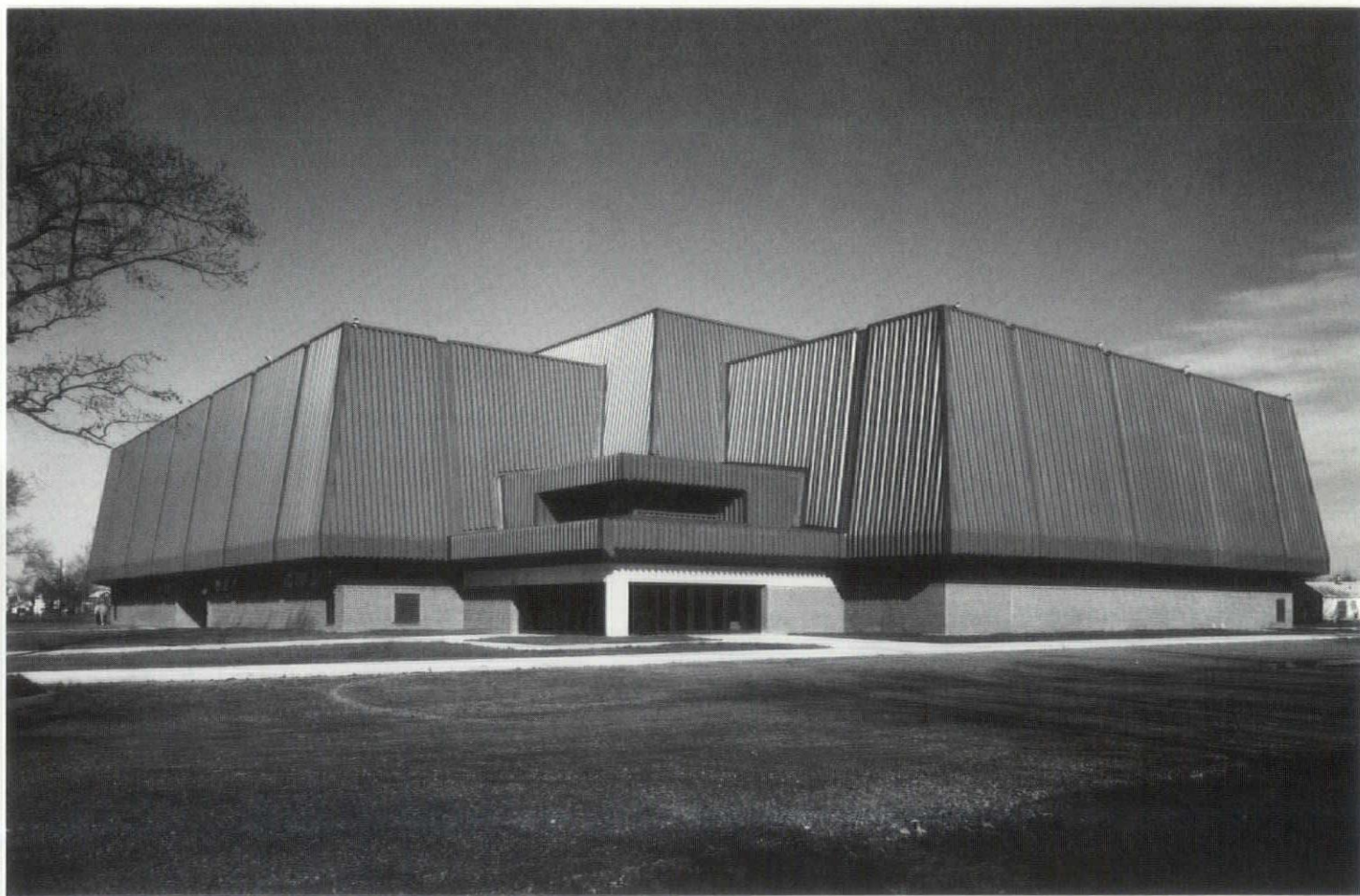
Norfolk State University needed a large, multi-purpose educational and sports complex to accommodate the university's health, physical education, and R.O.T.C. teaching programs and to provide for major university sports and public events.

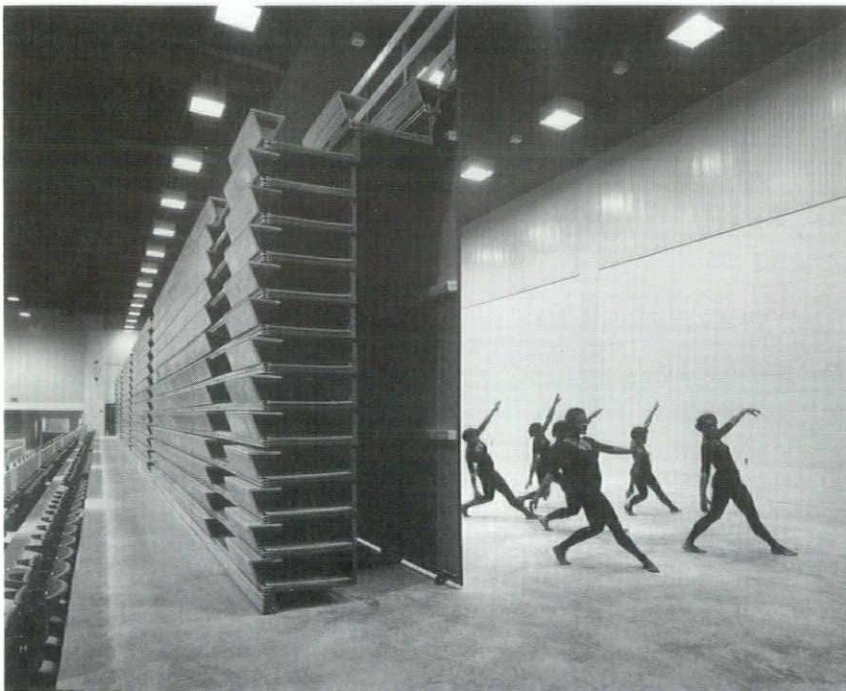
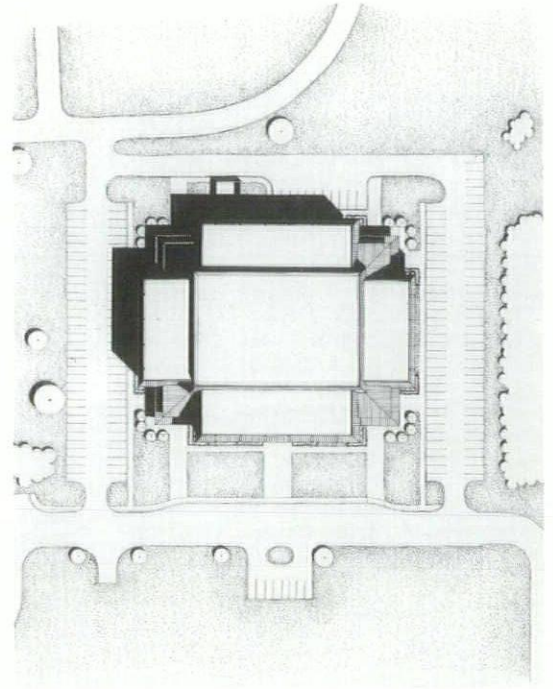
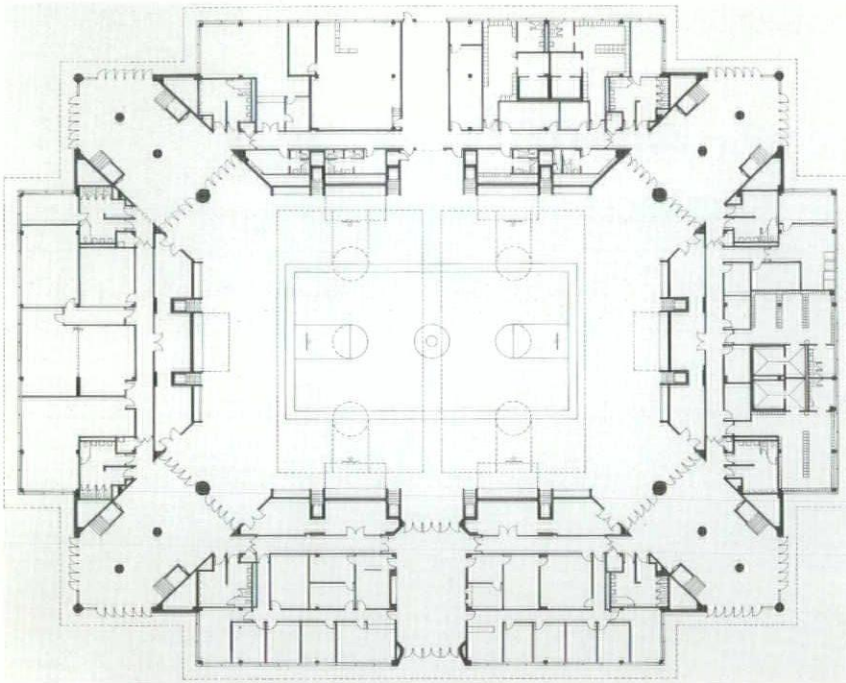
The site is at the eastern end of an urban campus. The main public entrance of the building forms the eastern terminus of the major east-west pedestrian walk-way through the campus. The basically flat site opens on the east to future playing fields.

DESIGN SOLUTION

The building design is developed around the central sports arena, flexible to provide two basketball courts for practice and the single court arrangement for spectator events. The arena seats approximately 9000 and has provisions for concession service on the intermediate level of each quadrant of seating. Folding seats are utilized to allow expansion of the ground level practice court area and the upper level teaching areas for wrestling, dance, exercise and similar programs.

The ground level, accessed from each corner of the building and from the center of the west face,





accommodates health, physical education, and R.O.T.C. classrooms, faculty offices and support spaces together with men's and women's locker rooms for both student and team use.

The facility is equipped with communications and control connections at both long and short sides of the arena to allow for special public events to include general assembly, convocation, music and concert activities, and graduation exercises.

For reasons of both durability and scale, the building is developed architecturally on a brick base matching other campus facilities. The entire skin and superstructure above the brick base is fabricated of economical ribbed metal panels with articulated joints at each building bay. The superstructure is lowered above each corner entrance in response to human scale and space requirements and to readily identify public entrances from a distance.

W. M. Jordan Co., Inc. of Newport News was general contractor and handled excavating, foundations, concrete work, steel erection, and carpentry.

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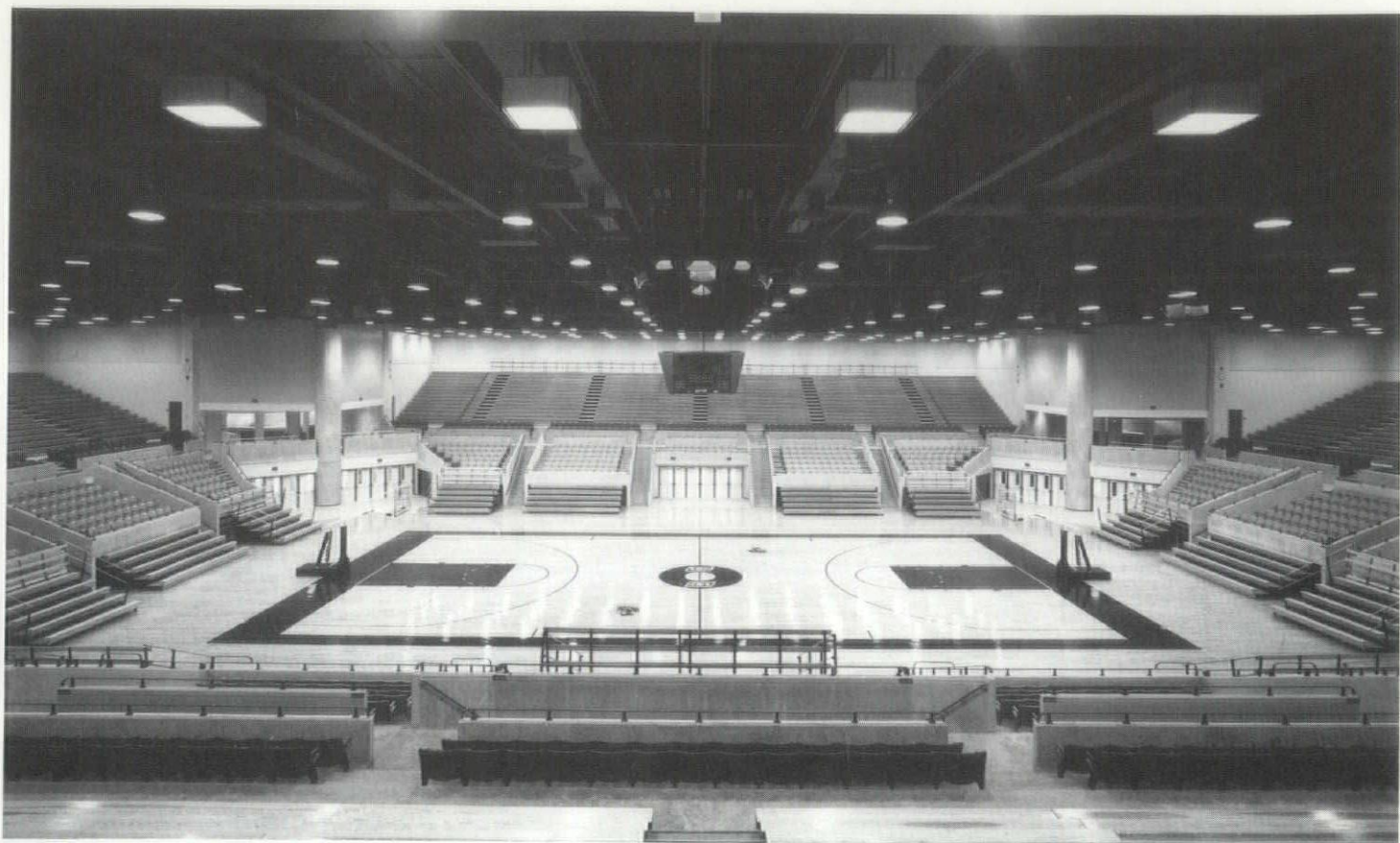
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SUBCONTRACTORS & SUPPLIERS (Norfolk firms unless noted)

Ford Pile Foundations, Inc., Va. Beach, piling; W. L. Birsch, Inc., Chesapeake, paving contractor; Hall-Hodges Co., Inc., reinforcing; Sadler Materials Corp., Va. Beach, concrete supplier; Hudson Masonry Co., Inc., Va. Beach, masonry contractor/supplier and wall & foundation insulation; Tidewater Steel Co., Inc., steel supplier/joints/roof deck & miscellaneous metal; L. C. Heath Roofing, Inc., Newport News, built-up roof, waterproofing & sheet metal; and Campostella Builders & Supply Corp., millwork & wood doors.

Also, Greensteel, Inc., Lorton, display cases, chalkboards & tack boards; K & P Construction Co., Portsmouth, caulking; Walker & Laberge Co., Inc., glazing contractor, windows & storefront; Firedoor Corp. of Florida, Miami, FL, metal doors & frames; Seaboard Building Supply Co., hardware supplier; Chesapeake Plastering Co., plaster contractor & gypsum board contractor; David Allen Co., Inc., Raleigh, NC, ceramic tile; Ferrell Linoleum & Tile Co., Inc., acoustical treatment; Ajax Co., Inc., resilient tile; Sur-Flex, Inc., Woolwine, special flooring; Shaw Paint & Wallpaper Co., Inc., painting contractor; and Richard I. Schoenfelder, Inc., Fairfax, score board.

Others were: Robert J. Bates Co., Greensboro, NC, specialties; Williams Fire Sprinkler Co., Inc., Williamston, NC, sprinkler contractor; Pittman Mechanical Contractors, Inc., plumbing/heating/ventilating/air conditioning contractor; Colonial Electric Co., Inc., Williamsburg, electrical contractor; Howard E. Marquart & Co., toilet partitions by American Sanitary Partition Co., and louvers by Construction Specialty, Inc.; Sign Graphics, Inc., Richmond, graphics; Lyon Metal Products, Inc., Portsmouth, lockers; Commonwealth Equipment Sales of Va., Inc., fire extinguishers; and Electronic Sound & Equipment Co., Inc., Raleigh, NC, public address system.

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Portsmouth Orthopaedic Center

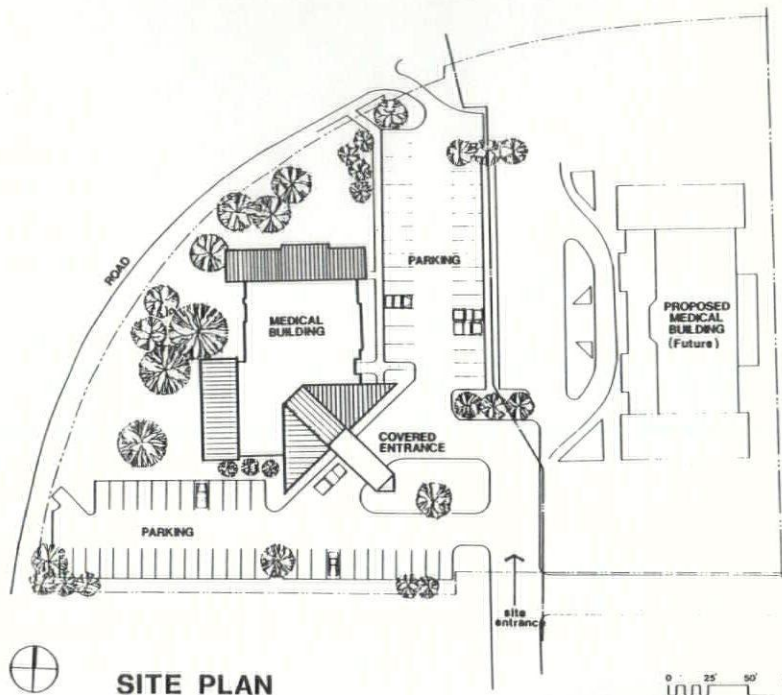
HBA Architects

Location: Portsmouth

Principal-In-Charge, W. H. Hargrove, III, AIA
• Project Architect/Designer, Bruce Prichard, AIA • Landscape Architect, HBA Architects • Interior Design, HBA Interiors • Civil Engineer, Hassell & Folkes • Structural Engineers, Max B. Edwards, P.E./Stroud, Pence & Assoc. • Mechanical/Electrical/Plumbing Engineer, Bowman & Associates • General Contractor, R. D. Lambert & Son, Inc. • Photography, Haycox Photographic, Inc.

The Portsmouth Orthopaedic Center was designed to accommodate the practice of five orthopaedic surgeons. The design of the building expresses the dual primary functions, orthopaedics and physical therapy, by creating two major wings. The shape and mass of the building takes full advantage of the site, both aesthetically and functionally.

This project called for an in-depth study to rationalize the function of services provided by





building has no front or rear, but is truly three dimensional; a form which changes, delights and surprises the user as he walks around and through the structure.

The sculptural massing of the main waiting room element is an expression of joining together the dual functions of orthopaedics and physical therapy, a major focal point and a response to the site characteristics. Patient control and traffic flow are maintained in the design of this space. Furnishings were placed to facilitate the traffic flow to each major corridor and furniture pieces were carefully chosen to support the functions of the orthopaedic patient.

The high, angular ceilings allow light and shapes to create visual stimulation. Warm colors and wood finishes provide a comforting environment.

Internally, HBA used the exterior formal masses to allow changes in volume in the primary spaces. The waiting room, physician's offices and the main physical therapy treatment room all have tall volumes, where the ceilings are sloped and folded to reinforce the exterior effect. These elements are located to provide nodes that relieve tension of the small clinical spaces. Clerestory windows add to the drama of this effect, as well as provide secure access to natural light.

This one-story brick structure with a folded metal roof was built by R. D. Lambert & Son, Inc., of Chesapeake, the general contractor, and completed in December 1982.

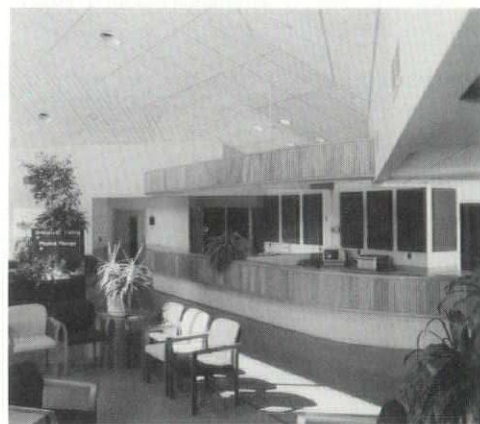
SUBCONTRACTORS & SUPPLIERS

Other Chesapeake firms were: Ordway Construction Co., Inc., excavating; Virginia Masonry, Inc., masonry contractor; Chesapeake Partition, Inc., steel studs, gypsum board contractor, acoustical ceilings & special wall finish (Dryvit); Indoor Air Systems, Inc., heating/ventilating/air conditioning contractor; and James W. Tabor & Son, Inc., electrical contractor.

Virginia Beach firms were: A-Active Exterminating Co., soil treatment; Guille Steel Products Co., steel joists & steel roof deck; and Ceramic Tile of Florida, Inc., resilient tile & carpet.

From Norfolk were: Hall-Hodges Co., Inc., reinforcing steel & hollow metal; Tidewater Steel Co., Inc., steel supplier; Goodfellow, Inc., steel erection; Roof Engineering Corp., roofing; Door Engineering Corp., wood doors; Binswanger Glass Co., storefront; Ajax Co., Inc., quarry tile; Shaw Paint & Wallpaper Co., Inc., painting contractor/supplier & wall covering; and S & M Plumbing & Heating Corp., plumbing contractor.

Others were: Waco, Inc., Newport News, roof insulation; Varco-Pruden, Winston-Salem, NC, pre-engineered metals; Olde Virginia Cabinets, Suffolk, millwork & cabinets; Herrin Brothers Erection Co., Inc., Portsmouth, caulking; Construction Specialties, Inc., Muncy, PA, special flooring/entry material; and Ameray Corp., Dover, NJ, radiation protection.



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Thirty-First Annual Antiques Show & Sale

The Thirty-First Annual Fall Antiques Show and Sale, sponsored by the Northampton-Accomack Memorial Hospital Auxiliary is among upcoming events.

Dates are—November 9, 10, 11, 1984 and the location is the Moose Lodge at Belle Haven.

For further information, contact Caroline U. Walker, Publicity Chairman, Box 135, Nassawadox, VA 23413.

Fall Concerts Scheduled By Choral Society

"Shenandoah Portrait"—a musical celebration of life in the Shenandoah Valley, featuring vocal and orchestral works of Aaron Copland, will be performed by the Shenandoah Valley Choral Society on the following dates:

- October 18—8:00 p.m.—Wilson Memorial High School, Fishersville.
- October 20—8:00 p.m.—Page County High School, Shenandoah.
- October 21—3:00 p.m. and 8:00 p.m.—Spotswood Senior High School, McGaheysville.

For further information contact "SVCS," Box 454, Harrisonburg, VA 22801 or call Susan Gutschall at 703-234-8396.

Alexandria Archaeology Extends Public Hours

Alexandria Archaeology, the city's center for archaeological discovery and research, is extending its hours to the public. Effective immediately, the working laboratory and exhibit area are open Fridays and Saturdays from 11 a.m. to 5 p.m.

Visitors can see a recently mounted permanent exhibit, "A Search for Common Ground," that illustrates the program's activities. It shows city archaeology projects and artifacts from the 500 block of King Street, Market Square, the Coleman site (residence of early free Blacks), the Carlyle-Dalton wharf and the Alexandria Canal tide lock and basin.

Archaeologists and volunteers analyzing artifacts in the laboratory are available to answer questions about their work. Alexandria Archaeology encourages public participation in a program in which almost 75 volunteers participate in digs and other research.

Alexandria Archaeology is one of the earliest and now one of the largest programs in the United States to concentrate on archaeology in an urban setting. It is also distinctive because it is an agency of and funded by the City of Alexandria government as part of the Office of Historic Alexandria.

Alexandria Archaeology is located on the third floor of the Torpedo Factory Art Center, 105 N. Union St. For more information, call (703) 838-4399.



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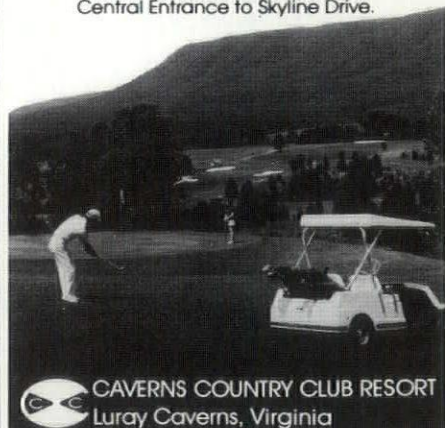
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FOR THE RECORD

CEC/V Names 1984/1985 Officers

Alexander B. Sadler, Jr., managing partner of the Chester consulting engineering firm of Austin Brockenbrough & Associates, has been named president of the Consulting Engineers Council of Virginia (CEC/V) for 1984/1985. He assumed office July 1.

Other newly-elected CEC/V officers for 1984/85 are: Edgar F. Massie, Jr., of E. F. Massie, Consulting Engineers, Crewe, president-elect; Ron D. Foster, principal in Bowman & Associates, P.C., Virginia Beach, vice president, Eastern region; Benjamin R. Walker, McKinney & Walker, Ashland, vice president, Central region; Carl C. Redinger, VVKR, Inc. Alexandria, vice president, Northern region; R. L. Sutherland, who owns his own geotechnical engineering firm in Abingdon, vice president, Western region.

Also Albert E. Rollins, A. E. Rollins & Associates, Virginia Beach, secretary; Taylor F. Turner, R. Stuart Royer & Associates, Inc., Richmond, treasurer; and Daniel J. DeYoung, DJG, Inc., Williamsburg, director.

AGC/Va. Announces '84-'85 Management Seminars

A new folder, listing eight seminars to be offered from the Certified Construction Management series, has been published by the Associated General Contractors of Virginia. The first one, Estimating and Bidding for Contractors, was held September 21-22, at Virginia Beach.

Remaining seminars are:

- Project Scheduling for Contractors
October 17-18, Richmond
- Computer Management Systems for Contractors
October 31, Norfolk
- Selling Yourself and Your Company
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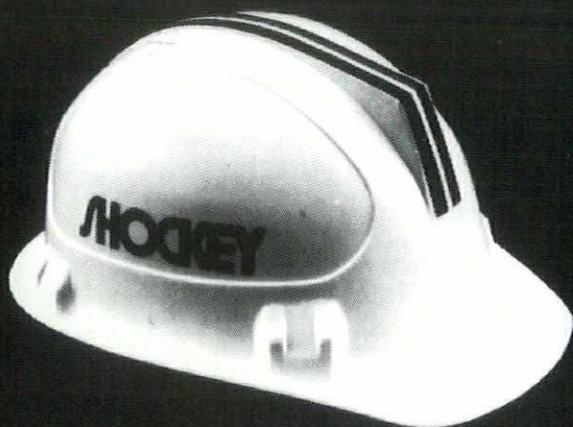
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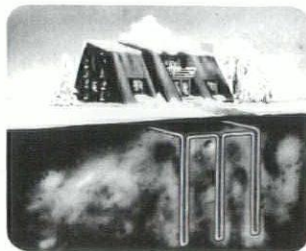
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Governor Reappoints Two AGC/Va. Members To Contractors Board

Richard S. Prillaman was appointed Chairman of the State Board for Contractors and A. Eugene Thomas was reappointed for an additional term, according to letters received recently from Governor Charles S. Robb.

Richard Prillaman (Prillaman & Pace, Inc., Martinsville) was first appointed to the board in 1980. Eugene Thomas (Eugene Thomas Construction Co., Inc., Alexandria), appointed in 1979, begins his second five-year term on the board.

The State Board for Contractors, popularly known as the Contractors' Registration Board, supervises and enforces the state law requiring persons or firms engaged in construction amounting to more than \$40,000 per single job, or an annual volume of \$400,000 or more be duly licensed and registered with the board. This ruling protects the public and legitimate contractors and helps to assure high standards in the Virginia construction industry.

The board consists of nine appointees. Seven are chosen from the construction industry, both general contractors and subcontractors, and two are citizens at large. The appointments are staggered in order to assure continuity.

Pine Hall Brick & Pipe Purchases Redford Stock

Pine Hall Brick & Pipe Company, Inc. of Winston-Salem, one of the largest brick manufacturers in North Carolina, has purchased the stock of Redford Brick Company, Inc., and Redford Brick Sales Company, Inc., both of Richmond.

Redford Brick Company, founded in 1871, is the oldest continuously operating brick company in the United States. Redford Brick Sales distributes brick and other masonry products in Richmond and the Tidewater areas of Virginia.

Pine Hall Brick & Pipe Company, founded in 1922, distributes its products throughout the Piedmont and Northwest areas of North Carolina, in Southern Virginia, and to independent distributors throughout the eastern third of the United States. Pine Hall's home office and sales staff is headquartered in Winston-Salem, North Carolina, and its manufacturing plant is located in Madison, North Carolina.

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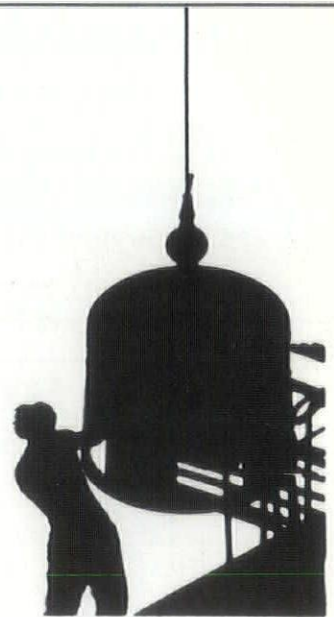
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Design Firm Promotions Announced

Design for Business Interiors, a Washington-based commercial interior design and space planning firm, recently announced two new promotions in their marketing division.

Freddi Donner, promoted to Marketing Manager of Maryland and Virginia, will be responsible for marketing in the suburban areas. Cindy Frankel, promoted to Marketing Manager of Washington, D.C., will be in charge of marketing efforts in the downtown area.

Hudgins Construction Receives \$2 Million Contract

Hudgins Construction has received a \$2 million contract to build a 32,000 square foot office building for Advanced Technology at Oceana West Industrial Park, Virginia Beach. Advanced Technology specializes in management sciences and is headquartered in Reston, Virginia.

The office building is being built under a construction management agreement in which both the architect and construction firm are hired simultaneously by the owner. The result is a team design effort. Architect for the project is SLDC Architects, Ltd. of Charlottesville.

Planning for the office building has begun, by September 1984 construction will begin with completion in July 1985.

According to Bronson F. Byrd, Vice-President, Advanced Technology, Hudgins Construction was chosen because of their "outstanding data processing capabilities including project estimating, CPM forecasting and financial controls."

Hudgins Construction, a Newport News based thirteen year old commercial construction firm, has selected Charles Snyder as project manager.

Carman Lynch Joins Reston Land

Reston Land Corporation's Development Vice President John W. Farrar has announced the appointment of Carman C. Lynch to the position of Construction Coordinator within the Land Development Department.

Previously Assistant Director of Public Works for the City of Westminster, Maryland, Mr. Lynch's major responsibilities with Reston Land will include obtaining bond releases from Fairfax County for completed projects within Reston and coordinating new road construction proposals with the county and the Virginia Department of Highways and Transportation. Related responsibilities will include working with developers on construction projects, procedures and controls.

Raised in Baltimore County, Maryland, he graduated from Hereford High School in June 1969. He received a Bachelor of Science degree from Frostburg State College in 1973.

Mr. Lynch, his wife, Debra, and their three children will be making their home in the Northern Virginia area.

Columbus Center Associates Appoints Consulting Team

Columbus Center Associates, the developer for the proposed \$100 million Columbus Center complex in Virginia Beach, has appointed a consulting team that consists of some of the world's most renowned names in architecture and urban design.

Gerald S. Divaris, president of Divaris Real Estate and spokesman for Columbus Center Associates, recently revealed that The Architects Collaborative (TAC) of Cambridge, Mass., and Urban Design Associates (UDA) and Burt Hill Kosar Rittelmann Associates of Pittsburgh, Penn., have been commissioned for the project. In addition, Talbot & Associates, Ltd., a Virginia Beach architectural and engineering concern, has been retained to serve as project coordinator for Columbus Center, which is envisioned to be "downtown Virginia Beach."

Together these firms will handle the architectural design, interior design, landscape architecture, urban planning, mechanical engineering, civil engineering and energy systems design required in a project of this scope.

"We've assembled a consulting team that is unsurpassed in its expertise, because we feel Virginia Beach is worth the investment. As one of the fastest growing cities on the East Coast, it merits the first-class accommodations we have planned for Columbus Center," declared Divaris. He also noted that these three companies have worked together successfully in the past in the design of Pittsburgh's \$150 million Liberty Center, a complex similar to the proposed Columbus Center.

According to Robert Bain, vice president of architecture for Talbot & Associates, these



COLUMBUS CENTER 'TEAM'—Seated: (l-r) Gerald Divaris and Louis Tourgee, III of Columbus Center Associates. Standing: (l-r) Robert Bain of Talbot & Associates, Ltd., Virginia Beach; Ralph H. Burt of Burt Hill Kosar Rittelmann Associates, Pittsburgh, PA; David Lewis of Urban Design Associates, Pittsburgh, PA; and Morton B. Braun of The Architects Collaborative, Cambridge, Mass.

international companies represent some of the world's most prominent names in the architecture and urban design fields.

The master development plan for Columbus Center should be completed in late September. Divaris estimated construction will begin in early 1985. There is already an existing 11-story high-rise on the site, and long-range plans call for the construction of five more high-rises; six low-to-mid rise towers; two luxury business and conference hotels; a health and recreation club; a selection of exclusive retail shops and restaurants; and structured parking. Also planned is a system of interconnecting walkways and

covered links between the various buildings as well as landscaped plazas with fountains, art work and an open-air amphitheater.

Columbus Center Associates is a general partnership that was formed in June to acquire the \$17.6 million site in the Pembroke area of the city. Partners include Divaris Management Corp., an international real estate development organization headquartered in Virginia Beach; Atlantic Permanent Federal Savings and Loan Association, the area's largest and the state's third largest savings and loan; and Finplan of America, an international real estate development and investment firm.

Staggered Truss Used in Construction Of Virginia Beach Motel Condominium

Globe Iron Construction Company of Virginia Beach is believed to be the first Virginia company to use the staggered steel truss design in a high rise building. The system is being utilized in construction of the Dolphin Motel Condominium in Virginia Beach.

The staggered truss system consists of prefabricated story-high trusses that span the full building width at alternate column lines on the same floor. A floor slab rests on the top chord of one truss and is supported at the other end by the bottom chord of the adjacent truss located on the floor above.

The major advantage of the staggered truss system is the saving of construction time. Jobs comparable to the Dolphin Motel project were

only mid-way complete when Globe was completing the 11th floor and final phase . . . within five weeks or only 28 working days from the February 1984 start date, with floor slabs and stairs in place. Building completion was 30-50% faster with the staggered truss system than with poured concrete. Staggered steel truss design buildings rise two floors per week compared to the conventional one-floor a week.

The staggered system eliminates up to 75% of excavation, pilecaps and piling locations that are associated with concrete framing systems. Floor to floor heights are the same as those with poured-in-place concrete.

The design or architectural significance of the staggered system is that using the one-story



Dolphin Motel Condominium utilizing staggered steel truss design.

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high trusses running from front to back in the building results in interior freedom from columns. The clear spaces on each floor are limited only by the trusses which alternate from floor to floor, generally at 60:0 or less on center. All odd floors are usually identical, as are even floors. The trusses can have openings for corridors, doors and utilities. Many variations are also possible, with little or no penalty.

The staggered truss system is the outgrowth of research sponsored by the U.S. Steel Company at the Massachusetts Institute of Technology in the mid-60s. The initial goal was to develop an efficient framing system for the tall and narrow structures typically used for hotel or residential complexes.

The system was first used for an elderly housing project in St. Paul, Minnesota, which was completed in 1967. The growth of the concept is due largely to steel fabricators like Globe, increasing their knowledge and familiarity with it.

Since its first application, staggered truss design has been used for apartment houses, hotels, motels, dormitories and other types of buildings. The system has been used on buildings of up to 30 stories.

The staggered truss system is particularly valuable to beach mid- and high-rise developers because once above a few floors, the higher the

building, the more the savings accrue on interest rates and on earlier occupancy. This of course makes for an earlier return on investment. Cost studies on the system itself indicate that there are savings of \$1.50 to \$2.00 per square foot over conventional reinforced concrete design.

Globe Iron Construction was contracted by the developer of the Dolphin Motel Condominium, E. Martin Schara, to help conceptualize, fabricate and erect the structural steel and stairs, pick-up and deliver and erect concrete floor slabs for the 11-story staggered truss building. Larry Mednick, President of Globe Iron, is so pleased with this unique system, that he has plans for utilizing it on several additional buildings.

The architect, Richard L. (Bim) Grimstead, AIA, and owners have been especially pleased because this system allows them more flexibility for design. They don't have to contend with interior columns, or span restrictions. Cost and time savings are quite significant.

An additional time-saving factor with the staggered trusses is that they can be erected in almost any kind of weather or temperature.

Saving time, lower foundation costs, earlier occupancy and flexible room layout . . . all reasons why Globe Iron Construction Company, in business since 1923, has developed and is using the staggered truss system.

Native Virginian Returns To Join Scott-Long

Bruce Scott, President of Scott-Long Construction, Inc. has announced that David Dempsey has joined the company as its newest Project Executive.

According to Scott, Dempsey's first assignment will include supervision of Sullyfield Commerce Center, a 12-acre, 200,000 sq. ft. office/warehouse development which they are building for The Henry A. Long Company, at Routes 28 and 50.

Dempsey had been with The Whiting-Turner Contracting Company since 1976, first in Baltimore and for the last five years in Ft. Lauderdale, Florida, where he was Project Manager for the recently completed Crowne Plaza (Holiday Inn) Hotel at the Miami Airport and for Ft. Lauderdale's Neiman Marcus Store.

A native son, Dempsey graduated from W. T. Woodson High School, Fairfax, in 1972 and received a B.S. in Building Construction from Virginia Polytechnic Institute in 1976.

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INDEX TO ADVERTISERS

—A—

| | |
|-------------------------------------|----|
| A/C Electric Contractors, Inc. | 19 |
| H. R. Adkins Store | 83 |
| Aircon, Ltd. | 54 |
| I. J. Allen & Son, Inc. | 90 |
| Alternative Resources, Inc. | 6 |
| American Silk Mill Corp. | 36 |
| Anderson & Cramer, Inc. | 89 |
| Annandale Millwork Corp. | 49 |
| Arby Construction Enterprises, Inc. | 2 |
| Ashe Brick Co. | 64 |
| Associated Sprinkler Co., Inc. | 64 |
| Atlantic Masonry Co., Inc. | 64 |
| Attco Equipment, Inc. | 82 |

—B—

| | |
|---|----|
| B/J Construction, Inc. | 22 |
| Baldwin & Gregg, Ltd. | 19 |
| L. E. Ballance Electrical Service, Inc. | 20 |
| Bay Tile & Carpet Corp. | 70 |
| Bayshore Concrete Products Corp. | 19 |
| Beeler Building | 78 |
| The Belden Brick Co. | 92 |
| W. W. Boxley & Co. | 22 |
| Brick & Tile Corp. of Lawrenceville | 70 |
| J. M. Briggs | 60 |
| Buckingham-Virginia Slate Corp. | 91 |

—C—

| | |
|---|----|
| Capital Masonry Corp. | 42 |
| Capitol Technographics Corp. | 26 |
| W. S. Carnes, Inc. | 86 |
| Carolina Cast Stone Co., Inc. | 24 |
| Carolina Marble & Tile Co. | 7 |
| Edward G. Carson & Associates, Inc. | 20 |
| C. L. Carter Heating & Air Conditioning Co., Inc. | 78 |
| Cherrydale Cement Block Co., Inc. | 36 |
| The Chesapeake Corp. | 4 |
| Chesapeake Masonry Corp. | 17 |
| Chesapeake Partition, Inc. | 81 |
| G. M. Clements Co., Inc. | 81 |
| Coal Heat, Inc. | 32 |
| Cochran Constuction Co. | 31 |
| Commercial Insurance Services, Inc. | 8 |
| A. Myron Cowell, Inc. | 26 |
| Creative Construction & Development Corp. | 60 |
| J. W. Creech, Inc. | 11 |

—D—

| | |
|--------------------------------|----|
| John W. Daniel & Co., Inc. | 56 |
| Danville Concrete Products | 23 |
| The Danville Lumber & Mfg. Co. | 49 |
| George A. Davis | 4 |
| Walter C. Davis & Son, Inc. | 90 |
| DeHart Tile, Inc. | 59 |

| | |
|--------------------------|----|
| Discount Carpet Center | 60 |
| Downing Insurance, Inc. | 70 |
| Doyle, Inc. | 52 |
| R. L. Dresser, Inc. | 86 |
| Driver Contractors, Inc. | 54 |

—E—

| | |
|-------------------------------|----|
| Earth Energy Systems, Inc. | 84 |
| Empire Granite Corp. | 56 |
| Energy Consultants, Inc. | 13 |
| C. H. Evelyn Piling Co., Inc. | 59 |

—F—

| | |
|-------------------------------------|----|
| Ferrell Linoleum & Tile Co., Inc. | 77 |
| Fishburne Military School | 19 |
| Flowers School Equipment Co., Inc. | 85 |
| Folkers Electrical Construction Co. | 26 |
| James A. Ford Construction Co. | 90 |
| Foulger-Pratt Construction, Inc. | 8 |
| Francavilla Building Co. | 49 |
| Fuel Oils, Inc. | 16 |

—G—

| | |
|--------------------------------|----|
| Gilmore Plant & Bulb Co., Inc. | 26 |
| Glass & Plastics, Inc. | 89 |

| | |
|---|----|
| Glazed Products, Inc./Tri State Foam Products, Inc. | 22 |
| Glen Construction Co. of Va., Inc. | 6 |
| Guy Gray Mfg. Co., Inc. | 6 |
| Gregory Construction Co., Inc. | 86 |
| Gregory's, Inc. | 64 |
| E. T. Gresham Co., Inc. | 4 |
| Guille Steel Products Co., Inc. | 31 |

—H—

| | |
|------------------------------------|----|
| H & P Hardware & Specialty, Inc. | 60 |
| H & S Corporation | 70 |
| Hall, Cotman, Garrison & Roseberry | 20 |
| W. R. Hall, Jr. | 49 |
| John A. Hall & Co., Inc. | 72 |
| Hammond Brothers, Inc. | 88 |
| Hampton Flooring Co. | 32 |
| Hancock-Fuqua, Inc. | 84 |
| John W. Hancock, Jr., Inc. | 20 |
| N. B. Handy Co. | 13 |
| Hanover Fabricators | 26 |
| Harris-Tarkett, Inc., Roanoke Div. | 8 |
| L. C. Heath Roofing, Inc. | 31 |

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| | | | | | |
|--|----|--------------------------------------|----|--|----|
| Heyward Construction Co., Inc. | 20 | Lane Bros., Inc. | 82 | Mays Electric Co. | 23 |
| Hillegass Lighting | 54 | J. W. Lassiter, Inc. | 48 | Miller & Anderson, Inc. | 49 |
| D. A. Hitt Electric | 88 | Lawhorne Brothers, Inc. | 82 | J. B. Moore Electrical Contractor, Inc. | 6 |
| Howell's Heating & Air Conditioning | 81 | R. E. Lee Electric Co., Inc. | 36 | —N— | |
| L. J. Hoy, Inc. | 42 | R. E. Lee & Son, Inc. | 85 | New River Electrical Corp. | 8 |
| Hudson Masonry Co., Inc. | 74 | Lee's Lines, Ltd. | 59 | —O— | |
| —I— | | Lone Star Industries, Inc. | 18 | Oakway Mfg., Inc. | 16 |
| Insul-Plaster, Div. of Ray's Plastering, Inc. | 60 | Luray Caverns | 83 | Richard A. Oliva & Sons, Inc. | 89 |
| Interlock Paving Systems, Inc. | 10 | Lynchburg Steel & Specialty Co. | 18 | —P— | |
| Interstate Electric Supply Co., Inc. | 49 | —Mc— | | Payne & Payne Construction Co. | 56 |
| —J— | | McClure Lumber & Builders Supply | | Pella Virginia, Inc. | 32 |
| Jacobs Consultant Services | 18 | Co., Inc. | 87 | Perfection, Inc. Pumping, Heating & A/C | 32 |
| Jarrett Welding Co. | 70 | —M— | | Personnel Pool | 20 |
| Johnson Irrigation Corp. | 52 | Magic City Sprinkler, Inc. | 86 | Pittman Mechanical Contractors, Inc. | 74 |
| Johnston-Vest Electric Corp. | 85 | Howard E. Marquart & Co. | 76 | Pompei Tile Co., Inc. | 10 |
| Jones Electric Repair Co., Inc. | 20 | Marumco Plumbing & Heating | 88 | Potomac Valley Brick & Supply, Inc. | 64 |
| Fred Jones Well Co. | 30 | Martin Bros. Contractors, Inc. | 82 | C. Roy Pursley Co., Inc. | 42 |
| W. M. Jordan Co., Inc. | 74 | Martin/Horn, Inc. | 60 | —R— | |
| —L— | | E. M. Martin, Inc. | 78 | Rea Construction Co. | 70 |
| R. D. Lambert & Son, Inc. | 78 | | | Roanoke Civic Center | 83 |

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| | | | |
|--|----|---|----|
| SR International, Inc. | 72 | United McGill Corp. | 57 |
| Sanders Quarry, Inc. | 89 | U. S. Tobacco Co. | 60 |
| Schell Supply Corp. | 72 | —V— | |
| Scott-Long Construction, Inc. | 22 | Valley Air Conditioning Corp. | 90 |
| Seager Waterproofing, Inc. | 82 | Valley Fork Coal Co. | 60 |
| Service Contracting of Virginia, Inc. | 82 | Valley Roofing Corp. | 82 |
| The Shed Mfg., Inc. | 13 | Varina Refrigeration Service, Inc. | 36 |
| Howard Shockey & Sons, Inc. | 84 | Varney Electric Co., Inc. | 82 |
| Shorter Funeral Home | 42 | Virginia Asphalt Association, Inc. | 57 |
| Single-Things, Ltd. | 22 | Virginia Reproduction & Supply Co., Inc. | 85 |
| Smith Brothers Enterprises, Inc. | 36 | Virginia Builders, Inc. | 54 |
| Smith-Gerloff Painting & Decorating, Inc. | 42 | Vulcan Materials Co. | 32 |
| Southern Air, Inc. | 82 | —W— | |
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(Above and right) Woody's Funeral Home, Parham Chapel, Richmond, Va.
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