Aerial view of model showing flexibility of modular building-block concept to be employed at International Science Center.

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FLEXIBILITY KEYSTONE OF SCIENCE CENTER

SUNNYVALE, CALIF. International Science Center, a proposed development in the expanding scientific and electronic community at the head of the San Francisco peninsula, will be a center for corporations and nonprofit organizations engaged in scientific research and development. The Center, which is being developed by The Draper Companies on behalf of the International Science Foundation, is expected to encourage freer interchange of ideas and facts between various scientific and engineering disciplines. Instead of the usual spread-out, ragtag type of development common to industrial parks, Neill Smith & Associates, Architect and Planning Consultant for the Center, has envisioned a cohesive and highly co-ordinated, yet extremely flexible scheme. The basic unit of the entire concept is a 36-ft-sq structural component (left) which can expand horizontally or vertically to provide space for many activities: laboratories, offices, meeting halls, dining areas, motel rooms, and shopping areas. The units, or combinations thereof, would be varied by exterior and interior treatment, fenestration, equipment, and landscaping, but yet would achieve a homogeneity of over-all appearance desirable in a "campus" atmosphere such as this. Photos here and on page 39 show possible arrangements of the modules. Below is seen a later drawing for the structures around the central plaza. In addition to research and office facilities, the Center will ultimately contain services such as the Science Foundation Library, specialized functions such as an Armed Forces Technical Information Agency and a microfilm library, a motel, and a "Cosmos Club" (no relation to the notorious one). Smith writes that 40 more acres have already been added to the master plan.

Two methods of parking have been studied: sinking open parking spaces behind landscaped berms, and employing the structural module for parking spaces within the high-rise buildings.

Landscape Architect: Lawrence Halprin & Associates; Structural Engineer: Stefan J. Medwadowski.
TYRONE GUTHRIE THEATER REDESIGNED

MINNEAPOLIS, MINN. The Tyrone Guthrie Theater has been redesigned by Architect Ralph Rapson since winning an Award Citation in last year's P/A Design Awards Program (pp. 103-104, January 1961 P/A). As shown then, the theater had a tall fly loft and a roof of curved, joined elements supported on columns terminating outside the auditorium walls to create an exhibition concourse. In the present design (right), now under construction, the fly loft has been reduced to a rudimentary form not visible from the exterior, the roof line has undergone simplification, and the exterior walls now face a pedestrian promenade bounded by vertical piers. Fascia panels define closed work spaces. The theater will be joined to the Walker Art Center by a two-story lobby connection. Further data on this project may be found on pages 104-105 of this issue of P/A.

ART MUSEUM OF SPORT

The National Art Museum of Sport Committee has been formed to sponsor the establishment of an art museum devoted to art works of the sports world. Recently, the committee sponsored a $500 design competition for the design of such a museum at Yale and the University of Pennsylvania. For purposes of the competition, the site was in Washington, D.C. The winning Yale design, by student Donald R. Watson, is shown here.

Watson's proposal, a truncated pyramid, is a four-story structure, entered at the second floor via a monumental rise of steps. The bottom floor contains an auditorium, library, dining room and kitchen, and educational displays; the three upper floors are principally dedicated to exhibition space. An interior, skylighted court pierces the building and is used for sculpture and sitting areas. The main circulation occurs around this court. Gallery areas, diminishing in size as one moves upward, are on three sides of the court; the fourth side is reserved for offices, toilets, and elevators. Galleries are mostly closed, artificially lighted rooms, though occasionally there are windows with balconies for sculpture. The main façade features a series of outside sculpture terraces which one can descend after leaving the interior exhibit on the fourth floor.
CLEVELAND, OHIO Erieview, the redevelopment plan for 163-acres of downtown Cleveland, has been begun with the assigning of the first land parcel. With an urban renewal plan created by I.M. Pei & Associates, Architects and Planners (Vincent Ponte, Associate in Charge), the city intends to convert a blighted area presently yielding $840,000 in annual taxes into a complex of office and commercial buildings, public buildings, and apartment dwellings producing taxes of $2,900,000. Construction will proceed generally in two phases: the larger, mixed commercial and residential section first; the smaller, mostly apartment section later. More than half the land area will be set aside for lawns, parks, and malls.

Focal point of the composition will be Erieview Tower, a high-rise office building commanding the commercial section of the plan. The tower will be situated at the end of a long reflecting pool and plaza which, in turn, will be bordered on both sides by lower office buildings, and will terminate in a Federal office building.

Residential provisions in the area include a 30-story building in the commercial area overlooking the pool, three 20-story apartments, two long, six-story apartments planned around court spaces, and seven 30-story towers, three at one end and four at the other end of the residential street. An Erieview-length terrace over the lakefront railroad tracks will serve as platform for one of the towers and a 600-room hotel-motel.

First assigned parcel in Erieview (circled in site plan below) went to Redeveloper B-G-R Associates, whose architect, Weinberg & Teare of Cleveland, with Charles Luckman Associates as planning and design consultants, developed a 400-apartment, L-shaped project (below left). Roof of the adjoining parking garage will provide a handsomely landscaped recreation area. On the street side, the first and second floors will be recessed behind columns to create a colonnade. There will be a rooftop swimming pool. Project will have 400 units, ranging from efficiency to penthouses.
JOHNSON'S ABBEY CHURCH

LIVERPOOL, ENGLAND. Frederick Gibberd's design for the Roman Catholic Metropolitan Cathedral of Christ the King, winner of an open competition in 1960, has gone through its completed design phases, and preliminary foundation work began last month. Completion is expected in 1965.

In this circular building, 3000 people sit around a centrally located sanctuary surmounted by the high altar. The conical roof of the nave is crowned with a tapering colored glass tower located directly over the sanctuary. Differing elements occur at either end of the podium on which the cathedral will sit. At one end will be the approach ramp, detached entrance porch, and bell tower; at the other will be the Chapel of the Blessed Sacrament. The podium was created by extending the roof of the existing crypt. Chapels, baptistery, and entrance porches will occur at 16 "self-contained buildings" between the soaring concrete trusses. Design revisions have made these elements more similar and precise in external form. Other changes result from the new use of a modular dimension: the tower is now wider, slightly lower, and with only a slight taper; the entrance porch now has a rectangular rather than triangular facade. The whole of the structural frame will be faced with white mosaic because of what Gibberd feels to be "the uncertain weathering properties of concrete."

WASHINGTON, D.C. For the church of St. Anselm's Abbey here, Philip C. Johnson has designed a lofty concrete arch form, 92 ft high and 220 ft long over-all. The church will boast an interesting system of concrete buttresses (above), with great panels of stained glass on the eastern end of the church, in the north and south side walls, and behind the main altar. Horizontal panels of stained glass on the side walls between the inclined concrete panels and the vertical panels above and below them will flood the walls with multicolored light. The vertical columns of the immense arch will separate the side aisles from the 33-ft wide central nave. Stalls for 80 choir monks will be separated from the nave by the communion rail. The church will seat 400 worshippers.

A new monastery building designed by Johnson (bottom) will adjoin the church and connect with the existing monastery. Structure will be brick and precast concrete panels supported by a framework of concrete and Lally columns. Unit will have office and teaching areas and cells for 24 monks.
PERSONALITIES

Robert F. Seery is a bristle-browed young Louisvillian who heads up an organization which has—without their probably knowing it—a noticeable effect on architects in this country.

Possessing a degree in civil engineering from Northwestern University, Seery was in architectural and engineering practice and in the architectural departments of U.S. Gypsum and Reynolds Metals before setting up his own firm in Louisville. For lack of a better term, he calls Seery & Company a "marketing agency," though to tell the truth its major impact on the architectural field has been in product design and development and graphic design. A list of Seery's clients and the designs his company has created for them is quite impressive: General Electric—Thru-wall air conditioner applications; Michaels Art Bronze—wall systems; Julius Blum & Company—screen, railing, and treillage systems; Indiana Limestone Company—wall panels and new concrete aggregates; Owens-Illinois—pressed glass wall systems; Julius Blum & Company—screen, railing, and treillage systems; Indiana Limestone Company—wall panels and new concrete aggregates; Owens-Illinois—pressed glass tile. Other clients for graphic services or market development studies include Olin Mathieson, Kawnner, Pawling Rubber Company, and International Nickel Company. Work on the boards right now includes a new architectural metals catalog for Blum, and a stainless steel industry market development program with International Nickel Company (encompassing specifications development with Architect Ben Dyer). Since Seery & Company confines itself to the architectural market exclusively, its design philosophy might, in part, be that of a practicing architect. For instance: "Do not be restricted to present technology"; "Convey design requirements into practical technology"; "Allow the architect as much freedom and variation as possible"; "Product must look right, then function right"; and, "Understand relationship of all construction materials.

Added to these comments are Seery's concern with costs, his ability to co-ordinate several industrial design talents, and his ever-continuing examination of the architectural market, its needs and design requirements. It is plain to see why this architecturally-oriented engineer-businessman will continue to influence the field in the years that lie ahead.

MARIO G. SALVADORI, Professor of Civil Engineering and Architecture at Columbia University, received a "Great Teacher Award" from the university's Society of Older Graduates... A marriage will take place on the 17th of this month uniting NATALIE RAYMOND OWINGS, daughter of SOM founder and senior partner NATHANIEL A. OWINGS, and JOHN FELL STEVENSON, son of U.S. Ambassador to the United Nations ABRAH E. STEVENSON... New chairman of the Visiting Committee to the Department of Architecture at Carnegie Tech is WILLIAM R. OLIVER, assistant treasurer of Jones & Laughlin Steel Corp...

FRED BASSETTI (Bassetti & Morse, Seattle) reports that he will serve as visiting professor to the senior class at Columbia in the spring. "While I am convinced that architecture cannot be taught," he says, "at least I might learn something there"... Also in the Columbia spring term, P/A Editor THOMAS H. CREIGHTON will give a course on the criticism and evaluation of objects from artifacts to cities...

LYLE E. BOULWARE is 1962 president of the Philadelphia chapter AIA...

Working under a grant from the National Park Service, WALTER E. GEORGE, JR., of the architectural faculty at the University of Texas, has compiled a collection of more than 100 architectural drawings and photographs of the Alamo and other historic Central and South Texas structures.

Robert Moses, whose impulse toward invective is matched only by his perpetual outrage that there can be people who do not agree with the Mosaic code, distinguished himself for his cholera twice in January: once in an imperious tirade against Lewis Mumford in The Atlantic Monthly, and once at a hearing on the question of establishing Long Island's Mitchel Field as a private airport, where he was gavelled down for impugning the integrity of the Federal Aviation Agency.

In the Atlantic article, "Are Cities Dead?" the cadences of contempt and scorn roll forth from the mountain against the author of the recently published, widely praised The City in History. Citing in endless rodomontade the works of Robert Moses, Robert Moses characterizes Mumford, in effect, as a troublemaking know-nothing who never had to meet a pay-roll. One looks forward to Mumford's reply, he being as agile as his antagonist with the play of purple prose.

At the hearing on Mitchel Field, Moses, in criticizing the supporters of the move to turn the abandoned Air Force base into a private airport, turned his ire on the Federal Aviation Agency. "There has been nothing remotely approaching a judicial attitude on the part of this agency," he declared, "something which contributes little to respect for the Federal alphabetical agencies and for what is known as the democratic process." On being gavelled down as out of order by the chairman of the hearing, the Moses wattles reddened, the Moses hands went on the hips, and he attempted a riposte. Upon being cautioned again, he quickly finished reading his statement, and stalked huffily from the hall.

Temper, temper, Mr. Moses.

An architectural tour of Europe, which will include visits to Scandinavia and Greece, will be led this summer by New York Architect-Author JEFFREY ELLIS ARONIN; tour will be from June 25 through August 18; for details, write Aronin at 101 Park Ave., New York 17, N.Y.... MARIO CIAMPI, San Francisco, was elected to life membership as a Fellow in the International Institute of Arts & Letters, Kreuzlingen, Switzerland.
UN Plaza to Get Church Center

For the Methodist Board of Christian Social Concerns, Architect William Lescaze has designed a 12-story, curtain-wall building to rise across United Nations Plaza from UN headquarters. Although the building will be financed and owned by the Methodist Church, which will occupy part of it, space will be made available “to all faiths and races interested in the promotion of world peace.” The basement will contain a cafeteria and two dining rooms; a chapel will be on the ground floor; meeting rooms will occupy the second floor; and the subsequent nine floors will be devoted to office space. The penthouse will contain a library, lounge, and mediation rooms, with a landscaped terrace overlooking the UN buildings and the East River.

TWO FOR 21

As the April opening of Seattle’s Century 21 Exposition draws nigh, each new pavilion reaffirms the fair’s design superiority over the 1964-65 New York World’s Fair.

Perhaps the closest thing to a New York like design to emerge so far is the pavilion for Standard Oil Company of California by New York industrial designer Michael Saphier Associates (top). Theme for the exhibit is “Man, Energy, and Time”; it will show how products and energy derived from petroleum will affect us in the 21st Century. The U-shaped pavilion will have a central courtyard dominated by a 40-ft tower supporting an illuminated, revolving model of the para-xylene molecule, the chemical nucleus of plastic. The building will be a steel space frame sheathed with pre-formed plastic panels.

The display theater for the Forest Industries’ exhibit (bottom) will feature a 15-minute, wide-screen film showing techniques of producing and fabricating wood and allied products in the next century. Designed by Tacoma Architect Robert Billsbrugh Price, the building will have a structure of laminated wood beams and columns supporting a stressed-skin plywood roof and wall system. The building will be in a grove of cedar, fir, spruce, and hemlock trees, plus native rhododendron; landscape architect is Lawrence Halprin. Entrance walls will have large photomurals of wood production processes. The end walls and the projection booth will sport wood-relief sculptured surfaces by Harold Balazs. Because of its proximity to the “Space Needle” the roof will have a jaunty two-tone pattern.

Slabs in New York; Slabs in Chicago

Waterfronts of New York and Chicago will be a little slab-sided if two major redevelopment projects go through. In Manhattan, two 44-story apartment towers by Mies van der Rohe form, with open plazas and walk-
ways, the replacement for almost 13 acres of "substandard and insanitary" slums on the East River. Third building in picture of the Battery Park project is a contemplated extension. The sponsor of the project is Metropolitan Structures, Inc. (same firm did Mies's Newark buildings), under the name of Metropolitan Battery Corporation.

On the lakefront in Chicago, Naess & Murphy has designed a six square block redevelopment which will eventually contain four apartment towers, office buildings, and a major hotel.

The site is adjacent to Grant Park and within walking distance of the central business district. The ultimate population of the project is estimated at 30,000; parking for "several thousand" automobiles will be provided on three subsurface levels.

**Tri-Towered Apartment for Honolulu**

Gateway Towers, a high-rise apartment complex for Waikiki designed by Leo S. Wou (John W. St. Martin, Associate), will consist of three 26-story towers grouped around a common elevator and stair nucleus. Planning of only two living units per floor in each tower will provide maximum privacy plus views in at least two directions. In addition to 154 rental units—48 two-bedroom units and 96 one-bedroom units—there will be six duplex penthouses at the top and four duplex townhouses at ground level. A restaurant and shop structure will join the apartment on the main street exposure. Structure will be locally extruded prestressed hollow concrete planks for the floors and poured-in-place exterior bearing walls. The architect states that "The development of the extruding operation using lightweight aggregates is new here, but has been proved quite successful."

**Gulf States AIA Presents Honor Awards**

Two of four Gulf States AIA Honor Awards at that group's recent Baton Rouge convention went to the young firm of Desmond & Miremont of Baton Rouge and Hammond, La. Winners were the Catholic Student Center at Southeastern Louisiana College in Hammond (above, with Bill Burks as Associate) and St. Thomas More Catholic School in Baton Rouge. Two other Honor Awards went to Glankler & Broadwell of Alexandria, La., for the Redeemer Lutheran Church there, and Wittenburg, Delony & Davison of Little Rock for the home offices of the Empire Life Insurance Company. Nominated as new director of the Gulf States Region, to take office at the AIA Convention in May, was G. Scott Smitherman of Shreveport, La.

AIA President Phil Will, attending as major luncheon speaker, was presented a commission as colonel on the staff of Louisiana Governor Jimmie Davis. Colonel Will exhorted his colleagues to their proper role in creating our environment. "If we move now," he said, "seize leadership and act with the wisdom of statesmanship, we can re-create a nation."

**CALENDAR**

American Society of Civil Engineers meets in Houston, February 19-23; convention theme is "Planning and Building for Industrial Growth" . . . Michigan Society of Architects has its 48th annual convention in Detroit, March 22-30 . . . Bermuda will be scene of 24th annual conclave of National Association of Architectural Metal Manufacturers, April 29-May 5 . . . School of Civil Engineering of Oklahoma State University, Stillwater, will conduct a summer institute for college teachers of structures and soil mechanics from June 11 to August 10; for information, contact Director Jan J. Tuma at the School . . . National Warm Air Heating and Air (Continued on page 50)
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Perreira Houses the Arts, Old and New

Works of art ranging from a T'ang Dynasty figurine to the latest Debbie Reynolds film will be housed in one or the other of two projects being designed by William L. Perreira & Associates.

The redesigned Hollywood Motion Picture and Television Museum (above, and p. 60, February 1961 P/A), in addition to the works of Miss Reynolds, will shelter displays concerning Newton Minow's favorite medium, television. The museum will be composed of three units connected by glass-enclosed corridors. The central building will house the main exhibit area. Behind the glass of the entrance wall will be a gigantic display wall giving graphic recapitulations of the exhibits inside. This building will have a great roof of prestressed concrete curving out over the hill behind and projecting over the façade. To the south, a windowless building will contain sound stages where visitors can see movies and TV shows in production. The tower to the north, planned for later construction, will house educational, research, and administrative facilities. The central building will contain, in addition to extensive exhibit areas and "live storage" space, a restaurant with indoor and outdoor dining areas each "decorated in the style of a famous motion picture set," a 500-seat theater, libraries and film vaults, and administrative offices.

A three-part structure will also be seen in Perreira's new Los Angeles County Museum of Art (bottom). Three large-scale "pavilions" will sit on a raised plaza in a pool of water. The main building, to house the permanent collection, will be a four-level structure planned around an atrium. It will be known as the Ahmanson Gallery of Art, and will have a three-story high Great Hall for the display of large-scale works. The Lytton Gallery, at the northeast corner of the site, will be mainly for temporary and loan exhibitions, and its exhibit spaces accordingly have been designed with great flexibility in mind.

The third unit will be the Bing Education and Auditorium Building, to contain a library, children's art classrooms, lounge for museum members, cafeteria, 600-seat auditorium, and dressing and rehearsal rooms and kitchen.

Exterior materials of the buildings will be marble and glass, surrounded by colonnades of cast-stone columns incised with bronze-anodized aluminum. Buildings will be connected by trellises of aluminum and glass.

Obligatory Society, and American Society of Heating Refrigerating and Air Conditioning Engineers... Looking into the future, Lincoln Center in New York will present the first of an annual series of summer festivals in 1966; both new and repertory works will be performed by all constituent organizations of the Center.

Obituaries

Henry Hofmeister of Reinhard & Hofmeister, general architects for Rockefeller Center, died at age 71; he had been a consultant on the Lincoln Center project.

A resolution mourning the passing of Henry Hornbostel, FAIA, was passed by the New York State Association of Architects.

Benjamin F. Fairless, who had been president, chairman, and chief executive officer of U.S. Steel Corp. and, since 1955, president of the American Iron and Steel Institute, died on the first day of 1962.

Painter Kurt Seligmann accidentally shot and killed himself at his farm home on January 2.

Royal Barry Wills, FAIA, designer of traditional homes, died on January 10. He was 65.

The body of 94-year-old Frank Elmer Martin, formerly of Ithaca, N.Y., was found in Sarasota Bay on January 15. He had been in ill health.

Second Story Man

Hard upon the proposal by New York Chapter AIA to create a pedestrian mall in midtown Manhattan (p. 56, December 1961 P/A), comes a suggestion from Michael Saphier Associates, industrial designers, that we tunnel elevated north-south highways through the second and third floors of buildings in the same area. Higher floors could be utilized later when the efficacy of this plan proves itself, said Lawrence Lerner, president of the firm. It was done better by H. G. Wells.
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At Last: Contemporary Federal Architecture Has Official Blessing

Government buildings will begin to provide a broader field for imaginative architects, if a "new look at architecture," now in process, has any real effect.

The "new look" is aimed at striking a balance between style and dignity, and functional uses; at fitting new buildings into their surroundings without slavishly following existing architectural styles, and at some really flashy new types of structures if the setting is right.

That's the word from Bernard L. Boutin, newly appointed Administrator of General Services Administration, who will have charge of spending as much as $750 million a year on Government building construction (including renovation).

No architect himself (he succeeded a man who had been a football coach before heading up the 30,000-employee GSA), Boutin is operator of a real estate and insurance business in Laconia, N. H.; he twice served as mayor of that community, and twice ran (as a Democrat) for governor of the state.

"GSA," said Boutin at a recent press conference, "isn't going to be tied to any architectural traditions. We are certainly not going to upset the whole plan of Washington with glaring 'modern' structures alongside the traditional Government buildings—but that's no reason why we can't modify the classic styles into something a little more modern and a lot more functional, without causing harsh clashes.

"And in other cities, where the setting permits—like New York's Foley Square—we won't hesitate to approve almost experimental-appearing structures like the 60-story courthouse already planned. It will fit into the surroundings, and it will give encouragement to architects to do a better and more imaginative job for the Government."

(Boutin, who had hardly warmed his new chair when he held the conference, immediately got into the middle of one of Washington's oldest controversies; what to do about the "temporary" buildings sprawling in ugly masses over the park areas. At his conference, Boutin said he didn't see demolition of the "temps" before about 1967, because of continued demand for Government office space. On the same day, the Fine Arts Commission urged Congress to wipe out the "temps" by legislative action.)

No Package Deals for AF

Architect-engineer firms which, through subsidiaries or affiliates, also have construction capabilities, may not be awarded Air Force contracts for both design (or supervision) and construction.

Only exception is a cost-plus-fixed-fee contract (specifically authorized by the Secretary of the Air Force) with a firm or group of firms for design and construction of a specialized facility.

That's the meat of new Air Force Procurement Instructions (AFPI) just amended to bring the service's policies in line with other Government agencies that purchase construction work.

Incidentally, Air Force is working on another revision of its rules, this one (Reg. 93-13) concerning "Selection of Architect-Engineers for Performance of Professional Services by Negotiated Contracts."

The revision probably won't be ready for another month, but in general outline it will: (1) establish AF policies governing the use of A-E services; (2) establish Uniform Procedures for selection of A-E's by Selection Panels and make the Air Force's Civil Engineers responsible for that operation; (3) outline procedures for requesting individual Secretarial determinations and findings; (4) and, most important of all, clarify the scope of services that are subject to the legislative 6 per cent limitation on A-E fees; (5) outline the responsibility of Air Force Civil Engineers regarding negotiation and administration of A-E contracts.

Holding the Fort

Washington's 30-year-old Fine Arts Commission has received solid support from U.S. courts in its efforts to protect the city from what it considers unsightly.

Though the Commission has been in existence since 1930, the action in the U.S. Court of Appeals was the first legal test of its powers.

At issue was the Warner Theater building, which has only a small triangular corner that touches the outer boundaries of the Commission's special preserve (Pennsylvania Avenue between the Capitol and the White House). A restaurant wanted to put in new show windows in the corner, but the Fine Arts Commission said the windows (and a large sign) would be unsightly. Owners argued that the building merely "fronts on" the area under the Commission's jurisdiction, but the court (with one dissent) agreed that anything "fronting on" the avenue would affect its appearance.

FINANCIAL

Present-day construction statistics are fine—fine, that is, for throwing light on economic problems as they were understood a couple of decades ago. But they offer little help in meeting present-day needs.

Answer to better statistics should be to ignore existing systems, using them only for historical significance and as a part of the new program; then developing a new series that would provide the insight needed to formulate public fiscal policies, establish investment programs, make long-term market research decisions, and evaluate the need for Government aid programs to stimulate a particular type of construction activity.

That's not such a startling conclusion to architects who follow Government statistical indexes closely, but it is startling when put forward by Benjamin D. Kaplan, director of the Building Materials and Construction Divisions of the Business and Defense Services Administration.

Said Kaplan (to the American Statistical Association): "The failing is that the necessary facts and intelligence are lacking... mainly analytical, not methodological...

"Examples of data voids include: Geographic distributions of construction-put-in-place by type of construction; rates of material consumption; statistics on demolition of nonresidential structures; the degree of acceptance of modular design; the floor area of building construction...

"Whether or not the statistics are inadequate, every indicator continued to point to the validity of predictions for a record construction year in 1962.

The Investment Bankers Association reported that municipal bond issues for a total of more than $3 billion will be presented to voters in 1962; the "Value Line" investment survey saw a general rise of 3 per cent for total construction spending.
LEAD'S on top...

in the war against the elements

On top of the Soldiers and Sailors Memorial Monument on Riverside Drive, roofing faces the wide extremes of New York weather, the relentless attack of city fumes.

Roofing of lead was selected by the monument-maintenance experts of the City's Department of Parks when complete refurbishing of the famous landmark began two years ago. Responsible for over 600 monuments, these men are uniquely conversant with both the economic and aesthetic virtues of many materials. Their reasons for choosing lead: It will not stain adjacent stone, will develop a natural patina that improves with age. Because lead is flexible, it is easier and cheaper to install, conforming obligingly to irregular surfaces. Most of all, lead lasts. It has a greater life expectancy than just about any building on which it might be installed. Note: the hard lead used today has added strength, permitting thinner, lighter sheets while retaining the traditional qualities of lead in construction.

If you're looking for roofing that "takes it"—for any kind of building large or small—by all means look into lead. For more detailed facts or technical assistance, write Lead Industries Association, 292 Madison Ave., New York 17, New York.
This is a laboratory set up for impact testing. 3" Tectum spaced 42" clear span. A sand bag made of canvas and weighing 60 lbs. is dropped in increments of 6" up to 48" high. At 48", drops are made repeatedly until the material fractures. After each drop, the deflection of the board is measured and permanent set figures are recorded. Tectum withstands up to 1600 foot pounds of total energy in this type of test, far more than comparable wood fiber materials. Tectum is made differently, uses an exclusive hydraulic binder giving it extra resistance to impact loading.
dropping a bag of sand on TECTUM?

Impact resistance is that capability of a material to withstand a sudden impact or application of force. The illustration depicts a typical laboratory test that measures the impact resistance of materials like Tectum.

The architect and engineer must have confidence that a product is tough and strong to sustain normal loading with a generous safety factor against unforeseen dangers of overloading. The contractor, who installs the material wants to be sure that the material can take it, will be received in good shape and will not easily break if given rough handling.

That's what the man is doing in the illustration. He is measuring Tectum's ability to withstand impact—not once but repeatedly before fracture.

This means four important things to the specifier and user of Tectum roof deck materials: (1) extra safety for men and equipment on the roof deck; (2) safer too for subsequent loading by repairmen and roofers who move heavy loads across the roof in normal maintenance during the life of the building; (3) less breakage in shipping and handling. You can drop a plank of Tectum and pick it up in one piece; (4) less damage if a roll of roofing material or heavy tool is accidentally dropped during erection.

This extra margin of safety is provided by Tectum—a material that at the same time is much lighter. Add up the savings of less breakage, less handling cost and the advantages Tectum offers in less dead load where soil conditions are marginal, and you'll come to the conclusions that a great majority of architects, engineers and contractors have accepted. There is no equal for Tectum...only alternates.

For complete information see your Tectum representative, or Sweets Architectural and Industrial Files.
HOW CAN EGGERS

of Two Rivers, Wisconsin

COMPETE WITH THE PLYWOOD GIANTS

The answer is to be found in a book, "Industries of Two Rivers," written by Laura Schaefer in 1894:

The education which is recommended is bringing up children to labor with steadiness, with care and with skill...to do all in the best manner; to set them an example of cleanliness, of neatness, of sobriety, and of industry; to make all these habitual; to let them see good living proceed from honest labor.

The best show in town recently was the Redon-Moreau-Bresdin show at the Museum of Modern Art. These three artists, working in the late 19th and early 20th Centuries, have in common a thread of mysticism. Most people are familiar with Redon as illustrator of Poe's tales and other similar works—the creator of eerie landscapes or skyscapes dominated by gigantic eyes. Bresdin was a meticulous delineator of mythological and religious scenes. The real hit of the show, however, was Gustave Moreau, whose work ranged from illusory mysticism ("The Death of Inspiration," above) to abstractions superior to those one sees on Tenth Street today ("Sketch D," below).

When Fred Eggers established his veneer company in 1884, he set these same standards for his company. Today they are personified in the craftsmanship and attention given to the Eggers specialty of making and matching the finest Architectural Custom Plywood and Solid Core Doors.

Eggers Architectural Custom Plywood is being used in many outstanding building projects throughout the United States. These projects represent tangible evidence of the quality workmanship you can expect from Eggers.

The architects who specify Eggers, the clients who live with Eggers in the environments where it has been used, can truly assure you that Eggers Architectural Custom Plywood will fulfill your most exacting requirements.

Fitch samples and full information upon request.

EGGERS PLYWOOD COMPANY
Two Rivers, Wisconsin
Phone 793-1351

For more information, circle No. 379
How Air Force Academy Got New Buildings Under Cover Quickly

The Bachelor Officers' Quarters and Visiting Officers' Quarters at the new Air Force Academy have precast Flexicore floor and roof decks because they provided fast erection, a fireproof structure and a reasonable cost. For more information on this project, ask for Flexicore Facts 84. Write The Flexicore Co., Inc., Dayton, Ohio, Flexicore Manufacturers Association, 297 S. High St., Columbus 15, Ohio, or look under "Flexicore" in the white pages of your telephone book.
Two young artists showed amusing work in New York last month. The youngest of the two, Robert Malaval, is French and was born in 1937. He was one-third of a three-man show at The Alan Gallery, and easily walked away with the honors. Among his imaginative, and often funny, paintings and reliefs was the relief (above) "Le Nid d'Aliment Blanc," which, freely translated, means "The Nest of White Stuff."

At the Martha Jackson and David Anderson galleries (same building), we saw collage-paintings by Jim Dine (b. 1935). In this show, Dine has a big thing on articles of clothing, painting them or even incorporating the articles themselves into paintings in a manner which bring a prosaic object such as a tie or shirt-front into such glaring focus that the viewer must take a step back and smile. At least, that is what this viewer did. Above, "White Shirt Fronts."
VINYL VOLUPTUOUSNESS

ZEELAND, MICH. "Lanterns 1962," the new lighting group designed by George Nelson & Co., brings sensualism to the lighting field.

Lanterns have three basic parts: the light source or bulb; an extruded plastic inner cylinder; and sculptured outer segments of molded vinyl. The lanterns are open both below and above, permitting downward light for such uses as above the dining table, and indirect ceiling illumination. At eye level, the diffusion created by the inner cylinder and the outer shell provides an evenly glowing, glare-free appearance. The molded vinyl components clip on at top and bottom of the fixtures to two standard, \( \frac{3}{4} \)" lampshade hoops held in place by tension wires. When attached, the wires pull the components into a shaped shade. Lantern sizes are based on lengths of the diffusers, which are 6" in diameter. From the basic sizes of 9" and 12\( \frac{1}{2} \)", lengths can go up to 25\( \frac{1}{2} \)" and 36".

Nelson also has designed a notable line of clocks for the company. Howard Miller Clock Co., 110 W. Washington, Zeeland, Mich.

On Free Data Card, Circle 100

DUCT PERFORMS THREE FUNCTIONS

LANCASTER, PA. New "Aluminum Encased Armaglas Duct" performs functions of air duct, thermal insulation, and sound absorber in one piece. It is used in duct systems for heating, cooling, or dual-temperature service.

The duct is constructed of a high-density glass-fiber insulation material contained in a welded casing of durable three mil aluminum. Easily fabricated, the lightweight duct can be cut with a knife and installed in one operation. Fittings at joints, etc., are easily sealed with aluminum tape. When expected air pressure exceeds 2" water pressure, a master sealer is used. The duct is ready for installation using standard galvanized sheet metal fittings, air boots, register boxes, and other fittings regularly used with round sheet metal ducts. Its sound attenuation efficiency is comparable to 1\( \frac{1}{2} \)" of conventional duct liners, and it meets fire requirements of NBFU 90A Standard. Tests by Bolt, Beranek & Newman have shown the sound attenuation efficiency follows theory for high-efficiency treatments.


On Free Data Card, Circle 101
Colorful Textures and Prints

Along with the historical fabrics and cheery prints the firm is associated with, Greeff Fabrics also has a serviceable selection of textures. "Thatcher" tweed is a simple, crossstripe weave of rayon and cotton that is alive with color variation in six colorways. It also has a sturdy rubberized backing. "Spun Sugar" is a random weave texture of rayon, linen, and acetate that comes in five monochromatic colorways. Among the geometric prints, "Calypso" chintz is shown in black, gray, and white. A color brochure is available. Greeff Fabrics, Inc., 150 Midland Ave., Port Chester, N.Y.

Accessories for Built-up Roofing

New line of accessories for built-up "Fiberglas" roofing includes Fiberglas Membrane Fabric, Cant Strips, Fiberglas Roofing Mops, and asphalt accessories (including roof coat, primer, plastic cement, and roofing cement). Fiberglas Membrane Fabric is flexible, weighs .5 lb per 100 sq ft, and is used as a cohesive layer between coats of weatherproofing cement. It contours easily around surface irregularities, and may be cut with a knife. The Cant Strips are triangular-shaped lengths of wood fiber board impregnated with asphalt. The Fiberglas Roofing Mops will not burn, rot, decay, or char, are available in 5, 6, or 7 lb weight with 6' or 8' aluminum handles. Because they are made on nonporous, nonabsorbent fibers, the flow from the loaded mop is faster and easier. Asphalt accessories are described in Product Data Sheet #1-RW-1964. Owens-Corning Fiberglas Corp., Industrial & Commercial Construction Materials Div., 717 Fifth Ave., New York 22, N.Y.

Rocking Trend

Among the Danish-style seating pieces in the Danish Craftsmen Collection is a jaunty rocker of Bangkok teak. It is balanced so as to eliminate protruding runners, which can be hazardous. Cushions have concealed zippers for easy removal of covers. John Stuart Inc., 470 Fourth Ave., New York, N.Y.

H-P Canopy for World's Largest Bowling Center

Bowling center under construction in Willow Grove, Pennsylvania, is said to be world's largest. Center, designed by Powers, Daly & DeRosa of Long Beach, California, has as its design highlight a 7500-sq-ft hyperbolic paraboloid entrance canopy finished in a textured, medium blue to co-ordinate with glazed brick facing of the building. Color was achieved through application of "F/A Roofing," a fluid-applied weatherproofing compound which can be pigmented in a wide range of colors. The material, neoprene and Hypalon based, was applied in four coats in a total thickness of 20 dry mils, weight not exceeding 20 lb per 100 sq ft. Neoprene chips were applied on the canopy between the two pigmented Hypalon-based coats to provide the textured effect. Armstrong Cork Co., Lancaster, Pa.

Wash Without Splash

New "Celeste" lavatory of vitreous china, one of nine new products by Crane, is designed for counter-top installation and incorporates a new faucet using the "Moen" dial-set unit. The user at all times can have his
hands over the bowl of the lavatory, eliminating splashing and dripping of water. Design also includes semi-concealed twin soap receptacles and waste lever. Crane Co., Plumbing, Heating and Air Conditioning Group, P.O. Box 780, Johnstown, Pa.

**Four Functions in One Duct System**

New "Fiberglas" duct system combines air duct, thermal insulation, acoustical liner, and a vapor barrier in one assemblage. The lightweight system is available in preformed rectangular and round forms as well as flat boards which can be fabricated into duct components. The formed units are shipped flat, and recover their original shape for installation. Interlocking at joints is accomplished by using a special tape. No metal connectors are needed for most duct sizes. Composition of the duct is of high-density Fiberglas thermal and acoustical insulation with a flame-retardant, puncture-resistant vapor barrier jacket. The jacket consists of laminated embossed kraft paper and aluminum foil reinforced with Fiberglas yarns for the residential line; for commercial use, a similar laminate has an easily cleaned vinyl surface. System can be used at temperatures up to 250 degrees F and to a velocity of 1500 FPM; has been approved by Underwriters' Laboratories for warm or cold air distribution; and meets NBFA Standard 90B for residences and Standard 90A for commercial use.

**Rigid Plastic Gutter**

A rigid plastic gutter, now being tested in varied geographic locations to determine performance under differing climatic conditions, offers established advantages of rigid vinyl plastic for exterior applications, including resistance to rust and corrosion, and inherent color, requiring no paint. Extrusion process of production permits fabrication in unlimited lengths. Mitering can be done with conventional tools. Joints, end caps, and other supplementary elements, are being developed. Crane Plastics, Inc., 2141 Fairwood Ave., Columbus, Ohio.

**Sculptured Spandrels of Acrylic Plastic**

More than 5000 "Plexiglas" spandrel panels appear in the new Connecticut Post Shopping Center, Milford, Conn., designed by Architect Lathrop Douglass. The geometric panels were vacuum-formed from 1/8" sheets of the Rohm & Haas acrylic plastic, a material chosen because of its light weight, resistance to corrosion and weathering, ease of fabrication, and excellent dimensional stability. Larger of the two panel sizes measures 112" high x 30" wide. Rohm & Haas Co., 222 W. Washington Sq., Philadelphia 5, Pa.

**Disappearing Wall for Expandable Areas**

A gliding, folding aluminum wall that operates on a single flat track, and stacks and packs in minimum space, can be used as a disappearing store front or in-store divider that may be tucked away for the creation of large spaces. "Phantom Wall" is manufactured of heavy-duty aluminum extrusions designed to take standard 1/4"-thick plate glass. The track on which it slides is mounted inconspicuously in the floor and eliminates the hazards commonly associated with such tracks. Patented hardware permits unlimited stacking arrangements. System is also appropriate for arcades, swimming pools, and other areas where flexible indoor-outdoor space is desirable. The Alumiline Corp., 10 Dunnell Lane, Pawtucket, R. I.
Here's a new step-saving, cost-saving method using Styrofoam insulation for insulating masonry structures which produces permanently high insulating values, provides a solid base for wallboard, and eliminates the problem of nail-popping ... all in a single operation.

This new method makes use of Styrotac to bond Styrofoam brand insulation board directly to the inside face of the masonry wall, as illustrated. After the bonding cement has set overnight, gypsum wallboard is then adhered to the Styrofoam insulation using the same material.

Using this method, furring and lathing are eliminated, producing a solid insulated wall with no hollows. There is no wood present for insects to feed on, no nail holes to fill and "pop," and the completely-supported wallboard will not bow in or warp. This new insulating method, developed by Dow, offers architects a means of building-in the quality of double-laminate walls, using only a single thickness of wallboard.

Styrotac can be applied to dry absorbent masonry surfaces without first wetting the surface, or it can be applied to the Styrofoam. Either spot application or full coverage using a notched trowel is recommended. Only firm hand pressure against the boards of Styrofoam is required to bond them solidly to the wall.

For wet plaster installations, Styrofoam insulation is first bonded to the masonry wall with Styrocrete® or portland cement mortar. Wet plaster is then applied directly to the face of the Styrofoam. The cellular structure of Styrofoam
New insulating method saves money, saves steps in masonry construction

insulation provides positive keying action to the plaster, producing maximum bond strength.

STYROFOAM insulation board provides permanent insulating values for masonry buildings because of its high resistance to moisture, and its low "K" factor. Styrofoam rigid foam insulation contains millions of tiny non-interconnecting air cells which don't soak up water or moisture, don't rot or mildew. No separate vapor barrier is needed! And because Styrofoam insulation has no food value, it doesn't attract insects or vermin. In addition, the high insulating efficiency of this insulation keeps heating and cooling costs to a minimum, year in, year out.

For more information on the time-saving, cost-saving advantages of using Styrofoam insulation and this new insulating method for masonry construction, write THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Sales Dept. 1901EB2.

Styrofoam is a registered trademark of The Dow Chemical Company. It is applied only to the homogeneous expanded polystyrene made according to an exclusive Dow process. Styrofoam brand insulation board is available only from Dow and its authorized representatives.

THE DOW CHEMICAL COMPANY

Midland, Michigan
KEYWALL REINFORCEMENT HELPS

EACH MILLION DOLLAR FLOOR

LOOK LIKE A MILLION...

Miles of tile in the new 28 story, 28 million dollar Indianapolis City-County Building is reinforced with Keywall at low cost, without impairing appearance.

“We prefer Keywall because it can be placed so quickly and accurately. It also laps without thickening joints. That’s why our tile joints always strike clean and smooth.”

This is the way masonry contractor Ward Broady sums up the main reason he’s a staunch Keywall user. Hundreds of other contractors and architects are too. Not only because galvanized Keywall reinforcement is quick and neat. It’s also surprisingly economical, extremely versatile and strong.

The photos demonstrate why W. E. Broady & Sons, Inc. insisted on Keywall reinforcement for all tile work on their Indianapolis project. Elsewhere, on cement block and other types of masonry work, galvanized Keywall keeps buildings looking young and strong by lapping at corners without thickening joints... by assuring full embedment and a complete bond... by curving to form a continuous reinforcement throughout unusual contours. There are few reinforcement jobs Keywall can’t do—at bid-winning cost.

Prove it to yourself on the next project.

Keywall gives you more locks to the block. Because of the tight-woven pattern, it is impossible for any one strand of Keywall to be subjected to the strain of more than two square inches of a block’s thermal movement or shrinkage. By dividing the strain into such small segments, Keywall provides greater crack resistance.

Fine tile work demands uniform mortar joints. Only Keywall can be lapped without lumping in mortar joints. That’s why W. E. Broady & Sons found Keywall the neatest solution for reinforcing all tile work in the new Indianapolis City-County Building.

Keywall “tails” to be tied-in later. You can appreciate this advantage when continuous reinforcement is needed, even though some wall sections must be left unfinished for other work. Only Keywall is flexible enough to accommodate variations in mortar joint levels.

KEYSTONE STEEL & WIRE COMPANY
Peoria, Illinois
AIR/TEMPERATURE

New Air-Handling Line
Engineering manual, 52 pages, presents extensive data on newly introduced line of central-station, air-handling equipment. The 37 different units—horizontal, vertical, and multizone models—are designed to meet any air-conditioning requirement, from simple air circulation to heating, cooling, removing dirt, humidifying, and dehumidifying. Manual gives mechanical specifications, capacity information, selection procedure, and performance data. Acme Industries, Inc., 600 N. Mechanic St., Jackson, Mich.
On Free Data Card, Circle 200

Whisper-Quiet
New air-conditioning unit or heat pump, the economical “WhispAir,” is described in 8-page brochure. The unit is only 1' thin, installs against an outside wall, can be used with or without ductwork. Quiet and efficient operation is provided at little more than the installed cost of room units—with year-round benefits previously available only from deluxe systems. Brochure gives specifications and dimensions. Westinghouse Air Conditioning Division, P.O. Box 510, Staunton, Va.
On Free Data Card, Circle 201

CONSTRUCTION

Color-in-the-Glass Block
Glass blocks where color is either added to the glass itself (in daylight-controlling “Shade Green” and decorative “Shade Aqua” units), or fused to the exterior (in ceramic-faced accent units), are presented in new 16-page catalog. The various surface designs are illustrated; complete dimensional and installation data are provided. Booklet includes construction details for walls, panels, and openings. Kimble Glass Co., Subsidiary of Owens-Illinois, Ohio Bank Bldg., Toledo 1, Ohio.
On Free Data Card, Circle 202

Joint Sealing
Techniques for sealing joints with polysulfide-base compounds are detailed in new 12-page brochure. Entitled Joints, it describes the properties of polysulfide-base sealants—adhesion, flexibility, and crack-free durability—that make them suitable for joining a variety of structural materials. Methods of joint sealing are illustrated; basic information on mixing, surface preparation, and application is also included. Chart compares such factors as expected life, tolerance requirements, and cost for polysulfide-base and other sealants. Thiokol Chemical Corp., 980 N. Clinton Ave., Trenton 7, N.J.
On Free Data Card, Circle 203

Into the Woodwork
Quality Standards of the Architectural Woodwork Industry, 75 pages, is available to architects and specifications writers. The standards set forth definitive tests and prescribed joinery tolerances for the three classes of woodwork. Also included is a table for allowable natural and seasoning defects of lumber. Objectives of the standards are to define in precise terminology the three grades of millwork quality available, and to provide tests whereby the work delivered to the job can be measured against that called for in the specifications; to word the tests and standards in such a way as to eliminate all chance of disagreement; and to require equal quality and competence of all bidders on a job. Write to: Architectural Woodwork Institute, 328 S. Michigan Ave., Chicago 4, Ill.

New Metal Combines Five
“Hydro-T-Metal-200,” recently developed, lightweight alloy “of particular interest to architects,” is described in new 12-page bulletin. The combination of five key elements—zinc, copper, titanium, manganese, and chromium—gives properties previously considered impossible in a zinc-based metal. Among the material’s advantages: durability, resistance to corrosion, hardness and rigidity, high tensile strength, low-cost installation, and ability to be color-finished. Bulletin illustrates its “unparalleled performance” in various applications (roofs, fascias, flashing), and provides specifications and design recommendations. Hydrometals, Inc., 405 Lexington Ave., New York 17, N.Y.
On Free Data Card, Circle 204

Epoxies in Concrete
Epoxy Alloys, 4 pages, discusses the uses of epoxies for new concrete as well as for general maintenance of older structures and surfaces. Epoxies described in booklet are for floor surfacing, bonding agents, structural adhesives, coating adhesives, coating compounds, and nonskid materials. Folder contains information on application methods and general properties. Coast Pro-Seal & Manufacturing Co., 2235 Beverly Blvd., Los Angeles 57, Calif.
On Free Data Card, Circle 205

The Newest in Steel
New Steels, New Shapes, New Concepts, 28 pages, summarizes the most significant developments in constructional steels, and newest design con-

Handbook on Aluminum

Latest information on the properties of aluminum and its many alloys, wrought and cast, is presented in new Aluminum Data Book. The 194-page handbook contains 207 tables of data covering the entire subject; general sections discuss heat-treatable and nonheat-treatable alloys, thermal practices, alloy selection, fabrication, joining, and surface finishing. General properties and available forms are itemized. Write to: Reynolds Metals Co., Dept. PRD-62, Richmond 18, Va.

"Master Plan" for Carports

While designing a project for Western Pine Association for the best approach to carport planning, Donald Blair and Saul Zaik concluded that this residential working on houses, Western Pine Assn., Product Information Div., 526 American Bank Building, Portland 6, Ore. On Free Data Card, Circle 207.

Plaster Systems

New 8-page brochure gives complete technical data on Zonolite's vermiculite plaster, fireproofing, and acoustical systems. Products featured are plaster aggregate, "Mono-Kote" direct-to-steel or concrete fireproofing, "Zono-Coustic" acoustical plaster, and "Spra-Insulation" for metal-building interiors. Sectional drawings and specs are included, along with full data on noise reduction, insulating values, and other properties. Zonolite Co., Dept. PA-69, 136 S. La Salle St., Chicago 3, III. On Free Data Card, Circle 208.

DOORS/WINDOWS

Skydomes for Controlled Daylighting

"Skydomes" for "packaged daylighting"—both custom-engineered and standard units—are fully documented in Wasco's new 16-page booklet. Photo, sectional drawing, dimensions, and specs are given for each of 20 units, ranging from the new self-flashing "Twin Dome" to the "Pyrodome," which combines skylighting with fire venting. Wide selection of densities permits unique interior lighting effects while controlling light diffusion and heat gain. The company offers a standard line of over 300 standard shapes and sizes, plus facilities for engineering custom units of any shape, color, and density. Wasco Products Dept., American Cyanamid Co., 5 Bay State Rd., Cambridge 88, Mass. On Free Data Card, Circle 209.

ELECTRICAL EQUIPMENT

Incandescent Innovations

Recently introduced "Illumiline" collection of recessed incandescent fixtures by Marco is fully presented in 42-page catalog. The several exclusive features of the series are thoroughly explained in diagrams. Among the innovations are "Ampliflector," a spherical reflecting element positioned under the main reflector to redirect all normally baffled light into useful zones; "Adjustomatic Hub," which permits lamps of different sizes to be accurately located; and "Plastoveil Trimplate," whereby the fixture cavity can be finished with the same material as the ceiling. Marvin Electric Manufacturing Co., Division of Progress Manufacturing Co., Inc., 648 Santa Fe Ave., Los Angeles 21, Calif. On Free Data Card, Circle 210.

Residential Lighting

Symphony of Lighting Styles, 72-page catalog, depicts complete line of decorative residential lighting fixtures. Presented for the first time are "Vista-Lite" illuminated ceilings, electronic dimmer systems, and colorful "Fantasy" line. Other fixtures include pendants, pulldowns, chandeliers, post lanterns, utility fixtures, wall brackets, and recessed lights. Moe Light Division, Thomas Industries, Inc., 207 E. Broadway, Louisville 2, Ky. On Free Data Card, Circle 211.

FINISHERS/PROTECTORS

Paint Systems for Variety of Exposures

Recommended paint formulations and paint systems for a wide variety of exposures are published in new 32-page booklet, Red Lead Based Paint Systems. This report, subtitled "Lead Pigments Technical Letter No. 15," is the result of almost 20 years of field-testing by the Lead Pigments Technical Committee, and supercedes all previous Technical Letters issued by the committee. Among the exposure

Continued on page 75.
Here's why you can always bet your life

Standby power that isn't 100% dependable ... and capable of delivering 100% of the power promised by its nameplate, offers false security that can be dangerous. That's why Onan bends over backward to make sure every Onan Plant will perform at 100% efficiency.

Illustrated above is Onan's testing facility — largest by far in the industry. Every Onan is run-in and tested for hours under full load conditions, your assurance that you're getting the most dependable Plant made.

One-source Responsibility

Onan offers another valuable exclusive: complete, one-source responsibility. Full time Onan specialists will help you determine how much standby power you need ... and they'll recommend the minimum. They'll help you decide Plant location, the most efficient cooling system, the most inexpensive fuel system. They'll help you select — and supply — all necessary accessories including line transfer control and fuel lines and tanks.
Onan's bigger, stronger crankshaft, compared to typical competitive part, typifies the extra ruggedness Onan builds into all Electric Plants.

Onan's exclusive Magneciter generator is static excited to eliminate rotating exciter and mechanical regulator. Moving parts are eliminated in both exciter and regulator. Voltage recovery is five times faster than brushless type generators.

**PERFORMANCE CERTIFIED**

We certify that when properly installed and operated this Onan electric plant will deliver the full power and the voltage and frequency regulation promised by its nameplate and published specifications. This plant has undergone several hours of running-in and testing under realistic load conditions, in accordance with procedures certified by an independent testing laboratory.

**Factory Service Available Locally**

More than 100 authorized distributors are located in all major cities. Any distributor can supply an Onan Plant gasoline, gas or diesel driven. Sizes to 230 kw. Call your local distributor today. He's listed in the Yellow Pages. Or write for literature.

**Only Onan gives you Performance Certification**

ONAN Division, Studebaker-Packard Corp., 2545 University Ave. S.E., Minneapolis 14.
How to keep water out

Silaneal strengthens mortar bond; helps prevent leaky walls

See what happens when a brick wall is laid dry with high suction rate brick. That dark area indicates severe leakage. Now, look further along the wall to the right. No wetness here. Why? Because that half of the wall was built of the same brick, plant-treated with Silaneal®. Here's the story.

The wall was built of high suction brick — a 6” SCR brick with a 31 gram suction rate. The brick used in the right hand half had been treated with Silaneal, the sodium silicate treatment that controls suction rate. In this instance, suction rate for the treated brick was reduced to below 20 grams. The brick in the left half were left untreated.

Here's the test. After brick was laid up and mortar properly cured, two streams of water — simulating wind-driven rain — were directed against the wall, one against each half. In only two minutes, water had penetrated the untreated section and was soon trickling down the other side. But after seven hours of this continuous soaking, the Silaneal treated section still showed no sign of leaking!

Walls are stronger. How well mortar does its job depends on its quality and how it cures. And to cure correctly and bond securely, mortar must hydrate slowly, thoroughly. A high suction brick, laid on fresh mortar, immediately draws much of the moisture from the mortar, which results in shrinkage cracks at the brick-mortar interface. But Silaneal controls this suction, slows it, allows mortar to cure properly and bond as it should. In the test above, for example, untreated sections gave a wall strength of 63 lb./sq. ft., while Silaneal treated sections reached a strength of 83 lb./sq. ft.

Brick stays clean. Dirt that falls on high absorption brick is pulled into the brick with the first rain. Silaneal makes the brick surface water repellent so dirt washes away with rain. And when water can't get into the brick, efflorescence is minimized. Clean-up after brick is laid seldom requires more than just simple brushing. And maintenance is reduced because mortar doesn't crumble. Equally important: brick are left free to "breathe" because Silaneal does not fill the pores in the brick and obstruct passage of air.

You can be sure your designs will be stronger, leak-resistant and more attractive by specifying that high suction brick be plant-treated with Silaneal to reduce suction rate to the 10 - 20 gram level. For more information about this new building aid and a list of manufacturers now supplying Silaneal-treated brick — write Department 6802.
Continued from page 71

Conditions discussed are highway structural steel, hydraulic structures, industrial and marine environments, sea-water immersion, and rusted or new galvanized steel. Because of the importance of surface preparation of steel, a large portion of the text is devoted to this subject. Lead Industries Assn., 292 Madison Ave., New York 17, N.Y.

On Free Data Card, Circle 212

SANITATION/PLUMBING

New Preassembled Support for Wall Closets

Pamphlet, 4 pages, describes new "Swiftee" residential wall-closet support. According to manufacturer (the original developer of supports for off-the-floor fixtures), the Swiftee's pre-assembly permits rapid roughing-in in a fraction of the time required by other units. In addition, the support assures positive closet location, and adjustability from the front even after the wall is finished. Swiftee fits any 2 x 6 stud wall and accommodates any manufacturer's wall closet. Installation photos and detail drawings are given. Hydromechanics Div., Zurn Industries, Inc., 2214 West 8th St., Erie, Pa.

On Free Data Card, Circle 213

Waterproof Walls for Bath and Shower

Booklet, 8 pages, describes the new "Micarta" bath and shower wall, a plastic-laminate/styrene-foam sandwich providing a tub-to-ceiling wall that is durable, waterproof, attractive, and easily cleaned. Complete install-
The fluent lines of Connor linear ceiling diffusers accentuate and complement the rich simplicity of the building's interior and provide highly effective air distribution.

In the building's striking auditorium, circular Connor ceiling diffusers are neatly recessed in the same cone-like pockets that hold the overhead lights, another example of how the diffuser adapts to design features yet distributes air in an ideal pattern.

Emergency Showers

“The last word in safety” appears in new 28-page catalog of safety equipment—emergency showers and eye- and face-wash fixtures for use where fire, acids, dust, and other hazards exist. The various fixtures are fully illustrated with photos and detail drawings. Showers can be obtained as ceiling-mounted, wall-mounted, free-standing, platform-operated, and walk-through models. Various arrangements for emergency eye and face washing are also available. Speakman Co., 30th and Spruce Sts., Wilmington 99, Del.

On Free Data Card, Circle 215

Multistation Showers

Folio, 26 pages, gives information on several types of "Showergons," the multistation shower fixtures for schools, institutions, and industry.

Continued on page 80
Convenience, efficiency, safety...

with SPEEDRAMP PASSENGER CONVEYOR SYSTEMS

Customers at the new Boston Store, Point Loomis Shopping Center, Milwaukee, Wisconsin, are treated to the convenience, efficiency and safety of a dual SPEEDRAMP Passenger Conveyor System. Passengers and their shopping carts are provided with casual, carefree and effortless transportation up and down between shopping levels in the Boston Store. No need to even hold onto cart handle—a special attaching mechanism on the cart, specifically designed for use with SPEEDRAMP Passenger Conveyors, holds the cart to the belt—and releases it automatically at discharge points. This installation, accommodating shopping carts, as well as pedestrian traffic, is the first of its kind anywhere. If you’re looking for new methods of creating customer convenience, efficiency and safety combined with showcase beauty, low initial cost and minimum maintenance, investigate SPEEDWALK and SPEEDRAMP Passenger Conveyor Systems. Request full details.

For more information, turn to Reader Service card, circle No. 380
NEW TESTS VERIFY: YOU CAN SEE

For over two years, users of Fiberglas® Polarizing Light Panels have noted their beneficial effects on visual tasks. Now these benefits have been confirmed in scientific tests conducted for the Illuminating Engineering Research Institute by the Institute for Research in Vision, Ohio State University.

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Through polarization, the usefulness of light can be increased without increasing illumination levels. Now, with their effectiveness further confirmed, Fiberglas Polarizing Light Panels take their place as the most advanced improvement in interior illumination. Insist on Fiberglas Polarizing Light Panels in lighting enclosures you specify.

FOR FULL INFORMATION or a visual demonstration, write: Owens-Corning Fiberglas Corp., Dept. MD, 717 Fifth Ave., New York 22, N.Y.
Continued from page 76

There are surface-mounted panels, columns (either free-standing or wall-hung), and free-standing panels (with back-to-back service). Concealed piping is offered, yet it retains the accessibility normally found only in exposed piping installations. Finishes are stainless steel or vitreous-enamel color over stainless steel. Typical arrangements are shown. The Logan Manufacturing Co., P.O. Box 111, Glendale, Calif.

On Free Data Card, Circle 216

SPECIAL EQUIPMENT

Formica News

A Trio of New Products from Formica is a large folder with sample sheets of new finishes, new patterns, and a new flame-retardant grade. In finishes, there are now the "Standard," a new nonreflective "Suede" texture, and a new directional "Brushed" texture. The new grade of Formica, with fire-retardant properties, is called "Firebrake." It is designed primarily for those vertical surfaces where standard Formica does not comply with building code requirements, specifically flame-spread rating. Formica Corp., Subsidiary of Cyanamid, 4614 Spring Grove Ave., Cincinnati 32, Ohio.

On Free Data Card, Circle 217

High-Speed Conveyor for Library

More than 6000 books are taken from or returned to 40 miles of shelves daily at the new Minneapolis Public Library. A pneumatic-tube system, with special address-carrying "Recordlift," makes this heavy traffic possible at a minimum of effort. Ready access to 600,000 volumes stored on six different floors is provided without ever carrying a book up or down a step. These high-speed library systems are described and illustrated in new 4-page brochure. Standard Conveyor Co., North St. Paul 9, Minn.

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For more information, circle No. 391

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PROGRESSIVE ARCHITECTURE NEWS REPORT

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united LIGHTING AND CEILING CO.
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Whether you are looking for a reliable reference on exterior design... a source of inspiration for design and color ideas... or a handy guide to harmonious color combinations... this lavishly illustrated book (over 200 magnificent full-color photographs!) is truly indispensable.

COLOR IN ARCHITECTURE
A Guide to Exterior Design
by KONRAD GATZ and WILHELM O. WALLENFANG

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SURFACE STRUCTURES IN BUILDINGS

by FRED ANGERER. Written from the architect's viewpoint, this introductory handbook explains in simple language the materials, techniques and structural possibilities of surface structure construction. The book thoroughly covers statical and structural principles, applications of these principles, and various methods for defining space. The author stresses the decisive originality of shells and folded plates in this type of construction, and points the way to future developments. 1961, 142 pages, 5½ x 8½, 100 illustrations, paperbound, $4.50

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