reinforced concrete columns

In the preliminary design of multistory concrete buildings it is helpful if column size can be quickly approximated for a specific column spacing. This can be accomplished by use of the formula and the chart shown below. Both are based on the Working Stress Design method (ACI 318-63). In structures such as 575 Technology Square, where wind load is resisted by shear walls, only the axial load of columns need be considered.

Now coming into wider use is another design method the architect may want to consider. Known as Ultimate Strength Design, it assures the most efficient column size. This approach is not only more consistent with structural behavior, but provides a more uniform factor of safety throughout the building.

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FORMULA:
The area of any column in square inches for any story is:

\[ A = \frac{N (W_d + \frac{1}{2} W_l)}{k} \]

where:
- \( A \) = column area in square inches
- \( N \) = number of stories above
- \( W_d \) = dead load (psf)
- \( W_l \) = live loads (psf)
- \( B \) = bay area (sq. ft.)

For 8% reinforcement, \( f_c' = 5,000 \) psi:
- \( k = 3,650 \) for \( f_y = 75,000 \) psi
- \( k = 3,170 \) for \( f_y = 60,000 \) psi

NOTE: The above equation and the graph are based on Working Stress Design (ACI 318-63)

Columns are square with 8% reinforcement, \( f_c' = 5,000 \) psi and moment is negligible. In addition to the dead load of the structure, graph takes into account 35 psf for partitions, mechanical and ceiling. Assumed live load is 60 psf.
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New School of Architecture
Opens at UWM's Civic Center Campus

Ludwig Mies van der Rohe

Opening of the Exhibition
50 Years Bauhaus by the late Walter Gropius

Taliesin through the Years
by Joan W. Saltzstein

Public Contracts and Bid Advertising
by Webster Woodmansee,
Editor of The Daily Reporter
New School of Architecture
Opens at UWM's Civic Center Campus

The Reception Scene:

Wisconsin's first and only School of Architecture celebrated its opening with an informal reception on September 18th at UWM's Civic Center Campus in downtown Milwaukee. The present facility is the temporary home for the School until it will be housed on the UWM campus within the next two years.

UWM's Chancellor J. Martin Klotsche, Vice-Chancellor John H. Romani, Vice-President of the University of Wisconsin Charles A. Engman, faculty members of both Universities and its Extension Services, officers of the Wisconsin Chapter, A.I.A., and many of its members from all over the State, gathered for the celebration of this important event.

In his brief address, Chancellor Klotsche expressed his satisfaction about this long awaited development and stressed the particular importance of having the School of Architecture in the largest metropolitan environment in the State.

Dean John W. Wade introduced the members of his new faculty and their wives. He then took the opportunity to officially express appreciation for the help the School had received. He was especially thankful for the endowment of a chair by the Eschweiler family which will enable the School to avail itself of a top talented architectural designer; he acknowledged the gift of $3,000 by the Womens' Architectural League of Milwaukee for a slide collection and appreciatively mentioned contributions to the Dean's discretionary fund by The Wisconsin Architects Foundation, The Wisconsin Chapter, A.I.A., The Construction Specification Institute and Producers' Council, and contributions toward the scholarship fund by The Daily Reporter.

Briefly outlining the "state of affairs" at the School of Architecture during the first week of its operative existence, Dean Wade explained the reasons for the lack of furnishings and equipment, none of which arrived at the expected deadlines. But believing in "telling as it is," he invited his...
acuity and Dean in conversation with Dorothy Schweitzer, Executive Secretary of The Wisconsin Architects Foundation, and Frederick J. Schweitzer, her architect brother.

Guests to tour the top four floors of the north building of the Civic Center Campus at 600 West Kilbourn Avenue, accommodating 89 students, enrolled for the first year. Small groups of 12 and 15 people, guided by one of the members of the faculty, were given the chance to see and participate in what we have documented in these next pages.

None of the guests, to be sure, envied Dean Wade and his faculty for their present circumstance. But everyone was reassuringly impressed with his, the Faculty's and the students' positive and spirited “make do” attitude.

After all the strenuous, tedious and often exasperating toils that went into the realization of an architectural school for this State, one understandably would have wished for it first class environment. But for the School to flourish, a first class faculty is much more important and we have to thank Dean Wade, that he was able to recruit for his faculty so talented men now working with him in the business of teaching architecture.

Milwaukee, busily and exuberantly celebrating its new Performing Arts Center and in the process overworking the news media, all but ignored to take notice of an event that in the future hopefully will take influence upon the architectural climate so woefully in need of improvement in this State.

It will not alone be of importance that the new School turns out graduate architects, but of most value will be the critical examination of architectural work produced, lectures open to the public and read by the public, architectural research and imaginative and relevant projects by faculty and students alike.

For all indications, all of these items — so necessary for a better understanding of architecture by the public — will eventually come forth with conviction and enthusiasm from the new School of Architecture.

Mr. and Mrs. Webster Woodmansee and Dean Donald Shea, Dean of International Study at UWM. Mr. Woodmansee is the editor of The Daily Reporter who contributed to the scholarship fund in 1968 and 1969. Dean Shea was most helpful in assisting the new School of Architecture with furnishings from the Peace Corps offices.

Above: Students and Mrs. and Mr. William P. Wenzler.
Snap-shots taken during one of the tours of the School of Architecture

Left: Saw-horses, stacks everywhere, awaiting to be distributed to the various classrooms.

Right: The reference library for which 2,000 volumes had been ordered looked thusly.

Left: This scene is changing into a studio-room eventually. A few posters and some imagination might help convert this austere space into something more inviting.

Right: One of the lecture rooms.

Tables yes, chairs no! None had arrived as yet and the students have hopefully very strong backs and/or arms!
James C. Ambrose, associate professor, from the University of Southern California (1964-1969). Ambrose, the author of "Building Structure Primer" for beginning architectural students, graduated with high honors from the University of Illinois in architectural engineering in 1955. He received his master's there in 1956. He taught at the University of Illinois from 1955 to 1963. He also worked for several architectural firms, including Skidmore, Owings and Merrill, Chicago.

Wayne Attoe, assistant professor of architecture, received an A.B. degree from Cornell in 1963 and his B. Arch. from the University of California, Berkeley, in 1967. He was teaching assistant at the University of California, Berkeley, from 1963 to 1967; Franconia College, teaching associate, 1967-68; assistant professor, 1968-69, at Ohio University.

Robert M. Beckley, associate professor of architecture from the University of Michigan (1963-1969). Beckley received a B.S. Arch. in 1959 from the University of Cincinnati and M. of Arch. in 1961 from the Graduate School of Design, Harvard University. He was awarded the Pierson Prize, Best Senior Thesis in Architecture, University of Cincinnati in 1959; Scarab Medal, awarded to senior most outstanding in design, University of Cincinnati, 1959; he was finalist in Rotch Traveling Scholarship Competition in 1961, Harvard University Graduate School of Design Scholarship. He received in 1968 Graham Foundation for Advanced Study in the Fine Arts fellowship. Professor Beckley worked professionally in various architectural offices and as design consultant to: Wehrer and Borkin, Architects, Ann Arbor, 1964; University of Michigan Architectural Residence Laboratory, 1964-66; Woodie Garber and Associates, Architects, Cincinnati, 1965; Richard Wilkinson and Associates, Landscape Architects, 1965-66; Michigan Society of Architects, Detroit, Editor of Monthly Bulletin, 1965-66; Bendix Corporation, Systems Div., consultant, 1966; American Academy Transportation, consultant, 1967-1968; Planning Systems Group, Ann Arbor, President, 1968-1969.

Frederick Albers Jules


Dr. J. F. Mangiamele

Dr. J. F. Mangiamele came to the University of Wisconsin-Milwaukee from London, England, in 1963 and served as director of university planning for over three and a half years. He is now in urban affairs and architecture at UWM. In London, he worked in the Architects Department and the New Town Development Division of the London County Council for several years. He studied urban design and regional planning in England, Holland and the Scandinavian countries and received his doctor's degree from London University. He holds a degree in the field of city and regional planning from Cornell University and received a Fulbright Scholarship twice to pursue his interests in European city planning and urban design for the years 1959 and 1960. Dr. Mangiamele has held positions as city planner, director of urban renewal and as consultant in this country as well as abroad. He served as city planner-economist when he entered the field in Omaha upon receiving his master's degree from the University of Nebraska in 1951. He was research associate at the Center of Environmental and Housing Studies at Cornell University in New York. He has visited and travelled in Europe many times and continues to do so to study architecture, city planning, transportation and the design of various cities and towns. He is a member of various planning, architectural and professional groups and is involved in community activities of various kinds.

William E. Stumpf

On August 17th of this year, Ludwig Mies van der Rohe, Baumeister der Askese,” as he is known in his native Germany, died at the age of 83 in Chicago, the city in which he spent thirty-one of his years.

Ludwig Mies van der Rohe belonged to the small group of men — brought together by a most remarkable coincidence in history — whose genius was to create a force that changed the shape of the world we now live in. Their genius set the pattern and standards for today’s architecture, industrial design and the applied arts.

It was at the office of famous architect Peter Behrens in Berlin that Walter Gropius, Mies van der Rohe and Le Corbusier first met. Walter Gropius later founded the Bauhaus (a house for building), with the aim of “breaking down the arrogant barrier between craftsman and artist” and achieve a new unity of art and technology in order to conceive and create the new building of the future.” Le Corbusier went on in the search for “the new truth” and found it in the mastery of form.

Mies van der Rohe’s architectural concepts were radical and absolute, his accomplishments are best described by Peter Blake in his book The Master Builders: “In the architectural schools of the United States, Europe and the Far East, Mies today reigns supreme. The unfaltering logic of his steel cage filled with glass or brick, the convincing strength of his concept of universality to serve a world of swiftly changing needs and functions and the fact, finally, that Mies’s work (as Philip Johnson has said) seems so easy to copy — these have made Miesian architecture the simplest and most flexible vocabulary available to today’s architectural students. And his influence is by no means confined to the schools, architects originally trained in a freer idiom have today accepted Mies’s discipline, because they have found it the most logical way of applying the available technology to modern problems.”

Mies himself wrote in 1924: “Architecture is the will of the epoch translated into space. Until this simple truth is clearly recognized, the new architecture will be uncertain and tentative. Until then it must remain a chaos of undirected forces. The question as to the nature of architecture is of decisive importance. It must be understood that all architecture is bound up with its own time, it can only be manifested in living tasks and in the medium of its epoch. In no age has it been otherwise.”

How deeply Mies understood his epoch and how relentlessly he searched for the architectural truth of his epoch is manifested in his “The Industrialization of Building Methods,” an article written in 1924 in which he forecasts what only now begins to take hold in the building industry. “Our building methods must be industrialized. Our technologists must and will succeed in inventing a material which can be industrially manufactured and processed and which will be weatherproof, soundproof and insulating. All the parts will be made in a factory and the work at the site will consist only of assemblage, requiring extremely few man-hours. This will greatly reduce building costs. Then the new architecture will come into its own. I am convinced that traditional methods of construction will disappear.”

Mies van der Rohe’s unrelentless pursuit of clarity, refinement and technical soundness in his buildings coupled with his meticulous care for detail are but one of his contributions to the architecture of this century. His deep understanding of the tasks of this epoch, his contributions as an innovator and educator will influence the era yet to come.
Testament

Cremate me, but ask not for the ashes.
The piety for cinders is a half-way thing.
Out with it.
Wear no signs of mourning.
It would be beautiful if all my friends of the present and of the past would get together in a little while of a fiesta — à la Bauhaus — drinking, laughing, loving. Then I shall surely join in, more than in life.
It is more fruitful than the graveyard oratory.
Love is the essence of everything.
Ise, you whom I have loved most, please put in order and manage my spiritual heritage; as to the property on hand, handle it as you see fit.
Remember Ati, whom I love. (June 48)

Letter to a group of students

For whatever profession, your inner devotion to the tasks you have set yourself must be so deep that you can never be deflected from your aim. However often the thread may be torn out of your hands, you must develop enough patience to wind it up again and again.
Act as if you were going to live forever and cast your plans way ahead. By this I mean that you must feel responsible without time limitation, and the consideration whether you may or may not be around to see the results should never enter your thoughts. If your contribution has been vital, there will always be somebody to pick up where you left off, and that will be your claim to immortality.

January 14, 1964
Walter Gropius

Opening of the Exhibition

50 years Bauhaus

in London, on September 20, 1968

by the late Walter Gropius

Almost half a century has gone by since the Bauhaus started its activities in Weimar. You will hardly expect me to deal here with its history, but what I am eager to explore is this: which ferments of its initial idea are still pregnant and viable.
The Bauhaus did not have a fixed program. With all its Masters and students participating, it gradually coalesced under the sharp fire of argument and fight from within and from without into an articulate humanistic idea. Thanks to its open process of development, it has retained its range of paradoxical interpretation and dissemination, also after crossing into other countries. This is evidenced by the acceptance of its basic approach by many schools and by numerous publications about the Bauhaus — books as well as articles — in England, U.S., Italy, France, Japan, Germany, and also the eastern European countries including the USSR.
Yet it is still too little understood that the Bauhaus undertook the decisive educational step to declare the usual imitation of the teacher by his student sternly taboo, and instead to develop a science of seeing gradually derived from objective physiological and psychological observations with the help of which each individual may then develop his own subjective presentation. The visually gifted person aspires to eloquence by a mute language of optical means. The technical part of this language, the "how", can be learned; the content, however, the "what", is a personal statement.
All the Bauhaus Masters — individually so heterogeneous in their subjective expression — Klee, Kandinsky, Moholy, Schlemmer, Itten, Feininger and Muche — willingly participated with their own formulations in building up methodically such an objective grammar for visual "gestaltung". Yet it disappoints me that this important beginning of a science of seeing has — with rare exceptions — not been sufficiently expanded and amplified by other institutes and individuals, and that imitation has not been rooted out yet from the education of artists and designers. Mostly former members of the Bauhaus continued objectively to formulate optical phenomena: Moholy-Nagy, Albers, Schmidt, Kepes, Bayer and myself and others in writing and lecturing.
today this field of development benefits from the fact that the trend towards specialization is fading and is being replaced by a trend towards totality of approach: interrelationship of the total visual environment, the mutual interdependency of all visual phenomena and their psychological significance.

Accordingly former controversies, like my earlier slogan 'Art and Technique a new Unity', have been settled by constant renewal of tools and methods to invent form. In numerous cases of my own professional practice in collaboration with engineers, I have found that their decision regarding the form of a product or component building part - if they have a choice - determined not only by technique and economy, but also by their instinctive predilection for this-or-that nappe. The Slowly-developed attitude in the Bauhaus include everything, to exclude nothing which belongs to the totality of life, to say "and" instead of "either-or", has anticipated today's comeback to a total involvement as against narrow specialization.

Looking back at the active years of the Bauhaus, it interests me to recognize that, without any preconceived organization, a spiritual affiliation developed among us, a research spirit in laboratory-like environment, perhaps just because a "laissez-faire" attitude is respected by everybody. This antipolar attitude, which emphasizes outspoken individual development combined with the conscious realization that creative work should not be pursued in egocentric isolation, but be related to society, appears to me to represent the most influential precondition for a healthy approach in all education.

Paul Klee touched this topic of the relation to the community in a lecture given in Jena in 1924. He reported that he saw sometimes in his dreams a work of immense scope embracing all the elemental objective and stylistic problems. He believed that it was good to imagine now-and-then its feasibility. But, he stated, "we do not command yet this greatest strength, for we are not sustained by a people, but we seek their response. We began with it in the Bauhaus. We started there a community to which we gave everything we had. More we cannot do". This statement is a historic document, a compass for the future by the wisest member of the Bauhaus, and it is a deep satisfaction for myself. This theme of relationships, of giving common values new validity, as occupied my life and has stimulated my attempts to contribute to its solutions. In the Bauhaus I have learned that the artist, the designer needs both in order to work creatively: to find deep concentration in a lonely seclusion, as well as a lively exchange with the community whose everchanging growth phenomena often symbolizes. Collaboration and exchange with others does not lead to loss of identity and personal ease - as it is often interpreted - but on the contrary it amplifies individual power. By the critical critique of others, one's own idea will be enriched and become more articulate, also personal unity tends to evaporate. It has been the result of common Bauhaus experience that each participant -

Master or student - saw his productivity intensified by the stimulation of the group. When new forms of communication spring up through mutual contact with others, the metaphysical content of a creative piece of work gains validity and becomes more comprehensible to the common man. For such a development the Bauhaus has opened the door, which may be the reason for the fact that its humanistic idea is still worthy of consideration today. In spite of its mistakes and inadequacies, it has involuntarily developed spiritual shock troops who have stimulated others to investigate the new conflicts, new truths in life beyond their own professional limits. The Bauhaus has given evidence that one can achieve something in collaboration without losing the individual's identity and uniqueness. Most of the difficulties between man and man, we know, arise from faulty or misunderstood communication. A "gestaltungs-philosophy", which was slowly articulated with the help of all members of the Bauhaus, became our invisible bond. This has happened only after passionate debates and fights, for the universe does not surrender its secrets lightly. The decisive factor for what finally has been achieved in the Bauhaus, I believe, was due to the good human qualities of many Bauhaus members and their unusual vitality which prevailed against all odds.

In recent years a reaction against the Bauhaus was noticeable, but it dealt with surface appearances only. The complexity and psychological implications, as we developed them in the Bauhaus, were forgotten, and it was described as a simple-minded, purely utilitarian approach to design, devoid of any imagination that would give grace and beauty to life. To this I can only say: the revolution of the twenties was total and moral, and its creators looked at beauty not as something selfconsciously "added on", but as something that was believed to be inherent in the vitality, appropriateness and psychological significance of a designed object, whether it was a building, a piece of furniture or a stage design. We knew and taught that space relations, proportions and colours control psychological functions which are as vital and real as any performance data for structural and mechanical parts and for the use-value of a plan. If our early attempts looked somewhat stark and sparse, it is because we had just found a new vocabulary in which to speak out, and this we wanted to set in the greatest possible contrast to the overstuffed bombast that had gone before.

In this country it was Herbert Read who early in his book "EDUCATION THROUGH ART" recognized the educational potentials of the Bauhaus. He agreed with me that art is a basic requirement of life, that accordingly occupation with art in all stages of education should not be treated as a dispensable luxury or as a status symbol at the margin of teaching programs, but that it rather should be put right into the center of any educational blueprint from the nursery on up. Only a plan in which science and art are balanced can develop a cultural group-consciousness as precondition for a flowering of the arts as a powerful equal to science and the economics of affluence.

Wisconsin Architect/October, 1969
It was during the thirties, the depression years, that I first visited Taliesin East, Frank Lloyd Wright’s lovely peaceful Shangri-La at Spring Green, near Madison. Those were difficult times for Frank Lloyd Wright. He no longer had to face the confrontations with the authorities that had plagued the early years of his marriage and his family life with his wife, Olgivanna, her little daughter by a previous marriage, Svetlana, and their baby Iovanna was tranquil and happy. But commissions were almost non-existent, the creditors demanding, and public acclaim, at least in the United States, was slow in coming.

I had first met Frank Lloyd Wright in 1930 at the University of Chicago where I was a student and he a visiting lecturer. When I introduced myself as the granddaughter of Dankmar Adler, the architect with whom he had been associated in his youth, his face lit up and in that warmly resonant voice, he cried: “The big Chief, your grandfather, how wonderful to find you! How is your mother? I must see her.”

It had been many years since he and my mother, Dankmar Adler’s daughter, had met but they had many delightful reminiscences to share of the Adler and Sullivan office in the old Borden Block when, as a little girl my mother used to stand at his elbow and adoringly watch him sketch, and of how he would give her little presents of paper clips and rubber bands to carry home. My mother had followed his career with interest but they had not met again until I brought him to call on her that spring. Mr. Wright was in the process of writing his autobiography and was anxious to learn more about the personal life of his Big Chief. Soon we became frequent guests at Taliesin.

By 1932 the Taliesin Fellowship was founded and students were enrolling in what Frank Lloyd Wright called a “direct work-experience.” That first year there were twenty-three apprentices working in the fields, gardens and vineyards and helping to restore the long neglected buildings of the neighboring Hillside Home School that Wright had built in 1902 for his two aunts. Students came from all over the country and the world, willing to work with only limited time in the drafting room, for the privilege of sharing in this adventure with the man whom they considered to be the prophet of the new architecture. Eugene Masselink came among the first and stayed nearly thirty years until his death, his own creative skills willingly sublimated to those of the Master. He was secretary, factotum, friend — a gentle, gifted, creative person. Many years later he was responsible for the icons in the Wright-designed Greek Orthodox Church in Wauwatosa. Edgar Tafel, later to become one of the most successful of Wright’s students, was there in those early years and, for a short time, Edgar Kaufmann, whose father commissioned Falling Water, the spectacular house constructed over a waterfall in Pittsburgh.

In 1934 William Wesley Peters arrived, a giant of a man who had to bend his huge frame to get through Taliesin’s low doorways. Some years later he married Mrs. Wright’s daughter, Svetlana who, with one of their sons, met a tragic death in an accident in 1946. Today Wes Peters is the chief architect of the Frank Lloyd Wright Foundation and a distinguished designer on his own.

There were girls in the Fellowship, too, a few as wives of the architects, others, like Cornelia Brierly, sharing the work both on the grounds and in the drafting room on equal footing with the men apprentices. Cornelia is back at Taliesin now with her daughter.
Frances Coan joined the Fellowship in 1946, fresh from her job as acting director of the Milwaukee Art Institute and is still a member. Her two children grew up at Taliesin. Those early years of the Fellowship were far from affluent ones. The students' tuition, which began at $650 and was later raised to $1100, including board and lodging, barely covered expenses. Quite a few students who could not pay the full amount were enrolled anyway, because of their special ability. Lights were dimmed at 8:00 P.M. to save electricity. There was no outgoing telephone service and almost all food was home-grown and produced. There was no outside help of any kind, and the apprentices' days usually began at 5:00 A.M. But entertainment was plentiful. Students were expected to have some talents other than their ability as architects and on Sunday nights the Fellowship String Quartet played in the living room, grouping themselves around the music stand which Mr. Wright had designed: four slanting wooden racks surrounding a central lighted platform on which a bowl of flowers might rest. Saturday nights neighbors and guests were invited to a movie in the theater at Hillside. There was a formal dinner first for the Fellowship and guests who were seated at small tables with gaily colored linens. The movies were usually foreign films although the family had their favorite comedies and Westerns that were often repeated. Visitors were charged a dollar and they came from nearby towns and from as far away as Madison. The story of the Fellowship had quickly become news.
and, weekends, the curious would wind their way up the hill to see what was going on. It was decided to charge twenty-five cents a head to show them through the grounds and the apprentices were allowed to keep what they collected. On Saturdays and Sundays they would station themselves on the hill overlooking the road so that they could spot and claim the cars as they drove in.

There were always many children at Taliesin. The apprentices brought their families with them or married while they were there. The carriage house with its collection of old buggies and wagons that had been a part of the original farm was always a source of fun, and the windmill called Romeo and Juliet, which Mr. Wright had built for his aunts as his first architectural project in 1896 was a marvelous place for games of hide and seek.

The annual Halloween masked ball became a tradition, weeks long in the planning, and the celebration of Mr. Wright's birthday on June 8th was a time for elaborate decorations, surprise gifts and dance, music and drama performances by the apprentices.

Sunday picnics were a favorite recreation. Trucks would carry the supplies to selected spots, a fire would be laid and pots of stew or corn and enormous bowls of home grown tomatoes and lettuce would be readied. Gutzon Borglum Point was one of the popular spots, so named by the sculptor himself on one of his visits to Taliesin. Many celebrated guests came to Taliesin in those years but there were also many lesser known people in whom Mr. Wright took an equal delight: a pixie of a woman who had written a book called "Round the World on a Penny" and who arrived with props including a trunk on wheels; local masons, farmers and carpenters; former pupils of the Hillside School; and others who asked to come. He loved to play with the children and there were always a few at his feet. Picnics were a gala event and every one was urged to dress accordingly.

Mrs. Wright and Svetlana sometimes wore beautifully embroidered red suede jackets and Iovanna a gaily decorated one from Mexico. Mr. Wright especially liked to see his wife in a large red hat that was particularly becoming to her, and the family resembled a royal procession as they came up the road to the picnic ground, Mr. Wright in his flamboyant tweed cape, his beret and bright scarf, carrying a cane. After lunch every one would rest under the trees or gather flowers for the house, Mr. Wright happily picking great armsful.

The house with its beautiful living room that was dominated by a great stone fireplace was the evening gathering place where Mr. Wright would often discuss his philosophy or we would listen to recordings on the Capehart phonograph.

Sometimes the family and guests gathered in the smaller sitting room and Iovanna would peek down from her little room on the balcony above. She was her father's darling and he admitted with pride that he spoiled her. His other children, frequent visitors to Taliesin, were all grown with children of their own and she was the adored child of his later years.
Svetlana shared equally in his love. Gentle, dark-haired and beautiful, she always seemed to be a unifying force at Taliesin. As a member of the family, and apprentice in the school and a talented musician, she bound together all the elements that made up the Taliesin complex. When she was a little girl she delighted in designing and making her own clothes. When her warm and glowing smile was gone, much of the light of Taliesin was forever dimmed.

The first commission to break the depression lull for the Fellowship was Falling Water. It was followed by the administration building for the Johnson Wax Company in Racine.

Soon the huge drafting room, which the apprentices had rebuilt with their own hands at Hillside, was alive with activity. There were other commissions for the Johnson family including Wingspread. The huge Broadacre City plan, Mr. Wright's vision of an ideal city, was laid out on plywood and dramatically displayed in the small gallery next to the drafting room where it still remains today.

Mr. Wright would talk about his work, explaining to his guests with great patience the plans, the blueprints and models. Through the years he made them feel that he was interested in them, in what they were doing and planning. When, in later years, I brought my family to see him, he would sit down with my children and talk to them as if they were as important to him as he to them. Fame had now come his way in full measure and he seemed surprised to find himself swimming with the tide instead of fighting against it. Recently I revisited Taliesin after a long absence. Physically little had changed. The house, hugging the hillside, looked resplendent with its sweeping lawns, flower gardens and low limestone walls with here and there an exquisite Oriental figure or urn. The roofs had been newly replaced, there was a handsome new rug designed by Wright in the living room but out on the hill Romeo and Juliet still turned, a familiar landmark on the horizon. The Master is gone, buried in a simple grave in the family cemetery close to the chapel that Joseph Lyman Silsbee, his first employer, built so long ago. The Taliesin Fellowship goes on guided by Mrs. Wright and Wesley Peters. There are sixty architects and apprentices and their families in residence now and there is great activity in the drafting
room. Through models and photographs the display
gallery shows the work in progress: a theater in
Sarasota, a palace for the sister of the Shah of Iran,
a synagogue in Minneapolis and a house in a
Milwaukee suburb.

The country around Spring Green is still unique, not
only for the beauty of the rolling hills, the limestone
crags, the woodlands and the winding river, but
because of its geological significance as the largest
area left bare of glacial ice in Northeastern America.
With the idea of developing this area, the Wisconsin
River Development Corporation headed by a son-in-law
of Herbert Johnson, Willard H. Keland, bought two
thousand of the four thousand acres that belonged to
the Frank Lloyd Wright Foundation and purchased
another two thousand acres of adjacent land. With the
Taliesin Associated Architects the Corporation built a
recreation complex. They have completed a restaurant,
The Spring Green, that was originally designed and
partially built by Frank Lloyd Wright in 1953 and are
in the process of adding a ski lodge, a golf course,
a marina and a residential development. Every detail
of the restaurant’s decor was planned by Mrs. Wright,
the color scheme in the soft terra cotta shade that
has always been a Taliesin trademark. The furniture
follows a Wright design and the sharply sloped ceiling
with its band of windows looking out on the river
is unmistakably in the Wright manner. The foundations
are in for the ski lodge which will serve as a hotel
in summer. Some of the Taliesin architects will be
working there this Fall and Winter instead of making
their usual journey to Taliesin West in Scottsdale,
Arizona.

Taliesin East has changed with a changing world,
but its basic principle “the creation of an organic
architecture through living and organic life, remains
the same.”
The first man to tie knots in the rope he climbed to his tree hut had a bright new idea in vertical transportation.

We have lots of them.

DOVER® Dover elevators are installed and maintained in Wisconsin by . . .

NORTHWESTERN ELEVATOR CO., INC.

2030 W. BENDER ROAD, MILWAUKEE, WIS. 53209 • 372-3510 Area Code 414 • Offices in MADISON and APPLETON
Public Contracts and Bid Advertising
Some Legal Aspects

Fundamental in public construction and purchasing is open, competitive bidding after adequate public notice, and our statutes, like those of other states, are generally designed to provide these safeguards in order to protect the public against unwise contracts and to secure the performance of public work on the best terms and at the lowest possible cost.

As this article is being written, news comes from Washington that 38% of the previous costs of rocket launchers was saved when competitive bidding replaced the "sole source" basis which is still used in 89% of our defense contracting!

Fortunately our state has traditionally acted to insure that its taxpayers are told how their money is being spent, that the city clerk is not giving the paving contract to his brother-in-law, and that, from among the contractors qualified to do the job, the public gets the best possible deal. Another not so often enunciated advantage is the protection given the clerk against any charge or insinuation that he did give the contract to his brother-in-law.

These principles are stated in a line of cases decided by our Supreme Court and are embodied in most of the statutes we have examined. Hence it is quite natural that many of us have been assuming that all government units are covered by state laws in their spending of public funds, figuring that, under these laws, bids must be advertised for, separate contracts awarded to the lowest bidder in each of the major branches of work, and so on.

However, in recent years extended legislative studies meant to bring logic and uniformity to the realm of legal notices and public contracts have laid bare some disturbing realities, foremost among which are the gaping holes and patent inconsistencies in our statutes and the widespread misconceptions of them demonstrated by legislators, public officials, contractors, and just about anyone brought face to face with the true picture.

Some clarification is long overdue in official, professional and industry circles, especially when there have been such clear indications that revision is vastly unpopular and hence unlikely seriously to be undertaken, let alone achieved. Or, simply and directly stated, since we are not likely to get anything different, let's try to understand what we have, and what we don't.

Since architects are called upon to advise public officials in matters of ever-widening scope, a clearer view of the legal requirements may be helpful.

We will emphasize, in this article, the advertising aspects of public work since the definitions of both "legal notice" and "public contract" depend upon requirements to advertise, as will soon be apparent.

In an attempt to keep these observations from being as confused and complicated as the law itself, we will neithercite nor quote the conflicting definitions of "municipality" (at least four come to mind); sufficeit to say that we use the term interchangeably with "government unit," "governmental body," and "requisitioning agency."

Chapter 985 contains the basic provisions on Legal Notices, defining a legal notice as "every notice required by law or by order of a court to be published in a newspaper."

The chapter proceeds to set up qualifications which must be met for newspapers to be eligible to publish legal notices, provides for "official newspaper" designations, and calls for legislative declaration of some newspaper to be the official state newspaper.

Examining this chapter, we find that if a municipality is required by some other statute to publish bid advertisements in a newspaper, such advertisement is a "legal notice" and must be published in a newspaper properly qualified. If, on the other hand, no statute requires a given government unit to publish in a newspaper, whatever advertisement it publishes is NOT a legal notice and hence need not be in a properly qualified newspaper; nor are the number of insertions set forth.

Sec. 985.08(6) provides that, in addition to the required legal notice, the requisitioning agency may advertise in "other media such as trade journals and newspapers published in this state devoted substantially to the publication of notices to bidders, but such additional notice shall not be construed as a legal notice."

So we have the obvious inconsistency of the same kind of advertisement being or not being a "legal notice," with or without the need to use a qualified medium, all depending on whether or not the basic statute covering the municipality calls for newspaper advertising.

Even more inconsistent and productive of confusion, partly because it is contradictory in its application, is Sec. 66.29 which purports to set down directions for all public officials in the letting of all public contracts.

That section begins, after defining "municipality," with a definition of "public contract."

This is "any contract for the construction, execution, repair, remodeling, improvement of any public work, building, furnishing of supplies, material of any kind whatsoever, proposals for which are required to be advertised by law." (emphasis supplied) Required where? In some other section of the statutes. So let's have a look.

The chapter on Counties says all "public work" over $1000 shall be let pursuant to s. 66.29. Town law says the board is required "to let pursuant to the provisions of section 66.29 all public contracts, as defined in section 66.29(1)(c)," where the cost will exceed $500. And village law says "all contracts for public construction" exceeding $1000 shall be let to lowest bidder "in accordance with s. 66.29 insofar as said section may be applicable."

But none of these require advertising, so, under the 66.29 definition, "public work," "public contracts," and "public construction," all ordered by public officers for public purposes and paid by public funds, are NOT public, and hence the remainder of the section has no application. So here we have "confusion worse confounded!"
Possibly the accompanying chart will offer the reader the simplest means of making comparisons. The entries down through Cities include those governmental bodies required to publish bid advertisements once a week for two weeks (Class 2 notice) in their official newspaper as described in Chapter 985 on Legal Notices. They would likewise fit the “public contract” definition of 66.29 and would be subject to its provisions (except for state Purchases and Printing).

The highway situation is somewhat unique in that advertising is required, but the manner, including choice of medium and number of insertions, is left entirely to the discretion of the state commission. The remaining municipal bodies listed are without advertising requirements, which, we have seen, exempts them from the “public contracts” definition of 66.29 and from observing the “official newspaper” qualifications in Chapter 985.

Other examples of inconsistency in the area of public advertising requirements, which, we have seen, exempts the remaining municipal bodies listed are without choice of medium and number of insertions, is left entirely to the discretion of the state commission. The state’s Division of Purchases may set standard specifications, while the Division of Printing must do so. And once more, where many of these subjects are covered in 66.29, we must remember that the tricky definition of “public contract” nullifies that section for many municipalities.

The practice of those public officials required to advertise in newspapers demonstrates a variety of approaches. After they have satisfied the Class 2 notice provision, using their official newspaper, some will stop right there. Many, however, feeling that more, and possibly better, bids will be attracted by additional advertising, go beyond those requirements. The cost of the extra publicity can be recouped a hundredfold in receiving just one lower bid.

Some of these will advertise more often than twice in their official newspaper, depending upon the size and nature of the project, as does the Milwaukee School Board with six insertions, while others choose to increase their coverage by the use of additional media as described in 985.08(6). And the number of insertions most commonly ordered is two, apparently following the Class 2 pattern laid down for their official advertisements.

Many of the municipalities without official newspaper advertising requirements have adopted a policy of using such construction media, with an equal number of insertions in each. Again, two is customary. A few have chosen a single medium to the exclusion of any other in the field, a practice which, while not generally known in the industry, has evoked critical reaction in some quarters, particularly in those instances where not thousands, but millions of tax dollars are being spent.

### Wisconsin Statutes on Bid Advertisements for Public Contracts

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Section</th>
<th>Construction</th>
<th>Purchases</th>
<th>Adv.</th>
<th>Medium</th>
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<tbody>
<tr>
<td>Div/Purchases</td>
<td>16.75</td>
<td>over $2000</td>
<td>all</td>
<td>Class 2</td>
<td>official state paper</td>
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<tr>
<td>Div/Printing</td>
<td>35.57</td>
<td>over $2000</td>
<td>over $1000</td>
<td>Class 2</td>
<td>official state paper</td>
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<tr>
<td>Drainage Districts</td>
<td>88.62</td>
<td>over $1000</td>
<td>over $2000</td>
<td>Class 2</td>
<td>official state paper</td>
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<tr>
<td>Milw. Schools</td>
<td>119.07*</td>
<td>over $1000</td>
<td>over $2000</td>
<td>Class 2</td>
<td>official state paper</td>
</tr>
<tr>
<td>City School Dists (incl jt city school dists)</td>
<td>120.55</td>
<td>over $1000</td>
<td>over $2000</td>
<td>Class 2</td>
<td>official state paper</td>
</tr>
<tr>
<td>Voc, Tech, Adult Schls:</td>
<td></td>
<td></td>
<td></td>
<td>Class 2</td>
<td>official paper</td>
</tr>
<tr>
<td>Dist Boards</td>
<td>41.155(12)(b)</td>
<td>over $3000</td>
<td>over $3000</td>
<td>Class 2</td>
<td>official paper</td>
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<tr>
<td>Local Boards</td>
<td>41.15(17)(b)</td>
<td>over $1000</td>
<td>over $2000</td>
<td>Class 2</td>
<td>official paper</td>
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<tr>
<td>Cities</td>
<td>62.15</td>
<td>over $1000</td>
<td>over $2000</td>
<td>Class 2</td>
<td>official paper</td>
</tr>
<tr>
<td>State Highway Div.</td>
<td>84.06(2) all</td>
<td></td>
<td></td>
<td>Class 2</td>
<td>official paper</td>
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<tr>
<td>County Highway Depts</td>
<td>83.04(1) all</td>
<td></td>
<td></td>
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<td>official paper</td>
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<tr>
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<td></td>
<td></td>
<td>none**</td>
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</tr>
<tr>
<td>Towns</td>
<td>60.29 (lm)</td>
<td></td>
<td></td>
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<td>state div</td>
</tr>
<tr>
<td>Villages</td>
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<td></td>
<td></td>
<td>none**</td>
<td>state div</td>
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<tr>
<td>School Dists:</td>
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<td></td>
<td></td>
<td>none***</td>
<td>state div</td>
</tr>
<tr>
<td>Common</td>
<td>120.19</td>
<td></td>
<td></td>
<td>none***</td>
<td>state div</td>
</tr>
<tr>
<td>Union</td>
<td>120.19</td>
<td></td>
<td></td>
<td>none***</td>
<td>state div</td>
</tr>
<tr>
<td>Unified</td>
<td>120.75</td>
<td></td>
<td></td>
<td>none***</td>
<td>state div</td>
</tr>
<tr>
<td>Bureau of Engineering</td>
<td></td>
<td></td>
<td></td>
<td>none***</td>
<td>state div</td>
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</table>

*Chapter 45, Laws of 1969, changes this section number to 119.52, with no alteration in the requirements.

**See comments on 66.29 in text.

***These districts can enter into contracts with non-profit corporations. No reference to bids or advertisements.

****At this writing, Senate Bill 601 is in the legislative hopper, calling for a Class 1 advertisement in the official state paper, beyond which there is complete freedom to choose other media and any number of insertions.
Experience in publishing bid advertisements shows that some official habits in connection therewith are wasteful, while others do not fulfill the legal requirements and hence are susceptible to challenge by an aggrieved contractor or taxpayer.

The waste, though not significant in any one project, can mount up over the years. One aspect is the repeated publication of "stock" paragraphs common to all projects of that advertiser, material which could properly be included in bid documents which prospective bidders must send for anyway. In a recent conference with officials, we pointed out that at least 30% of every advertisement could be so viewed. With the money saved by deleting such non-essentials, extra insertions or additional media, or both, could be employed.

Another example of waste which the advertising salesman would vigorously defend is the "display" type of advertisement, occupying several columns, with border and much blank space, where a simple legal notice format is adequate and more in keeping with the dignity of both the official body and the project. The departure from strict legality arises from setting the bid closing date less than one week after the second insertion of the Class 2 notice. It is not unheard of to publish the second insertion on or after the date, a practice found in weekly publications whose dates of issue were not carefully calculated by the advertiser.

Class 2 means "once a week for two consecutive weeks, the last of which shall be at least one day prior to the act or event, unless otherwise specified by law." 985.01(3)

(The only departure "otherwise specified by law" is in the chapter on vocational, technical and adult schools. Local boards, under 41.15(17)(b), must use Class 2, "the last insertion to be at least one day prior to the day set for the opening of bids." At the same time, for district boards, covered by 41.155(12)(b), the "time fixed for opening of bids on work or materials that require engineering, design or fabrication shall not be earlier than 40 days after the availability of contract documents and the first publication of advertisements for bids.")

In sum, as characters in Shakespeare are wont to say, the State of Wisconsin has long recognized the basic considerations of public expenditure. That recognition is apparent not only in court decisions and statutory provisions, but also in official practices.

In spite of the disturbing lack of clarity, conformity and consistency in the law, responsible public officials and their architect-advisers should be counted upon to recognize the value of pursuing established procedures, including bid advertising, in a manner best calculated to serve the ultimate client — the public — even without legal strictures.

by Webster Woodmansee*
The PANLWEB girder: engineered to save time, weight and building costs.

The PANLWEB girder offers you:
High strength-to-weight ratio
Improved fire-control characteristics
Simple and fast installation

The Panlweb girder has been thoroughly job-tested and approved by the Wisconsin Industrial Commission #690501. For additional information contact your Structural Products Corp. representative.
PAVERS provide total design flexibility

Charm, quiet, relax, fun, stroll, falling leaves, solitude, spring time, romance. Paving brick often goes a long way to help set the mood - inside or out, floors or walls.

We offer these solid units in wire-cut, vertical fiber, non-slip surface in modular or standard length and width. Colors: red, buff, brown, gray, flashed and glazed to fit any design application. Sizes: 1½" split, 2¼" regular, 4½" jumbo. Meets ASTM C-410.

The next time you want to set a mood, think about taking a walk on brick.

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These letters joined together

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Oshkosh 54901, Telephone 414-231-3980

Eau Claire Prestress, Inc.
1001 Menomonie St.
Eau Claire 54701, Telephone 715-836-5146

F. Hurlbut Co.
P.O. Box 9
Green Bay 54305, Telephone 414-432-7731

Mid-States Concrete Products Co.
Box 809
Beloit 53511, Telephone 815-389-2277

J. W. Peters & Sons, Inc.
P.O. Box 160
Burlington 53105, Telephone 414-761-2401

Pre-Cast Concrete Products, Inc.
Route 1, Box 192-A, Lien Road
Madison 53714, Telephone 608-249-0156

Prestressed Concrete Products Corp.
P.O. Box 7
Verona 53593, Telephone 608-845-6451

Spancrete Industries, Inc.
10919 W. Blue Mound Rd.
Milwaukee 53226, Telephone 414-258-4110

1120 N. Bluemound Drive
Appleton 54910, Telephone 414-734-5641

Wisconsin Valley Concrete Products Co.
P.O. Box 668
Wisconsin Rapids 54494, Telephone 715-423-7500


to see that you get the finest in materials and performance.

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you do business
with a WPPCA
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integrity,
responsibility
and expert
craftsmanship.
GAS HEAT is unsurpassed.

independent 2-year test proves gas heating unsurpassed in comfort and cleanliness. Yet electric costs 2½ times more than gas heat!

In a scientifically-controlled study, gas and electric heating were compared by the Nationwide Consumer Testing Institute, Inc.

Final results revealed new proof that gas heat gives you the best heating benefits—plus much more for your money.

The test covered two heating seasons. From October, 1965 through May, 1967 in two identical homes at Canton, Ohio. Same floor plans. Same specifications. Same insulation. The only difference: One home had electric heat. The other had gas heat.

Here are the facts:

They compared comfort. Humidity and room temperatures were strictly recorded every hour and computer-analyzed.

Conclusion: Gas heating unsurpassed in comfort.

They compared cleanliness. Air samples and wall test patches were checked every month. Data were analyzed by computer.

Conclusion: Gas heating unsurpassed in cleanliness.

They compared cost. Differences were dramatic! Gas heating cost far less, yet gave unsurpassed heating benefits.

What would results be if the two identical test homes had been in the Milwaukee area? To determine the answer, Nationwide Consumer Testing Institute made a comparison based upon Milwaukee’s conditions of climate and local rates for gas and electricity. The results:

TEST RESULTS FOR IDENTICAL HOMES, BASED ON MILWAUKEE RATES AND CLIMATE

FIRST TEST SEASON (OCT., 1965-MAY, 1966)

SECOND TEST SEASON (OCT., 1966-MAY, 1967)

Two-year savings with gas heat (both heating seasons): $532.97. Certified as accurate by Nationwide Consumer Testing Institute, Inc.

Contrary to recent electric heat advertising, gas is unsurpassed for clean, comfortable heat. Electric heat costs 2½ times more than gas, under identical conditions! Good reason why 98.6% of all new homes in the Milwaukee area are heated with gas.

WISCONSIN GAS COMPANY
DOWNTOWN / MAYFAIR / WEST BEND

Want more facts? Complete details about the gas and electric heating test are contained in an interesting booklet “The Living Difference.” Send for your free copy. It will provide valuable reference when you’re ready for a new heating system or a new home.
Apartment structure almost destroyed by fire

*The Spancrete survived!

Spancrete completely protected lower level.

Rubble removed—Spancrete still intact!

Apartments rebuilt on existing Spancrete deck.

The nearly-completed Greenleaf Apartments in Elkhart, Indiana, were destroyed by a raging fire . . . or almost destroyed. Only the Spancrete decking and the protected concrete beams and columns which formed an underground parking garage remained unharmed . . . along with equipment stored in the garage area.

Spancrete withstood the intense heat of the fire, fire so hot that metal window frames, overhead steel beams, and plumbing and electrical pipes were melted into twisted pieces of rubble. Even the two-inch poured-in-place concrete topping cracked in places.

Built-in Fire Safety: The Spancrete used in the Greenleaf Apartments was designed to meet specifications for a UL 4-hour fire rating.

Safety Inspectors: Elkhart City Building and Safety Inspectors went over the Spancrete, inch by inch, trying to determine if it should be replaced. Their decision: the Spancrete was structurally unaffected by the fire.

Cleans Off Spancrete and Starts Over: With the approval of the building safety inspectors, the contractor cleaned off the rubble and began reconstructing the entire complex — from the Spancrete up. Three months later the first tenants began moving into the Greenleaf Apartments.

Spancrete’s Other Pluses: In addition to fire safety, Spancrete shortens construction time, eliminates forming, permits fast all-weather construction, and provides an immediate working deck. You can depend on Spancrete’s fire rating, top-quality construction, and dimensional accuracy. For your next job, consider Spancrete. Write or call below for information on engineering details.
Sturdy and beautiful Wisconsin Chestnut Stone forms the base of the complex of buildings at Rock Valley College. This stone furnished by Halquist Stone lends an air of naturalness and warmth that blends in with the site of Rock Valley College. Stone is the ageless building material.

We at Halquist Stone invite you to visit and view our displays, consult with our trained staff and see the greatest variety of natural stone available at any one source of supply.

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C. Edward Ware Associates,
Rockford, Illinois
Ernest J. Kump Associates,
Palo Alto, Calif., New York
Durrant, Deininger, Dommer, Kramer,
Gordon, Dubuque, Iowa

HALQUIST STONE COMPANY
Sussex, Wisconsin
Are you utilizing this man on your design team?

He is your trained All-weather Crete sales engineer. This specialist can assist you in planning the most economical roof drainage patterns utilizing All-weather Crete insulation. He can illustrate many successful types of plaza systems so that you may select the one design most appropriate for your building. He can provide your staff with scaled detail drawings illustrating the many roof deck and plaza system components adjacent to All-weather Crete such as drain types, membrane systems and wearing surfaces.

This man is also your trained All-weather Crete applicator who helps make your design come true. He is a highly specialized contractor licensed by Silbrico Corporation. This skill and selective licensing protects designers and owners alike with the assurance of expert All-weather Crete application and its exceptional performance for years to come.

Consider the importance of roof and plaza insulation ... hidden from sight, covered by membranes and wearing surfaces, applied over every conceivable sub-strate, this insulation is asked to perform many functions. Contact your local AWC specialist to assist you. Use his special knowledge on your next building project. (There's no obligation, of course.) If you don't know his name, write us — we'll have him contact you.

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