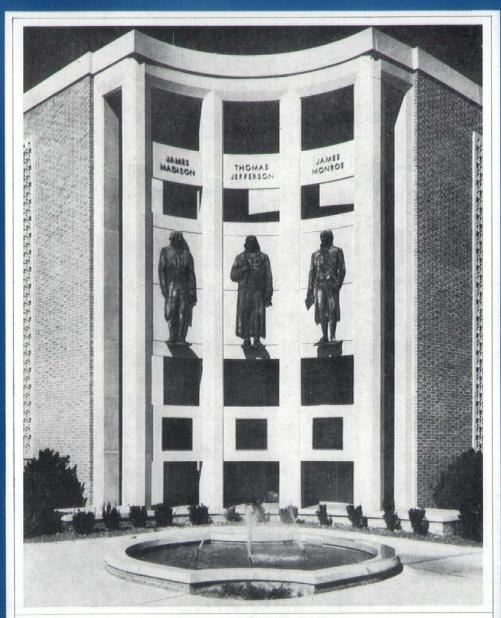


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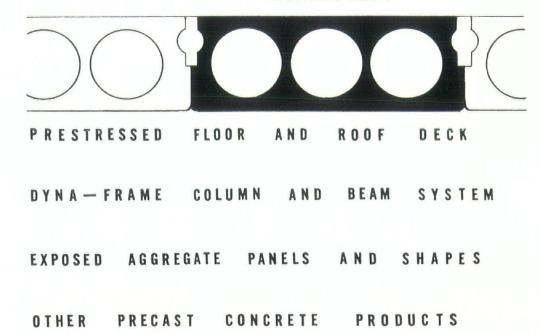
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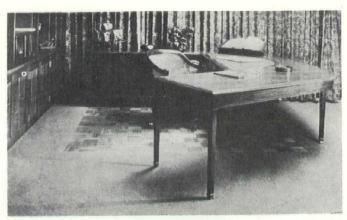
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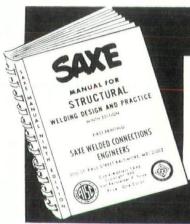
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Vol. 92-No. 8

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AUGUST 1970

"It Would Be a Good Idea"

ONCE WHEN Gandhi was asked his opinion of Western civilization, he replied, "It would be a good idea." That seems about to sum up all the soul-searching and divisiveness in the United States today: where has the *idea* of America failed? The difficulty with making even an approach toward arriving at rational answers is that the country seems polarized between segments holding such extreme viewpoints of absolutes that they can't hear one another. One extreme holds that nothing is right about the nation, and that its system should be destroyed immediately, while the other extreme holds that nothing is wrong about the nation except the disturbances caused by young malcontents.

To take the unoccupied middle ground, it does seem that the nations of (what have been called) "the liberal industrial democracies of the North Atlantic world" have, with all the manifest imperfections, devised the best systems yet known to accommodate the condition of mankind in a technological age. That the technological age itself has done much to the detriment of human values in our time should not cause us to magnify the quality of human values in the past nor to blame the stress on material well-being today entirely on modern technology. Americans were always material-minded and the fact that modern technology makes it possible for a large proportion of its population (larger than in any nation in history) to gratify materialistic affluence simply reveals the uses to which Americans put their highly efficient means for providing the goods of physical well-being.

However, it is not the much disparaged material abundance which debases human values. As Herbert J. Muller pointed out, in *The Children of Frankenstein*, "it is quite possible to lead the good life in a comfortable home with plumbing, central heating, electrical appliances, even a garage." But what happened was that this comfortable, physical well-being became an end in itself to far too many Americans—especially those who did not grow up in such material abundance, or certainly not in the degree to which they acquired it. To them, the material abundance constituted "the good life."

Younger Americans, taking this affluence for granted, discover that in the postwar emphasis on the GNP they are being reduced to consumers and personnel—de-humanized statistics in some headless system—and revolt against the loss of human values in the society of abundance. This is not as new as we think. In the nineteen-twenties, sensitive-minded young men and women all over America felt the same revolt against a materialistic society dominated by Big Business, and expressed by President Coolidge, "The business of America is business." But the young people of the nineteen-twenties revolted as individuals, not in groups, and flocked to the great cities, chiefly New York (and some to Paris), to find what was then called "self-expression" in the arts and publishing and in the theatre. Their impact was to make the nineteen-twenties in America a renaissance, which still stands as the high point in creative work—in quality and quantity—in the nation's history.

The Great Depression ended this brief "golden age" (Continued on page 116)

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VIRGINIA CHAPTER

Late News From The Virginia Chapter

A retired Navy man, Buford S. Lindsay, has been named Executive Director of the Virginia Chapter, AIA. Mr. Lindsay is living in Norfolk at the present time, but he will be in Richmond to assume his new duties at the Executive office on September 1. More on this in a future issue.

New Corporate Members



WILLIAM L. P. CARTER

Born September 1, 1938 in Martinsville, Carter received his Bachelor of Architecture Degree from the University of Virginia in 1961. He has been a Professional Associate Member of the Virginia Chapter since 1968. He is presently with the firm of J. Coates Carter Architect, AIA, in Martinsville.

(Please turn the page)



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AIA NEWS

New Corporate Members

(Continued)



BYRON RUCKER DICKSON, JR.

Born March 21, 1939 in Roanoke, Dickson received his Bachelor of Architecture Degree from the University of Virginia in 1962. He was an Associate Member of the Virginia Chapter from 1966 through 1968. He is presently with the firm of Kinsey Motley & Shane, Architects & Engineers in Salem.



ANGUS BRUCE JOYNER

Born March 23, 1933 in Elm City, North Carolina, Joyner has been an Associate Member of the Virginia Chapter since 1964. He is presently with the firm of Leavitt Associates in Norfolk.

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MICHAEL BRYAN NEWBILL

Born June 29, 1940 in Washington. D. C., Newbill received his Bachelor of Architecture Degree from the University of Virginia in 1966. He has been an Associate Member of the Virginia Chapter since 1966. He is presently with the firm of Oliver & Smith in Norfolk.



ALBERT JENNINGS TURNER

Born February 23, 1940 in Martinsville, Turner received his Bachelor of Architecture Degree from the University of Virginia in 1963. He is presently with the firm of Lee, King & Poole in Richmond.



EUGENE HENRY ZARLING

Born November 6, 1925 in Campridge, Massachusetts, Zarling received his A.B. Degree from the College of William and Mary in 1949, and received his B.S. Degree in 1953 from the University of Virginia. He has been a Professional Associate Member of the Virginia Chapter since 1967. He is presently with the U.S. Army Corps of Engineers.

New Associate Members



TED RILEY BRATTON

Born October 1, 1948 in Pulaski, Bratton attended Wytheville Community College and Virginia Western Community College. He is presently with the firm of Hinnant, Addison & Hinnant in Lynchburg.

ALLEN WAYNE CREASY

Born November 15, 1949 in Lynchburg, Creasy graduated from Altavista High School in 1968. He is presently with the firm of Hinnant, Addison & Hinnant in Lynchburg.



RICHARD MILTON HUGHES

Born December 17, 1936 in Roanoke, Hughes received a Certificate of Drafting from Richmond Professional Institute, and also attended Virginia Polytechnic Institute. He is presently with the firm of Kinsey, Motley & Shane, Architects & Engineer in Salem.

> AIA News Continues on page 75

AUGUST 1970

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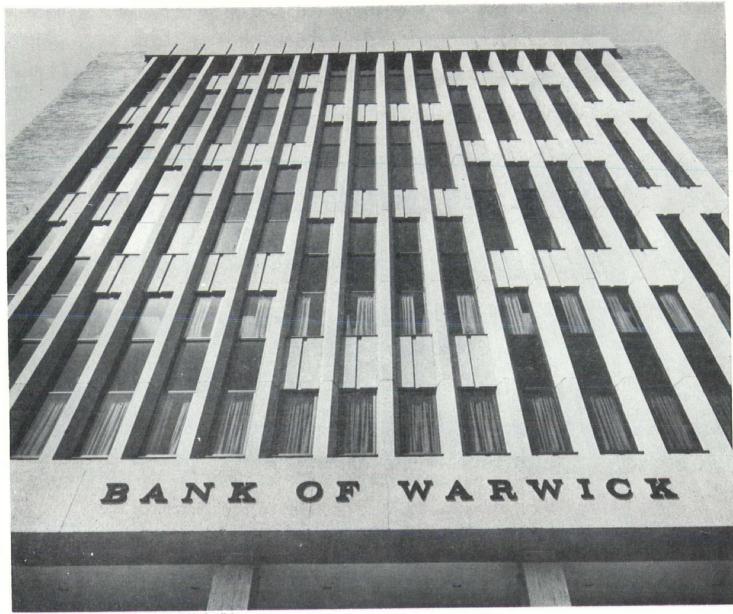
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BANK AND OFFICE BUILDING Bank of Warwick

NEWPORT NEWS

FORREST COILE AND ASSOCIATES
Architect

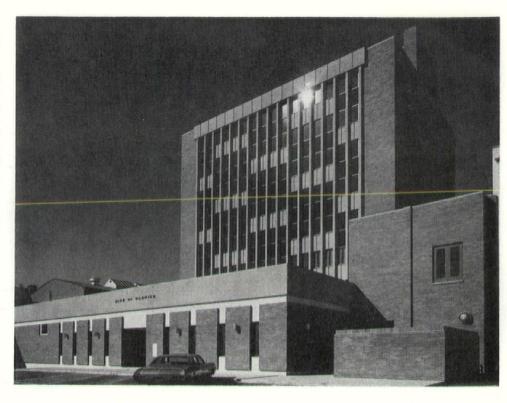
W. BOYCE BLANCHARD Consulting Engineer, Mechanical & Electrical FRAIOLI-BLUM-YESSELMAN ASSOC. Consulting Engineers, Structural

BASIC CONSTRUCTION COMPANY General Contractor

HE NEWEST of a growing number of highrise buildings on the Newport News skyline is the eight-story Bank of Warwick Building. The complex includes two one-story commercial stores and the eight-story office tower. The first floor of the tower houses the new Main Office of the Bank of Warwick. The second floor is devoted to the bank's Executive and Administrative Offices, including all departments of the bank with the exception of computerized bookkeeping. The third through seventh floors are prime rental space set up for long term leasing, with the tenants specifying their own floor plans. The eighth floor contains all mechanical equipment.

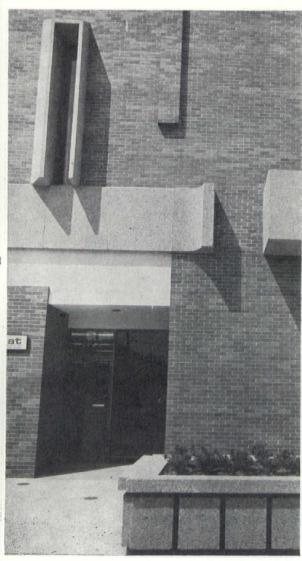
The building is constructed on a friction pile foundation with steel framing and brick veneer and precast concrete exterior walls. All floors were constructed as open spaces to allow maximum flexibility for adopting each tenant's requirements for space allocations. A drive-in teller is located in the large parking lot at the rear of the

building.





Basic Construction Co., Newport News, general contractor; K. F. Wilson, Hampton, excavating; Ford Pile Foundations, Inc., Va. Beach, piling; Hall-Hodges Co., Inc., Norfolk, foundations; Benson-Phillips Co., Inc., Newport News, concrete; Hammond Masonry Corp., Sandston, masonry; Barnum-Bruns Iron Works, Chesapeake, steel & steel roof deck; Roof Engineering Corp., Norfolk, roofing; Southern Block & Pipe Corp., Norfolk, stone work; Walker & Laberge Co., Inc., Norfolk, windows, window walls & glazing; Shaw Paint & Wall Paper Co., Hampton, painting; John H. Hampshire, Inc., Norfolk, acoustical; Febre & Co. of Newport News, Inc., Newport News, plaster; Ajax Co., Inc., Norfolk, ceramic tile, resilient tile & terrazzo: Miller Manufacturing Co., Inc., Richmond, millwork; Door Engineering Corp., Norfolk, steel doors & bucks; The Howard P. Foley Co., Newport News, lighting fixtures & electrical work; Natkin & Co., Richmond, plumbing fixtures, plumbing, air conditioning, heating & ventilating; W. W. Moore & Sons. Inc., Richmond, elevator; Seaboard Paint & Supply Co., Inc., Norfolk, hardware; American Furniture & Fixture Co., Inc., Richmond, bank fixtures.



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Medical-Surgical Building at Dunbar



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THE NEW Medical-Surgical Building at the Dunbar site of Eastern State Hospital at Williamsburg was designed by Ben F. Britt, AIA, for the Virginia Department of Mental Hygiene and Hospitals.

This building contains the general hospital facilities for the new site which it is estimated, will upon completion have a capacity of 2,972 beds. The hospital-medical-surgical facilities consist of Operating Rooms. Clinical and Surgical Laboratories (including autopsy room) X-ray, Pharmacy, Dental Suites and Physical Therapy for all patients; food service and Nursing Units for approximately 100 patients.

The building is of fireproof construction, approximately 310 by 200 feet in size and in an "X" shape. Each area of the building utilizes economical and durable materials suitable to its function. The facility is two stories high, is entirely air conditioned and has an odor control system.

The operating rooms, all patient rooms, examination and treatment rooms, recovery room and nursery have connections for central oxygen and central suction with nitrous oxide connections in all except the patient rooms. Entrances are provided for the general public, ambulances, ambula-

General Contractor
tory patients, employees, supplies and

food service.

There are two major operating rooms with a scrub room in between, dressing rooms for physicians and nurses with adjacent showers, lavatories, toilets, lockers and lounges, a recovery room, x-ray facilities adjacent to one operating room for hip-pinnings, a central sterile supply (with autoclave) and storage for unsterile supplies.

The laboratories include an E.E.G. Room (completely shielded), E. K. G. and Basal Metabolism rooms, sections for Hematology, blood chemistry, urinalysis, bacteriology and other procedures There is a special refrigerator for storage of whole blood.

There are two Radiographic Units, each in separate rooms, with dressing rooms for each sex, a central dark room, room for storage of unexposed FRAIOLI-BLUM-YESSELMAN Structural Engineering

films and x-ray supplies, room for files of exposed films, a waiting room to serve both laboratories and x-ray, offices for the x-ray technician and clerk, toilets and a lounge. The cast room is adjacent to the x-ray and operating suites.

The Physical Therapy areas contain two whirlpool baths and space for diathermy, ultra-sonic massage and infrared therapy.

The morgue contains a room for autopsies (with table) refrigerated space for six bodies and room for storing anatomical specimens and slides. Delivery of the bodies is through the ambulance entrance.

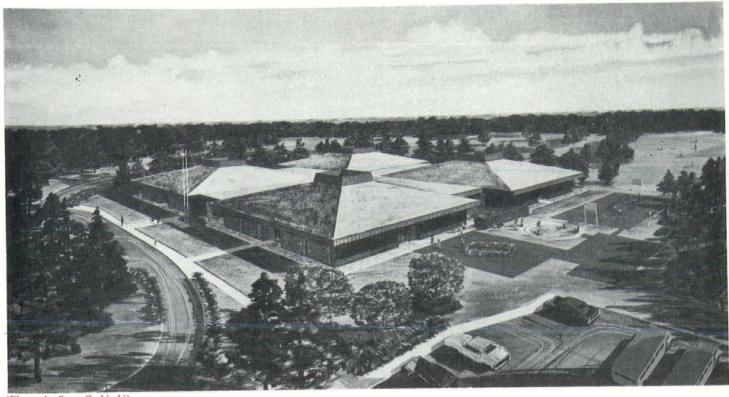
The Pharmacy area contains a waiting room, space for setting out baskets for delivery to the wards, space for shelving for drugs close-at-hand for filling prescriptions, an area for heavy (Continued on page 108)



AUGUST 1970

PAGE THIRTEEN

to tell the Virginia Story



(Photos by Steve Grabinski)

ROBIOUS ELEMENTARY SCHOOL

GRIFFEY & STROLLO ASSOCIATES—Architects

CHESTERFIELD COUNTY SCHOOL BOARD—Owner DR. ROBERT F. KELLY, Superintendent

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WITHIN the last five years, a highly productive and innovative school building program has been evident in Chesterfield County. Much emphasis has been placed on creative design and planning, but by also working within carefully controlled cost budgets, many educational amenities such as carpet, air-conditioning, audiovisual equipment and improved furniture design have been incorporated in both new and old schools.

The Robious Elementary School is one of the most recent responses to the increasing need for more flexible teaching spaces in the fast growing Chesterfield County School System. The major design concept of the architects was to completely "free" the teaching process, and to provide environments for the teaching of a variety of much smaller and much larger groups of students than can be accommodated in most standard classrooms now in operation. This school has facilities for 650 students from kindergarten through the

sixth grade, all being taught in three large 85' x 85' fully carpeted instructional areas which are free of partitions. The various classes or groups are defined by movable furniture allowing each area to function effectively for total class instruction, small group instruction or for work on individual student projects. Strategically located in one corner of each Instructional Block is a lowered floor area with risers around its perimeter that serve as student seating. This area, is primarily for small group activity, but also serves as

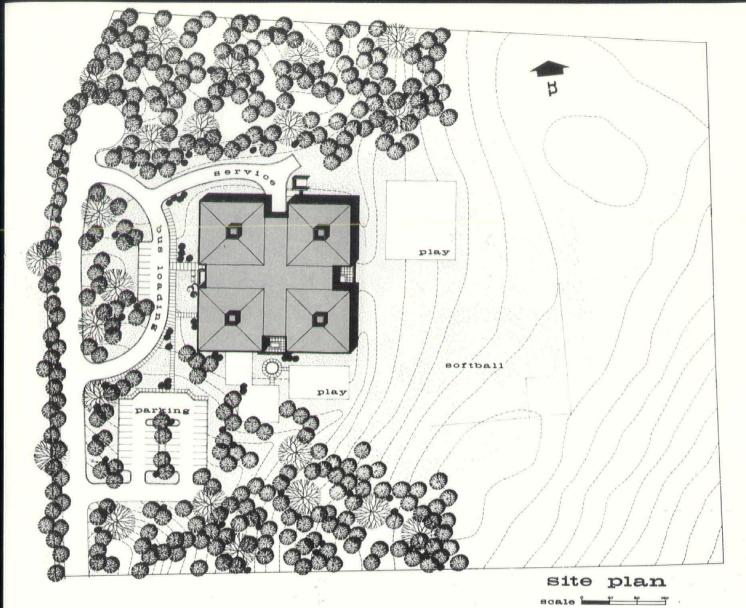
the Science and Art center for each instructional area. It is screened from the large instructional area by the teacher's planning and office area which is designed to assist the instructional team in efficiently carrying out their assigned tasks.

A fourth large space, or Indoor Activity Area, permits year-round activities for all students. It is also equipped with a stage which serves music education as well as use for school assemblies. This multi-use space, and the three In-



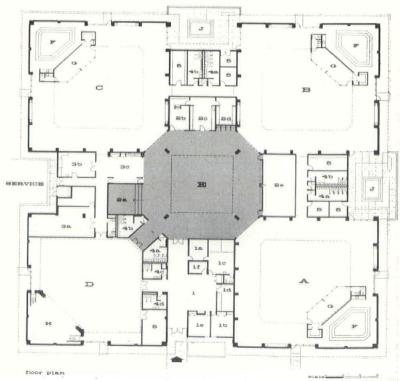
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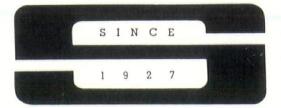
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- A Lower Instructional Block
 B Middle Instructional Block
- Upper Instructional Block
- D Indoor Activity Area
- E Instructional Materials Center
- Group Instruction
- G Teachers Work Room
- H Stage
- J Study Court
- General Office
- la Guidance Office
- 1b Principals Office
- 16 Timelpais Office
- 1c Clinic
- 1d Work Room
- le Conference Room
- 1f Vault
- 2a Library Classroom
- 2b Library Conference Room
- 2c Library Work Room

- 2d Audio-Visual Room
- 2e Speech Classroom
- 3a Mechanical Equipment
- 3b Dishwashing
- 3c Serving Area
- 4a Girl's Toilet
- 4b Boy's Toilet
- 4c Women's Toilet
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BUILDING CONSTRUCTION structional Blocks are grouped about a large Instructional Materials Center, which in the open-plan school, is the real center or "hub" of all student-teacher activities. It is from this area that the various needs of the complete teaching system are served and it not only furnishes the students and faculty with a complete selection of reference materials, but also provides many of the more progressive audio-visual devices which play a much more extensive part in elementary education today than ever before.

The open interior space concept was also applied, wherever possible in other areas of the school. It was reflected in the administration area, which includes a Principal's Office, Conference Room, Clinic, Guidance Office and Reception

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Also, F. Richard Wilton, Jr., Inc., resilient tile & acoustical; Costen Lumber Co., wood flooring; Miller Manufacturing Co., Inc., millwork; Roanoke Engineering Sales Co., Inc., steel doors & bucks; Varina Electric Co., Varina, lighting fixtures & electrical work; Catlett-Johnson Corp., plumbing fixtures, plumbing, air conditioning, heating & ventilating; Tom Jones Hardware Co., Inc., harware and Redford Brick Co., Inc., brick supplier.

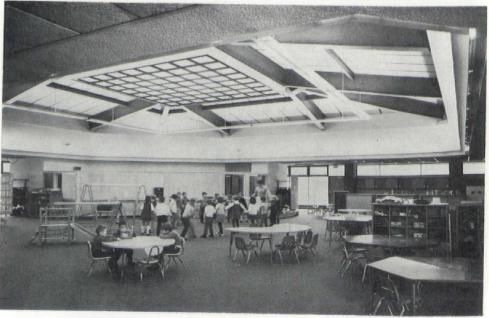
Area. Unlike most schools, Robious Elementary School has no main cafeteria. It will be "satellite" fed, indicating that the food is prepared at another facility and delivered to this school for distribution to the students each day at lunch time. The students will be served from a central serving area but will eat in their individual Instructional Blocks. This system has not only proven more efficient, but more economical as well.

The school's exterior is an earthy brown brick with heavy continuous wood fascias of cedar board-and-batten. Its slightly pitched roofs have deep overhangs for sun control in both high and low glass areas. The major structural system is large steel bents that

(Continued on page 109)









KAREGEANNES RESIDENCE ANNANDALE

KOHLER-DANIELS ASSOCIATES Architects

MASON FACEMIRE General Contractor

E ASY ACCESS to downtown Washington is a plus factor for those who work in the city, but there are obvious disadvantages to living too close to the area's major highways. Both advantages and disadvantages were considered in selection of the site for the Karegeannes residence, pictured here.

The house is located close to the Capitol Beltway—but in one of the few thickly wooded areas along its length. The woods create an ideal barrier against sound, and Architects Kohler-Daniels Associates designed the house to take full advantage of this and other environmental factors.

The house gives almost total privacy on a deep, narrow lot that is bracketed by other houses and does this despite large glass window walls.



VIRGINIA RECORD

Founded 1878

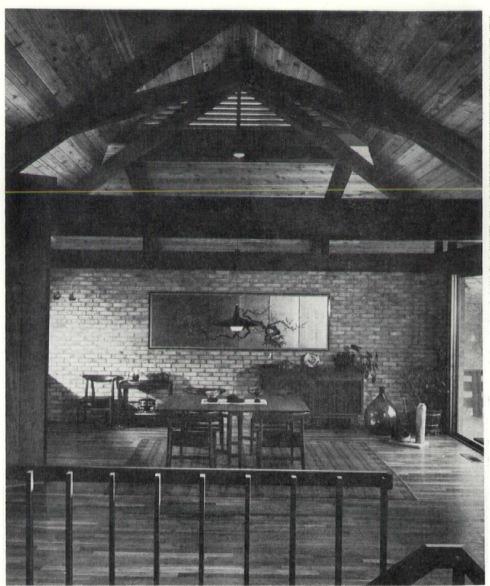
Architect Karl Kohler lives in the same development as the Karegeannes', and was in fact already familiar with the lot when they contacted him.

The architect's first drawings of the proposed house were accepted virtually intact, and construction was begun shortly after the plans were finished.

The chief material used is an off-white brick selected by Mr. Kohler and his clients on a trip to a Winchester brickyard. Brick is combined with glass (six sliding glass doors give access to the outside from various parts of the house). The ceiling material is three-inch cedar lock-deck with hand-split cedar shakes for the main part of the house, and a flat built-up roof over the bedroom wing. The main roof has an oriental flavor, reflecting the views of both the architect and client that roofs should be interesting.

There are a number of intriguing architectural details in this house including the exposed beam construction which supports the main roof of the house, a 'V' shaped fireplace, shoji screens, and a cantilevered tread stairway. The two-level section facing the street and built into the slope contains the garage, guest bedroom and bath. and half basement on the lower level, with living room-dining room on the second level. The upper level is in fact one completely open area, divided only by a stairwell between the two rooms. The effect here is most dramatic, with the upward movement of space interrupted only by the interlacing fir beams supporting the roof and reaching to a 16 foot peak. The beams, incidentally, are of construction grade douglas fir; the unfinished edges have a subtle influence on ambiance, approaching the feeling of hand-hewn beams.

Connecting the main portion of the house with the bedroom wing is a hall-way lined on one side with glass looking onto a court, and on the other side the pantry, and kitchen. The kitchen is in itself an interesting design element, for it is slightly canted so that it remains out of sight of those in the living room. It is nevertheless convenient for serving meals directly or from a counter separating it from the dining room.



(Photos by J. Alexander)

Additional features are two baths, one accessible from the connecting hall, the other in the master bedroom dressing area. Both have sunken tile tubs, a refinement made possible by the architect's taking advantage of the natural slope of the land. There is also a fenced Japanese garden, adjoining the dressing room, which is visible through a wall of glass.

A clerestory is designed as part of each room so that one has a sense of the roof floating above the walls; at night, when the curtains have been drawn, one continues to see outside: treetops, the night sky — occasionally the moon—are forever a part of this

unique house. The interior walls are of brick (left exposed), roughsawn redwood, and burlap, the latter used because of the reasonably tight budget and because it is a perfect foil for art work. The emphasis thus is on texture and natural colors. Another happy result of the budget problem was that—except for the connecting hallway and kitchen, whose floors are of red quarry tile—all flooring is of No. 2 grade oak strips, giving a variety of color and grain pattern.

As to amenities, the house is in all ways responsive to the needs of its

(Continued on page 110)

Subcontractors and Suppliers

Mason Facemire, Annandale, general contractor, excavating, piling, foundations, concrete, masonry, carpentry, brick, installed glass & insulation; Rissco., Inc., Alexandria, roofing; Shenandoah Brick & Tile Corp., Winchester, supplied brick; McClary Tile, Inc., Alexandria, ceramic tile, slate, brick floor; E. L. Bruce Co., Falls Church, supplied wood flooring; Ewing Lumber & Millwork Corp., Beltsville, Md., lumber; A. W. Mellott, Inc., Arlington, electrical work; F. W. Harris, Inc., Annandale, plumbing & air conditioning; C. J. Payne Cooling & Heating, Leesburg, heating.

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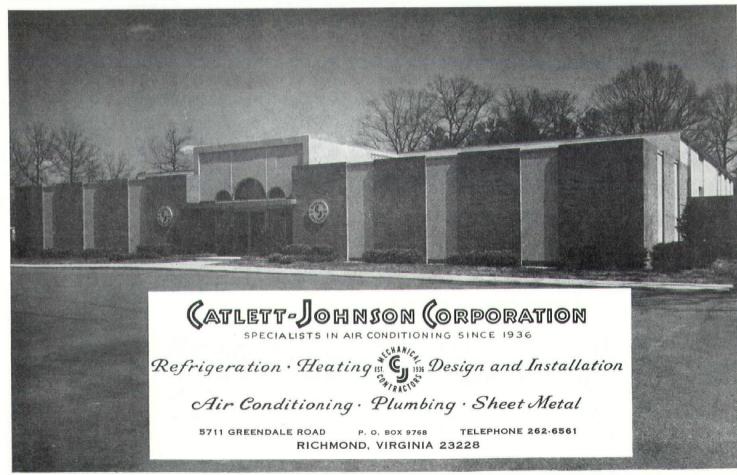


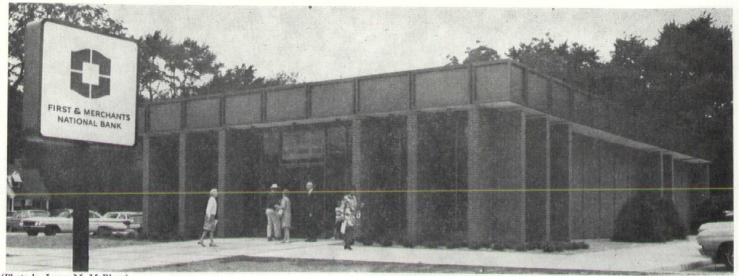
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WASHINGTON, D. C.





(Photo by James M. McElroy)

First & Merchants Bank Branch in Ashland

CARNEAL & JOHNSTON Architects & Engineers

SCHECHTER & LUTH Interior Designers

BASS CONSTRUCTION CO., INC.
General Contractors

JAMES T. BUCK Landscape Architect

THE NEW Ashland office of the First and Merchants National Bank, designed by Carneal & Johnston, Architects and Engineers, was opened on June 15—with special ceremonies featuring drawings for a color television set and other prizes.

Located at the corner of England and Taylor streets, the branch was designed particularly to meet the growing banking needs of Ashland and Hanover County.

The new bank features a total of more than 5300 square feet of floor space on two levels. On-site parking is available as well as two drive-in banking windows with room for a third at a later date.

The office was completed at a cost of about \$300,000. including the cost of the vault, furniture and fixtures.

F&M in Ashland is moving from the corner of England and Center streets where it and its predecessor, the First National Bank of Ashland, had been located since 1920. F&M and First National merged in 1960.

Carneal and Johnston of Richmond were the architects

and engineers for the new building, while the New York City firm of Schechter & Luth provided interior design services, and James T. Buck of Richmond was the Landscape Architect.

Subcontractors and Suppliers (Richmond firms unless otherwise noted)

Bass Construction Co., Inc., general contractors; Reames & Moyer, Inc., mechanical; H. E. Oliver Electrical Contractors, electrical; E. G. Bowles Co., grading and paving; Lee Roy Boshen, Jr., Ashland, masonry; B & K Steel Co., structural steel; Bowker & Roden, Inc., reinforcing steel; H. Beckstoffer's Sons, millwork; Consolidated Tile Co., ceilings & floor tile; J. S. Archer Co., Inc., metal doors & frames; Pleasants Hardware, builders hardware; F. Richard Wilton, Jr., Inc., plastering & stucco; N. W. Martin & Bros., Inc., roofing; Stonnell-Satterwhite, Inc., ceramic tile; E. S. Chappell & Son, Inc., caulking; Sash, Door & Glass Corp., glass & aluminum store front; Street & Branch, Inc., painting and wall covering; Richmond Primoid, Inc., waterproofing; Vogel-Ritt Virginia, Inc., termite protection; Diebold, Inc., Canton, Ohio, vault equipment; American Furniture & Fixture Co., Inc., tellers' counters; Lairds Nurseries, landscaping.

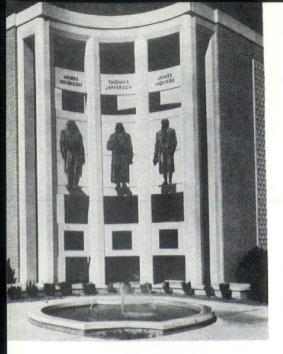




to tell the Virginia Story

AUGUST 1970

PAGE TWENTY-ONE



Cover Story:

CITY HALL CHARLOTTESVILLE

PART OF NEW MUNICIPAL CENTER

GRIGG, WOOD & BROWNE
Architects

HANKINS & ANDERSON Consulting Engineers Mechanical & Electrical

THOMAS A. HANSON & ASSOCIATES Consulting Engineers Structural

> R. E. LEE & SON, INC. General Contractor

Interiors and Landscaping By the Architect James M. McElroy Photography

THIS STRUCTURE, completed in 1969, represents the accomplishment of the second phase of the overall master plan for the municipal center for the City of Charlottesville. Previously completed was a unit housing the Police Department, Police & Juvenile Courts, and the Welfare Department. The master plan envisions ultimate expansion, if required, on the site of the present City Recreation Center which was formerly a National Guard Armory now scheduled for demolition.

Both of the completed units were built by the same architect and contractors.

The exterior mass and detailing are responsive to the requirements of the neighborhood plan. The complex is lo-cated in an area of downtown Charlottesville where the historic environment is treasured as a tourist attraction. While not repeating the Jeffersonian detailing of Charlottesville architecture. materials and scale have been employed to provide a harmonious regional character. The site plan was largely dictated by the requirements of the establishment of a strong central axis on the diagonal of the site, the purpose being to provide a frontispiece related to the southern access to the city and downtown area which is provided by Route 20 and the overpass over the C & O tracks; from this vantage point a particularly challenging opportunity for a civic greeting of visitors is provided.

The dominant apex facade reflects the pride of the Charlottesville community in the three national presidents associated with the community. Basrelief sculptures of Presidents Jefferson, Madison and Monroe, together with

plaque inscriptions of their national contributions, provide a strong historic flavor to the entire composition.

The requirements of the city included provisions for minimum maintenance and upkeep. To this end, a high degree of durability was reflected in the specifications. Plastic coatings were generally used for floors and walls in the work areas, the public areas are finished with millwork employing Formica surfaces. A second major requirement was departmental expandability and flexibility. The plan arrangement and the detailing of the Council Chamber, lo-

cated on a focal point of the essentially triangular site plan, seeks to express in the seating arrangement and proximity of the people to their representatives, the councilmen, the democratic and representative nature of the city government. The room has a high degree of acoustical accommodation to this use and the importance of auditory communication between council and the public is reflected in provisions for microphones and other presentation techniques. A separate space is provided for the press, radio and television reporting of the council proceedings.

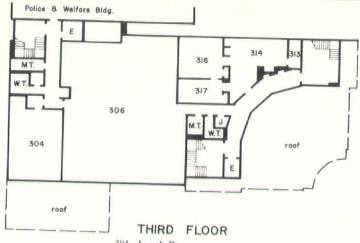
Subcontractors and Suppliers

R. E. Lee & Son, Inc., Charlottesville, general contractor, excavating, foundations, concrete, masonry & plaster; N. W. Martin & Bros., Inc., Charlottesville, roofing; Bedford Stone Co., Bedford, Indiana, stone work; O'Ferrall, Inc., Richmond, acoustical & flooring; Oliva & Lazzuri, Inc., Charlottesville, terrazzo; Mottley Construction Co., Inc., Farmville, millwork; The Howard P. Foley Co., Richmond, electrical work & plumbing fixtures; L. A. Lacy, Inc., Charlottesville, plumbing, air conditioning, heating & ventilating; Dominion Elevator Co., Inc., Salem, elevator; All Steel Equipment, Inc., Aurora, Illinois, furniture; Louis Armento, sculpture; General Builders Co. of Lynchburg, Inc., Lynchburg, seamless flooring.

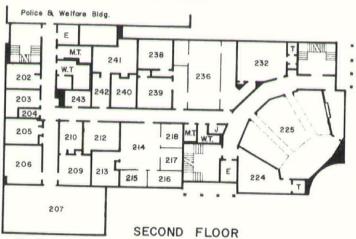


VIRGINIA RECORD

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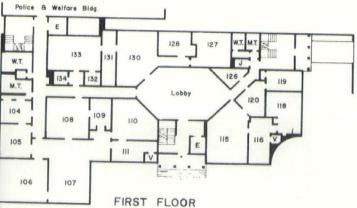


- 304 Lunch Room
- Expansion Room Secretary Assessor's Office Secretary Assessor's Office Appraiser's Office Assessor's Office 313
- 314
- 316



- Parks & Cemeteries
- 203 204 Estimator's Office
- Instrument Room 205
- Assistant City Engineer File Room—Eng. Dept. 206
- 207
- 209 210
- Drawing Room
 Dir. of Public Works
 Dir. Public Works Sec.
 Conference Room
 Inspection Dept. File Room
- 213
- 214
- Secretary—Inspecion Dept. Building Official Building Inspector 215
- 216

- 217 218 Plumbing Inspector Electrical Inspector 224
- Mayor's Office Council Chambers
- City Manager 236
- Secretaries 238
- City Attorney Asst. City Manager Planning Director
- 241 Planning Work Room
- 242 Planning Secretary
- Copying Machine Room



- Purchasing Agent Secretary
- Purchasing Agent 105
- 106 Machine Room
- 107 Dir. of Finance Work Room
- 108 Secretaries
- Director of Finance Office 109
- 110 Director of Finance Collections
- 111 File Room

- Treasurer's Collections Treasurer's File Room Treasurer's Work Room 118
- Treasurer's Office
- 120 Treasurer's Secretary
- 126 Vacant
- Comm. of Revenue License 127
- Comm. of Rev. Office Comm. of Rev. Public Room 130
- Comm. of Rev. File Room Comm. of Rev. Proof Reading Room 131
- 132
- Vault
- 134 Storage Room



CITY MANAGER'S OFFICE

MAYOR'S OFFICE





COUNCIL CHAMBER SEEN FROM NEWS MEDIA ROOM

COUNCIL CHAMBER-NEWS MEDIA ROOM AT LEFT OF PHOTO





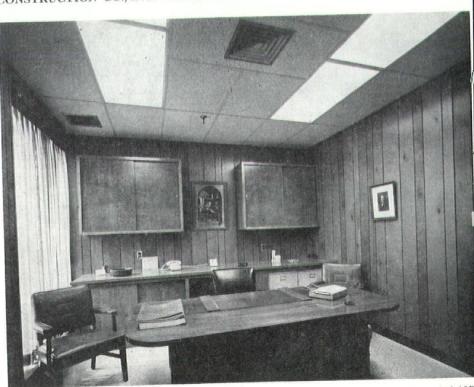
(Photos by James M. McElroy)

JAMES McGRAW, INC. - WAREHOUSE AND OFFICE

J. ROBERT CARLTON — Architect & Engineer BASS CONSTRUCTION CO., INC.—General Contractor

THE FAMILIAR scene on a sign at the corner of 9th and Cary Streets showing the diligent little maintenance man, wrench in hand, chasing a terrified little man shaped like a factory, is no longer there. The relocation of the offices and warehouse of James McGraw to 2900 Deepwater Terminal Road have taken the little maintenance man out of the congested area of downtown Richmond and put him on an industrial access road where supplies can readily be shipped in and out. Now plentiful parking and easy access is available for city-county trade. The construction of the facility includes a yellow face brick office with chocolate brown access panels over the vertical windows. The rear portion of the building consisting of the warehouse is constructed of simple masonry block sealed with Spray-crete surrounding a frame of structural steel, bar joist metal deck and built up roofing. The total installation is the most

(Continued on page 111)



VIRGINIA RECORD

Founded 187

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VOCATIONAL TRAINING BUILDING

WOODROW WILSON REHABILITATION CENTER Fishersville

VOSBECK VOSBECK KENDRICK REDINGER Architects—Engineers—Planners

> NIELSEN CONSTRUCTION CO., INC. General Contractor

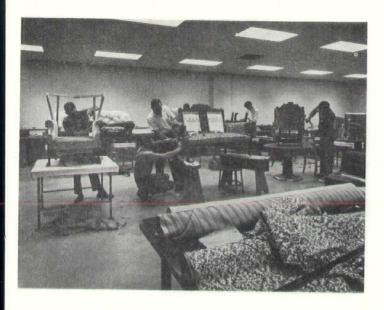
> > Photography by J. Alexander

THE VOCATIONAL Training School at the Woodrow Wilson Rehabilitation Center in Fishersville is the third new building to be completed since comprehensive master planning for the Center was initiated in 1961 through funding from the Center Foundation, The Commonwealth of Vir-

ginia, and the Health, Education and Welfare Department of Vocational Administration.

Although the original master plan,

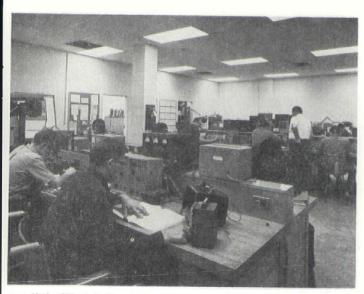
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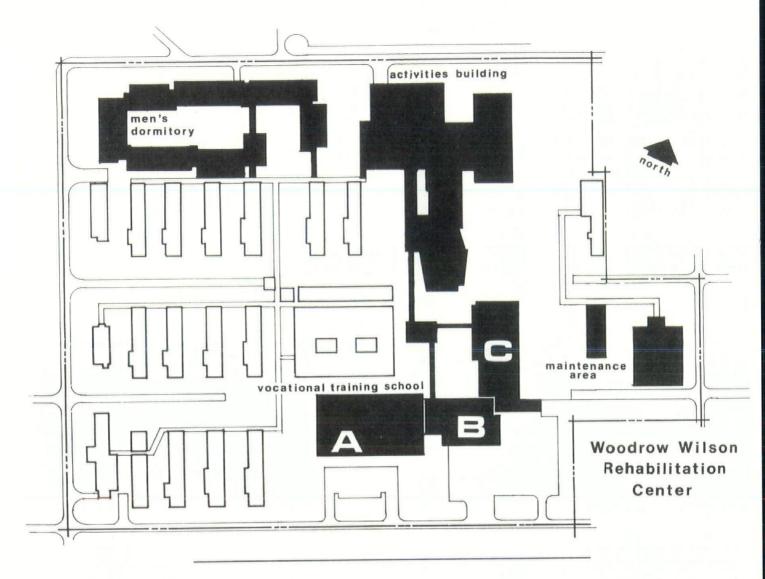




to tell the Virginia Story

AUGUST 1970

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prepared by Vosbeck Vosbeck Kendrick Redinger, has undergone only slight changes during construction of the Men's Dormitory, Activities Building and Vocational Training Building, it has remained flexible during construction to assure that individual building design and development is completed in a way compatible with the entire development program and the comprehensive rehabilitation services of the center.

All buildings in the center will be grouped around a central quadrangle and situated according to the flow of student and staff activities. The Vocational Training Building, completed in 1969, is positioned next to the Activities Building. A covered walkway extends from the Men's Dormitory past the Activities Building and connects directly to the Vocational Training Building. This allows an under-cover, all-weather circulation approach to all buildings.

The basic aim of the Vocational Training Facility is to provide welldesigned and entirely appropriate spaces for all phases of the vocational rehabilitation program as it now exists at the center, and to allow for future growth. It was first anticipated that this would be accomplished by designing three distinct buildings, closely related and possibly built in separate stages. After careful study of several design schemes, the most effective answer lay in one 92,903 square foot structure with three identifiable units carefully related as to function and design.

In order to provide a unified design for the entire center, the exterior architectural expression of the Vocational Training School follows the general appearance of the Men's Dormitory and the Activities Building. Completely fireproofed, the building contains generous circulation areas and corridors, allowing for easy movement of wheel chairs and trainees with prosthesis required because of severe disability. For the same reasons, unique design and placement of shelves, locker space, furniture and fixed equipment was needed. Through proper design and the use of movable partitions, flexibility of spatial arrangement within the building has been achieved so that future expansion or reduction of individual programs is possible.

Based on a maximum of six hundred trainees in the center, nineteen vocational training courses are taught in the school, separated into three distinct sections, based on course compatibility and factors such as noise level, accumulation of dust and dirt, and machinery vibration.

Section A, on the upper level, contains an evaluation area, general classrooms, custodial training area, sewing training room, watch repair laboratory, nursing aide training area, medical aide training area, homemaking training area, classrooms for business education and special education, and offices and interview rooms.

Section B, on the upper level, contains a joint-use classroom, barbering training area, cosmetology room, food service training area, drafting room, conference room and vocational training administrative offices.

Section C on the upper level contains classrooms, upholstery training area,

woodworking training area, radio-television repair training area, small electrical appliance repair area, welding training area, and general mechanics training.

Section A, on the lower level, contains the main evaluation and administrative areas, the staff lounge and conference room.

Section B, on the lower level, contains the tool room, locker room, auto mechanics training area, auto repair training area, mechanical equipment area, general supply and storage area, classrooms and offices.

Presently under construction at the center is the Women's Dormitory. Future projects include a medical services facility, professional affiliates building, special education facility, and sewage treatment plant.



From Harrisonburg were: Nielsen Construction Co., Inc., general contractor, foundations, concrete, masonry, structural wood, carpentry, waterproofing & millwork; David A. Reed & Sons, Inc., excavating; G. A. Largent Construction Co., Inc., roofing & insulation; Riddleberger Brothers, Inc., plumbing, air conditioning, heating & ventilating.

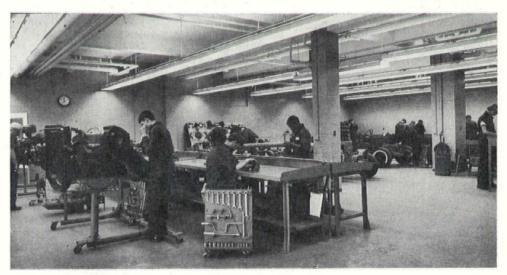
Others were: Valley Steel Corp., Salem, steel; Montague-Betts Co., Inc., Lynchburg, steel roof deck; PPG Industries, Inc., Roanoke, windows, window walls & glazing; Brewer Paint & Wallpaper Co., Inc., Greensboro, N. C., painting & plastic wall finish; O'Ferrall, Inc., Richmond, acoustical & ceramic tile; W. F. Hoy, Staunton, plaster; Liphart Steel Co., Inc., Richmond, steel grating; Augusta Steel Corp., Verona, steel doors & bucks; Hale Electric Co., Inc., Verona, lighting fixtures & electrical work; Bailey-Spencer Hardware Co., Inc., Lynchburg, plumbing fixtures & hardware; Imperial Elevator Corp., Roanoke, elevator.

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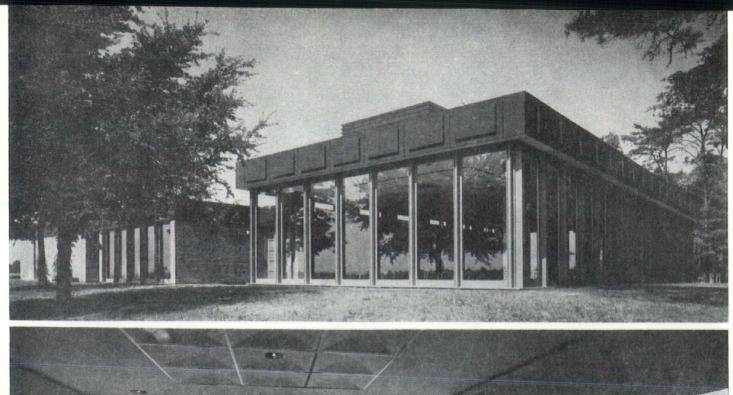
THEY PAY!



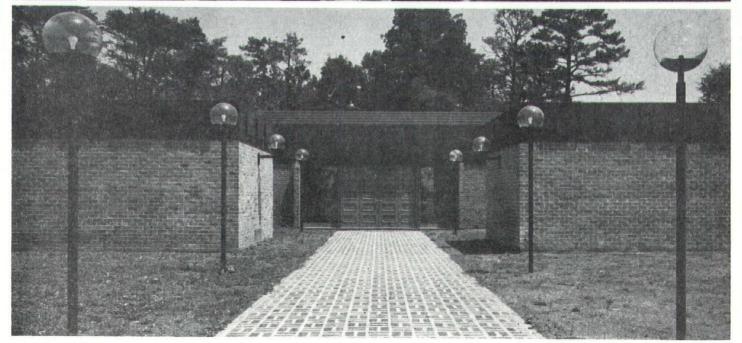




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VIRGINIA RECORD

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WEDGEWOOD **COUNTRY CLUB**

FARMVILLE

JONES & STRANGE-BOSTON Architects — Engineers

> ROBERT S. SPRATLEY & ASSOCIATES **Engineering Consultants**

ANDREWS LARGE & WHIDDEN, INC. General Contractor

PERCHED on a knoll beside the Community Airport at Farmville, and framed by a stand of tall pines leading down to a lake, this clubhouse, designed by Jones & Strange-Boston, places prime emphasis on solving the difficult problem of scale in an open golf-course setting.

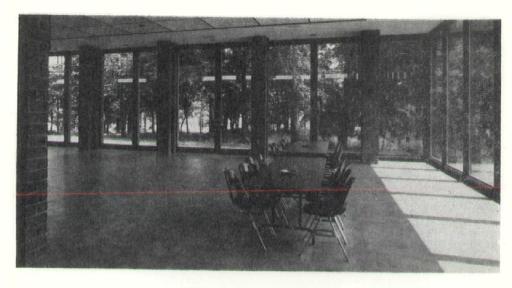
The visitor is led on a brick walk from the undefined outdoor space through a courtyard into a low entry area, as a progression of steps in space definition. All interior circulation is paved with brick in continuity with this. The central entry opens into a large glass-walled ballroom as the next step in relating the building to its setting, and the ballroom, surrounded by the pine woods, looks through the trees down to the small lake below. The richness of detailing on the wood window walls and the fascia, together with the choice of warm earth colors for materials, is a conscious effort in developing scale relationship to human size as one comes closer to the building.

The glass walls in the ballroom are 12-foot high insulating glass panels with several full-height pivoted sections for joint use of an outside terrace. A coffered acoustical ceiling and heavy articulated brick piers serve to create a strong expression of height in harmony with surrounding trees, which are real-

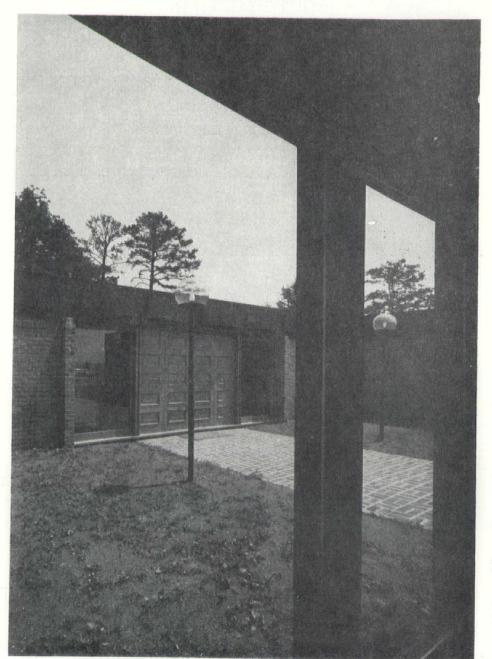
ly a part of the room.

The cocktail lounge, featuring a copper bar, looks out on No. 1 tee through a similar glass wall. The lounge is arranged to serve directly to golfers, through a rear door, or to serve the ballroom, as well as to provide a scenic gathering place. The kitchen is arranged to serve the ballroom, future dining rooms, and the pool area. Pool

(Continued on page 113)



(Photos by James M. McElroy)



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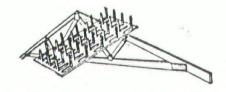
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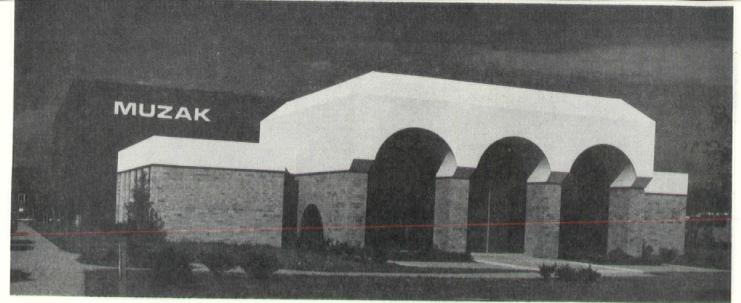
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(Taylor Lewis & Assoc. Dockside Studio)

Industrial Electronics and Daily Press Vehicle Service Building Newport News

FORREST COILE & ASSOCIATES
Architect

MATHEW J. THOMPSON Mechanical Consultant A. E. TYLER Interior Designer

THE MUZAK Building on Warwick Boulevard in Newport News houses General Sales and Administration Offices, as well as technical facilities for a subscription music and electronics firm. Also included is a general maintenance shop for the nearby Daily-

Press, Times-Herald Newspaper Plant. Incorporating these two distinct functions in one building necessitated an attractive and impressive sales area and a functional clearspan area for vehicle maintenance. The office portion

is steel framed on masonry bearing wall

W. M. JORDAN CO., INC. General Contractor E. J. BOWMAN Electrical Consultant

with the deep arched interior ceiling extending through aluminum curtain wall to form the exterior elevation. The vehicle maintenance portion is steel frame with metal panel exterior walls. The two are joined by a glasswalled passage that exposes formal planting in an exterior atrium.

W. M. Jordan Co., Inc., Newport News, general contractor; E. W. Muller Contractor, Inc., Newport News, excavating; Chesapeake Masonry Corp., Hampton, foundations, concrete & masonry; Standard Iron & Steel Co., Norfolk, steel; Heath Roofing Co., Inc., Hampton, roofing; Walker & Laberge Co., Inc., Norfolk, windows; Febre & Co. of Newport News, Inc., plaster; Pompei Tile Co., Inc., Hampton, ceramic tile & slate; W. Morton Northen & Co., Inc., Richmond, resilient tile; Door Engineering Corp., Norfolk, steel doors & bucks; Perry Electric Co., Inc., Newport News, electrical work; Warwick Air Conditioning, Inc., Hampton, plumbing fixtures, plumbing, air conditioning, heating & ventilating; H. H. Robertson Co., Pittsburgh, Pa., metal siding.



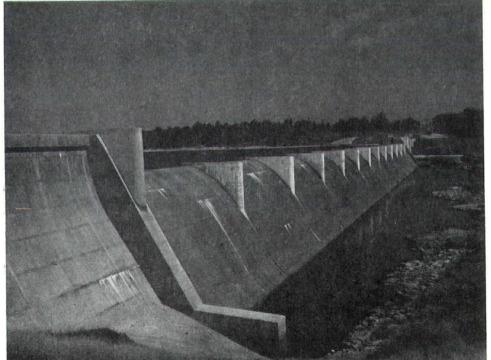
to tell the Virginia Story





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VIRGINIA RECORD

WILEY & WILSON Engineers, Architects Planners

W. M. JOHNSON, PE Partner in charge of Engineering

T. R. LEACHMAN, AIA Partner in charge of Architecture

GEORGE F. BRASFIELD Dam

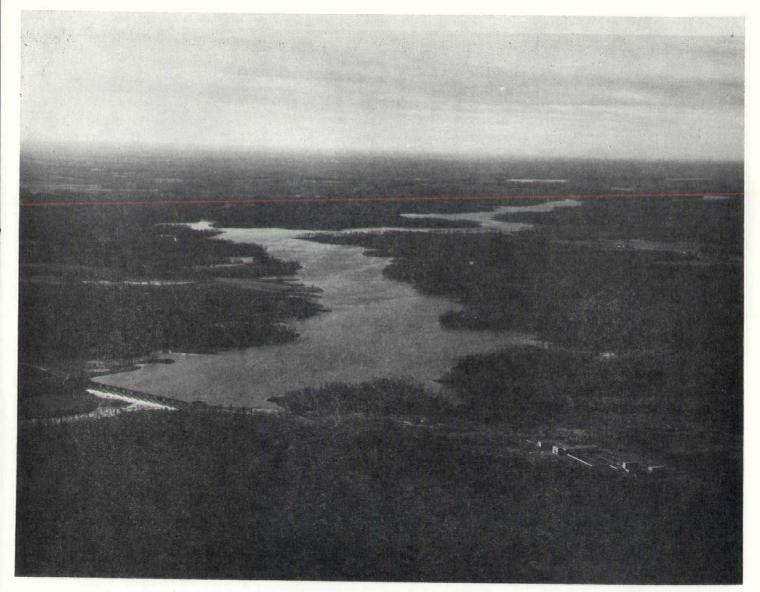
WILEY N. JACKSON CO. General Contractor

FILTER PLANT

J. M. TURNER & CO., INC. General Contractor

> Photography by James M. McElroy

> > Founded 1878



APPOMATTOX RIVER WATER AUTHORITY

A COOPERATIVE program to supply the present and future water needs of five separate political entities in Virginia has proven successful with the added benefits of stimulating the recreational growth of the area.

Now in the third year of operation. the Appomattox River Water Authority came into being to supply the public and commercial water needs of Petersburg, Colonial Heights and the counties of Chesterfield, Dinwiddle and Prince George — through construction of the George F. Brasfield Dam on the Appomattox River.

The resulting Lake Chesdin, a 3,060-acre reservoir impounding approximately 12 billion gallons of water, backs up some 17 miles toward Lynchburg. The complex also includes a 22-million gallon-per-day water treatment plant, with provisions for expansion to



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100 million gallons per day, and pumping facilities to supply the miles of distribution pipelines.

The history of the Appomattox River Water Authority really began in the early 1950's, when the officials of the City of Petersburg became aware that the city would soon have to construct a new filter plant. The existing plant was not only antiquated, with much obsolete equipment, but the increasing water demand was approaching plant capacity. The old pumping station on Lieutenant Run in the eastern part of the city had been constructed in 1856, and was still an integral part of the system.

Colonial Heights was also experiencing water difficulties by the midfifties. Rapid residential growth had so increased water consumption that the relatively new plant was reaching maximum capacity. Chesterfield, Dinwiddie and Prince George Counties were also feeling growing pains because of rapid development, and to the east, Norfolk and the Newport News areas were considering long-range water needs.

Where the idea originated for a combined development of the Appomattox River to serve the needs of all these communities is lost in obscurity. In 1956, Roy Ash, then city manager of Petersburg, called together representatives of Norfolk, Portsmouth. Petersburg, Newport News, Colonial Heights and Chesterfield County at a meeting of the League of Virginia Municipalities. The result: agreement to finance a study to determine the feasibility of developing the river to meet their combined needs.

Wiley & Wilson, a Lynchburg-based firm of engineers, architects and planners, was called on to prepare the initial study, and later, to design the dam, water treatment facilities, and pipelines.

The study was presented in August 1958, showing that construction of two storage dams and the necessary treatment facilities and pipelines could supply 350 million gallons per day from the river, which would care for all foreseeable needs of the area for both industrial and municipal purposes well beyond the year 2000.

Newport News, Norfolk and Portsmouth had recently committed large sums for development of additional raw water and did not feel inclined to embark on a project of this size at that time. However, the situation in Petersburg and Colonial Heights was becoming critical. Together with the three counties, they formed an authority to

develop a scaled-down version of the water supply project to fill their needs. The Authority was organized under the provisions of the Virginia Water and Sewer Authorities Act and a certificate of incorporation was issued by the State Corporation Commission in November 1960. Plans for financing and construction of the project were started immediately.

George F. Brasfield, representing the city of Petersburg, was named chairman. It was only fitting that the dam which was eventually constructed be

named for him.

Although reduced in size, the project was still a major undertaking costing more than 8½ million dollars.

The gravity-type dam constructed across the Appomattox River some six miles upstream from Petersburg is 1,250 feet long and 45 feet high, containing approximately 85,000 cubic yards of concrete. The filter plant facilities include a clear water pumping station with a one-million gallon clear water storage well, a two-story filter building with three sedimentation basins, two mixing basins, a pipe gallery. administration offices, laboratory, and a two-story chemical feed building. A maintenance building was added at a later date for machinery storage and mechanical equipment spaces.

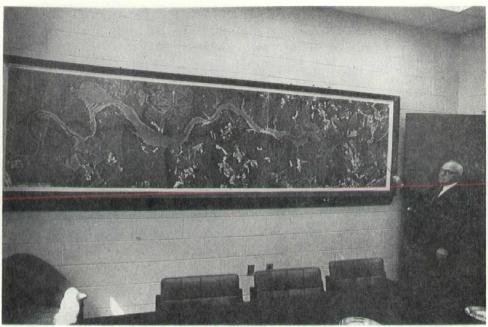
Masonry construction using split block with masonry block backup was used in erection of the buildings. In conjunction with the split block was the use of pre-cast stone trim, ceramic glazed brick spandrels, aluminum windows and fascia. Quarry tile and vinyl asbestos tile with acoustical tile and plaster were utilized in the office areas. Ceramic tile wainscots were provided in the filter and laboratory areas with ceramic tile floors in the toilets. Most of the interior is painted, exposed masonry block.

The administrative and laboratory areas are air conditioned with all other areas heated with unit heaters. The pipe gallery is provided with complete dehumidification. Lighting is fluorescent throughout the interiors.

Raw water from the reservoir is lifted by turbine type pumps to the filtration plant located approximately 2,000 feet north of the dam on the Chesterfield County side of the river.

The filter plant has a rated capacity of 22 million gallons per day based on a filter rate of four gallons per minute per square foot of filter area. Water enters the plant at the chemical feeder building where the necessary chemicals, based on water condition,

(Continued on page 113)



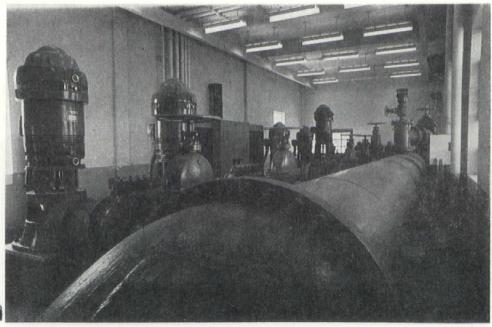
COL. L. F. ROSE EXAMINES MAP

Subcontractors and Suppliers GEORGE F. BRASFIELD DAM

Wiley N. Jackson Co., Roanoke, general contractor; Sydnor Hydrodynamics, Inc., Richmond, supplied Fairbanks-Morse Pumps; Armco Steel Corp., Raleigh, N. C., steel pipe to treatment plant; Lynchburg Foundry Co., Lynchburg, cast iron pipe; Flow Equipment Corp., Baltimore, Md., M. & H. valves; BIF, Unit of General Signal Corp., Providence, R. I., chronoflow indicator & sluice gates; Structural Steel Co., Inc., Roanoke, miscellaneous metalwork; Owen Steel Co. of N. C., Inc., Gastonia, N. C., reinforcing steel; Allis-Chalmers Mfg. Co., York, Pa., trash rake & cone valve; Link-Belt Div., FMC Corp., Colmar, Pa., traveling water scheen; Lone Star Cement Corp., Richmond, cement; Southern Materials Co., Inc., Richmond, aggregate; J. Lawson Jones Construction Co., Inc., Clarksville, relocation of existing roads & bridges; Phillips & Jordan, Inc., Robbinsville, N. C., reservoir clearing; Howard Construction Co., Inc., Greensboro, N. C., water lines.

Subcontractors and Suppliers FILTER PLANT

J. M. Turner & Co., Inc., Salem, general contractor; Burton P. Short & Son, Inc., Petersburg, paving; Montague-Betts Co., Inc., Lynchburg, miscellaneous metal reinforcing steel; Darling Manufacturing Co., valves; Link-Belt Div., FMC Corp., Colmar, Pa., floculation equipment; Lynchburg Foundry Co., Lynchburg, cast iron pipe; J. M. Murphy Co., Inc., Roanoke, electrical; J. H. Cothran Co., Inc., Altavista, plumbing; Southern Materials, Co., Inc., Richmond, concrete; Arnold Stone Co., Greensboro, N. C., pre-stressed concrete; Economy Cast Stone Co., Richmond, precast concrete; Leonard Smith Sheet Metal & Roofing, Inc., Salem, roofing.



to tell the Virginia Story

AUGUST 1970

PAGE THIRTY-SEVEN

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(Photos by James M. McElroy)

EASTMINSTER PRESBYTERIAN CHURCH AND COMMUNITY CENTER

1601 Littlepage Street-Richmond, Va.

BROOKS & WOMACK—Architects

BARKER CONSTRUCTION CO., INC.—General Contractor

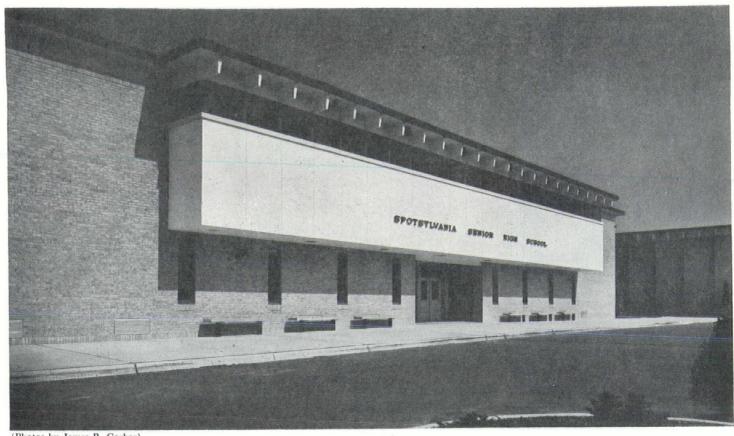
THIS BUILDING houses a seven-day-a-week program in that it has a dual use as a Church and as a Community Center. It therefore was incumbent upon the architects to provide a building with spaces that would serve both purposes. The main floor provides administrative offices, kitchen, meeting rooms for small groups, and a large hall for bigger community meetings as well as indoor games. Below on the ground floor are facilities designed for a day care center, church school rooms, and meeting room for boy and girl Scouts.

Besides a worship service and church school on Sunday, during the week the building houses Operation Uplift which is a Federally aided program for

(Continued on page 115)

AUGUST 1970

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(Photos by James R. Garber)

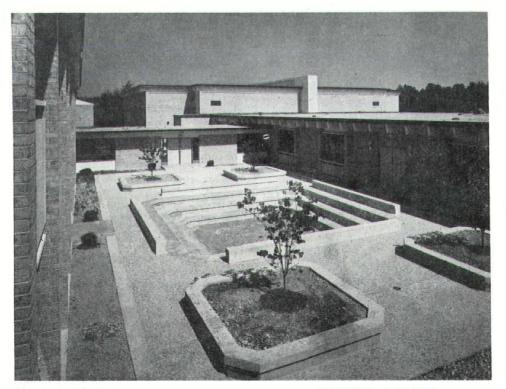
NEW SPOTSYLVANIA SENIOR HIGH SCHOOL

Architects: JAMES H. GOULD & HARRY S. CRUICKSHANK

Engineers: WILLIAM J. BLANTON Structural

WAGNER & JONES Mechanical & Electrical

General Contractor: WHITLOCK CONSTRUCTION COMPANY, INC.



VIRGINIA RECORD

HE NEW Spotsylvania High I School, now that it is completed and in use, has seen some interesting developments in space use due to its unique design. The Outdoor Classroom, shown at left, located between the two academic wings, is in such demand that it must be scheduled as any other classroom space. The landscaped and tiered area is in great demand as a "classroom-in-the-round."

A large building designed for 1000 students and containing nearly 150,-000 square feet, the design emphasizes a semi-compact arrangement for the five general activity areas. Located on a limited site, it allows for convenience and easy use of its components while providing visual interest at all points.

The academic building consists of two stories and is located in the center. It contains the basic classrooms and most of the special use class rooms. such as art, science labs, language labs, etc. It also contains the business department, vocational and industrial

PAGE FORTY

Founded 1878

spaces and home economics facilities. The library, administrative offices and guidance facilities are also within this building.

The science labs and business labs occupy a core area in the center of the first and second floors respectively. A corridor serving the perimeter class-rooms surrounds the lab core.

The kitchen-cafeteria is located between the gym and the auditorium. It can be used as a reception area in connection with the evening use of either the gym or auditorium. The cafeteria opens on a landscaped court which contains the outdoor classroom which can also be used as an outdoor art exhibit space, or a student gathering area as well as an amphitheatre classroom.

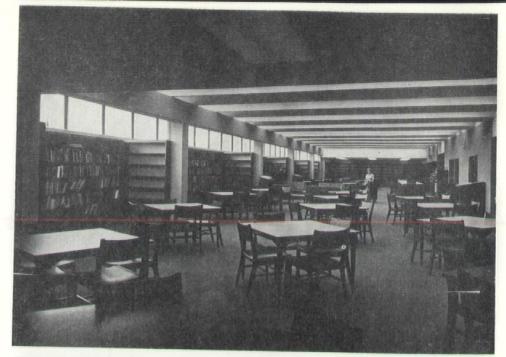
The auditorium seats 800 and is equipped with a stage, complete with a stage lighting system, and has a music department adjoining. The music department contains a rehearsal room and individual practice rooms as well as storage and office facilities.

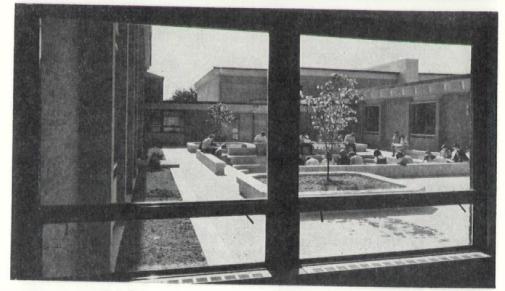
The gymnasium building contains locker and shower facilities on the basement level, a large exercise room, health laboratories and a storage room on the main level. The gymnasium itself is a large space—the roof of which is supported by an impressive post tensioned concrete beam eleven feet wide and eight feet high spanning the center of the contest court. A divider curtain is supported by this beam to divide the main gymnasium into two teaching stations. Bleacher seats for 2000 are provided on two sides of the contest court. A large parking area adjoins the gymnasium and the auditorium for the convenience of patrons attending night activities.

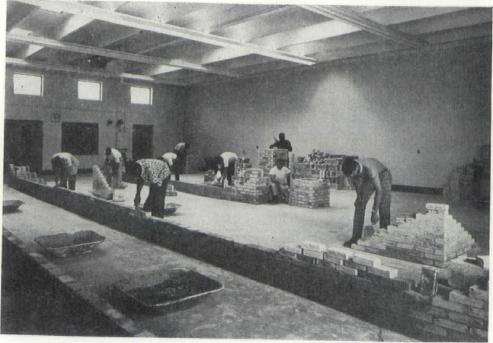
The fifth activity area is the vocational building. For noise considerations this building is detached from the other areas. Facilities are provided for five vocational programs plus drafting. Supporting facilities include storage, offices and related classrooms.

The structure is almost entirely of prestressed concrete double "T"s. supported on masonry bearing walls. The concrete roof members are generally exposed on the outside to become a cornice or decorative trim in contrast to the severe masonry surfaces.

The school is air conditioned except for the kitchen, gymnasium and shop areas which are heated and ventilated only. The classroom air conditioning units are self-contained, incremental, three wall units, Interior laboratories use split air handling and roof-top condensing units. Fuel used is electricity.







AUGUST 1970

PAGE FORTY-ONE

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The heat loss and gain is controlled by limited window areas, insulating fill in the masonry walls and urethane roof insulation.

The total construction contract was for \$1.8 million, excluding site work and separate equipment contracts. The gross area of the building is 130,759 square feet; the volume 2,650,746 cubic feet.

Costs worked out to \$13.79 per square foot; 68¢ per cubic foot or \$1,-803.90 per pupil based on 1000 students.

Planning envisions an addition of eight classrooms which will increase the capacity of the school to 1200, for which basic service provisions are included in the present building.

Subcontractors and Suppliers

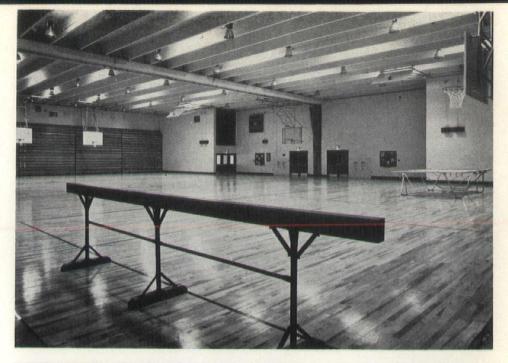
Whitlock Construction Co., Inc., Mineral, general contractor; Haley, Chisholm & Morris, Charlottesville, excavating, grading, paving & exterior concrete work; Bat Masonry Co., Inc., Lynchburg, masonry; Montague-Betts Co., Inc., Lynchburg, structural & miscellaneous steel, reinforcing, building letters; W. A. Lynch Roofing Co., Charlottesville, roofing & sheet metal; Seco Manufacturing, Inc., Detroit, Mich., fire cabinets; Incinerators, Inc., Mechanicsville, incinerator; H. & M. Ltd., Glen Allen, carpet; Steel Products, Inc., Washington, D. C., metal lockers & shelving; Victor G. Schalow Co., Powhatan, chalk & tackboards; Best Manufacturing Co., Kansas City. Mo., identifying devices.

Richmond firms were: Concrete Structures, Inc., precast-prestressed concrete; J. B. Eurell Co., roof deck; Economy Cast Stone Co., cast stone; The Staley Co., Inc., metal windows, doors & frames; Sash, Door & Glass Corp., glass & glazing, overhead doors; M. P. Barden & Sons, Inc., painting & caulking; J. S. Archer Co., folding partitions; Southern Waterproofing & Concrete Co., Inc., waterproofing; W. Morton Northen & Co., Inc., acoustic tile; General Tile & Marble Co., Inc., terrazzo, tile & soapstone; Ruffin & Payne, Inc., millwork & wood doors; Rabe Electric Co., Inc., electrical work; Harris Heating & Plumbing Co., plumbing; Pleasants Hardware, finish hardware.

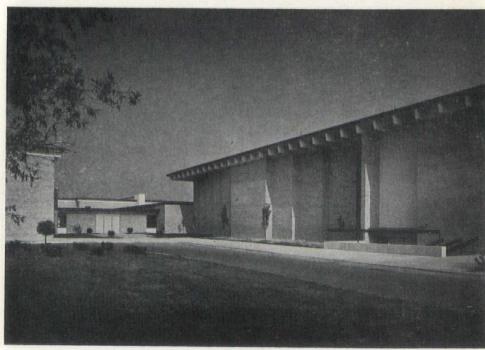
KEEP

VIRGINIA

GREEN

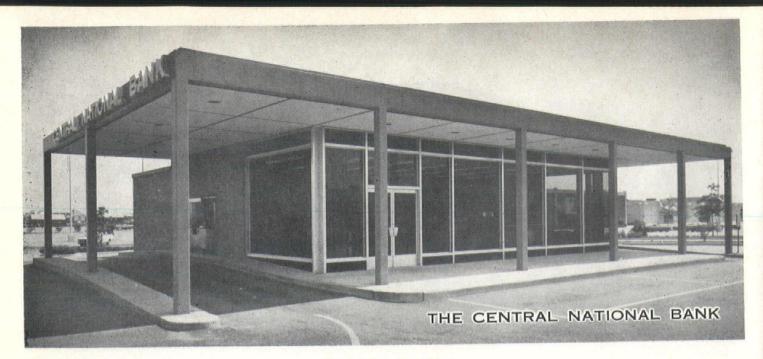






AUGUST 1970

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(Photos by James M. McElroy)





3 Branch Banks in One Shopping Center

Central National Bank

LEE, KING & POOLE
Architects
ROACH, MERCER & FAISON
Mechanical & Electrical Consultants
WILLIAM T. ST. CLAIR
Structural Consultant
CENTURY CONSTRUCTION CO., INC.
General Contractors

THE Central National Bank Branch at Eastgate Mall is one of the family of similar C.N.B. banks that have sprung up all over Richmond in recent years. Strictly contemporary,

The Bank of Virginia

BUDINA & FREEMAN Architects

EMMETT L. SIMMONS & ASSOC.
Consulting Engineers

AMERICAN FURNITURE & FIXTURE COMPANY

Interior Designer
DAVIS & SPIERS, INC.
General Contractor

THE Branch Bank of The Bank of Virginia is located on Nine Mile Road across from the Eastgate Shopping Center and it serves the customers of the Shopping Center and the residents of the surrounding area.

The bank offers full service to its customers including safety deposit boxes, drive-in teller and night depository.

The exterior of the building has traditional detailing of heavy wood cornice, brick quoins, and concrete roofing

Metropolitan Bank

ARMSTRONG & SALOMONSKY Architects

> W. S. CARNES, INC. General Contractor

I T IS very difficult to design a credible Colonial building due to the high expense of duplicating the many moudings and true Georgian materials. On the other hand many people are critical of modern architecture because of its lack of traditional scale and its impersonal appearance.

In an effort to secure the best of both design philosophies, the Metropolitan Bank meets a low construction budget by using those materials that are indigenous to the area and which local labor can install easily, yet simulate traditional colors and textures in a contemporary sculptural design.

THE RESERVE TO SERVE TO SERVE





AUGUST 1970

PAGE FORTY-FIVE

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Central National Bank

(From page 45)

these buildings reflect the image of commercial banking today—efficient, convenient and customer oriented.

With insured deposits and modern protection devices, customers are no longer greatly concerned with the physical safety of their deposits. Today banks don't have to appear to be impregnable fortresses. Gone are the days of mysterious dark buildings with high ceilings. Service has replaced security as the prime function of banks.

With this thought in mind the architectural firm of Lee, King, and Poole has designed the C. N. B. branch banks to keep in step with the times. The bank itself is detailed to be as clean and simple as possible. Steel tubes form the structural frame of the building. The banking room is light and inviting, being sheathed almost completely in plate glass. There are two drive-in tellers windows, one located on each side of the bank. The building also contains a work room, lounge and toilets for employees.

The openness of the banking room may have advantages other than being light and inviting. This type of C.N.B. branch bank has never been robbed. People on the outside of the bank can plainly see the vault and all activity within the banking room. This openness is perhaps the simplest and most effective deterrant to robbery yet de-

vised.

Subcontractors and Suppliers (All Richmond firms unless otherwise noted)

Century Construction Co., Inc., general contractor, foundations, concrete & carpentry; E. G. Bowles Co., excavating; R. K. Young, masonry; Cross Iron & Steel Co., Ashland, steel erection & steel roof deck; Richmond Roofing Co.. roofing & waterproofing; Binswanger Glass Co., Inc., window walls & glazing; Street & Branch, Inc., painting; W. Morton Northen & Co., Inc., acoustical & resilient tile; A. Bertozzi, Inc., plaster; Stonnell-Satterwhite, Inc., ceramic tile; Miller Mfg. Co., Inc., millwork; The Staley Co., Inc., steel doors & bucks; C. H. Allen, Jr., lighting fixtures & electrical work; C & T Mechanical Corp., plumbing fixtures, plumbing, air conditioning, heating & ventilating; Montague-Betts Co., Inc., toilet partitions; Guy Smith Hardware, Inc., toilet accessories; E. S. Chappell & Son, Inc., caulking; Paris Shade Shoppe, Inc., drapery rods; Bowker & Roden, Inc., reinforcing steel; American Furniture & Fixture Co., Inc., bank fixtures.

The Bank of Virginia

(From page 45)

tiles. The brick is a soft mud wood mould brick of a beautiful dark pink color,

The interior of the building was designed and furnished by the American Furniture and Fixture Company using contemporary styling throughout.

Davis & Spiers, Inc. was the general contractor and did carpentry & insulation. Sub-contractors and suppliers were as follows: (all Richmond firms)

P. E. Eubank & Co., excavating, foundations & concrete; Garrett Bros., Masonry Contractors, masonry; Cruickshanks Iron Works Co., steel; A. E. Tate Lumber Co., roof deck & structural wood; Frank C. Berger, Jr., roofing; H. Beckstoffer's Sons, windows & millwork; Binswanger Glass Co., Inc., glazing; Frick, Vass & Street, Inc., painting; Manson & Utley, Inc., acoustical & resilient tile; J. S. Archer Co., Inc., steel doors & bucks; The Howard P. Foley Co., electrical work; Catlett-Johnson Corp., plumbing, air conditioning & heating; Pleasants Hardware, hardware; James P. Dillard, paving; Redford Brick Co., Inc., brick supplier; American Furniture & Fixture Co., Inc., bank fixtures. "Guard" plastic wall finish was used, and plumbing fixtures were by American Standard.

Metropolitan Bank

(From page 45)

Many elements add to the effect of achieving a blend of contemporary and traditional feeling to the bank. The exposed interior beams with terra-cotta exposed brick on the ceiling and walls respectively give the interior a rare warmth. A rich red carpet with velvet red wall paper behind the teller counters give an additional feeling of contemporary elegance.

On the exterior, an interesting sculptured appearance attacks the eye of the layman. This is softened by the overhangs and cedar shake shingle. Again the terra-cotta brick gives added emphasis to a contemporary-traditional

sentiment.

W. S. Carnes, Inc., of Richmond was the general contractor, with the following subcontractors and suppliers (all Richmond firms): J. L. Osborne, grading; Richmond Paving Service, Inc., asphalt paving; Richmond Construction Corp., masonry; W. K. Hawkins Engineering Co., insulation; Lloyd Ellis Roofing Co., roofing; R. Percy Glidewell, papering; Hanover Fabricators, Ashland, trusses.

Also, Allied Glass Corp., glazing; Allied Window Cleaning Co., window cleaning; James M. Chavis, Dry Wall

Contractor, dry wall; Billy Shifflett, Tile Contractor, marble; Consolidated Tile Co., Inc., resilient tile; Mercer Cabinet Co., Inc., cabinet work; Advance Electric Co., electrical work; Adams Heating & Air Conditioning Corp., air conditioning, heating, ventilating; Huddle Place-Crete, Inc., pumped vault concrete; Blackwell Well Co., installed well and Stamie E. Lyttle Co., Inc., septic system.



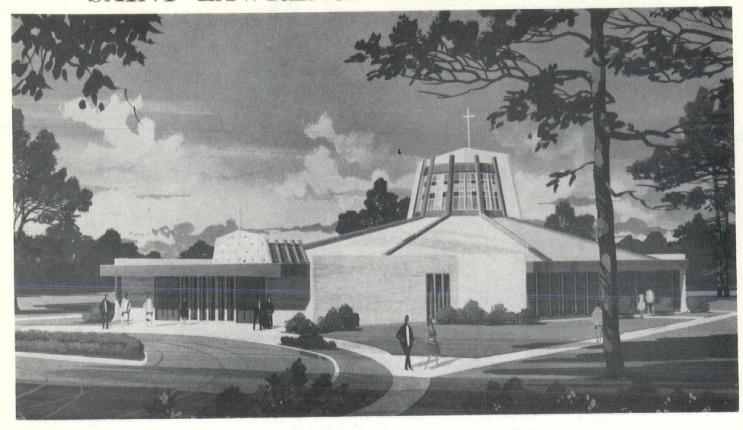


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SAINT LAWRENCE PARISH-FAIRFAX



SHERIDAN, BEHM, EUSTICE & ASSOCIATES Architects

ALLISON-MEYER Structural Engineers

Mechanical Engineers

SAINT LAWRENCE Parish, with Reverend Frank E. Mahler as Pastor, is located on Franconia Road in Fairfax.

The site is located in an area that is adjacent to a transit stop for the metro system, and in an area that will boom in the years ahead with one of the largest shopping centers in the county plus high density apartment development.

The requirements of the parish presented unique planning problems for the architectural firm of Sheridan, Behm, Eustice & Associates. The three buildings now under construction, namely the church, educational building and rectory, all had to be designed with future expansion in mind, and still

conform and relate to each other now as well as in the future.

HURST & ADAMS

The church, seating 680 people presented the greatest challenge in that it had to look complete and still have the expansion later on. This was achieved by allowing future side transepts which would seat 150 on each side and blend into this first phase.

The church has a dome of cathedral glass that will shower the sanctuary with light, A smaller dome at the front of the church, also of cathedral glass, will light the baptistry.

The educational building demanded a versatile plan to accomodate not only eight classrooms for religious education, but also to have folding partitions that could be opened up for auditorium type seating for approximately 450 people.

E. H. GLOVER, INC. General Contractors

In the future, a hall and additional classroom will be added to this facility.

The rectory also is designed for future expansion. A flat U-shape now, will grow out to a large U-shape. The rectory for now, on the first floor will have a pastor's and assistant pastor's office, one conference room, rectory, and work office, dining room, kitchen, and laundry room. On the second floor will be a pastor's bedroom and study, assistant's bedroom, and a living room. The future addition will consist of additional meeting rooms on the first floor, and additional bedrooms on the second floor.

The exterior of all the buildings blend with each other by the use of similar material detail and design. Parking for the facility will accomodate 250 cars.

Subcontractors and Suppliers

Subcontractors and Suppliers

E. H. Glover, Inc., Bailey's Crossroads, general contractor & masonry; Charles E. Rogers & Son Construction, Fairfax, earthwork; James Steel Fabricators, Inc., Alexandria, structural steel; James H. Carr, Inc., Washington, D. C., wood deck; Arlington Woodworking & Lumber Co., Inc., McLean, mill-work; Lester's Hardware, Springfield, hardware; Thomas Steeklow Sons, Inc., Greenbelt, Md., precast stone; Anning-Johnson Co., Alexandria, insulated concrete deck; Perrin & Martin, Inc., Arlington, roof & sheet metal; Peter Gordon Co., Washington, D. C., waterproofing; Woodbridge Glass Co., Inc., Woodbridge, glass & glazing; Dodd Brothers, Inc., Falls Church, drywall & plaster; Capital Tile & Marble Co., Inc., Clinton, Md., ceramic tile; M & M Enterprises, Inc., Arlington, acoustic; Marry's Floor Covering Co., Inc., Alexandria, resilient floors & carpet; Steel Products, Inc., Washington, D. C., toilet partitions; W. M. Schoenfelder & Associates, Inc., Bethesda, Md., hollow metal; Hope's Windows, Inc., Silver Spring, Md., steel & aluminum sash; Korok, Inc., Alexandria, chalk & tackboards; Hallmark Iron Works, Inc., Alexandria, miscellaneous iron; Wilmar Contractors, Inc., Vienna, painting; Walter C. Davis & Son, Inc., Alexandria, electrical; Brandt Co., Arlington, plumbing; Atlas Air Conditioning & Sheet Metal Co., Arlington, heating, ventilating & air conditioning. conditioning.

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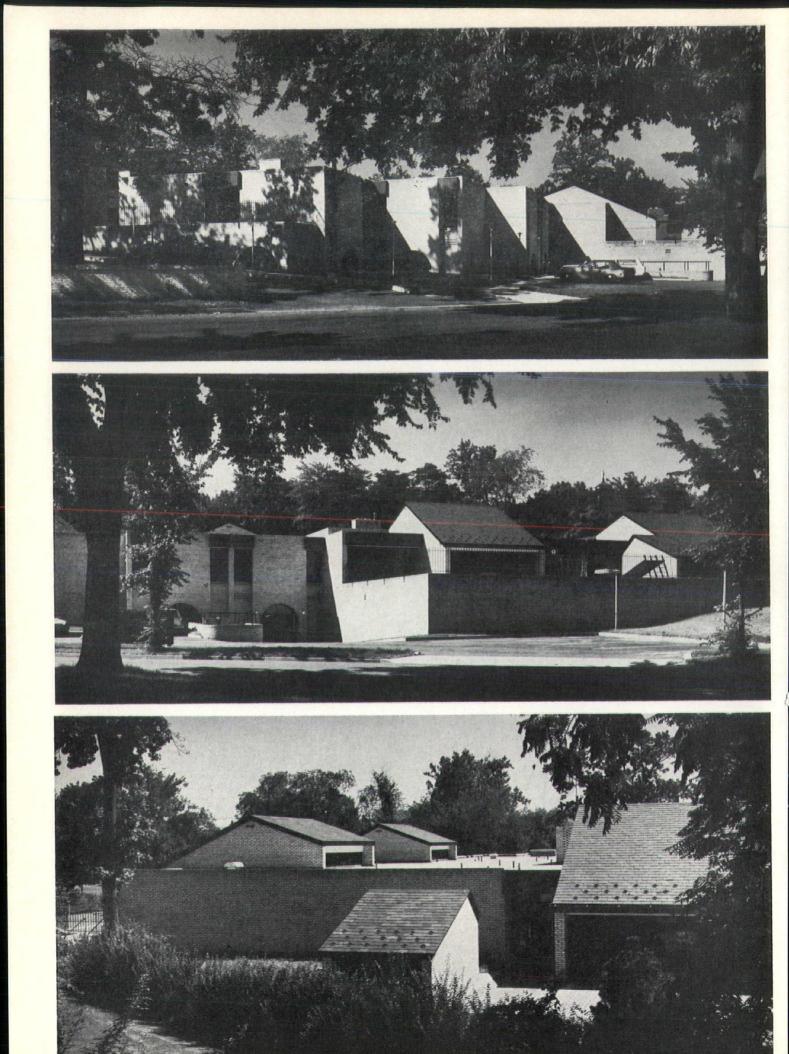
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THE HOSPITAL FOR SICK CHILDREN-WASHINGTON

VOSBECK VOSBECK KENDRICK REDINGER

Architects — Planners — Engineers

Mechanical Consultant: W. C. HANBY General Contractor: EQUITABLE CONSTRUCTION CO., INC. Medical Consultants: J. M. STACY, Dir., U.Va. Hospital; S. CALVERT; PROF. J. EVERETTS

THE HOSPITAL for Sick Children. Washington, D. C., has a long history of service to the community. Its beginning can ge traced to June 14, 1883, when a "few young ladies of St. John's Parish started a project providing a house in the country near Washington where children in feeble health might for a short time receive the benefit of a change in air and exercise." In 1930, the hospital was opened at its present location, a four-acre tract of wooded land, as a convalescent home for children from infancy to fourteen years of age. During the past 87 years, the hospital's medical program and range of services have evolved from simple nursing care to today's comprehensive diagnostic evaluation and rehabilitative treatment center for the major chronic illnesses and disabling conditions of childhood.

The Hospital for Sick Children provides the community with a well-rounded therapeutic program geared to the medical and psychiatric needs of children ranging in age from birth to puberty. The hospital is the only intermediate stay pediatric facility providing multi-disciplinary hospital care for children suffering from a variety of illnesses in the Washington metro area. The patients admitted for this thirty- to ninety-day hospital stay (with extensions), are largely referred from the several acute short-stay hospitals in the area. The medical needs and programs for children afflicted with long-term illnesses are considerably different from those provided in acute short-stay hospital units. Attention must be given to important psychological and sociobehavioral needs, in addition to the medical and surgical ones.

The present need for such care is attested to by the high rate of bed occupancy. The addition of a new wing in 1956 did little to alleviate this need, although clinical services were improved. The Hospital for Sick Children serves the entire Washington metropolitan area and, as can be expected, the projected growth of this area calls for additional hospital beds. The growth in recent years has been rapid, placing the current population at over two million. By the year 1980, the populaton is expected to grow to three million. In view of this rapid expansion, a facility of approximately 110-bed capacity has been projected as

necessary to meet the needs of this area for at least the next ten years.

The total master plan for this expansion, as well as design and construction of the first phase, has been developed by Vosbeck Vosbeck Kendrick Redinger, architects, planners, engineers of Alexandria. The first of three phases of the total master plan is now constructed. The existing hospital building will continue to be used until the second stage is completed, thus continuous operation will be maintained on the site.

The building was developed to be compatible with the existing home-like structure as well as being residential in scale, avoiding the normal institutional quality of a hospital. The new facility, covering 38,346 square feet, consists of living and treatment areas for children and contains eighty additional beds. The basic layout, though residential in character, is so planned that there is a minimum of travel for patients to the treatment area.

The bed areas are completely isolated from the service elements of the hospital and are separated into different age groups containing their own nursing unit. All children, however, use the common treatment area. The individual children's areas have direct accessibility to the play areas which are separated from automobile and delivery traffic and away from hospital functions.

Each age group has a large activity area which can be used for play and for dining. A fireplace is placed in the activities area for older children. Dining is done in small groups near the bed areas rather than in a large institutional dining hall. The school classrooms are located near the bedrooms so that school can continue while the patient is at the hospital.

There are conference areas for doctors and patients in the central treatment area. For each nursing unit there is a group mother, who has her own individual office area for consultation.

One of the unique features of the hospital is the asthma treatment wing which contains the asthma research laboratory and the environmental control unit. The purpose of the environmental control unit is twofold. First, to provide a treatment facility in which patients in severe, acute respiratory distress can be treated under optimum

(Photos by J. Alexandria)



to tell the Virginia Story

AUGUST 1970

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Phone Staunton, 886-0236 P. O. Box 500 VERONA, VA. conditions and second, to study the effects of changes in environmental variables on patients with respiratory dis-

eases.

The design problem associated with this chamber is also one not generally associated with hospital design and construction. It is necessary to maintain a pressure differential approaching five inches of mercury, which would approximate the difference between the altitude of the Washington, D. C. and Denver areas. To maintain this differential, it is necessary to limit potential sources of air leakage and to assure that persons entering or leaving the unit do not cause substantial changes in the internal pressure. Thus, communication with the unit is through an air lock similar to those used in submarines.

The machinery for controlling the humidity, barometric pressure, temperature and pollution is located outside the unit. With turn of a dial, doctors can change any element, thus observing environmental effects of a controlled environment over a long period of time. If the experiments prove successful, the researchers should be able to determine just what type of environment is best for each type of respiratory ailment as well as how many air pollutants a person can intake each day. The necessity for such studies was indicated in Section III of the Clean Air Act of 1963, and the U.S. Public Health Service, National Center for Air Pollution Control has provided support for such studies in a research grant.

Three children can occupy the cham-

ber at one time, and the area is under direct observation of the nursing station as well as remote surveillance through closed circuit T.V. The treatment area is supervised by physicians on a twenty-four hour basis.

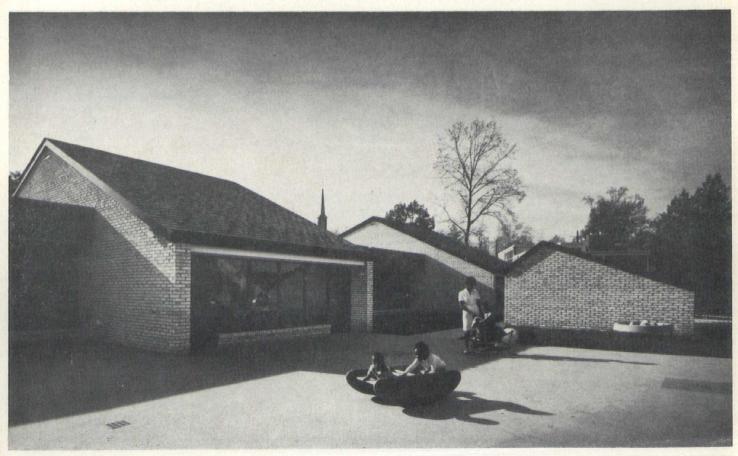
The results of the experiments conducted in the chamber on air pollution control will benefit not only those people with respiratory ailments, but the population in general, as man is increasingly growing aware of the importance of his environment.

The Hospital for Sick Children received an Award for Excellence in Architecture from the Metropolitan Washington Board of Trade. The citation read, "The scale of the complex is domestic and should be anything but forbidding for the children and staff."

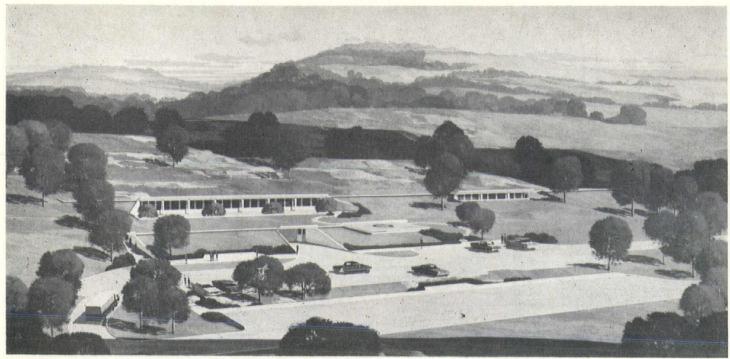
Subcontractors and Suppliers

Subcontractors and Suppliers

Equitable Construction Co., Inc., Arlington, general contractor, foundations, concrete & carpentry; Excavation-Construction, Inc., Washington, D. C., excavating; Rivers & Bryan, Inc., Silver Spring, Md., masonry & stone work; Bethlehem Steel Corp., Washington, D. C., steel; The Ceco Corp., Bladensburg, Md., steel roof deck; J. W. Conway, Inc., Hyattsville, Md., roofing; County Fire Door Co., New York, N.Y., supplied hollow metal doors & frames: Walsh & Koehler Glass Co., Inc., Mt. Ranier, Md., glazing; United Painting & Decorating Co., Washington, D. C., painting & plastic wall finish; Franklin Marble & Tile Co., Inc., Capitol Heights, Md., structural (glazed) tile & ceramic tile; Prospect Industries, Inc.. Arlington, waterproofing; John H. Hampshire, Inc., Bladensburg, Md., insulation & acoustical; Floyd Jennings, Chevy Chase, Md., plaster; Imperial Floors, Inc., resilient tile; Mallow Millwork Co., millwork & handrails; H.M.S. Electric Corp., Chevy Chase, Md., lighting fixtures & electrical work; John J. Kirlin, Inc., Rockville, Md., plumbing fixtures, plumbing, air conditioning, heating & ventilating; William Doolan Elevator Service, Inc., Washington, D. C., elevator; Walsh & Koehler Glass Co., Mt. Rainer, Md., hardware: Eastern Building Supply Co., Inc., Richmond, brick; Cushwa Brick & Building Supply, Washington, D. C., supplied brick; Alwine Brick Co., New Oxford, Pa., manufactured brick.



PAGE FIFTY-THREE

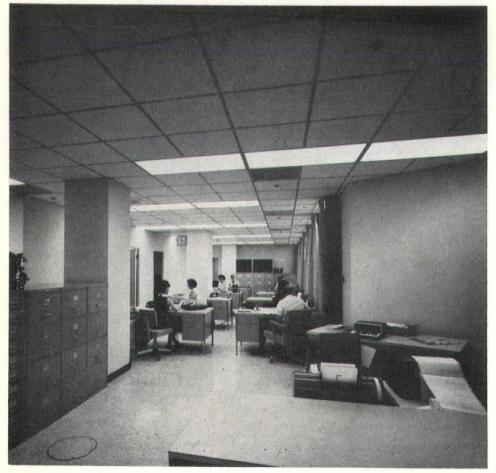


BIRD'S EYE RENDERING OF INSTALLATION IN MOUNTAIN-SIDE

COMMUNICATIONS

FEDERAL RESERVE BANK OF RICHMOND

COMPUTER AREA



PAGE FIFTY-FOUR

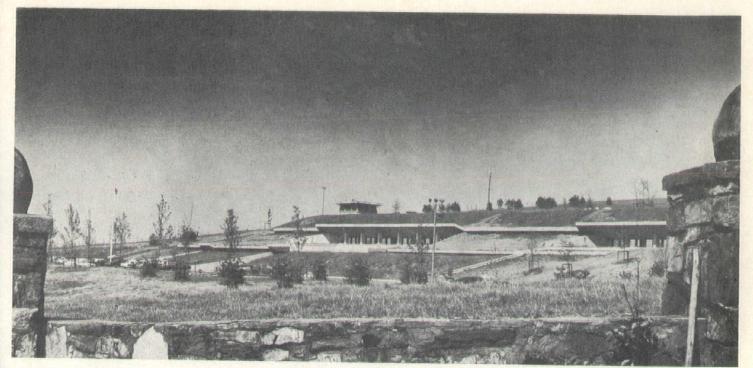
VIRGINIA RECORD

FROM its Fifth Federal Reserve District headquarters in Richmond, and from branches in Baltimore, Maryland, and Charlotte, North Carolina, the Federal Reserve Bank of Richmond serves banks in Maryland, Virginia, West Virginia, the District of Columbia, and North and South Carolina. Because it has a broad responsibility for continuing financial services in the entire area the Federal Reserve Bank has long maintained a comprehensive emergency preparedness program including a relocation site and records center in western North Carolina. As intercontinental ballistic missiles shortened the travel time available in an emergency, it became apparent that those facilities were too remote, and planning began for a new records center and emergency relocation office.

A site was chosen in Culpeper County near the intersections of several Federal and State highways and on the main line of the Southern railroad. Already a district office of the Virginia Department of Highways, the State Police, and the C & P Telephone Company, and a pleasant place to live, Culpeper proved to be a choice location.

Since the building needed to provide excellent fallout protection and a high level of security, the side of a hill was

Founded 1878



VIEW OF COMPLETED PROJECT

D RECORDS CENTER

MARCELLUS WRIGHT & PARTNERS — Architects

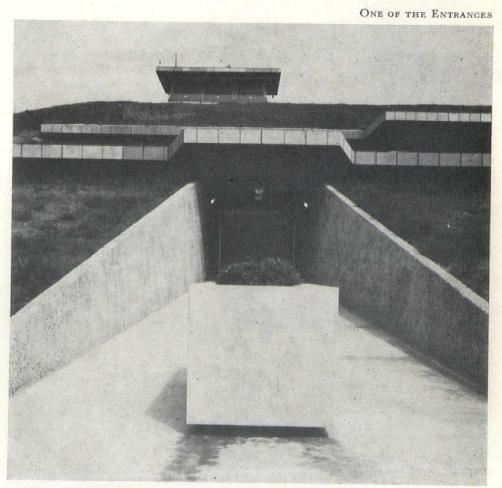
chosen—not an ordinary hill but a monadnock that even the glaciers were unable to level when the Northern Piedmont valley was leveled eons ago.

The Richmond Bank operates a communications facility for the entire Federal Reserve system and the new Culpeper building houses a high speed computerized replacement for the relatively slow teletype system used at Richmond since 1953. Data passing through the "Switch" will provide current financial statistics to a data processing computer located adjacent to the message switching computer.

The building includes vault space for storing an emergency stock of currency and coin.

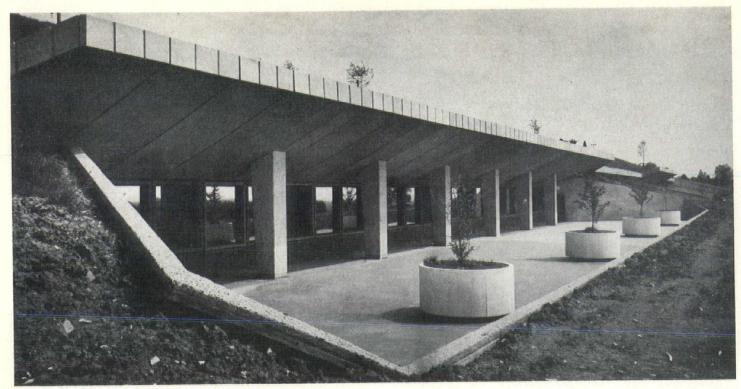
As an emergency operating center, the building is equipped to house, feed, and provide space for approximately 400 people, including an allowance for families of relocatees. Food for 30 days is stored, water is available from two wells, and electricity can be provided by four 800 kw diesel generators for which 160,000 gallons of oil are stored in underground tanks.

The final design resulted in a unique structure of reinforced concrete providing 135,000 square feet in three stories stairstepped into the hillside. All floors are 458 feet long; the width



AUGUST 1970

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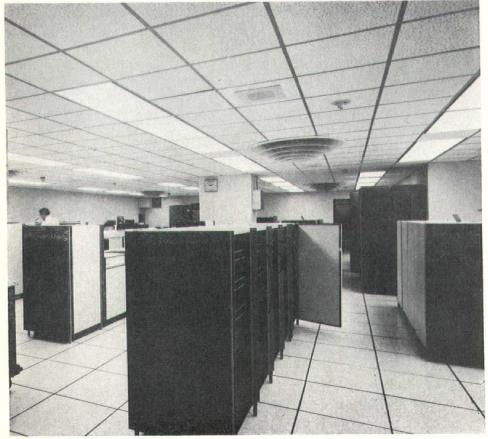
THE TERRACE LEVEL

KENNETH R. HIGGINS—Landscape Architect

RUSSELL S. HUMMEL, JR.—Civil Engineering Consultant

IAMES M. McELROY—Photographs

COMPUTER EQUIPMENT



PAGE FIFTY-SIX

VIRGINIA RECORD

varies but generally the first floor is 125 feet wide, the second is 75 feet wide, and the third floor is only 45 feet wide.

Dormitories occupy half the third floor with the remainder used for relocation offices and machinery space. The south half of the second floor provides space for the computerized switch, the data computer, and offices associated with the management of these systems. The remainder of the second floor is relocation offices and offices for the Records Center and management of the facility. The first floor accommodates the vault, kitchen and dining area, library, health service, Security Control center, and the shops and main machinery room.

The diesel generators, cooling tower, transformer vault, and the Security Force pistol range are located outside but adjacent to the main building wall. All these facilities are below earth level or completely earth covered. Confusing as it may seem, only the third, or top, floor qualifies as a basement since it has no openings to outside and is completely earth covered except for a guard tower projecting above it! Exterior concrete is either bushhammered or exposed aggregate cast panels.

The pedestrian entrance and truck entrance are at the first floor level. Fire exit doors at the second floor level open onto terraces, which provide a delightful view of the rolling Piedmont countryside with the Blue Ridge providing a majestic background for the constantly changing rural scene. Win-



CAFETERIA

dows at the terrace level maintain touch with outside although they can be instantly covered with one and one half inch steel shutters should fallout or security shielding be required.

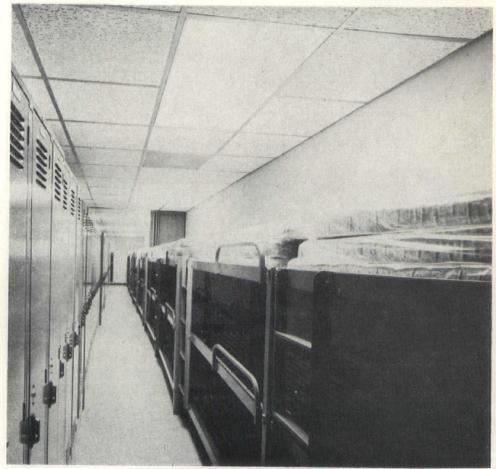
While no attempt was made to "hide" the facility, extensive planting, including some 300 trees and selected shrubs, was used to screen the paved parking areas and roads and thus minimize visual impact on the rural surroundings. Success is attested by approval of the family who reluctantly parted with a small part of their original land grant to provide the site. The general view of the new building is framed by the stone entrance gate to this farm property.

Much of the interior of the building is committed to emergency use only and prudence dictated austerity in the selection of interior finishes and furnishings but widespread use of color, generally "light and bright," eliminates any sensation of being underground. High level lighting and excellent control of temperature and humidity help in providing a pleasant atmosphere.

Except for fire walls, the interior partitions are entirely movable to assure future flexibility. Furniture and furnishings are of metal or other fire resistant material and other precautions were taken to reduce the probability of fire and to minimize damage should a fire occur.

Mechanical features of the building reflect the early design evaluations during which it was found that lighting alone would provide sufficient heat for WILLIAM J. BLANTON—Structural Engineering Consultant
WILEY & WILSON—Mechanical & Electrical Engineering Consultants
PIRACCI CONSTRUCTION CO., INC.—General Contractor

EMERGENCY DORMITORIES



AUGUST 1970

PAGE FIFTY-SEVEN

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the building. Condenser water from the cooling system is circulated through the heating coils, with any excess heat rejected to outside at the cooling tower. Activated charcoal filters reduce the fresh air requirement and remove odors from recirculated air. Outside air can be brought in through special filters to remove radio-active dust in case of nuclear bombing.

Excavation began in September of 1966 and the first concrete was poured in May of 1967. The owner began partial occupancy last year and the project was completed this year.

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American Steel Products, Long Island, N. Y., steel doors & bucks; Walter Truland Corp., Arlington, lighting fixtures & electrical work; Broyles & Broyles, Inc., Baltimore, Md., plumbing fixtures, plumbing, air conditioning, heating & ventilating; Commercial Hardware, Inc., Baltimore, Md., hardware; Shield Associates, Beltsville, Md., supplied carpeting; Earley Studio, Inc., Manassas, architectural precast concrete; Liskey Aluminum, Inc., Glen Burnie, Md., computer flooring; Shooting Equipment, Inc., Chicago, Ill., pistol range equipment; Chicago Bulletproof Equipment Co., Chicago, Ill., guard station enclosures and bullet resistant doors; Marsteller Corp., Roanoke, composition floors; Parking Corp. of America, Washington, D. C., electric vehicle barriers; The Mosler Safe Co., Hamilton, Ohio, vault doors; Horner Elevator Co., Inc., Washington, D. C., elevator; John G. Kolbe, Inc., Richmond, kitchen equipment; Thalhimers Industrial Sales Corp., Richmond, furniture.

Piracci Construction Co., Inc.

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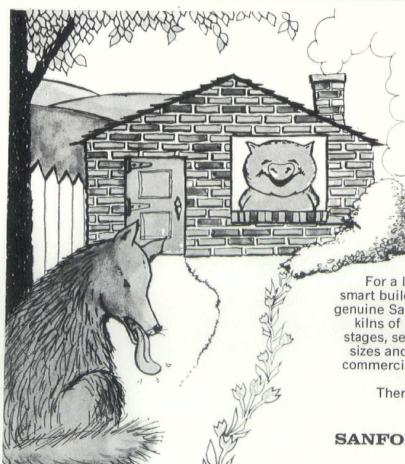
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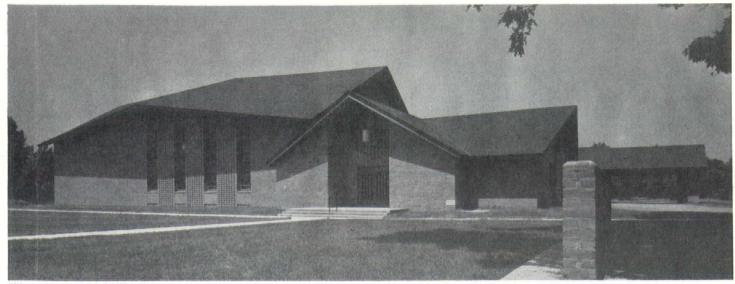


BRICK and TILE CO. SANFORD, N. C.

to tell the Virginia Story

AUGUST 1970

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(Photos by James M. McElroy)

CHESTNUT MEMORIAL UNITED METHODIST CHURCH NEWPORT NEWS

C. W. HUFF, JR. and J. CARL MORRIS Associated Architects

SAWYER CONSTRUCTION COMPANY General Contractor

THE sanctuary and church school for the Chestnut Memorial United Methodist Church located on Harpersville Road in Newport News, was consecrated in services held on April 26, 1970.

This church, formerly the Chestnut Avenue United Methodist Church relocated to this new site from the corner of Chestnut Avenue and 25th Street to better serve its members.

The sanctuary and school are both of contemporary design. The sanctuary seats approximately 400 persons in pews. The rear wall of the nave is composed of windows so that the narthex and fellowship areas may be used for additional seating. The narthex and fellowship areas are separated by a folding door; this allows the narthex to be used for overflow of the nave as well as for overflow from the fellowship area.

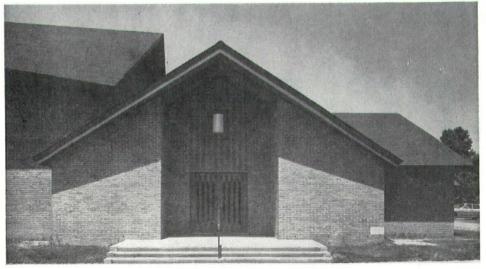
The interior walls of this sanctuary are of exposed brick with a raked joint. The ceiling is exposed wood deck of yellow pine supported by wood arches. The furnishings are of a soft walnut color, with pews having gold padded seats. The aisles and chancel area are

covered with a carpet which reflects the red hues of the brick.

Yellow pine solid wood members supporting the roof are exposed, lending a sturdy appearance to the delicate exterior design. The oblique roof slopes in two directions with the high point in the center. The Sunday School portion is separated partially from the sanctuary by a court which allows all of the

rooms within this building an outside exposure. The Sunday School rooms which accommodate the younger children have access to the court.

These rooms have vinyl asbestos tile floors, Solite block walls and acoustical plaster ceilings. Most of them have adjoining toilet facilities. They are equipped with storage cabinets, map rails, chalkboards, and tackboards. The



VIRGINIA RECORD

Founded 1878

entire building is air conditioned and heating is furnished through hot water

baseboard type radiation.

A 12'6" x 17' library is located adjacent to the office with a window in one wall so that the room may be supervised by the secretary. The other three walls are comprised of book shelves to house the books furnished for the teachers' and pupils' reference. It also provides space for all of the church's plaques and trophies. This room is located between the corridor and court and is centrally located so that it may be used daily.

In the future, three gold anodized aluminum crosses on weathering steel spires will be added. The towers will be placed to the left of the main entrance in front of the building. The tallest of these towers will extend 14' higher than the ridge of the roof and, stretching toward infinity, they will be as sentinels guarding the building and

its occupants.

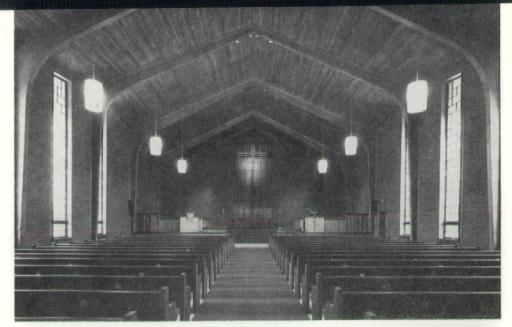
The site has three parking areas as well as an area for a basketball court and other games.

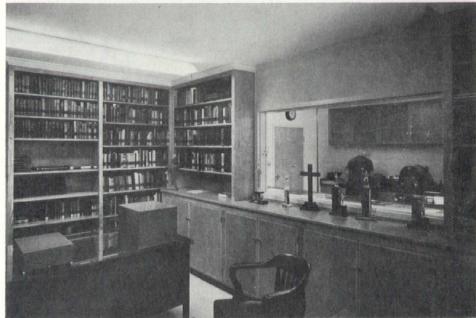
The general contractor, Sawyer Construction Company, of Hampton, has accomplished this project at a cost of approximately \$310,500.

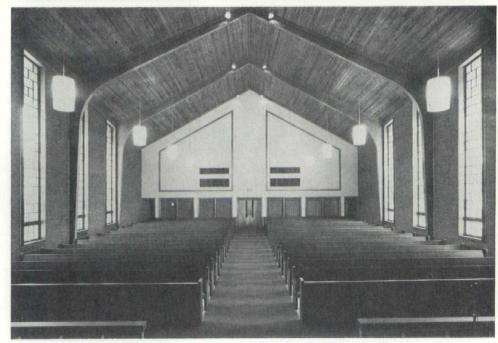
Subcontractors and Suppliers

From Hampton were: Sawyer Construction Co., general contractor & carpentry; Chisman Co., concrete; Shaw Paint & Wall Paper Co., Inc., painting waterproofing; Pompei Tile Co., Inc., ceramic tile; Swing Electrical Co., lighting fixtures & electrical work; Warwick Air Conditioning, plumbing, air conditioning, heating & ventilating; and, Orkin Exterminating Co., Inc., termite treatment.

Others were: E. W. Muller Contractor, Inc., Newport News, excavating; Glisson Masonry Corp., Newport News masonry; Standard Iron & Steel Co., Inc., Norfolk, steel; Hall-Hodges Co., Inc., Norfolk, steel roof deck; Roof Engineering Corp., Norfolk, roofing; Economy Cast Stone Co., Richmond, stone work; Miller Mfg. Co., Inc., Richmond, windows & millwork; Old Virginia Brick Co., Inc., Salem, brick mfg.; James H. Carr, Inc., Washington, D. C., wood trusses; Door Engineering Corp., Norfolk, steel doors & bucks; Tom Jones Hardware Co., Inc., Richmond, hardware; Koppers Co., Inc., Pittsburgh, Pa., wood arches; and, Winebarger Corp., Lynchburg, church furniture.



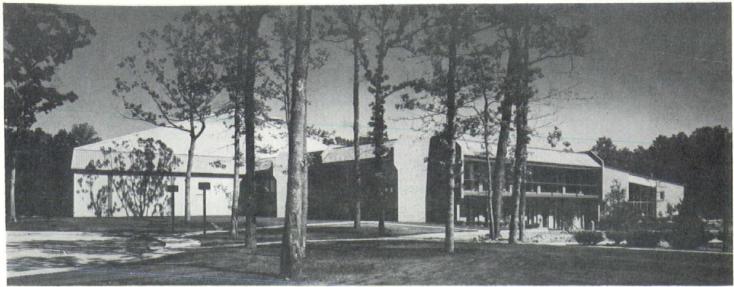




AUGUST 1970

PAGE SIXTY-ONE

Briar Wood Swim and Racquet Club - Richmond



(Photo by James M. McElroy)

BROWN and GRESHAM Architects

ALVIN DUNBAR Consulting Engineer—Structural BRANDT AND MORSE Consulting Engineers Mechanical & Electrical EVERETT WADDEY Interior Decorator

BARKER CONSTRUCTION COMPANY, INC.
General Contractor

GIVE Tom Gresham a dream, 15 acres, and a million-dollar plus construction budget, and you wind up with Virginia's most unique private club.

Number one in that category belongs to the some 500 members of Briar Wood Swim and Racquet Club, just outside of Richmond in Chesterfield County. Under the leadership of John W. Keith, Jr., and through the innovative efforts of Thomas A. Gresham, of Richmond's Brown and Gresham (AIA), Briar Wood has, in less than two years, emerged as the state's premier facility of its kind.

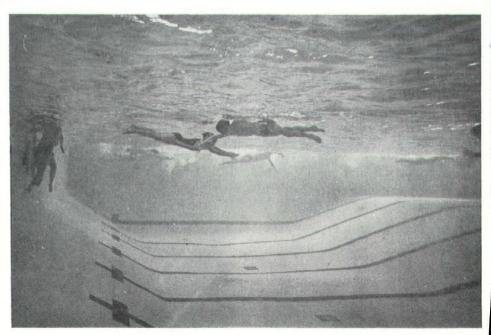
It can boast: the biggest indoor swimming pool in Virginia 15 tennis courts, with four under roof; men's and women's health clubs; cocktail lounge; dining room; parking for up to 300 cars; and many accompanying facilities. It has planned: at least six additional outdoor courts; an outdoor pool; and an enlarged clubhouse area.

So far, \$1,150,000 has been invested in the project, and as the membership heads toward the optimum 800 level, the planned expansion will develop. "If you are interested in tennis and swimming," Keith noted, "there's little question this is the club."

And, this was the premise given Gresham: design a facility that literally revolves around these two sports. Result: the 50-meter, eight-lane, 450,000-gallon, Olympic size pool, and the natatorium housing it, occupies some 20,000 square feet; the indoor tennis

building comes close to 27,000 square feet; and the in between clubhouse offers easy viewing for the tennis court from the lounge, and for the pool from the dining room.

"It was necessary" Gresham explained, "to relate tennis to swimming,



VIRGINIA RECORD

Founded 1878

swimming to tennis, and each to the clubhouse, as well as the exterior surroundings. As far as I know, he added, "it's the first time in this area tennis and swimming have been combined on "this large".

a 'big league' basis."

To emphasize further this consideration, the pool faces due south for maximum exposure to the sun, while the tennis courts are arranged north-south to avoid direct sunlight in the eyes of players. "Nothing could be more frustrating," he smiled, "than to play against an early morning or late evening sun."

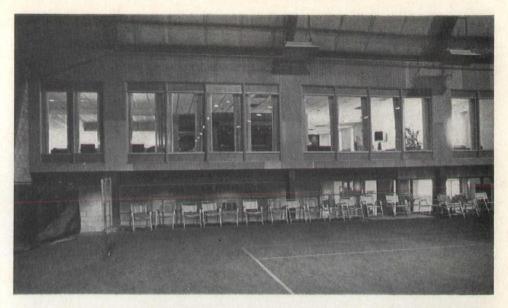
Gresham said his main design problem was dealing with these two large

Subcontractors and Suppliers (All Richmond firms unless otherwise noted)

Barker Construction Co., Inc., general contractor, foundations, concrete, carpentry & insulation; Southern Brick Contractors, Inc., masonry; R. Willison Roofing Co., roofing & waterproofing; Economy Cast Stone Co., stone work; Sash Door & Glass Corp., windows, window walls, glazing, steel doors & bucks; Lane Brothers, Inc., painting & plastic wall finish; Miller Mfg. Co., Inc., paneling & millwork; E. S. Chappell & Son, Inc., weatherstripping; C. B. Smith Co., acoustical, resilient tile & wood flooring; A. Bertozzi, Inc., plaster: Stonnell-Satterwhite, Inc., ceramic tile; H. E. Oliver & Co., Inc., lighting fixtures & electrical work; Reames & Moyer, Inc., plumbing fixtures, plumbing, air conditioning, heating & ventilating; Pleasants Hardware, hardware; Gayle Mann, Jr. & Co., Inc., swimming pool; Pascoe Steel Corp., Columbus Ga., steel; Montague-Betts Co., Inc., Lynchburg, steel, steel roof deck, roof deck, steel grating & handrails.

masses—the indoor pool and tennis court buildings—which made the club-house something of a "postage stamp." The pool building, with its shed roof, is not visible from the front side of the club; while the tennis court building was dressed up with a combination mansard and hip roof.

A balcony opens off the dining room and ballroom overlooking the outside tennis courts, and below, on the first floor, a teen room opens into an outside patio. "These elements," Gresham said,

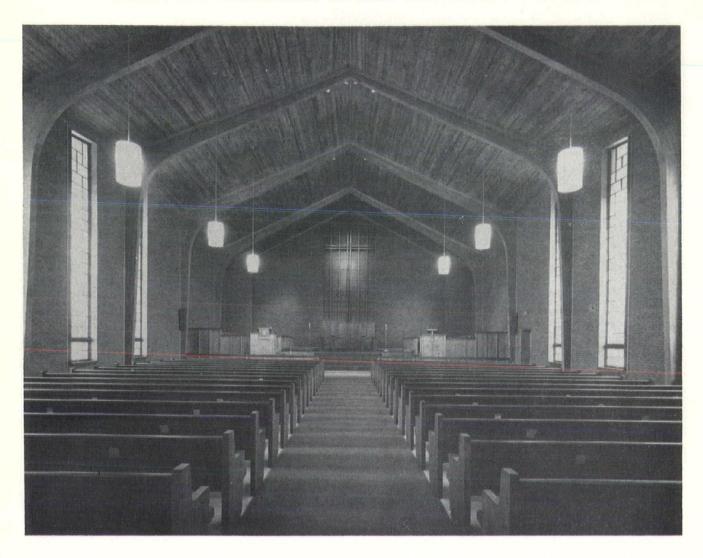






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Briar Wood (from page 63)

"relate visually and physically, and provisions have been made for easy

future expansion."

Apart from the main structure, adequate parking was of prime importance. In late April, for example, more than 650 swimmers representing 40 teams, took part in the first annual Briar Wood Invitational Swim Meet; and in late June the Mid-Atlantic Lawn Tennis Association Championships attracted upwards of 2,000 spectators.

A center court near the clubhouse has permanent bleachers seating 860, with room for increasing the seating to 2.000. "We've had so many requests to stake tournaments, we have had to turn

them away," Keith said.

Viewing stands around the pool can accommodate several hundred, and it was this area that presented some pe-culiar problems. "A major considera-tion," Gresham said, "was condensation—particularly from the ceiling."

This necessitated a ceiling of wood, coupled with side walls of brick and cinder block. "A vapor barrier, consisting of two-inch thick tar-impregnated felt, was placed over the wood ceiling deck," he noted, "and along with the absorption of moisture through the block walls, we licked the condensation problem."

Besides its size, the pool building, or natatorium, boasts other special features. An underwater viewing window permits the swimming instructor to observe swimmers. Hydraphones give the instructor underwater communication with the swimmers, or may be used to broadcast music underwater for the benefit of performers in underwater ballet.

Keith said he expects the Briar Wood swimmers to rival the famed Santa Clara swimming club in California eventually; and under supervision of Dr. Norris Eastman, the club already has "just about the best team in Virginia."

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(Photos by James M. McElroy)

FROM HERMITAGE ROAD

Scottish Rite Temple

RICHMOND

MacILROY and PARRIS - Architects

ROACHE, MERCER AND FAISON—Consulting Engineers
Mechanical & Electrical

WILLIAM J. DAVIS—Consulting Engineer Structural

> JAMES FOX AND SONS, INC. General Contractor

THE Scottish Rite Temple is located on a 4-1/2 acre site, at 4204 Hermitage Road in Richmond, in an area which is developing into a Masonic Center. To the rear of this site and fronting on Bellevue Avenue is the Acca Temple Shrine.

The design concept of the Scottish Rite Temple was formed around numerous facts pertinent to the topographical conditions of the site, as well as the basic tenets of the Ancient and Accepted Scottish Rite of Freemasonry. The Temple will be viewed from No. 95 Turnpike at the rear, as well as from Hermitage Road at the front, so this fact dictated the need for a continuous exterior design that is pleasing from Hermitage Road at the front, so the slope of the land and the facilities to be contained within the Temple, the site lent itself well to a structure that is essentially a two-story building with a top story visible from the Hermitage Road approach and both stories visible from the back.

In keeping with the noble philosophies of the Order, a Temple of outstanding character and proportions was

conceived without the expense of a monumental structure. The main floor of the Temple, when viewed from the

THE ENTRANCE HALL



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FROM THE TURNPIKE

Hermitage Road approach, is set on a raised platform to elevate it above the adjacent grade. On this platform are gracefully shaped precast textured "Mo-Sai" concrete columns supporting the wide roof overhang. The roof fascia is also of textured "Mo-Sai" with a relief design between column centers and cast bronze eagles emblematical of the thirty-third degree of Freemasonry, at each column center. Behind the columns, the exterior wall of the main floor forms a continuous brick wall pierced only for the front entrance doors and a large window at the back of the building directly opposite the front entrance doors. The expanse of brick in the exterior walls includes rhythmic textured panels between the columns.

Upon entering the Temple, the main floor lobby provides access to the auditorium, as well as the Temple offices. These offices include a general office and record storage vault, the secretaries' office, and a committee room.

The main floor Blue Lodge Room, which is adjacent to the main lobby, has an anteroom guarding the sanctity of the space. The Lodge Room is furnished with the ritual stations, in addition to eighty fixed seats. A storage room is provided for utilization by the Blue Lodges.

Coat rooms and toilet facilities are provided at several locations throughout the building for the convenience of the members.

The auditorium has 675 fixed seats, some space for moveable chairs, and a choir loft, giving a total capacity of approximately 800 people. The auditorium floor is sloped for the best possible view of all work presented on the stage and the ceiling is shaped to provide the required acoustical qualities within the auditorium.

The stage has ample width and depth to provide adequate space for the presentation of the degree work. The sets used in the work will be hung above in the stage loft and lowered as required for quick and easy scene

changes. The lighting for staging effects, as well as the auditorium lights, will be controlled from a dimmer panel located on the stage or from a control station at the rear of the auditorium. There are dressing rooms, designed and arranged for convenient costume changing and storage and for makeup of the participants.

The surface finishes through the Temple are inexpensive but easily maintained materials. Colors are harmonious and in keeping with the function of the space. The ground floor is arranged and oriented for easy accessibility to and from the automobile parking area. A circular driveway permits automobile traffic to approach this entrance, let off passengers, and circle back to the parking area.

Once inside the Temple, an eleva-

Once inside the Temple, an elevator as well as a stairway provide access for those persons going to the main floor. Also from the ground floor entrance vestibule, members and guests may go directly to the library area or to the dining room.

The dining room is on the lower ground floor and it can readily serve the needs of the Scottish Rite Body and also can be used by others for their functions without interfering with the Scottish Rite work. The dining room has a seating capacity in excess of 700 persons.

Within the adjoining kitchen, complete meals can be prepared on modern equipment under sanitary conditions. The equipment and work areas are sized and arranged to efficiently prepare and serve meals for both large and small groups, as may be required. Adequate refrigerated and dry food storage spaces are provided along with a dishwashing facility of sufficient capacity to quickly and quietly perform this operation.

The Scottish Rite Guard Room is also located on the ground floor as

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AUGUST 1970



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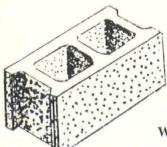
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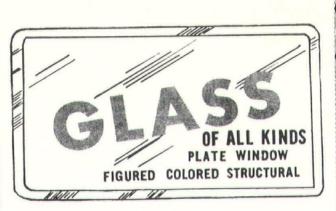
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well as a second Blue Lodge. This Lodge is similar in all respects to the one described on the main floor.

The entire building is air conditioned with electrical heating and cooling systems and is so designed that one portion of the building can be used without operating the system for another portion of the building.

The total philosophy of the planning and design of the Temple is to provide an atmosphere in which Freemasonry, in fact, can build its Temples in the hearts of men and among nations.

Subcontractors and Suppliers (Richmond firms unless otherwise noted)

James Fox & Sons, Inc., general contractor; Baldwin Contracting. Inc., excavating, earthwork, storm sewers & seeding; Bethlehem Steel Corp., reinforcing steel; Liphart Steel Co., Inc., structural steel & miscellaneous iron; W. M. Walder, Jr., Inc., general masonry & erection of precast stone work; Economy Cast Stone Co., precast concrete panels and columns; N. W. Martin & Bros., Inc., roofing, sheetmetal, roof insulation & membrane waterproofing; Roanoke Engineering Sales Co., Inc., steel doors & frames, coat room equipment, metal toilet partitions; F. Richard Wilton, Ir., Inc., lathing & plastering; Costen Lumber Co., wood floors; Weaver Bros., Inc., Newport News, millwork; Binswanger Glass Co., glass, glazing & aluminum entrances & window wall; John H. Hampshire, Inc. ceramic tile & quarry tile, acoustical materials, resilient floor covering & base; M. P. Barden & Son, Inc., painting, finishing & plastic wall covering; J. S. Archer Co., Inc., folding partitions; N. Chasen & Son, Inc., sprayed fireproofing; Manson and Utley, Inc., caulking; Virginia Elevator Co. Inc., elevator; Bates Co., Inc. steel lockers; Andco Industries Corp., Greensboro, N. C., cast aluminum emblems; Ceneral Electrical Service Corp., electrical; J. W. Bastian Co., Inc., mechanical & plumbing; Worsham Sprinkler Co., Inc., Mechanicsville, sprinkler system; Blakemore Construction Corp., paving; Brick & Tile Co., Lawrenceville, manufactured brick.

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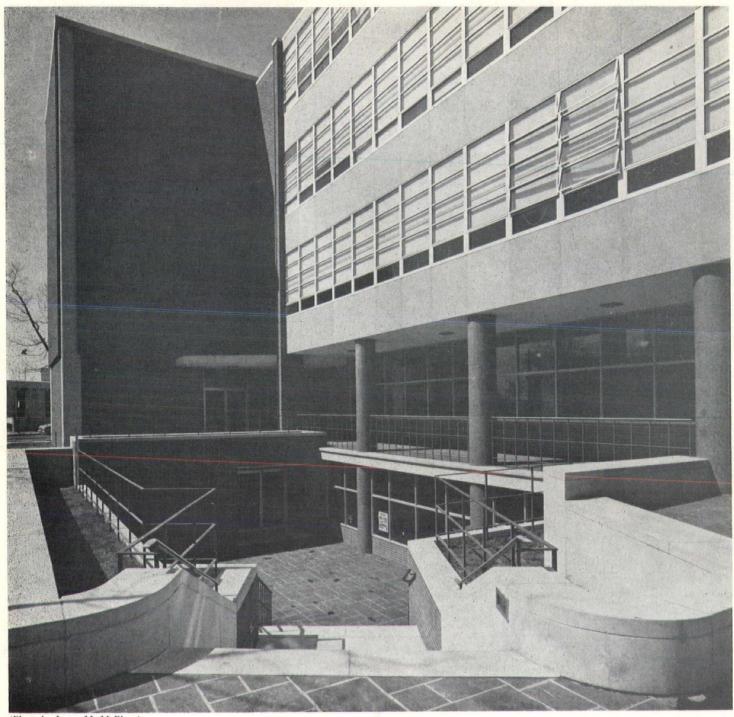


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(Photo by James M. McElroy)

VIRGINIA COMMONWEALTH UNIVERSITY HIBBS BUILDING

WRIGHT, JONES & WILKERSON
Architects

EMMETT L. SIMMONS Engineering Consultant Mechanical WILLIAM ST. CLAIR Engineering Consultant Structural CURRENTLY the largest instructional unit on the Academic Division Campus, the Hibbs Building consists of an original structure completed in 1957, and a new, larger addition completed in 1967.

Architects for the original building and the addition were Wright, Jones, and Wilkerson of Richmond, and the contractor for the addition was Graham Brothers of Richmond.

The addition delivers to the University a bookstore on the basement level, a student cafeteria on the ground level, and a student cafeteria and a faculty dining room on the second floor. The third and fourth levels provide 18 classrooms and 25 faculty offices.

Because of its strategic location in the heart of the Academic Division's Campus, the building is now the hub of student academic and social life. The new James Branch Cabell Library, soon to be occupied, is directly across the street on Park Avenue, and the building faces Shafer Street which, since closed by the city, has become the center of the campus.

The Hibbs Addition provides total interior space of 69,477 square feet, and is constructed of reinforced concrete frame, with flat slab construction. Use of beams has been kept to a minimum to provide maximum clearance for mechanical equipment. The exterior walls are faced with brick, cast stone, and manufactured granite to match materials in the original structure.

The interior partitions are of gypsum block plastered to permit maximum flexibility for rearrangement. Partitions in high humidity areas are of masonry block. The entire structure is air conditioned.

When the contract was let, the administration of the former Richmond Professional Institute provided foundations for a structure of eight stories, on the assumption that additional floors would be added. However, since that time, a new Master Site Plan for the University has been developed, and it is not believed that additional floors will be added.

Total cost of the structure was approximately \$2,000,000, with the funds provided by the Commonwealth of

Virginia. Of the total \$201,000 was secured from the Federal Government through a grant from Title I, of the Higher Education Facilities Act.

The building was constructed during the tenure of Dr. George J. Oliver, then President of Richmond Professional Institute. The structure is named for Dr. Henry H. Hibbs who headed the institution since its founding in 1917 until his retirement on July 1, 1959.

Virginia Commonwealth University was formed July 1, 1968, by Act of the General Assembly of Virginia. It combined the Medical College of Virginia, and Richmond Professional Institute to form a new university for Virginia. The first president is Dr. Warren W. Brandt. In the past academic year, VCU enrolled more than 13,000 full- and part-time students. making it the largest University in Virginia. Approximately 12,000 of these students were enrolled at the Academic Division.

Now under construction at the Academic Division are a \$1,500,000 Physical Education Building, a \$2,000,000 Library, a \$2,500,000 School of the Arts Building and a \$3,500,000 School of Business Building.

Subcontractors and Suppliers (All Richmond firms unless otherwise noted)

Graham Brothers, general contractor, foundations & concrete; Garrett & Co., excavating; Raymond International, Inc., Washington, D. C., piling; Richmond Construction Corp., masonry; Bethlehem Steel Corp., reinforcing steel; Ornamental Iron Products, Inc., Mechanicsville, misc. iron & ornaments, steel grating & handrails; N. W. Martin & Bros., Inc., roofing; Economy Cast Stone Co., stone work; Brown & Grist, Inc., Newport News, windows; Sash, Door & Glass Corp., glazing; Lane Brothers, Inc., painting & plastic wall finish; Oliva & Lazzuri, Inc., structural (glazed) tile & terrazzo; Brisk Waterproofing Co., Inc., waterproofing; O'Ferrall, Inc., insulation, acoustical & resilient tile; J. A. Wilton, Jr., plaster; Acme Metal Door Corp., Brooklyn, N. Y., steel doors & bucks; W. A. Christian Co., lighting fixtures & electrical work; Harris Heating & Plumbing Co., Inc., plumbing fixtures, plumbing, air conditioning, heating & ventilating; W. W. Moore & Sons, Inc., elevator; Pleasants Hardware, hardware.



to tell the Virginia Story

AUGUST 1970

PAGE SEVENTY-ONE



NATIVITY LUTHERAN CHURCH

Collingwood Road & Fort Hunt Road Alexandria, Virginia

> KOHLER-DANIELS ASSOCIATES Architects

> > GOODWIN H. TAYLOR Consulting Engineer, Mechanical

FORTUNE-DOWNEY-ELLIOTT Consulting Engineer, Structural

TRI-COUNTY CONSTRUCTION, INC. General Contractor

NATIVITY Lutheran Church is a first stage Mission Church located at the intersection of Fort Hunt and Collingwood Roads in Alexandria. The surrounding area is comprised of single family residences and other religious structures.

The program presented to the architects, Kohler-Daniels Associates, called for a structure of dignified simplicity with an atmosphere of harmony and peace that would be conducive to meaningful worship. The structure should also be functional and blend

architecturally wth the community but should not compete with the other churches. Although specific architectural styles were mentioned (Colonial, Traditional and Contemporary) simplicity, balanced lines, elegance, beauty and dignity were stressed as opposed to

VIRGINIA RECORD

Founded 1878

Photos by Cooks Photo Art Studio

"extreme" styles. The building should also express "Reverence to God, warmth and friendliness to our fellow men, a welcome to all people who worship, and a relationship between God and Man."

The architects worked closely with the building committee and the Board of American Missions in Chicago before the final design was presented to the congregation for approval.

The building is small and compact, approximately 60 feet square with multiple uses for each room. For example, a folding partition was installed in the kindergarten room, and the Pastor's office doubles as a classroom. Classes, general meetings, and socials are held in the parish hall.

Called for in the master plan, as stages two and three, are additional classroom space and a sanctuary. The classrooms and first stage construction will encompass a courtyard with the future sanctuary on a diagonal with

the parish hall.

The structure for the parish hall is steel frame with steel joists and for the classroom section is masonry bearing wall with wood joists. The steel columns in the parish hall are recessed in the block walls and painted dark brown with the walls painted off-white. The exterior walls are concrete block with a white "Thoroseal" coating. The asphalt shingled mansard roof hides the rooftop mechanical units and also acts as a sun screen for the parish hall clerestory windows. The exterior window and door frames are either painted or stained dark brown, with a natural slate sill at the windows.

The Cross was fabricated from rust resistant "Mayari" steel. The interior walls are either painted drywall or exposed block, and floors are covered with vinyl asbestos tile. Repeated behind the chancel area is the exterior motif of "Thoroseal" coating. The Altar, Pulpit, Baptismal Font, Choir Railing and Communion Railing were designed by the architects. Fabricated of birch plywood and solid birch pieces in the mill, these chancel furnishings are stained driftwood grey and dark brown. The parish hall ceiling is suspended 2' x 2' acoustic tile laid on the diagonal with a wood grain runner every 6 feet and serves as a plenum for heating and air conditioning.

The future stages will repeat the materials used in the first stage along with the addition of sloping stone walls at the sanctuary.



Subcontractors and Suppliers

Subcontractors and Suppliers

Tri-County Construction, Inc., Alexandria, general contractor, masonry & carpentry; A. E. Ault Inc., Sterling, excavating; Virginia Concrete Co., Inc., Springfield, concrete; James Steel Fabricators, Inc., Alexandria, steel & steel roof deck; Virginia Roofing Corp., Alexandria, roofing; The Ceco Corp., Washington, D. C., windows; Enclosures Unlimited, Inc., Sterling, glazing; John W. Cross, Arcola, painting; C. B. Oliver, Annandale, waterproofing; Chamberlin-Washington Division, Washington, D. C., weatherstripping; Southern Floors & Acoustics, Inc., Merrifield, insulation, acoustical & resilient tile; Arnold H. Zimbro, Inc., Alexandria, ceramic tile; Alexandria Lumber Corp., Alexandria, millwork; Fries, Beall & Sharp Co., Springfield, steel doors & bucks & hardware; Trovato Electric Co., Inc., Merrifield, lighting fixtures & electrical work; Sam Bish, Inc., Alexandria, plumbing fixtures & plumbing; C. I. Pavne Cooling & Heating, Leesburg, air conditioning & heating. C. J. Payne Cooling & Heating, Leesburg, air conditioning & heating.



AUGUST 1970

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• The 52-mile segment of Interstate 64 between Gum Spring and Yancey Mills is scheduled to be opened to traffic September 25, the Department of Highways has announced.

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AIA NEWS

(Continued from page 9)

Architects Ask Changes In Buildings Erected For American Indians

America's Indians and taxpayers are being shortchanged on buildings designed by the Federal Bureau of Indian Affairs, The American Institute of Architects has told Congress.

Testifying before the Senate Appropriations Committee panel on the 1971 budget for the Department of the Interior, AIA said:

* It costs two to three times as much for the Bureau to design a project and administer it as it would to obtain comparable services from private architects and engineers.

* Using stock plans has resulted in some buildings not suitable for different climates and terrain.

* Indians have often feared to actively participate in planning new buildings or to complain about plans because they were designed by a government bureau which controls funds vital to their lives.

Speaking for the AIA's Task Force on the Bureau of Indian Affairs, Philip A. Hutchinson, director of AIA government affairs, urged Senators to reduce the Indian Bureau's design staff "and give most of its work to private architectural and engineering firms.

The Association on American Indian Affairs, Inc. said it joined AIA's plea. William Byler, executive director of the organization, in a letter to AIA said "the present situation is scandalous . . . My findings confirm your estimate that BIA costs for architectural-engineering services range from 100 to 300 percent greater than what would be charged in private practice."

Byler said last spring the Mississippi Band of Choctaw Indians at Philadelphia, Miss., asked his organization's help in altering plans for new schools designed by BIA. Professionals from Massachusetts Institute of Technology and Washington University at St. Louis "were shocked by the proposed design and exorbitant architectural-engineering costs," according to Byler. The Bureau did make some changes after the study by outsiders, he added.

"We have been told many times how difficult it is for Indians to try to change buildings designed and super-

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PAGE SEVENTY-SIX VIRGINIA RECORD Founded 1878

vised by a government bureau." pointed out Hugh Rowland, AIA, task force chairman, in comment in Albuquerque where he is a practicing architect. He noted that an AIA study group found that building plans designed by the BIA had been used for deserts and mountains although climate was markedly different.

Hutchinson told Sen. Caleb Boggs (R-Del.) that BIA plans for schools at Belcourt, N.D., and Tuba City, Arizona, show costs of 13.4 percent and 10.2 percent for architectural-engineering services and some supervision. He said the probable charge for comparable services on similar schools by private firms would range around six to seven percent.

The BIA is "over-staffed," he asserted.

The General Services Administration (GSA) employs a professional and clerical staff of 131 in its central office to oversee around \$1 billion in construction, he said. The BIA retains 169 persons in similar capacity to support work less than \$50 million, he said.

"The AIA," which represents some 24,200 registered architects, "believes that each Federal construction agency should have a staff of competent professional and technical employees . . . but we do not believe it is prudent to over-staff," he said.

Members of the Appropriations Committee that will decide the BIA budget are: Boggs, Milton R. Young (R-N.D.), Karl E Mundt (R-S.D.), Hiram L. Fong (R-Hawaii). John L. McClellan (D-Ark.), Alan Bible (D-Nev.), Robert C. Byrd (D-W. Va.), Gale W. McGee (D-Wyo.), William Proxmire (D-Wis.), and Joseph Montoya (D-N.M.)

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Architectural Research Meeting Set for Cincinnati, Ohio

A major conference of architectural research will be held in Cincinnati, Ohio, November 1-3, by the American Institute of Architects.

The seventh annual Architect-Researchers Conference, co-sponsored by AIA's Joint Committee on Research and the Department of Architecture at the University of Cincinnati, will be held at Stouffer's Cincinnati Inn.

Current research by architects and non-architects on a wide range of problems affecting how Americans live will be presented. Around 30 research papers and 300 participants are expected. Subjects include: design of courtrooms, industrialized housing, urban transportation, planning for health and college facilities, shelter for American Indians, computer applications, and others. Papers presented at this year's conference will appear in the fourth annual publication of the proceedings of the Architect-Researchers Conference.

Detroit architect Robert F. Hastings, FAIA, First Vice president of the AIA and its 1971 National President, will discuss the AIA's attitude toward research

and its implications for future policy.

Information and registration material can be obtained by contacting Professor John M. Peterson, AIA, Department of Architecture, University of Cincinnati, Cincinnati, Ohio 45221.

PAPERS AND AUTHORS ON THE PROGRAM OF AR/7 —

The 7th Annual Architect-Researchers Conference of the American Institute of Architects

Cincinnati, Ohio, November 1, 2, and 3

Selecting Visual Properities of Architectural Surfaces: A Psychological Approach Clarke A. Burnham, University of Texas, and Clayford T. Grimm, Clay Products Association of the Southwest

Egress Arrangements in University Residences

R. S. Fergreson, National Research Council of Canada Operation Great: Computer Application to Architectural Design Sheldon L. Anonsen, Ellerbe Architects, St. Paul, Minnesota Behavioral Research for Architectural Planning and Design

Lawrence Wheeler, Ewing Miller Associates, Terre Haute Vertical Circulation Study for Manhattan Community College

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Development of a Modeling Technique for Evaluation of Natural Convection and Ventilation in Rooms

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Edward Allen, MIT

Mobile Home Industry

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Are the New European Building Systems Applicable to U.S. Housing Needs?

Helmut Schulitz, UCLA

Judicial Facilities Study

A. Banjamin Handler, University of Michigan

Some Thoughts on the Direction of User Requirements Research

Charles Masterson, Bosti, Buffalo

Housing System for Ghana

J. P. A. Falconer, Washington University

Indians of the Yukon in the Northwest Territory

Morton Katz, University of Toronto

American Indians

Chester Sprague, MIT

Temperature, Light, and Sound as They Relate to Total Design

Henry Wright, Kansas State University

The Strip Highway Project

Frank S. Kelly, University of Tennessee

Patient Care Systems for Mental Health

George G. Means, Jr., Clemson University

The Grid House

Richard S. Levine, University of Kentucky

On the Development of Functional Design Methodology for Health Care Facilities

Ernest W. Parti, Carnegie-Mellon University

Controlled Density Concrete for Housing Construction

William H. Wilson, University of Oklahoma Building Systems—Why Concrete?

Samuel Aroni, Riverside, California

Defining Facility Needs of a Regional Data Processing Center: A Programmer's

Workbook

William F. Winslow, R.P.I.

Bids: A Regional Economic Information and Analysis System for the Construction Industry

David S. Haviland, R.P.I.

Architectural Research in England

Geoffrey Broadbent, Portsmouth Polytechnic, England

Urban Transportation Systems, A Future Urban and Regional Development

Robert Beckley, University of Wisconsin, Milwaukee

nel: "New Directions in Environmental Design Graduate Education"

William H. Ittelson, City University of New York

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A Major Address by: Robert F. Hastings, FAIA

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AIA Announces 1970-71 Scholarship Recipients

Fifty-four student and professional architects have been awarded scholar-ships by The American Institute of Architects and The American Institute of Architects Foundation for the 1970-71 academic year. The awards, totaling over \$53,000, were provided as follows.

AIA scholarships were granted through endowments by Henry Adams, Edward Langley, Louis H. Sullivan, Dan Everett Waid, Milton B. Medary, and Carl F. and Marie J. Rehmann.

AIA Foundation grants were provided by:

—Blumcraft of Pittsburgh, designers and manufacturers of railing and grille systems (two \$500 scholarships to undergraduate students);

—Desco International Association, Buffalo, N.Y., franchised applicators of Desco coatings (five \$400 scholarships to undergraduate students); —PPG Industries Foundation of Pittsburgh (two \$2,250 grants for graduate study in urban design), and

The National Terrazzo & Mosaic Association of Arlington, Va. (one \$1,000 award for an undergraduate student).

One professional award was granted to Lester Lee Jones, Detroit, Mich., who will enter the Master of Environmental Design program at Yale University. He intends to study environmental problems of the Black community. The \$2,000 grant was made through the Waid Education Fund.

The recipients were selected on the basis of scholarship and need by the AIA Committee on Scholarships headed by T. Trip Russell, FAIA, of Miami. Members were: Leon Bridges, AIA, Seattle; DeVon M. Carlson, Dean of the School of Architecture, University of Colorado, and Betty Lou Custer, AIA, St. Louis.

Architects Ask Changes in Next Federal Highway Program

■ America's next generation of Federal highways should concentrate on metropolitan areas and provide a unified trust fund for roads and mass transit, The American Institute of Architects has told Congress.

Testifying before the House Committee on Public Works, William L. Slayton, executive vice president of AIA, recommended these key changes in the planning, financing, and construction of the Post-Interstate Highway system:

* One transportation trust fund should be generated from user taxes and other sources to support construction of highways, subways, bus and rail rapid transit.

* "Substantially" greater percentages of Federal highway funds should go to meet needs of urban areas.

* Where appropriate, "future urban expressways should include space within the right-of-way for a mass transit system" which could be either rail or bus.

* New park-and-ride strategies, new transit technologies, and new ways to move pedestrians are essential in crowded urban cores and should be encouraged by funds from the next major national transportation act.

* Local political jurisdictions should determine location of highways and transit links and should have a major role in their design.

* Transportation Corridor Districts should be created so metropolitan areas could plan and control land near and affected by the new highways and transit links. As land develops around the transportation corridor, part of the profit from increased land value would be returned to the public treasury. In effect, such land development would help finance the transportation system.

* Interdisciplinary teams of architects, engineers, lanscape architects and other design professionals should work on new major urban transportation systems, including highways, to minimize disruption of the fabric of city life and to build joint uses which promote a prosperous and livable city.

* Highway funds should include money to construct housing, so that citizens in the path of the new roads can be relocated and a city's housing supply will not be cut. Before highway construction starts, states and cities should determine how much replacement housing is needed and whether it can be supplied by the local private and public market without special Federal help.

* At least two local public hearings should be required by Congress for new highways to give citizens an opportunity to discuss the basic route decision, then review plans later.

* Federal law requiring "just compensation" for billboards near Interstate links should be replaced to allow local jurisdictions to use their police and other powers to control signs. Highway beautification has been brought "to a standstill" because of lack of funds and the "just compensation" provision said AIA

tion" provision, said AIA.

* Three percent of appropriated highway funds should be used for landscaping and scenic enhancement to help make the routes "an object of civic pride."

* States need also to give continuing stress to quality and variety in materials which can improve the appearance of new highways. Such details as road textures, bridge forms, lighting "must be given special attention."

* All Federally-aided transportation projects should be reviewed by the newly created Office of Urban Systems and Environment to minimize damage to the environment.

Slayton's testimony was based on a long study by AIA's Urban Planning and Design Committee and its Committee on Transportation Legislation. Accompanying him to the House Public Works Committee hearing were Joseph Passonneau, FAIA, Chicago, project director for the last three years for the large-scale Crosstown Expressway in that city, and Jaquelin T. Robertson. AIA, director of New York City's Office of Midtown Planning and Development.

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Major Changes in Licensing, Registration of Architects Urged by Study Committees

■ Major reforms in the licensing and registration of the nation's architects—the culmination of about four years of work—have been recommended by study panels of The American Institute of Architects and the National Council of Architectural Registration Boards.

"The changes we are proposing will enable architects to better serve the public welfare," explained William J. Geddis, AIA, of Brookline, Mass., chairman of the AIA-NCARB Joint Committee on Licensing and Internship. "The new standards will meet the demand of the 1970's for architects who can synthesize technical information and community needs to produce solutions for environmental problems and the wise use of space."

The Joint Committee said it is urging five major changes in licensing procedures enacted by the states and territories plus development of a much shorter examination to qualify archi-

tects to practice.

Major recommendations.

* A definition for the practice of architecture which covers structures or groups of structures whose principal purpose is "human habitation or use." By emphasizing "human habitation or use" the definition attempts to make a more sensible distinction between the practice of architecture and the practice of civil engineering, for example. An architect's services would include planning, preliminary studies, design, drawings and specifications, construction management, and administration of construction contracts.

* In order to advance new technologies an architect would be allowed to have a financial interest in the manufacture, sale, or installation of a component or process that might be used in a structure for which he is the architect, provided he fully discloses such an interest to the client and the client "explicitly waives" any objection he may have to such an interest.

* The suggested minimum age to practice should be 21, and there should be no requirement that the

architect be a U.S. citizen.

* To be licensed, an architect would have to take a state examination. To take the examination he would have to hold a degree from an accredited school of architecture (there are some 63 such schools) or pass a qualifying examination after suitable practical experience. However, the qualifying examination should be phased out by the mid 1970's, the study groups recommend. The candidate for examination would have to complete six years

in school or five in school and one in training under an architect.

* The examination should be much shorter than the present four-day tests, the groups suggest. Over a period of five years, the states should change their licensing examination to concentrate on the examinee's ability to solve problems. "The exam is expected to deal with significant environmental issues, with the examinee in the role of architect as tactician or strategist," reviewing the reports of staff and associates and formulating recommendations. He will be required to demonstrate his ability to synthesize basic,

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P. O. Box 1308, High Point, N. C. Ph: 888-9978—Area 919 general knowledge of environmental needs, human behavior, construction science, design and planning fundamentals, legal requirements, economics and management. (About 30 percent of most current examination questions can be adapted to this new format which would be machine graded. Key sections of the existing exams, covering such subjects as site planning, design, history and theory of architecture, building equipment, professional administration, building construction, and structures would be presumed to have been adequately covered by the academic degree from an accredited university.)

* Architects should be allowed to practice in states other than their state of residence when they hold an unexpired license in their home state plus a certificate from the National Council of Architectural Registration Boards. While he is waiting for the certificate to be filed with the state, the out-of-state architect should be allowed to enter the state for purposes of discussing his services with a prospective client.

* A partnership or corporation should be allowed to practice in a state providing two thirds of the partners or the directors of the corporation are licensed under the laws of any state to practice one of the design professions — architecture, engineering, landscape architecture. The person in

charge of architectural services to be offered in the state would have to be a partner or a director and be licensed in that state.

* Firms should be allowed to practice under names which do not include the names of any partner or corporation director, providing full information about the firm is given the state.

The suggested new legislative guidelines do not provide for "umbrella registration" of related professionals as architects.

"The proposed new licensing exam will encourage the architect to become more of a tactician than a technician," notes Rex Whitaker Allen, FAIA of San Francisco, president of AIA. Mr. Allen emphasizes the suggested licensing and registration changes await final action by NCARB and the Boards of AIA and the Association of Collegiate Schools of Architecture.

The two committees that devised the suggested changes are NCARB's Professional Relations Committee, headed by Ken G. Miller, AIA, of Hutchinson, Kansas, and Examination Development Committee, headed by E. G. Hamilton, Jr., FAIA. of Dallas, The committees included college deans and other educators, private practitioners (including an engineer), and members of state registration boards. Carl Sapers, of Boston, was the legal consultant.

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AIA NATIONAL CONVENTION IN BOSTON

Muskie Calls for National Commitment To Rebuild Urban Environment

In a major policy address before The American Institute of Architects meeting in Boston for its 102nd national Convention, Senator Edmund S. Muskie (D-Me.) called for a national commitment to rebuild the urban environment.

"America is drifting on a haphazard course charted by neglect, and it is time to stop. It is time to restore and rebuild . . . to instill a new spirit of national purpose. It is time for a commitment to a whole society," he said, and emphasized, "It is in our cities and among the people who live in them that America will decide its future."

AIA Establishes Walter Reuther Scholarship

The national Board of Directors of The American Institute of Architects established a \$2,500 scholarship in its program for the disadvantaged in memory of the late Walter P. Reuther, President of the United Auto Workers. He was to have been the Purves Memorial Lecturer at the AIA Convention held in Boston.

The AIA Board adopted a policy statement to stimulate closer ties between architects in private practice and those employed by the government.

AIA President Rex Whitaker Allen, FAIA, announced that the Institute will participate in the first awards program for non-profit low and moderate income housing. It will be conducted with the national Center for Low Income Housing, The Urban Design and Development Corporation, and the National Urban Coalition. Architect Harry Weese, FAIA, of Chicago, was appointed chairman; and Dr. Robert Gutman, of Columbia University, Consultant. Jurors are: architect John Moutoussamy, AIA, of Chicago; Glenn Claytor, Director of Housing for the National Urban League; Walter L. Smith, Executive Director of Low Income Housing Development Corporation, and David Crane, University of Pennsylvania, Philadelphia. Alternate is Charles K. Agle, FAIA, of Princeton, N.J. The AIA Board also:

* endorsed the Inter-Society Color Council/National Bureau of Standards (ISCC/NBS) Universal Color Language, and designated architect Milo Folley, AIA, of Syracuse, N.Y., as AIA's representative on the Inter-Society Color Council;

* reviewed work of the AIA Task Force on Aerospace and Hostile Environment Architecture;

Slayton Outlines AIA Thrusts

"It is to the architect, working in tandem with the other design professions, that the country must turn for the building of tomorrow's America and the rebuilding of today's America, according to William L. Slayton, Executive Vice President of The American Institute of Architects.

Addressing the business session of AIA's national Convention he called on the members of the national professional society to "fashion the Institute as an institution to which the country can turn for leadership in creating the form of our man-made environment." "The architects," he said, "must act institutionally through the national AIA, through the local Chapters, and through the State Organizations to use their clout to see that the good environment is actually built."

The former President of Urban America, Inc., Mr. Slayton said that he knew of no other organization that generates such high quality, intensive membership participation. "This is the Institute's major strength and its major resource," he said, and continued, "I shall endeavor, in my position as Executive Vice President, to organize the internal structure of the Institute so as to utilize this major resource to its fullest potential."

In addition to shaping the man-made environment, Mr. Slayton said that the AIA must deal with the needs of the individual architect in building and improving his practice, in enlarging his capacity, in furnishing practice aids, in providing the assistance, the continuing education, that will enable him to serve his clients better and to increase their number.

Mr. Slayton concluded his remarks with an illustrated presentation of current and projected AIA plans and programs.

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"The Forces of Change . . . In Building in the 70's" Discussed at AIA Convention

A preoccupation with cost comparison in the homebuilding field can be getting in the way of solving the housing crisis, Harold B. Finger, Assistant Secretary for Research and Technology in the U.S. Department of Housing and Urban Development, told architects attending the national Convention of The American Institute of Boston.

Architects Seek Expansion Of Help to Poor Neighborhoods

Architects are contributing more than \$5 million a year in time and money to help America's poor neighborhoods rebuild, according to an official of The American Institute of Architects.

George T. Rockrise, FAIA, of San Francisco, an AIA vice president, gave the assessment in reporting on work of AIA's Task Force on Professional Responsibility to Society of which he is chairman.

"You must do more, however," Rockrise and architects who are working in poor neighborhoods across the nation, told the AIA's 102nd convention meeting.

Key task force achievements to date, reported to the Convention, include:

* The six-year AIA/Ford scholarship program. Twenty students will launch it next September and others will follow in 1971 and 1972.

* Help to the Community Development/Design Centers, including placement of VISTA volunteers for manpower

* Successful efforts to help gain accreditation for black schools of architecture. Three of the six unaccredited schools are now ready to announce their accreditation which greatly helps graduates enter practice.

* Strong links between mostly white AIA members and the black schools in such states as Texas. This association

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CONVENTION (Cont'd.)

will aid the graduates when they leave school.

* Sending of black professionals to the schools as lecturers. This is a joint program with the National Urban League.

* On-the-job training programs in which 30 youths are now enrolled. "This is only a small beginning; we are anxious to see it increase," Hugh Zimmers, AIA, of Philadelphia, consultant to the Task Force reported.

* Applications to the federal government and foundations seeking some \$4.5 million in help for programs and projects which architects will help

operate.

AIA has appropriated \$150,000 so far for the Task Force's mission, committing \$500,000 for the AIA/Ford Foundation scholarship program, Rockrise reported.

However, based on a questionnaire circulated this year by AIA, Rockrise estimated around 3,300 members are donating some \$660,000 a year to help the poor and time worth from \$4 million to \$16 million a year, depending on what dollar figure is used.

Robert F. Hastings, FAIA, of Detroit, president-elect of AIA, said "AIA's Board of Directors is doing all it can to commit as much money as possible to the social responsibility pro-

grams."

Taylor Culver of Howard University in Washington, D. C., Rockrise and others claimed the Institute has "a long way to go to deliver on its pledge."

"It is our hope that the AIA might come to provide a sterling example of the kind of surgical action we need in this country," said Grady Poulard, Director of AIA's Department of Community Services.

Rockrise and other speakers insisted AIA must battle to persuade political leaders to alter national priorities. And AIA should step up its own spending to help community design/development

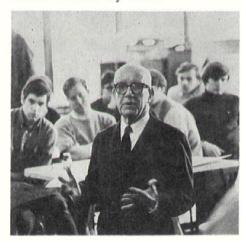
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Dial 399-7131 1811 County St. PORTSMOUTH, VA. 23704 centers now operating in some 50 cities and also increase scholarship aid for college architectural training for minorities plus technician and on-the-job training, he added. The Institute also needs to turn its spotlight on practices in government and the building/financial sector which block quality housing for all Americans, he noted.

The alternative is more unrest, more disorder. Rockrise said, "Is our world to be Watts, Hough, Harlem?"

Fuller Presented Gold Medal By AIA



R. Buckminster Fuller, inventor of the geodesic dome and the dymaxion world map, was presented with the Gold Medal of The American Institute of Architects at a formal banquet concluding AIA's 102nd national Conven-

In accepting the award, the highest honor accorded by the 24,200-member national professional society, from President Rex Whitaker Allen, FAIA, Mr. Fuller warned that "the next five years will be among the most difficult in man's history on planet earth." But, he expressed confidence that humanity would survive this trying period.

Dr. Fuller, will be a visiting professor at the University of Detroit begining in the fall semester, Father Malcolin Carron, S.J., University president, announced.

Father Carron also announced that Fuller would hold the newly-established R. Buckminster Fuller Chair in the School of Architecture.

Fuller currently is teaching at Southern Illinois University, Carbondale, Illinois. World renowned as a poet, builder, scientist, mathematician, architect, cartographer and conversationalist, Fuller will conduct architectural design seminars at U. of D. on both the undergraduate and graduate levels under the sponsorship of U. of D's School of Architecture.

National Officers Elected By AIA

■ ■ Robert F. Hastings, FAIA, of Detroit, has been elected President of The American Institute of Architects, succeeding Rex Whitaker Allen, FAÍA, of San Francisco. Mr. Hastings will be inaugurated at the December meeting of the Institute's Board of Directors.

Other officers elected by AIA members meeting in Boston at the 102nd Convention of the 24,200-member national professional society were: First Vice President (President-elect)—Max O. Urbahn, FAIA, of New York City; Vice President (three)—Richard M. Bennett, FAIA, of Chicago, Robert J. Nash, AIA, of Washington, D.C., and George M. White, AIA, of Cleveland. Preston M. Bolton, FAIA, of Hous-

ton, was reelected Secretary for a second two-year term, and Rex L. Becker, FAIA, St. Louis, will continue as Treasurer, a two-year post.

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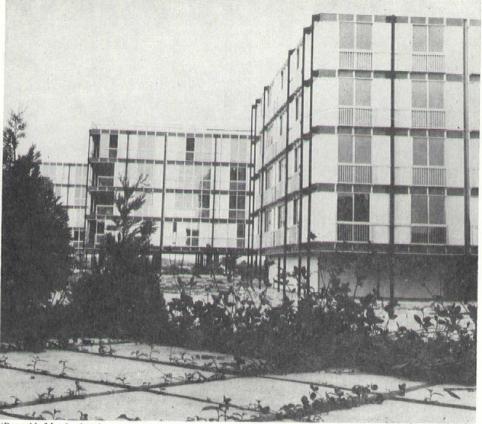
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Reynolds Prize



(Reynolds Metals photo)

■ The design of a low-cost housing development, site-assembled in Rouen from factory-produced components, has won the \$25,000 R. S. Reynolds Memorial Award for a Paris architectural firm.

Recipient of the 1970 fourteenth annual Reynolds Award "for distinguished architecture in which significant use is made of aluminum" is the firm of Lods, Depondt, Beauclair.

Marcel Lods, one of France's leading architects, has long been recognized for his role in industrialized building systems. Other partners are Paul Depondt, who was director for the project and has devoted several years of study to construction with lightweight industrialized building systems, and Henri Beauclair.

The honored 500-apartment development in Rouen is known as the Projet Experimental de la Grand'-Mare.

In addition to the \$25,000 honorarium the award included an original sculpture in aluminum, entitled "Clap! The Precarious Traveler," created by sculptor David Hare of New York, and a certificate from the AIA.

The French architects have formed a joint venture with a Chicago con-

sulting engineering firm (The Engineers Collaborative) and a general contractor (W. E. O'Neil Construction Company) to develop low-cost housing and other types of buildings in the United States with methods which evolved from the Rouen project. The Chicago-based joint venture, known as Component Building Systems, Ltd., plans to build a 450-unit urban renewal housing project there. Mr. Depondt represents the Paris firm in Chicago.

"Our Rouen housing development is not a monument," Mr. Depondt said. "It is an idea, the initial expression of a philosophy of building design which will grow and improve with each new experience.

"This industrialized building concept is not tied to any type of building or setting. It is a tool to be used by the architect in the design of any structure."

The Rouen project consists of 25 five-story building, with five walk-up apartments on each of the upper four floors and utility spaces on the ground floor. The structural frame is of weathering-type steel, and the exterior is formed entirely of industrially produced aluminum and glass sections, assembled at the construction site pri-

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733-8637 — Phones — 748-5618 1700 E. WASHINGTON ST. PETERSBURG, VA. marily by unskilled labor. Steel floor frames, which also carry utility lines to individual apartments, are pre-assembled and placed in position with use of a crane.

The facade consists of three types of vertical components; painted aluminum sandwich panels, sliding glass window sections, and sliding aluminum louvers for privacy with the glass sections when desired. Aluminum handrails and vertical supports are provided on a large portion of the exterior, giving something of the effect of a balcony when the sliding doors are opened in good weather.

The exterior components were erected entirely from within the structure. No scaffolding was required.

The three types of aluminum used—painted, natural anodized and cast—give a richly-textured appearance to the facade.

The weathering surface of the roof consists of sheets of high-ribbed aluminum.

The field assembly resulted in significant economy. The lightweight factory-produced components represented 85 per cent of the entire cost of construction, with field erection costs being only 15 per cent. In traditional construction methods, field construction expenses are usually from 35 to 50 per cent of the entire cost.

Construction costs totaled about \$10.50 per square foot. The entire development was completed within a year from start of construction.

"High quality materials were used throughout," Mr. Depondt said. "The economy was entirely in the labor requirements."

Despite the low cost, the buildings offered important special features to residents. Each apartment has individual heating temperature controls, and the openness of the apartments adds to warm-weather comfort. The interior walls can be moved with relative ease to give flexibility in space planning. Excellent sound-proofing is achieved through use of air spaces.

The honored housing development is awned and operated by the City of Rouen. Engineering for the project was handled by Systeme GEAI, an organization in which architects and industry worked together. Participating in GEAI were Aluminium Francais, St. Gobain, Pechiney and OTUA, an organization representing several steel firms. General contractor was the Compagnie Francaise d'Enterprise Metallique.

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Real Estate Advice Offered By AIA

■ Real estate investment will continue strong despite the Tax Reform Act of 1969 which clipped some tax advantages, a national seminar of the AIA has been told.

"Large corporations are entering the real estate market with little regard for tax laws," Dr. Carl J. Tschappat, chairman of Georgia State University's Department of Real Estate and Urban Affairs at Atlanta, said. He addressed architects, land developers and mortgage bankers at a one-day meeting at the Central Holiday Inn.

Tschappat said he expects construction to pick up late in 1970 as the Nixon Administration tries to reduce unemployment and slow a recession.

In the long run, pressures will grow to eliminate or reduce still further tax shelters and advantages which stimulate real estate investment, he predicted. However, profit potential in real estate and other advantages to investors, including corporations, will remain even with higher taxes, he added.

For the immediate future, despite the 1969 Act, "We still can get quite a good deal of tax shelter out of apartments, for example," Tschappat noted.

Major changes of the 1969 Act in-

Major changes of the 1969 Act included removing most of the accelerated rates for depreciating nonresidential real estate and a hike in

capital gain tax rates.

Paul B. Farrell, Jr., graduate architect, lawyer and mortgage banker with Sonnenblick Goldman Corp. of Detroit which placed almost half a billion dollars in real estate mortgages last year, told the seminar "the effective (mortgage) interest rate is going to remain pretty much the same through 1970 even if the prime rate declines slightly at the end of the year." Farrell also reported "construction costs are going up two thirds to one percent a month. A drop in the interest rate of one percent won't make up for that," so waiting to build is not a good idea.

The seminar on tax laws and real estate investment was the first national continuing education program brought to Dallas by AIA. It is one of around 25 programs on different subjects to be offered by national AIA during 1970. Purpose of the programs is to help architects expand services to clients and better organize practice. Participants here came from Georgia, Louisiana, Arkansas and Texas.

Farrell and Tschappat defended tax breaks for real estate investment. "The investor is taking what can be a big risk even though he may have a rel atively small amount of money in the project," noted Tschappat. "If it goes sour, he can lose a tremendous amount" because he is responsible for the total borrowed money, noted Farrell.

Speakers gave these tips to potential investors and developers and architects

aiding them:

1. "Develop a killer instinct—don't let others make decisions for you-take risks; that's what it takes."

2. "Reject marginal projects." Go through the same analysis of expected income, cash flow, carrying costs and other factors which mortgage bankers complete.

3. Architects must "negotiate their compensation based on risk involved. Don't get sucked in by landowners and agree to defer your fee" until the deal

is settled.

4. "Don't sell off the equity until necessary. Delay as much as possible. A good project should gain backing" and allow the owner to keep a fair share of

5. "Know the real cost of project financing and borrowing—14 percent in

many cases."

6. Try to work out some way to avoid owning the land. Joint ventures, lease-back and other methods are available. "Land offers so little; you can't depreciate it for tax savings.

7. A small profit, which can help cash flow, is available by buying power in bulk and retailing it to tenants in shopping centers and office buildings.

8. Avoid from the start inflated estimates and false cost figures. Honesty pays in attempting to get financing from mortgage bankers.

9. "Don't procrastinate."

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Sidewalks Next in U.S. Skyline, Reports AIA

■ The sky's the limit for sidewalks in a growing array of U.S. cities.

Pedestrian crossings that arch buildings, span streets, separate vehicles from walkers, and unite buildings or whole parts of cities above street level are completed, under construction, or proposed in such diverse cities as Reno, Memphis, Atlanta, Denver, Minneapolis, St. Paul, Cincinnati, Rochester, N.Y., Springfield, Mass., and Washington, D.C., reports The American Institute of Architects,

"Given an improvement in the economy and more mortgage financing for construction, I'd say we will see a tripling or quadrupling of elevated passageways in this country in the next 10 years," predicts Brock Arms, AIA, of Glencoe, Ill. Arms was the architect who designed pedestrian bridges and walkways that will link 40 buildings in the Rosslyn complex at Arlington, across the Potomac River from Washington, D.C.

These trends are spurring construc-

tion of above-grade sidewalks:

* A marriage of private owners and city planners to jointly plan downtown renewal.

* Growing use of air rights.

* Efforts to ease congestion on

* A tendency to treat urban development as a super-block, district, or zone instead of a collection of individual buildings which may not relate to each other efficiently. The AIA calls this concept urban design and says it requires teamwork by design professionals, support by land owners and

city staffs, and understanding by citizens.

"Originally Arlington County looked at the pedestrian bridges as a solution to Rosslyn's vehicle and people traffic crush," exflained Richard Arms, AIP, former county planning director. "Now, we see the overhead sidewalks as much more, as a unifying force, tying the development together, making it work." Now Arlington is using the same idea in its Crystal Mall office zone along Jefferson Davis Highway.

"What these connections can do" in a reviving older part of a city "is to provide a quick and easy way of overlapping the old with the new," notes George Marcou, AIP, a Washington planning consultant who includes elevated sidewalks in his plans in Rochester, Springfield, and Washington,

D.C

A San Franciso owner who wanted to unify two old cold storage warehouses into wholesale showrooms discovered it would be cheaper and quicker to construct a \$120,000 five-level steel and glass pedestrian bridge than to persuade citizens to vacate an alley. The tasteful bridge by architect Albert Aronson, AIA, and engineer Otto Avvakumovits was one of 12 projects cited as outstanding last year by the American Institute of Steel Construction. The alley is still open to traffic but no one drives through it now.

Cincinnati, St. Paul, and Minneapolis probably have the most extensive plans

for elevated walkways.

By 1973 the Ohio metropolis expects to have a 12-block second-story pedes-

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trian concourse which will cost from \$12 million to \$15 million. Already three blocks of the system are built and a fourth is under construction. "Just like an octopus, the central spine will have legs and can grow in several directions," points out Paul Ashworth, graduate architect on Cincinnati's urban development department. The old river city "has a very narrow street system and a very compact business district." Thus, the second-level sidewalks, which open to hotels, stores, and parking, have great attraction, said architect Willard C. Pistler, Jr., AIA, who designed the Stouffer Cincinnati Inn that opens on the concourse, "We wanted to maintain this tight business area which brings convenience to office workers, shoppers, and convention goers, and we also had to separate trucks and cars from pedestrians, so the concourse evolved," he explained.

Cincinnati and St. Paul are paying for the skywalks out of urban renewal funds. Minneapolis' extensive system so far has been purchased by private land owners and building developers. Other cities use a combination of public and private money, and all require some form of contribution from private own-

St. Paul is organizing a 12-block downtown, second-level pedestrian system which goes to and through some key buildings. In 1968 the skywalk scheme received a national design award from the Department of Housing and Urban Development. Including bridges and payments to land owners, walking above street level throughout the central business district will cost St. Paul from \$4.5 million to \$5 million. Two of the skywalks are completed and two more were started this summer. "We look at them as normal sidewalks, as a public right-of-way, even though they're not at street level, and the city maintains them as it would sidewalks," said Donald W. Cosgrove, chief of planning for the city's urban housing-renewal authority. He said the overhead sidewalk loop should be finished by the end of 1973.

Almost 10 years ago Minneapolis started moving pedestrians through the Minnesota winters and above traffic by way of enclosed, heated street bridges. The passageways go to banks, insurance office buildings, parking, shops, a large department store, and a major hotel. The city now has seven skyways. "We could end with 55 street crossings," says City Engineer Clayton A. Sorenson. "The key is how you connect them. You have to go through buildings. You have to convince businessmen that the passages create new areas of rental space and higher rentals." Soren-

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Dial (919) 275-8439 1023 Huffman Street GREENSBORO, NORTH CAROLINA son thinks Minneapolis can prove this. Two of the bridges—graceful slivers of glass and steel—won a 1970 National Honor Award for design excellence from AIA for the architectural firm, The Cerny Associates Inc. of Minneapolis

Although the city has a skyway plan—charting where it would like the crossings to move—it does not demand uniform architecture. "Each one is individually designed," noted Sorenson. At Rosslyn, St. Paul, and Cinncinati, however, the overhead walkways share a common design. "My job at Rosslyn," recalls Brock Arms, "was to design a bridge which could be lengthened or raised, could link dissimilar architecture, and still be simple and attractive." At St. Paul, architect Bruce A. Abrahamson, AIA, designed the exposed steel pedestrian concourse so it would appear simple "and universal to successfully connect buildings of various styles," said Cosgrove.

Pedestrian crossings can be used for more than movement, as shown by Florence, Italy's famed Ponte Vecchio bridge which contained shops as early as the 1300's. Two service crossings astride Illinois tollway segments near Chicago have large restaurants as well as service stations. Between Denver's Hilton Hotel and May-DF Department

Store a bridge supports a restaurant. Denver's new exhibition-convention hall is connected to its auditorium by a bridge which also offers a restaurant. Cincinnati's elaborate one-mile system of second-story sidewalks already invites strollers to a small, landscaped plaza atop a truck delivery depot.

Shops, eating facilities, ticket agencies could be located adjacent to many of the upper-level sidewalks being planned. At Reno, a three-story Visitors Center has been proposed which would span historic Virginia Street near the start of the Nevada city's tourist-gambling quarter. Urban design students from the University of California at Berkeley presented the concept to RENOvation Inc., reports Edward S. Parsons, AIA, a RENOvation trustee and president of AIA's Nevada chapter. The center would cost from \$500,000 to \$750,000.

Elevated sidewalks are being planned in some cities as extensions of platform development, which uses air rights. Memphis' 16-acre Operation Breakthrough site, where HUD and private companies will erect housing units as part of a nationwide drive to manufacture factory-built, quality shelter, is in a bowl, site of old railroad tracks. Louisville architects F. R. Louis, AIA, and A. R. Henry, AIA, proposed elevated sidewalks which will carry residents from the platform over parking to recreation and transportation outside the bowl. George Washington University in the national capital's Foggy Bottom neighborhood is considering uniting a new library and faculty office building, over parking, by means of pedestrian bridges which would be extensions of open decks. "It would be cheaper to close streets," admits planner George Marcou, "but that can take great deal of time and the effort often is not successful.'

"You want to provide these connections in ways that maximize the movement and pleasure of people," notes

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Marcou. He includes pedestrian bridges and walkways in plans for Bay State West stores, parking, offices, and a motel at Springfield, Mass., in Rochester, N.Y., to connect Midtown Plaza and Xerox headquarters to parking, and in New Orleans to open the Mississippi River promenade to French Quarter visitors.

A spectacular sidewalk in the sky has connected the Wrigley Building's two sections in Chicago since 1931 at the 14th floor, but it is not open to the public. San Francisco's Hilton Hotel has just installed a 41-ton steel walkway from its 16th floor to a rooftop swimming pool for use of guests.

Atlanta's Peachtree Center has become perhaps the top tourist attraction in town by offering the public 766 feet of carpeted aerial walkways, including two that are 22 stories in the air connecting the Gas Light Tower to the Merchandise Mart and the Mart to the main Center building. Architect John C. Portman, Jr., FAIA, expects additional walkways as Peachtree Center expands. Beside prviding an alternate traffic route, the eight to nine foot wide carriers also "provide a needed visual connection," said Portman.

Cost of aerial walkways is but a small fraction of overall project costs, says Portman. It has ranged from \$10 to \$100 per square foot for his crossings. The Rosslyn pedestrian bridges from 12 to 15 feet wide have run \$75,000 to \$110,000. "The cost is really minute when you think of a \$5 million building," says Marvin F. Weissberg, the key Rosslyn developer. Minneapolis' skyways "used to cost around \$80,000 apiece. Now they're running \$100,000 but some are costing double that because they're bigger and more intricately detailed," said Sorenson. Cincinnati figures its elaborate concourse, which runs through alleys, costs around \$1 million per block.

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Phone (703) 941-2242 5312 Carolina Place ALEXANDRIA, VA. 22312 more" as cities struggle to revive, thinks Sorenson.

"It's going to become a competitive development. Building owners will have to install the walkways just like air conditioning," predicts Arlington's Richard Arms.

"It will become a necessity. The issue will become a matter of how well the sidewalks are treated, whether they are carefully thought out and designed."

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For The Record...

VEPCO to Spend \$1.5 Million on Water Quality Measures

• Given the approval of the Virginia State Water Control Board, the Virginia Electric and Power Company announced today plans to install a \$1.5 million evaporative water cooling system at its Chesterfield Power Station along the James River at Dutch Gapnear Richmond.

The system, believed to be the first of its kind in the world, will help to insure the thermal quality of the water

at the power station.

Called the Power Spray Module (PSM), the basic unit is comprised of a pump and four spray heads, with interconnecting straight-line piping.

The entire unit "floats" in the water while moored in place. Heated water is pumped into the piping and sprayed into the air and cooled. The heated water is produced when it is used as a coolant in the generation of electricity.

The system is made by the Ceramic

Cooling Tower Corporation of Fort Worth, Tex., which expects to fill Vepco's order of 40 PSMs for use next summer.

"New water quality standards call for a maximum temperature increase of 1.5 degrees in the river in summer months. Tests show that the PSMs will achieve an average rise in temperature of only 1.7 degrees, a difference within the acceptable range of commercial operations," according to Stanley Ragone, Vepco's vice president of power production.

"The present discharge raises the average temperature of the James River just below the release point by five to seven degrees in the hot, dry months," Ragone said.

This conforms with board requirements and has produced no measurable effect on the river according to a Johns Hopkins University biologist who conducts continuous Vepco-financed studies and tests on the river.

In addition to the \$1.5 million Vepco will spend on the PSM system this year, the company is financing a \$250,000 river model study of the York River near its Yorktown Power Station. This model is scheduled for operation in the fall.



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Mr. Fanney advised that Warren B. Vheeler, Jr., who was recently elected ssistant secretary-treasurer of the as-

sociation would be manager of the new Military Circle office. A former U. S. Naval Reserve Officer and graduate of the Frederick College, Mr. Wheeler has been with the association since early 1969.

He also advised that Mrs. Helen Williams, an officer of the association since 1967, has been designated assistant manager and will coordinate the savings and investment programs at the new branch.

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Reinforcing Steel for the Appomattox River Water Authority Dam Located on the Appomattox River near Petersburg FOR THE RECORD (Continued)

Mid-State Tile Names Two New Sales Representatives



MR. PALO

• Mid-State Tile Company, a Lexington, North Carolina based tile manufacturer, announces the appointment of two sales representatives. They are Jim Blount of Macon, Georgia and Bill Palo of Pasadena, Maryland. Blount will represent Mid-State in Georgia, Alabama and Northern Florida. Palo's territory is Maryland, Virginia and the District of Columbia.

Blount is originally from Hattiesburg, Mississippi. He attended the University



MR. BLOUNT

of Southern Mississippi. He is married and has two children. Palo is a graduate of the University of Maryland. He too is married and has two children.

The tile representatives will be contacting architects, interior designers, tile distributors, and tile contractors throughout their respective territories. Mid-State's line is sold through distributors. The company manufactures a complete line of glazed wall and floor tiles including brights, mattes, textures and a series of decorative tiles.

District Leadership in a Statewide Resource Inventory

A comprehensive natural resource nventory of all counties in Virginia has been requested by the Virginia Soil and Water Conservation Commission. The hirty-four Soil and Water Conservation Districts across the state are being taked to spearhead this coordinated tatewide effort to emphasize the importance of this inventory and to enlist he cooperation of the appropriate ocal, state, and federal agencies in

completing this project as soon as possible.

For 32 years the Soil and Water Conservation Districts have been involved with the problems of conserving soil and water resources. This experience places them in the best position to provide the grass roots leadership needed to coordinate a statewide emphasis program to accelerate the completion of this inventory.

"In order to cope with the challenges of the '70's and future decades for restoring and conserving the quality of our environment, the Districts and other units of local and state government must have a comprehensive inventory of our resources as soon as possible," stated E. L. Felton, Chairman of the Commission. With this in mind, the Commission has recently agreed to step up its financial assistance to the districts to aid them in their activities to encourage total participation in finishing this state inventory.

A number of Soil and Water Conservation Districts have already begun inventories and others are in the planning stage. But, these have covered only certain sections of the entire picture. A comprehensive inventory will cover soil and water resources, recreation resources, forestry resources, fish and wildlife resources, and mined area restoration. Such an inventory will take at least a year to finish according to present indications. When the information is finally gathered, it will be compiled on a planning district basis.

The Soil and Water Conservation Districts are being assisted in their inventory emphasis program through working agreements with the Virginia Department of Agriculture and Commerce, USDA's Agricultural Stabilization and Conservation Service, the Virginia Division of Forestry, the Commission of Game and Inland Fisheries, VPI's Cooperative Extension Service, USDA's Soil Conservation Service, and a number of other state and federal agencies.

The role of the Districts in coordinating the work of these agencies to bring the inventory data together can be exemplified by its cooperation with the Soil Conservation Service. Through the concerted efforts of SCS and the Districts, agricultural resource suitability studies have been completed in 28 counties. SCS, in conjunction with

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the Commission of Game and Inland Fisheries, has also started fish and wild-life studies in eight counties. SCS and the Virginia Division of Forestry have finished woodland resource suitability studies in ten counties. In joint work with VPI's Cooperative Extension Service, Farmers Home Administration, USDA's Agricultural Stabilization and Conservation Service, and other agencies, SCS has completed appraisals of resource suitability for recreation development for 40 counties.

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1970 General Assembly Changes in Construction Safety Code

• Although no specific rules or regulations were changed by the 1970 session of the General Assembly, the Construction Safety Code of Virginia did have its enforcement procedures altered considerably. There are changes in both the penalties for violations and for procedures in enforcing the code. These new changes went into effect June 26, 1970.

The major changes occur in the rules and regulations pertaining to excavation, scaffolding, temporary floors, stairs, railings and toeboards. Any unsafe practices concerning the above sections of the Rules and Regulations

will become an immediate violation and the areas in which the work is being done will be shut down until this unsafe practice is remedied. (Example: Improper Trenching.)

On any violations of the other sections of the Rules and Regulations, the Department of Labor may give five days to comply. (Example: Poor House-

keeping.)

If you have any questions concerning these changes please contact the local Construction Safety Representative in your area. His phone number will be listed under the Virginia Department of Labor and Industry.

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CARVA Power Pool

• Virginia Electric and Power Company, Carolina Power & Light Company, Duke Power Company and South Carolina Electric & Gas Company, the power companies making up the Carolinas-Virginias Power Pool, announced that in the future they would coordinate planning for reliability with other electric systems in the Southeast.

"Now that all four CARVA companies have joined the Southeastern Electric Reliability Council, we can better coordinate our planning for reliability of electric service with all bulk power supply systems in the Southeast," T. Justin Moore, Jr., Vepco president said. "This gives us a much broader base for coordination," he added. At the same time, the companies also will revise procedures and prices for exchanging power on a transaction by transaction basis.

Moore said the present CARVA agreement will be superseded by the Virginia-Carolinas Reliability Group Agreement, which will be one of several geographic divisions within the Southeastern Electric Reliability Council, and by supplemental rate schedules to existing interconnection agreements between separate companies.

Under these schedules, which have been filed with the Federal Power Commission, the companies will continue to provide emergency assistance to each other, and sell and exchange various classes of power. A company with excess reserves may still sell spinning reserve and other classes of power to any company whose reserves may be temporarily inadequate.

According to the terms of the

new Reliability Agreement, membership in the Virginia-Carolinas Reliability Group will be open to South Carolina Public Service Authority, Yadkin, Inc. and Southeastern Power Administration, as well as any other bulk power supplier in the Carolinas and Virginia region which is a member of the Southeastern Council.

Moore said, "These new arrangements will thus broaden reliability planning and at the same time simplify individual transactions among the companies. The pricing formula contained in the CARVA Pool Agreement proved in practice to be too complicated, and did not adjust for changes in the cost of new capital." He noted that interest rates on corporate bonds had doubled

since the formula was negotiated in 1966-67.

Asked if the new arrangements would permit the companies to continue to take advantage of the economies inherent in large-scale construction and operation, Moore replied: "The same opportunities for reliability and economy exist under the new arrangement as existed under the CARVA Pool Agreement. We will complete the extra high voltage 500,000 volt transmission loop which is now under construction by companies in the CARVA Pool. Existing interconnections will be maintained and strengthened and others added as needed to provide the highest degree of service reliability to the bulk power systems."

First Step Taken Toward Educational Park

• An agreement to purchase at least 15 acres, with a right to purchase up to 56 acres, was signed last month by William H. Magness, President of Gulf Reston, Inc., and James D. Gates, Executive Secretary of the National Council of Teachers of Mathematics. The signing of the agreement, Mr. Magness said at the brief ceremony held in his office, constitutes the first step in the creation of an Educational Park to be constructed in Reston's 1,300 acre Industrial Center.

The Educational Park is presently slated to house the National Council of Teachers of Mathematics, the Council for Exceptional Children, the National Association of Secondary School Principals, the National Council for the Social Studies, and the Association for Education Communication and Technology. Each association will occupy a

separate building, creating a campus or cluster atmosphere.

These national education associations seek to coordinate and stimulate activity within the nation's educational community and facilitate the creative exchange of ideas in their respective areas of specialization. They provide publications, resource and research centers, seminars, conventions and legislative activity on behalf of their nationwide memberships.

The site of the Educational Park, located next to the Dulles Access Highway and 5 miles from Dulles Airport, is adjacent to the future \$3 million dollar Reston Inn and Conference Center. This was one of the primary reasons for selecting Reston, according to Gates. The 300-room Inn will also have 25,000 square feet of seminar and conference space. The Center will include a high

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rise office building, theater, bowling alley, and 14,000 square feet of commer-

cial lease space.

"Reston has consistently appeared as the number one choice, not only of independent study groups sponsored by the associations, but also of two consulting firms employed by the associations to review possible sites for relocation because of the inadequacy of present facilities in Washington, D.C.," Gates said in an interview.

"We are attracted to Reston," Gates said, "because of the open space, community facilities, and attention given the environment. It affords us flexibility, room for development and planning for the future, so that if we choose to expand our facilities, we may do so

without difficulty."

Early 1972 is the target date for the move of the five associations, employing between 250 and 300 people, to the Reston Industrial Center.

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Medical-Surgical Building

(Continued from page 13)

duty compounding and manufacturing, sinks, racks, refrigerators and shelving, special narcotics storage and offices for the Pharmacist and clerk.

Included in the building are two complete dental units, an outpatient area with two treatment rooms, office space for a physician, dressing rooms and toilets and an eye clinic.

In-patient care is provided for in four nursing units for twenty five patients each. A nursing station serves two nursing units. Single, 2-bed. 4-bed, seclusion and isolation rooms are

provided.

Some prepared food will be delivered to the Medical-Surgical building from the Kitchen-Cafeteria building by truck. However, as the majority of the patients will require special diets, facilities for the preparation of these, refrigeration for food storage for three days duration, dishwashing, a cafeteria warming table and a dining area for fifty patients in provided. Each nursing station has a serving pantry for the distribution of trays, light food preparation, refrigeration and space for tray carts.

Subcontractors & Suppliers

Silas Kea & Sons Co., Ivor, general contractor, masonry & carpentry. From Newport News were: E. W. Muller, Contractor, Inc., excavating, grading; Pompei Tile Co. quarry tile, ceramic tile & terrazzo; Febre & Co. of Newport News, Inc., plaster; and Noland Co., plumbing fixtures (American Standard).

Norfolk firms were: Leo J. Martone & Assoc., foundations & concrete; Southern Block & Pipe Corp., prestressed concrete & stone work; Roof Engineering Corp., roofing waterproofing & insulation; Walker & Laberge Co., Inc., glazing & aluminum en trance; U. S. Plywood Corp., paneling doors; E. Caligari & Son, Inc., painting & plastic wall finish; Campostella Builders & Supply Corp., millwork; and Seaboard Pain & Supply Co., Inc., hardware.

Others were: Welch Pile Driving Corp Va. Beach, piling; Bethlehem Steel Corp Richmond, reinforcing steel; Montague Betts Co., Inc., Richmond, structural steeroof deck; Buckingham-Virginia Slate Corp Richmond, slate exterior facing; The Stale Co., Inc., Richmond, windows; W. Morto Northen & Co., Inc., Richmond, acoustic ceilings; J. S. Archer Co., Inc., steel door & bucks; R. L. Thompson, Inc., electric work; R. Hugh Haynes Co., Williamsbur plumbing, air conditioning, heating, vent lating; and Virginia Elevator Co., Inc. Richmond, elevator.

X-Ray & Dental Equipment were be Litton Industries, Inc., and plastic wall finiwas by The Master Mechanics Co. Cleveland, Ohio.

Robious Elementary School

(Continued from page 17)

span the entire areas in the Instructional Blocks and Indoor Activity Area, leaving these spaces column free. The flat portion of the roof, connecting the sloped roof areas, is steel bar joist construction. Inside, all Instructional Blocks and the Instructional Materials Center are fully carpeted, and fluorescent light fixtures maintain proper lighting at desk height.

The heating, ventilating and airconditioning environmental design con-

cept had to satisfy many new concepts in school design, including large areas housing three to four classes, multiple ceiling heights, no partitions between large areas, flexibility of student traffic, high lighting loads and continuous varying solar loads. To make certain the environmental system would be the most contemporary and economical, with minimum maintenance, an electronic computer was used for a complete feasibility study. The environmental system is a variable volume terminal reheat induction air system, employing a Heat-of-Light lighting system. Primary air is cooled by a direct expansion coil and air is supplied to zone induction boxes at medium pressure. Zone induction boxes controlled from room thermostat mixes primary air with air returned through the lighting fixtures and supplies air to the room at the proper temperature. An electric terminal reheat coil, located in the induction box, is used to supplement heat from lighting fixtures at low outside temperatures. The environmental system is literally designed for the

air to follow the load of the building. The architects believe the Robious School to be one of the most contemporary elementary schools of its type in he state of Virginia, and feel that the excellent cooperation and guidance givn them by the Educational and Contruction staffs of the Chesterfield County School System greatly aided in ulfilling the main design requirement which was to develop an elementary chool that would meet the demands f the rapidly expanding educational rograms that are developing in Cheserfield County; "to design a school for omorrow as well as today."

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Karegeannes Residence

(Continued from page 19)

owners. The Karegeannes' share several hobbies. They have collected a number of art prints which they can display effectively in their home. Wall space, despite the profusion of glass, is such that they may add bookcases and display areas for their growing collection of books and 19th century art glass. The dining-living area opens onto a 12 foot deck, large enough for alfresco parties and for the ramblings of a lively airedale named "Molly."

The zeal of both architect and owners for preserving trees is evident in the fact that a mature oak juts up through the deck, which gives ample shade during the summer for afternoon tea.

Visitors to the house are invariably impressed by the fact that the lawn problem has been completely by passed. The profusion of trees, and the park-like atmosphere of the area generally, make a lawn unnecessary Landscaping is in the Japanese fash ion, with ornamental trees and flow ering plants worked into the scheme as desired. The owners are doing their own landscaping.

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James McGraw, Inc.

(Continued from page 24)

economical type for the size and loca-

tion of the building.

The only major planning and construction problem encountered was centered around the fact that this building is in an area of the City of Richmond which is not supplied by public sewerage. Neighbors were cooperative in granting right-of-ways to carry sewerage effulent lines to the James River but the economics were prohibitive. Sub-soil investigation indicated a sand strata some twenty feet below the surface of the ground. This permitted the use of a septic tank and a sub-soil drainage system.

The warehouse designed for 55 degrees inside with an outdoor temperature of 15 degrees houses industrial supplies for all types of construction and maintenance while the office area in front contains the executive, sales and accounting facilities for the new James McGraw which still "Keeps Plants Running."

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Wedgewood Country Club

(Continued from page 31)

shower and dressing rooms are included with a vending machine area in the West Wing, while ladies' and men's golf ocker facilities occupy the East Wing.

The building is constructed with bar oist and light section roof framing and poured gypsum deck. Exterior walls are brick and block, while interior walls are steel studs and gypsum wallboard. The finish ceilings are partly domed coustical shells and partly gypsum vallboard. The floors are brick or inyl-asbestos tile, with wood parquet in the ballroom and carpet in the punge. Vinyl wall fabric is used in all ublic areas. The building is all-electric with ballroom, corridors, offices, board oom, and lounge areas all air-conditioned.

Subcontractors and Suppliers

From Farmville were: Andrews Large & Whidden, Inc., general contractor; Brinkley-Yard Electric, Inc., electrical subcontractor; V. C. Newman Co. Inc., concrete supplier; ad, R. L. Chapman & Son, painting.

From Richmond were: Harris Heating & lumbing Co., Inc., mechanical subcontractr; Bowker and Roden, Inc., reinforcing eel; Scruggs Masonry Corp., masonry; iphart Steel Co., Inc., structural steel; J. Eurell Co. of Va., poured gypsum roof; W. Martin & Brothers, Inc., roofing and chitectural sheet metal; F. Richard Wilton, Inc., metal studs and gypsum wallboard; artin Tile and Marble Co., Inc., ceramic e; W. Morton Northen & Co., Inc., silient floor, carpet & parquet; Pleasants ardware, finish hardware.

Others were: J. E. Sears and Co., Inc., ppomattox, millwork; and, Virginia Auto ass Co., Chase City, glass and glazing.

Water Authority

(Continued from page 37)

are added. The water then passes through a flash mixer into the floculation basins. After some 30 minutes of slow mixing in the floculation basins, the water flows through distribution flumes into settling basins where a detention time of approximately three hours is provided. Water then flows onto the high rate filters and out through a collection header in the pipe gallery to a one-million gallon underground clear well. From the clear well, the water flows either by gravity or pumping to the various members of the Authority.

The Appomattox River Water Authority plant is the first municipal high rate filtration plant constructed in Virginia. As designed by Wiley & Wilson the high rate filtration type plant results in considerable saving in the physical size of the structure necessary to produce a given volume of water. The main difference between this and a standard plant is in the control equipment provided, to permit the filter plant operator to maintain a much better chemical balance and control over treatment of water as it passes through various treatment steps. Design differences also occur in the use of mixed media filter beds, which provide a much greater filtering capacity throughout the depth of the bed, rather than at the surface as in standard sand filters.

A quality control center on the operating floor adjacent to the lab provides continuous monitoring and recording of the quality of water in the various steps of treatment and fil-

tration. permitting the operator to spot immediately a change in the characteristics of the raw water and see at a glance if any phase of the process is not functioning properly. Improperly treated water is noted and corrective steps taken before it has a chance to pass into the distribution system.

Executive and management offices for the entire water system are located in the filter plant, including the Board Room where the Authority members meet regularly. The laboratory, located adjacent to the manager's office, is equipped for all types of testing necessary for the modern technology of water treatment.

R. Conrad Dodl, the professional engineer who served as project manager for Wiley & Wilson, believes the day will come when metropolitan areas to the east will be seeking water from the Appomattox River. When this time does come, the Appomattox River Water Authority with its flexible organizational structure, plus facilities designed for expansion, will be able to meet their needs.

As for recreational development, Lake Chesdin has felt some growth, although fishing pressure has been rather light up to now because of a lack of knowledge of the area. The State Department of Game and Inland Fisheries stocked the reservoir, in 1968 mostly, with large mouth bass, bluegill, channel cat, walleye, and striped bass. Alewives also were stocked as forage fish for the game varieties.

Native to the waters are small mouth bass, crappie and pickerel.

Based on reports submitted by Warden J. C. Holt for 1969 and the early

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part of 1970, fishing for crappie and sunfish has been excellent—crappie in spring and early summer and fall, sunfish in late spring through summer. Catfishing has been good so far. The large mouth bass fishing is best in spring and fall; small mouth bass in May and September; pickerel in spring and late fall. Small mouth bass up to two and one half pounds are not unusual

Game and Inland Fisheries has acquired a 16-acre site at the south end of the dam, for double launching ramp to be constructed there by late summer of 1970. A launching ramp on the river below the dam will be built in the future.

At present, three private marinas are located on the 90 miles of shoreline of Lake Chesdin. They are the Seven Springs Marina, with 40 slips and launching facilities. Leonards Marina just west of the dam, with boat slips launching ramp, picnic, camping and a trailer park area, and Allen's Marina.

The Virginia State Park Service ha conducted a preliminary site plan fo a major, water-oriented state park of the north shore, but this has progressed little further than the planning stage

Numerous developers are working is the area to provide waterfront and recreational property, but the bigge problem, as Col. L. F. Rose, manage for the Authority, sees it, is that there has been so little publicity about the area that "enough people just don know about it."

Although planned primarily as present and future water supply for five political subdivisions, the mutiple use capabilities of the area with attract the water sports enthusiast fishermen and other outdoorsmen increasing numbers as Lake Chesdir potential is realized. Even though the water supply benefits justified the project, the recreational developments are values will become a major economic factor in the area.

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Eastminster Church

(Continued from page 39)

3 and 4 year old children and their mothers. Also, programs are scheduled throughout the week for neighborhood groups such as a Buyers Club which is a purchasing co-op., and community clubs from each of the near-by low rent housing projects, since these projects do not have a community building. Classes are conducted for women in family economics, preparation of food, and on reading and writing for elderly people. During the summer months, afternoon programs are held for children with the distribution of milk and snacks. For two years the building was used as a Neighborhood Center for (R-Cap) Richmond Community Action Program.

This building not only enhances the appearance of the neighborhood, but also generates an atmosphere that adds to the welfare and well being of the

people of the community.

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"It Would Be A Good Idea"

(Continued from page 5)

of creativity, when Mencken's American Mercury was the creed of the young intellectuals, and inquiring minds of all ages turned to economic problems. The novels became such as Little Man, What Now, and the songs such as Brother, Can You Spare a Dime or (bravely) Happy Days Are Here Again, and the new creed for the intellectuals became Communism, while F. D. Roosevelt began the improvisations in government intervention in the nation's economy which were gradually to make Washington the news center of America. Then, as America somewhat bewilderedly found itself one of two conflicting world powers, and as government intervention expanded into the sociological structure of the nation, politics and politicians became the center of the American public's attention.

Somewhere, since the Depression struck at the end of 1929, government improvisation—while linked with the greatest abundance ever known on earth—seemed to be failing to provide the deep answers and to be developing an awful lot of baleful side-effects. And then a single issue, which happened to be the war in Viet Nam, polarized the population between those who, demanding some of the deep answers, found the whole system sour, and those who, enjoying the comforts of physical well-being, denounced the dissidents.

It is true that the most vocal of the dissidents-from the least savory of the young "revolutionaries" to the most vitriolic of the older and disenchanted liberals—have made themselves so obnoxious and presented such hysterical views that it requires an act of will to disassociate them and their destructiveness from the more responsible dissidents, both among the young and the older philosophical-minded observers. Also, as has been said in many places, even the more thoughtful and less revolutionary of the young dissidents (who seem chiefly to become group activists in the collegiate Rites of Spring) have offered nothing constructive to replace the system they deplore. Nonetheless, dissidence should be listened to and, in a healthy society, answered.

As Daniel P. Moynihan said in a speech, "Young people are trying to tell us something. They are probably right in much of what they say, however wrong their prescriptions for righting matters. Then we must respond . . . What is asked of us is honesty: and what that requires is a

great deal more rigor in matching our performance to our standards."

By "standards" here, I take Mr. Moynihan to mean an emphasis on human values in society and moral values in politics. As Washington became the nation's center of interest concurrently with the diminishing of religious beliefs, especially among the young, some observers believe that the "alienated" young are trying to find ir politics a faith to compensate for the loss of religious belief; and as politica parties, at all levels, have not beer noted for offering a moral philosophy the disturbed young feel there is no where else to turn and nothing else to do except attack the whole system which supports the present political structure.

Chronologically at the other end o the spectrum from the concerned young, I also feel a total disenchant ment with our present political struc ture, and hold not the faintest hope that, as currently organized, our politi cal parties are capable of coping with the answers about human values, mo ral values, in "the good life"-or o even concerning themselves with sucl non-vote-getting intangibles. However as one of those young people who wen to New York in the 'twenties, and found a wholely productive escap from the bleak oppressiveness of ma terial values, I retain faith in what th individual can accomplish for himsel

To do this, he must act with other toward a purposeful goal. It is no enough to differentiate himself b adopting cultish standards of repudia tion of the conventional—as in hair-de facial growth, attire, stylized speec and manners, stereotyped responses t fad-culture and fad-political stance This is not to act with others: it is sim ply to revert to the herd instinct of pro tective coloration. Yet, even though find some of the specimens unloved (and some comical), I understand the desire, perhaps even need, to escap the competitive, acquisitive norm, an defiantly to repudiate any "adjus ment" to it. I simply think their here cult is a dead end.

Their cries against "repression" are their demands for the "Now" are also understandable as manifestations anxiety, as are their stress on casu immediacy in human relations and understandable in the area of the

And yet, if I were one of them, I would have to ask: "how can you believe in planning and purpose when you watch a government caught in an undesired war that divides the nation, act without a coherent foreign policy, do nothing in an urbanized society while its major cities are decaying, squander untold billions in wastefulness, blunder between unrealistic promises and stupid expediencies in solving the problem of the Negro in America, and promote the Personality Cult as a substitute for moral values?"

The answer would be that the young, with all of America, must abandon their passion for immediacy. We are in but a flicker of time in the history of mankind. From the post-Civil War period until Roosevelt, the government was run by and for Big Business and Money Men. Our improvisation with government intervention in the economy and sociology of the nation has lasted barely forty years, during which there was a Great Depression, a massive World War, successive small wars, bewildered involvement in a world power struggle, an eight-year hiatus of orpor under Eisenhower, a "credibility gap" under Johnson, the belated facing of the rights of Negro citizens (vastly complicated by irresponsible evangelists and "instant solution" politics), the larming rise of inflation, sudden atention to the economically disadvanaged along with hasty, wasteful, awkvard welfare programs with their atendant population of bureaucrats, and -as the two political parties become ractically deadlocked in their struggle or political power—the erosion of olitical philosophy. When in that forty ears is included such phenomenon as uclear weapons and sulfa drugs, teleision and air pollution, and new gadets continually advertised to keep citiens turning their consumers' treadmill, te wonder is that our democracyormed for a nation of farmers and ansformed by capitalism and now nainly responsive to pressure groups ill has a "silent majority" supporting . But before long the majority will be eople now under twenty-five, and I pubt that they will be so silent.

While the nation's polarization is still the realm of ideas and talk, to resat Mr. Moynihan's advice, it would well if we listened to what the young cople are trying to say now. To repeat yself, their extremists are obnoxious d their most responsible have little instructive to offer, but waving the ig is not an answer.

We need the painful discipline of f-analysis to discover those things rong in the system that can be changed, those things right that should be preserved, and those unalterable conditions of the human lot that must be accepted. Then we might come up with some answers for "the good life" that would channelize the energies of the concerned young into improving a system which, although superior to any other that I know of for accomodating the condition of mankind, is suffering from the dislocations of a transitional period in the world's history and a transitional period in the nation's government.

The improvements will not be brought about by our present political parties in our present forms of government, national and state. They will be brought only by a new un-silent majority forming a pressure group that would dwarf, say, such groups as the unions or the oil-interests or local cliques that get the ears of legislators. And it will not be "Instant." However, if some such movement is not undertaken to bring human values into political action, I do not see what will prevent the present divisiveness from deepening and widening, and then the country could be in for seriously dislocating violence.

Clifford Dourdey

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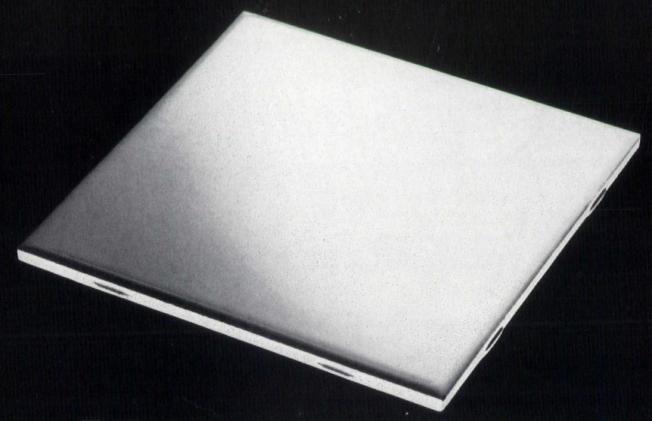
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