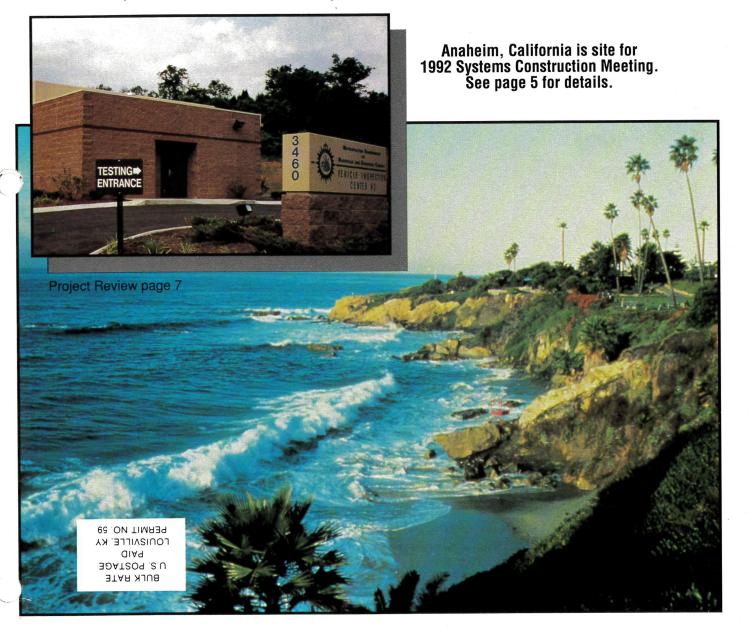
Systems Building Review

Volume 2, Issue 2

Fall 1991





Systems Building Review TM

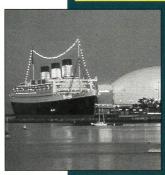
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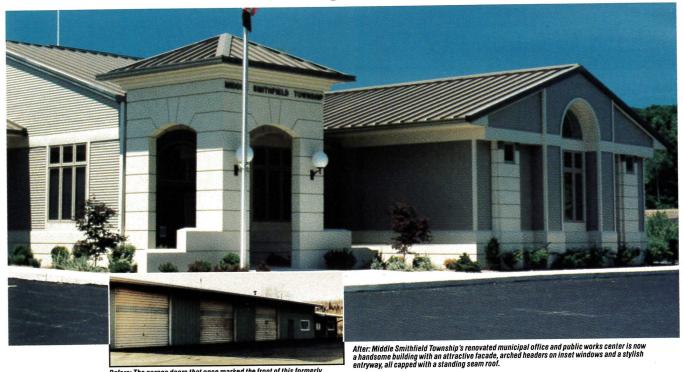
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How to Win a "Beauty Contest" on a Budget



Before: The garage doors that once marked the front of this formerly drab green, basic metal building were moved to the back. The size of the building was increased from 4,000 sq. ft. to 8,420 sq. ft., which now includes new garage bays.

ere's how Renaissance III Corporation, an independent authorized Chief Builder in Lake Ariel, PA, worked with an innovative architect to do just that.

When work began on the renovation and expansion plans for Middle Smithfield Township's municipal offices and public works center, aesthetics were an important consideration.

Being adjacent to a multimillion dollar shopping center designed around Colonial Williamsburg lines, township officials wanted their building to complement the shopping center, yet stay within the budget.

"Although the township had a tight budget, our goal was to package the additional space within a design and material solution that delivered lasting architectural character," explained James Constantin, project architect with Schoonover, Strunk & Vanderhoof, Architects.

Middle Smithfield Township's "new" center demonstrates that a construction program can meet both aesthetic and budgetary goals by fully capitalizing on the advanced, pre-engineered materials supplied by Chief Industries.

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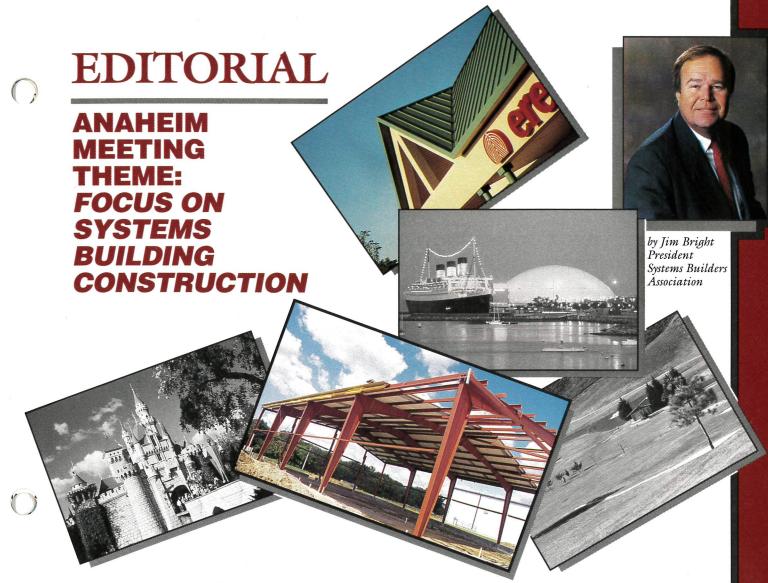
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> CHIEF Extending The Limits



Y-191



On Friday, February 7, the Systems Builders Association will sponsor an indepth program on systems building construction. The event will be conducted in Anaheim, California at the Anaheim Hilton and Anaheim Convention Center. The program is intended for all professions associated with the construction industry.

When one considers the fact that systems construction is a marriage of numerous construction products, it is easy to recognize the need for the diversity of subjects being covered during the educational sessions and exhibits. The program will feature sessions on Tilt-Up and Concrete Block Construction, Exterior Wall and Finish Systems, Roofing and Mansards, Concrete Slabs on Grade, Standing Seam Roof Systems and Pre-engineered Metal Building Systems.

Featured speakers will include representatives of the American Iron and Steel Institute, Metal Building Manufacturers Association, Systems Builders Association, Portland Cement Association and the California Building Systems Institute.

On display in the Anaheim Convention Center will be numerous construction products and a systems building demonstration structure. The

demonstration building will include a metal building structural system, standing seam roof, mansard facade, insulation system, hardwall system, tilt-up products and door systems. Attendees will enjoy the opportunity to have a "hands on" experience regarding the technical related aspects of systems building construction.

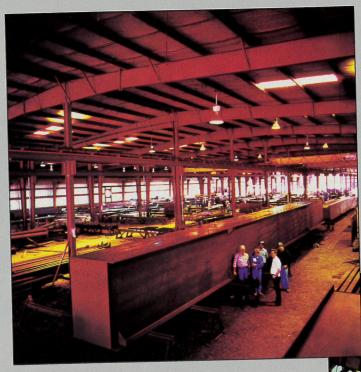
For those who are design professionals, construction specifiers, developers, governmental officials and financial executives, the program is available at *no charge*. You will be the guest of the Systems Builders Association.

For complete information a schedule of events and registration form are on page 16. Please contact SBA by calling 1-800-866-NSBA. We'll be glad to answer your questions and register you for the Anaheim program. Come and learn more about how systems building construction is an attractive, economical and flexible way to build.

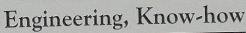
This issue of SYSTEMS BUILDING REVIEW includes other information about systems buildings. We sincerely hope you'll find it both interesting and helpful. The members of the Systems Builders Association can be helpful, too. A complete listing of these firms are included in this issue.

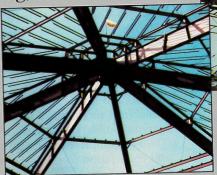


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PROJECT REVIEW

TIMING . . . WITH A NASHVILLE BEAT!

by Donald A. Mounce, APR



The Hamilton Test System sites are a blend of pre-engineered metal construction with accented masonry and crisp landscaping.

Nashville, Tennessee Music City, USA

These names are synonymous for the Davidson County community of nearly 500,000 people. Nashville rivals Hollywood, Las Vegas and New York as a leader in the entertainment industry. While the state motto is "agriculture and commerce", it is the music of Nashville that truly invigorates the people of Tennessee. The strong pride of the Smoky Mountains, Dollywood, "The Tennessee Waltz", Graceland Mansion and the late Elvis Presley all take a back seat to the music of Nashville.

The heritage of the "Volunteer State" is to always be ready to step forward and get the job done. This is very evident at the Grand Old Opry in Nashville. They have never, ever missed a perform-

ance. The show must always go on... and be on time... regardless of the consequences.

A sense of timing permeates the Nashville society. If you are going to do a job, do it right, and do it on time.

Nowhere was this more evident than in the construction and operation of six auto emission testing centers by Hamilton Test Systems in Nashville and Davidson County. If Hamilton was not operational by January 1, 1991, the contracted work they had successfully bid to secure would revert to the previous contracted operator.

Hamilton called upon Hunt Construction of Nashville to utilize systems building construction to get the job done on time in order that they might

continued on page 8



Purchasor Everett Medlin of Nashville and Davidson County.

initiate the project. This timing and urgency makes the Hamilton auto emission testing centers in Nashville an interesting case study for *Systems Building Review*.

The Contract Purchasor

Everett Medlin serves as purchasing agent for the metropolitan government of Nashville and Davidson County, a position he has held since 1988. His role was to send out the bids and conduct the pre-bid conference.

"Nashville is a forerunner on metropolitan clean air and auto emission standards in the U.S. We've been working on this for some time," says Medlin. "Once you get your title from the state, you have to get an automobile sticker. Before you can get either one of these, you have to take it through an emission test system. You can't get a license or a sticker until you have that emission document. If you pass the test, they give you a slip stating that you have passed. Then you can turn that in to the county clerk, who will issue tags and stickers. This is repeated once a year."

Medlin notes the system is not without flaw. "We have a lot of outlying counties whose people actually work in the city. They don't pay the taxes or do those things. We're trying to get those cars tested at the same time. We've even gotten the governor's office involved to help expand the effort."

"The contract with our vendor ended after five years, the original duration," says Medlin. "About six months prior to that, we had to get all the specifications together through the health department, re-bid the project, and then get the selected contractor onboard in a timely fashion.

Three or four companies showed interest nationally, and Hamilton Test Systems was chosen,"

says Medlin. They had the lowest and best bid for this government. Based on our charter and our ordinance, they met the specs and were the low bidder, so that's why they were accepted."

"When the health department first started getting the specs together, we had something like six months to get all of it moving and to get it on the table," says Medlin. "We had to have start-up meetings and that delayed some things. Once we got all of that out of the way, and declared Hamilton as the successful bidder, they got on it and did an outstanding job to get it done in a short length of time."

"I personally don't see how they did it," says Medlin. "Had they failed, we would have had to reject their bid or extend the other contract, for a period of probably one year, in order to get new bids and new specs out again. That whole process would have been very time consuming. We had to fight through legal justification as it was, as everyone thought they should have gotten the bid. We actually went to court with this bid, as a lawsuit was filed."

"The former vendor felt there were impropri-



The Hamilton Test System sites are accented with crisp landscaping.

eties," says Medlin. "We reviewed all the specs, the Board of Health recommendations, and I had to make my recommendation. My first recommendation was that we stay with the current vendor, Marlin, because they had five years service and we hadn't had any problems with them. But after meeting with everyone, we found out that money could be saved, and we knew that the best bid was from Hamilton Test Systems."

Following clarification and justification on the selection, time was cut out of the project which Medlin notes was really not available. "The lawsuit really cut us down to a short period of time to



actually get Hamilton on board so they could get their sites built. They didn't take over the existing sites, as they chose to build all new ones. One site was down near what we call the Germantown historic area, with a bunch of older homes and an old church. Hamilton Test Systems bought a lot across the street from Germantown, which was properly zoned, and actually started construction. Then, all the people in that neighborhood got with the mayor, and the mayor decided to try to get something done with Hamilton to do away with that site, and also to get them another site somewhere close in proximity. That pleased all concerned, but cut out project time."

"Hamilton is operating very well," says Medlin. "I've had no complaints. I've personally taken my car to a new station that they built, an excellent place in Hermitage. It's easy to get to, it's a nice building, and everything was in order. I had no problem at all. I wasn't there more than 45 seconds or so; I was in and out, and that's nice."

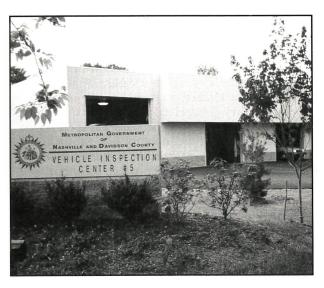
Medlin notes there is growth potential in the Nashville area, but that the current six units should be able to serve the immediate needs of the community. "We've talked about a seventh site, but cost has prohibited us from doing that at this time. Somewhere down the road, we'll probably have to add another site. Maybe two sites."

As a purchasing agent, Medlin said he had no other experience with pre-engineered steel construction before. "Other than just putting out bids to buy buildings and those type things. My primary concern was just not being familiar with pre-engineered steel. However when I saw the completed product, I was very satisfied with it. I thought Hamilton did an excellent job with them."

"The pre-engineered construction and engineering was advantageous to us," says Medlin. "And, it was a pleasure for me to work with the people from Hamilton. Once we got started, we had no problems. They got their sites together, the buildings were constructed fast and we had a good relationship."

The Project Engineer

Craig Beecher, Project Engineer for Computerized Structural Design in Madison, Wisconsin, had planned for systems building construction from the beginning. "The relationship we have with Hamilton is such that we have done the design work for the majority of their projects since 1986. We've worked on a network in Wisconsin, Connecticut, Cleveland, Ohio, and the network in Nashville. The previous design that we employed was that of masonry exterior walls with joists and a built-up roof. This particular project was one where cost was very, very



acute. We concluded that pre-engineered metal building construction was the most economical approach to solving their cost constraints."

"A previous project completed in Ohio had allowed us to design an architectural finish with the pre-engineered metal frame. It was our intention to do something similar in Nashville," says Beecher. "We used a flat wall panel in Nashville as opposed to a corrugated panel, looking for a more architectural finish." We took efforts to conceal the roof line on the ends of the building where we had a level eave, and on the side of the building with a level facia. We also took some pains to conceal the pre-engineered metal so that it's not a paramount architectural feature of the building."

Besides cost, Beecher says time was an important consideration. "Speed of construction was a definite concern. But, it wasn't until we discovered that the last building had to be built in a month's time did the benefit of construction really pay off. I'm not sure that we realized the pre-engineered metal building was going to save us a lot of time. But, in fact, it did."

Beecher says the bidding process helped create the tight time frame. "Hamilton Test Systems bid on the project much like a general contractor would bid on a building project. Once they put together a price for these tests, which involved the building, land costs and operational cost, they submitted the bid to the metro government of Nashville/Davidson County. Along with the contract award goes a completion date. You must have the buildings and the network operational by a particular time."

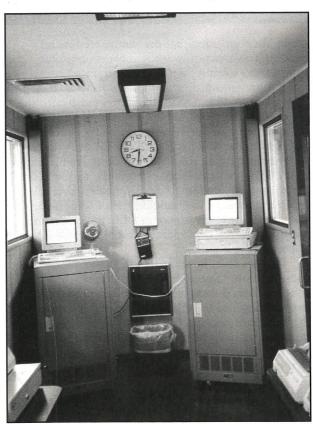
"We were on-board with them as they prepared that bid, and we did some preliminary design work in advance of the bid preparation," says Beecher. "We prepared a preliminary set of plans for their selective

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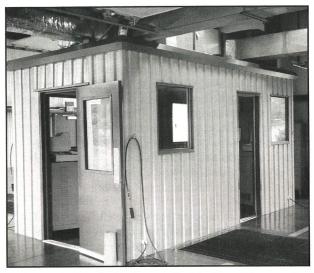
bid process in order to get some idea about the construction costs. With this particular project we were fortunate, because we were working concurrently on a project in Ohio in which the buildings were very similar, though the architecture was different. Once Hamilton received the contract, it became a very demanding project due to time limitations. We had to get the plans and specifications completed, get them out for bid, get the bids solicited, and get the project under construction."

Weather didn't help the process, according to Beecher. "Nashville at that particular time of the year was uncooperative; it rained a whole lot. The tight time schedule made the decision to select a preengineered metal building one of the key elements which allowed the project to be completed on time.



On-site computerized testing equipment gives a quick response on the air quality of the tested vehicle.

The last building was constructed in less than six weeks from when earth work began until Hamilton Test Systems took it over. That's a pretty mean feat, even for a building as small as these. To mobilize all the different trades involved with the test lane, the booth, and the office area made this a fairly complicated building. While it looks on the outside to be a very simple structure, the internal engineering makes it complex."



The "metal building inside the metal building" for all the sensitive computer equipment.

"The potential for utilizing pre-engineered construction for any purpose is great," says Beecher. "One downside is the scaling, making a building fit the modules, and some of the constraints that a metal building puts upon you. To be competitive, you have to use the standard components that the metal building provides. If you have requirements which pre-empt that or cause you not to be able to use those custom components, you have some problems. But, there are definite market advantages to metal building in certain applications."

"I have designed other buildings using preengineered metal building systems, I have also designed standard component buildings, and I don't hang my hat on either one of them," says Beecher. "We try to tailor the product to the application, or tailor the building to the various parameters that have been laid upon us. Even when masonry or seismic requirements require a more traditional framing system, a standing seam metal roof is always considered as an option. But, pre-engineered metal was the perfect choice for Hamilton in Nashville."

The Project Coordinator

Dan Walters, Hamilton Test Systems Project Construction Coordinator based in Tucson, Arizona, concurs with Beecher in acknowledging the cost and the time challenges. "We were using pre-engineered buildings in Cleveland and the similarities helped reduce engineering time," says Walters.

"We had all the buildings engineered, manufactured, shipped, and stored prior to erection," says Walters. "This allowed us to have the materials ready and to cut the lead time out of the equation, which certainly helped in the end. The pre-engineering was

essential.

"We used an optional, architectural panel which complemented some of the masonry. We've had comments from many different people involved with the project noting how well the buildings look. They're a very attractive package. We have an extensive amount of underground equipment beneath the slab, such as an exhaust removal system, gas lines, cable lines and power feeds. Pre-engineering helped get the buildings up quickly and provided protection in order to work on the inside."

"The standing seam metal roof was fast to install," says Walters. "We specifically designed the building with a standing seam roof to hold costs down. There are 1000-pound exhaust fans and coolers on the roof. We potentially put everything on the roof, and the buildings are open on both ends for continuous operation. The roof sees a lot of action and pressure differential, so it moves a lot. The standing seam metal roof is ideal."

"Pre-engineering is prominent in many parts of the country, and is very well accepted. We certainly tend to use it," says Walters. There are many applications, especially in smaller communities. New regulations are causing them to fit nicely into many types of programs. Most importantly for us, it helps bring the cost of testing down to the public. That's a major element. It's good business."

The Project Supervisor



Robert Oliver of Hunt Construction.

Robert Oliver is the Project Superintendent for Hunt Construction, Inc., and was the man primarily responsible for supervising the Hamilton Test Systems Nashville project. From his perspective, time was the biggest enemy of the construction effort, particularly in its latter stages. "We only had about 45 days to complete the last project on Antioch Pike. The subs had lots of practice on the other buildings, so that gave us an advantage. We just coordinated everything and went to it. We were substantially complete in two weeks to where we could install the equipment. The project was totally completed in three weeks."

Oliver stated that the Hamilton structures were actually two pre-engineered buildings in one. The pressurized building on the inside is actually a separate pre-engineered structure. "The test booth for the inside of the main building sits right on the slab. We had the roof on the main building, so we were able to erect the test booths quickly, even in case of bad weather—another time saver."

Oliver noted that the need for speed made the choice of pre-engineered metal construction perfect for this project. "We actually had the building up and the roof on in two to three days at most of the sites. If we had used structural steel or block, it would have taken two to three weeks for construction instead of two to three days."

The Construction Supervisor



Hunt Construction Vice President Chuck Hoover.

Chuck Hoover, the Construction Supervisor, reported that subcontractor cooperation with the pre-engineered project made it occur on time, including the timely process of weather-proofing every site. "We had to prepare for inclement weather at every site."

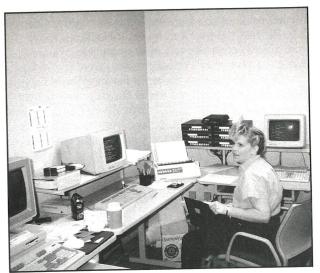
"Given the time of year, if it had been loadbearing masonry construction, we'd have never made it," says Hoover. "We were able to get right back on those foundations while they were finishing the floor. We could not have done that with ordinary load-

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bearing construction."

"The front end of the operation was easy. We were in mid-summer, we knew Hamilton had until the end of the year, and the projects were not so involved that we could not handle a three or four month schedule. We knew we could perform," says Hoover. "It was relatively a light load to schedule a 100 day construction schedule. It wasn't pushing us hard at all." Hoover noted that having a professional



A main computer network verifies and logs all test information. relationship with a reputable building manufacturer allowed him to commit to the project.

"The project would not have been the same without systems building construction. We would have had to recreate the wheel on each project. With pre-engineering we had quality control throughout. It also allowed our erectors to overcome any special applications. Once they handled a condition at one location, they knew how to handle that same condition in all the locations."

"Hamilton is very satisfied with the pre-engineered construction," says Hoover. Pre-engineering allowed us, as the builder, to have hands on control of the scheduling of the walls, structural system, and the roof. It gave us a better handle on the entire project."

The Operation Manager

Hamilton Test Systems has long been a leader in auto emission testing. Incorporated in 1974, they became the first contractor operated emissions testing program in the United States.

Emissions testing has come to the forefront in the last five to ten years in urban America. There are a variety of testing programs: contractor-operated programs, like the one in Nashville; state-run programs; and, city and county-operated programs.



Hamilton Test Systems Program Manager Paul S. Cherepinsky.

These efforts are driven by the EPA, according to Paul S. Cherepinsky, Program Manager for the Hamilton Test Systems Vehicle Inspection Program in Nashville. "The EPA tells governments what kind of air quality emission reductions need to be in place, and the government decides what type of program they want to operate."

"The EPA is demanding that governments do something about metropolitan auto pollution. The Clean Air Act was modified and rewritten for 1990, and those new amendments will greatly enlarge this type of business in the next five years."

Cherepinsky says EPA studies show that contractor-run, centralized programs are the best option. "There have been numerous studies in the last 10 or 15 years on what are called decentralized and centralized programs, and both contractor and government-operated programs. The findings of the EPA are that contractor-run programs are more efficient, less costly, and easier to control.

"Nashville appears to be responding well to us," says Cherepinsky. "We've had very positive comments on both the appearance of the buildings themselves and the fast operation of the equipment.

Pre-engineered systems building construction helped Hamilton Test Systems, Computerized Structural Design, and Hunt Construction live up to the standards of community and contractual expectations. They got the job done on time and in tune with the Nashville beat.

Donald A. Mounce, an accredited public relations counselor, is with the firm of Comet Communications, Inc., in Dayton, Ohio, and serves as Managing Editor for SYSTEMS BUILDING REVIEW.

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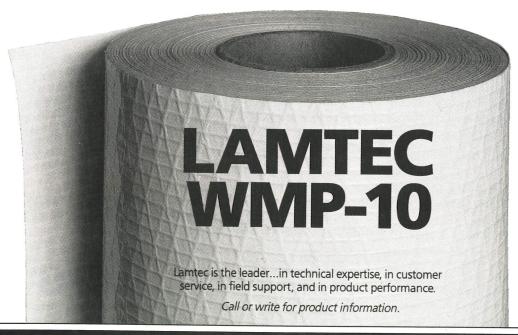
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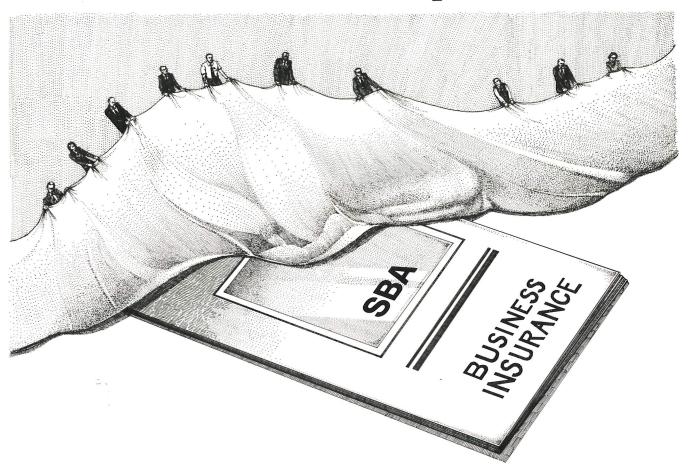


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TAX TIPS

HOW NOT TO PLAY THE ESTATE TAX GAME

Sometimes the IRS beats up a taxpayer because of a complex tax law. The taxpayer may be technically wrong, but, in my opinion, the complex tax law is what's wrong. Such cases really make me angry. This is the story behind a real case that tripped up a real taxpayer and could affect every married reader of this column.

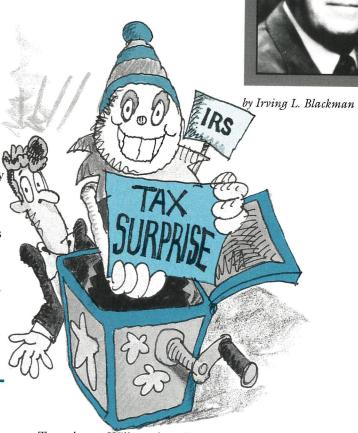
Here are the facts. Corinne, a Texas resident, had a typical Will — she left everything to her husband, Charles, and wanted her estate to go to her two children if Charles died before she did. One clause in her Will gave her estate to the kids if Charles should "predecease me or die before this Will is admitted to probate" (emphasis added). Reread those last eight words of the Will — slowly.

"It is, impossible for anyone, except a professional who specializes in this area of the tax law, to recognize the opportunities, traps, and exceptions when planning an estate."

The kids would get the property, instead of Charles, if two things happened: First, Charles had to survive Corinne and, second, Charles had to die before Corinne's Will was admitted to probate. This is exactly what happened after Corinne died: Charles survived her; her Will was admitted to probate within three weeks of her death, so Charles got Corinne's property, not the kids.

Now, a little lesson in the federal estate tax law. A wonderful rule called the "unlimited marital deduction" allows a husband or wife to make unlimited gifts to each other, during life or at death, free of any estate tax. Hey, that's a good law. But wait. You can blow the marital deduction by giving your spouse a "terminable interest," defined as an interest that will cease after a certain length of time or upon the occurence of an event.

Okay, now let's apply the law to Corinne's case. The IRS did, and blew away a marital deduction of over \$500,000 claimed by Corinne's estate. Is the IRS right? Yes, said the Tax Court. You see, under



Texas law, a Will can be admitted to probate at any time within four years after death. So what? Well, legally, Charles's interest in the estate could have been terminated up to four years after Corinne died, if the Will took that long to get to probate and he had died within that period. Simply put, even though it didn't happen that way, it was a possibility. Result? Charles's interest was terminable. No marital deduction (See Tax Court Memo, 1989-610).

A mistake like this could cost your family thousands, or millions, of dollars depending on the size of your estate. It is, in my opinion, impossible for anyone, except a professional who specializes in this area of the tax law, to recognize the opportunities, traps, and exceptions when planning an estate. How can you protect your family? Use only full-time tax practitioners who are experts in this area. Others can be dangerous to your family's tax and economic health.

Irving L. Blackman, CPA and attorney, is the most published tax authority in the United States. He lectures nationally on taxation and is the author of many books, special reports and regular columns devoted to taxes. Mr. Blackman is a senior partner in the CPA firm of Blackman, Kallick & Co., Ltd

Learn More About Systems Building Construction

Attend the SBA Convention, February 7, 1992, Anaheim, California



Exhibits and Product Demonstration: Anaheim Convention Center, South Hall

Meetings and Lodging: The Anaheim Hilton and Towers Reservations 1-800-HILTONS



Registration is absolutely free if you are an:

- Architect
- Loan Officer
- Educator

- Building Official
- Planning Board Official
- Building Department Official

- Code Official
- Construction Specifier

The schedule of events:

| Event | Time |
|---|--------------------|
| Tilt-Up and Block Workshop | 8:30 am-10:00 am |
| Exterior Wall and Finish Systems Workshop | 8:30 am-10:00 am |
| Architectural Store Front Window Walls Workshop | 8:30 am-10:00 am |
| Roof and Mansards Workshop | |
| Metal Roofing Contractor Seminar | 9:00 am-12:00 Noon |
| Construction Influencers Special Session | 9:00 am-12:00 Noon |
| Refreshment Break | 10:00 am-10:15 am |
| 8:30 am Workshops Repeat | 10:15 am-11:45 am |
| Concrete Slabs on Grade Seminar | 11:45 am-12:45 pm |
| Lunch with Industry Speaker Richard Jarman Chairman | |
| Metal Building Manufacturers Association | 12:30 pm-1:30 pm |
| Exhibits | 1:30 pm-5:00 pm |
| Product Demonstrations | |
| 1 Toddot Bomonomaner. | |

Construction Influencers Special Session

This program is partially sponsored by the American Iron and Steel Institute. It will feature a session by Paul Nimtz, AIA focusing on standing seam roof systems; a session pertaining to structural design characteristics by J. R. Miller, Structural Engineer; and design attributes by William F. Golden, California Building Systems Institute.

Product Demonstrations

A demonstration structure will be constructed in the Anaheim Convention Center to show all attendees the various products associated with systems building construction.

Advance Registration

| Auvance lugistration | | to the state of th |
|---|---|--|
| Yes, I plan to participate in the Please register me as follows: | program on Friday, February 7, 1992. I understa | and that the registration lees are free. |
| Name | Title | |
| Name | Title | SYSTEMS BUILDERS ASSOCIATION |

Firm_ Type of Business___ Mailing Address_ City, State, Zip___

Mail this form to: Systems Builders Association P. O. Box 117 West Milton, OH 44383 For additional information please call: 1-800-866-NSBA or FAX 1-513-698-6153



Area Code/Telephone_

FIELD SUPERVISION:

THE VIEW FROM THE FIELD

by David Cheatham

FMI surveyed 1,200 senior managers of contracting companies in 1990 to determine field supervision trends, needs and challenges.

Overwhelmingly, contractors said that planning is the number one skill that their job-site supervisors need most to improve. They see effective planning and scheduling as the greatest management challenge facing their field supervisors.

But what do foremen and crews see as the greatest challenge to effective field supervision?

To find out, *Job/Scope* conducted a parallel study in which field people were asked to rank field supervisor challenges. 6,000 readers were surveyed.

Perhaps the most significant difference in responses is that effective communication is a bigger

problem in the eyes of field foremen and crews than it is to contractors.

Job/Scope believes that the survey sends a message to contractors: "Many field people would appreciate—and respond positively to—stronger management efforts to improve job site communication."

David Cheatham is the Editor of FMI Publications at FMI Management Consultants in Raleigh, North Carolina. For a copy of the complete Job/Scope report, "How the Industry Sees Field Supervision Needs," contact Durward Humes, Editor, Box 484 Wilmette, IL 60091.

| Ranking Today's Field Supervision Challenges | | | | | |
|--|-----------------------------------|---------------------------------------|---------------------------------------|--|--|
| RANK | Contractors | Supervisors | Field Crews | | |
| 1 | Effective planning and scheduling | Effective planning and scheduling | Effective planning and scheduling | | |
| 2 | Leading/recruiting field crews | Effective communications | Effective communications | | |
| 3 | Effective communications | Leading/recruiting field crews | Leading/recruiting field crews | | |
| 4 | Managing subcontractors | Controlling work quality | Controlling work quality | | |
| 5 | Controlling work quality | Customer relations | Delegating responsibilities | | |
| 6 | Cost reporting and record-keeping | Working with generals | Working with generals | | |
| 7 | Customer relations | Delegating responsibilities | Customer relations | | |
| 8 | Time Management | Managing time | Managing time | | |
| 9 | Managing risks/claims | Cost reporting and record- keeping | Cost reporting and record- keeping | | |
| 10 | Delegating responsibilities | Managing subcontractors | Managing subcontractors | | |
| 11 | Working with generals | Managing risks and claims | Managing risks and claims | | |
| 12 | Controlling substance abuse | Controlling substance abuse | Controlling substance abuse | | |

WHO'S WHO IN THE SYSTEMS BUILDING INDUSTRY

Quality products are essential to any successful construction project. However, people make the ultimate difference. SYSTEMS BUILDING REVIEW is pleased to provide this listing of quality-oriented members of the Systems Builders Association. Use it as a handy reference or contact SBA's headquarters by calling 1-800-866-NSBA.

Building Contractors (Alpha by Country/State/Firm)

CANADA

Argyle Steel Construction Ltd. Ed Gramiak 112-A Scurfield Blvd. Winnipeg, MB Canada R3Y 1G4 204/489-8022

Central Canadian Structures Ltd. Walter Wilms P.O. Box 130, 2245 McGillivray Blv Winnipeg, MB Canada R3Y 1G5

Contemfora Steel Ltd. Bob Gagnon 1712 St. James Street Winnipeg, MB Canada R3H OL3 204/633-7672

North Perimeter Construction Robert Garet Box 59, GRP 200, R.R. 2 Winnipeg, MB Canada R3C 2E6 204/694-1130

Pre-Con Builders Robert Keith 1301 Admiral Avenue Winnipeg, MB Canada R2X 1E6 204/633-2515

Steelman Distributors Ltd. N. Daher 101-1280 Archibald Street Winnipeg, MB Canada R2J 0Z3 204/253-2042

Thomas Design Builders Ltd.
Dan Vallance
430-D Dovercourt Drive
Winnipeg, MB Canada R3Y 1G4

Valley Steel Ltd. Ron Breland Box 550 Morris, MB Canada R0G 1K0 204/746-8792

ALABAMA

Coastal Steel Buildings James J. Jurkiewicz P.O. Box 669 Foley, AL USA 36536 205/943-1112

ARIZONA

Colton Building Systems Company John G. Colton 878 West Illini Phoenix, AZ USA 85041 602/268-3411 Sunbelt Steel Buildings John G. Colton 878 West Illini Phoenix, AZ USA 85041 602/268-1373

CALIFORNIA

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Building Constr. Assoc. G.W. Michael Murphy 175 San Lorenzo Street Pomona, CA USA 91766 714/623-2438

Carl Brooks Inc. Carl Brooks 1366 Coronado Ave. Long Beach, CA USA 90804 213/597-3611

Carsey & Carsey Doug Carsey Box 27 Fowler, CA USA 93625 209/834-5384

Crane of Ukiah Doug Crane 4 Banker Ukiah, CA USA 95482 707/462-1412

Dancot Construction
Danny D. Cotten
P.O. Box 1339
Lancaster, CA USA 93584
805/949-6655

Delcon Development James M. Heady 375 Preda Street San Leandro, CA USA 94577 415/887-7111

Dirks ConstructionRay Dirks
P.O. Box 1034
Yuba City, CA USA 95991
000/000-0000

Equidyne Corporation Steven S. Stewart 2288 Westwood Blvd. W. Los Angeles, CA USA 90064 213/457-7646

Flory Construction Jerry Flory 2325 Verna Court San Leandro, CA USA 94577 415/483-6860 Fred Knee Construction, Inc. Fred M. Knee P.O. Box 580 Lemoore, CA USA 93245 209/924-3494

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J. Miller Construction John R. Miller P.O. Box 53 San Luis Obispo, CA USA 93406 805/545-8188

J.W. Design & Construction Jerry Williams P.O. Box 1154 San Luis Obispo, CA USA 93406 805/544-3130

Kilburn-Western, Inc. Jack Thompson 3825 Hopyard Road, Suite #167 Pleasanton, CA USA 94588 510/734-8025

Laughlin Corporation Sheree M. Woodworth 9513-D Business Center Drive Rancho Cucamonga, CA USA 91730 714/980-7414

McCarthy Steel Constr. Co. Gregory F. Gilli P.O. Box 1887/3030 M St. Bakersfield, CA USA 93303 805/327-3811

Merit Construction Co. George Carpenter P.O. Box 4954 Whittier, CA USA 90607 213/944-9883

Mill Construction Company Thomas Mill 41 Clark Street Salinas, CA USA 93901 408/424-0781

Modern Steel Structures William Coppedge 3924 Starlite Drive Ceres, CA USA 95355 209/537-8985 Nilan Construction Don Nilan 19220 South Court Sondra, CA USA 95370 209/532-7825

Palmer Bidg. Systems Corp. Kenneth Palmer 16582 Gothard St, Suite N. Huntington Bch, CA USA 92647 714/842-7474

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Roland Construction
James Hoagland
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Stockton, CA USA 95205
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Ted A Molfino Ted Molfino P.O. Box 678 Lodi, CA USA 95241 209/369-8271



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Jim Van Dyke 845 Remor Street Redding, CA USA 96002 916/221-6515

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Randy Wyatt 350 N. Rancho San Bernardino, CA USA 92410 714/825-1400

COLORADO

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Jeffrey E. Miller P.O. Box 547 Eaton Park, FL USA 33840 813/665-6504

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Donald B. Sperry P.O. Box 3968 Tallahassee, FL USA 32315 904/562-1101

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All-Steel Building Inc.

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Fox Building Company, Inc.

Terry C. Fox 5815 Live Oak Parkway, Suite 2G Norcross, GA USA 30093 4/447-1481

ican All-Steel Structures, Inc.

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Phalen Steel Const. Co.

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Bartley & Group Construction Co.

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Build-Lease Associates, Inc.

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Built Wright Construction Lawrence Markey

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Burriss Building Systems Moffatt Burriss Jr. P.O. Box 55

Columbia, SC USA 29202 803/781-6800

Cleckly & McGee Inc. Paul R. Behles, Jr. P.O. Box 1264 Orangeburh, SC USA 29116 803/534-5580

ECB Constr. Co. Inc. **Ernest Brown** P.O. Box 1492

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Gerald Smith Construction, Inc. ald Smith

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Hicks Construction Co., Inc. Jimmy C. Hicks P.O. Box 1304

Aiken, SC USA 29802 803/649-0910

Huskey Construction Co., Inc. Bill Huskey P.O. Box 5097-B Greenville, SC USA 29606

Jacon Associates, Inc.

803/269-2122

Steve L. Jackson P.O. Box 6743 West Columbia, SC USA 29171 803/796-8117

Limehouse & Frampton Cons. Charles T. Frampton P.O. Box 808 Ladson, SC USA 29456 803/572-2400

Marsh-Bell Construction Co., Inc. Dwayne Bell

Rt. 3 Box 141 Piedmont, SC USA 29673 803/295-2728

Poinsett Construction Co. Robert Latham P.O. Box 8838 Greenville, SC USA 29604 803/299-1050

Potter-ShackIford Constr. Randy Davidson P.O. Box 6459 Greenville, SC USA 29606

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Dean Anderson P.O. Box 130 Roebuck, SC USA 29376 803/576-6330

Ruscon Builders.Inc. G.H. "Sonny" Powell

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Scism Construction Co. John Scism 304 South Parsonage Street Bennettsville, SC USA 29512

803/479-7809 T N Construction Co. Inc. Thad O. Strickland

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Trident Construction Co., Inc. Robert D. Fairey P.O. Box 60939 N. Charleston, SC USA 29419 803/572-7600

West Electrical Contract./Newberry Billye L. West P.O. Box 734 Newberry, SC USA 29108 803/276-1884

TENNESSEE

Hunt Construction, Inc. Chuck Hoover 240 Great Circle Rd. Suite 339 Nashville, TN USA 37228 615/244-4868

TEXAS

Burkleo Construction, Inc. Gary Burkleo P.O. Box 16209 Lubbock, TX USA 79490 806/763-2381

Commercial Structures Rick West 420 Southfork Drive Lewisville, TX 75067 214/221-6511

Component Constr. Corp. Randall Haefli 6333 Airport Freeway Fort Worth, TX USA 76117 817/834-6274

Davis & Hawkins Wendell Davis 821 Beach Fort Worth, TX 76111 817/831-1982

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Industrial Construction Leroy Nishek 1301 E. Parkerville Road Desoto, TX USA 75115 214/223-4050

Jatex Construction Inc. Seale John 150 N. Peachtree Jasper, TX USA 75951 409/384-3459

Moore Modern Builders Inc. J. Frank Moore P.O. Box 967 Irving, TX USA 75060 214/445-1551

Pyramid Building Systems, Inc. Jay D. Hedges 409 West Vickery Blvd. Ft. Worth, TX USA 76104 817/335-1800

VERMONT

E.F. Wall & Associates Robert P. Lord P.O. Box 259 Barre, VT USA 05641 802/479-1013

VIRGINIA

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C.L. Pincus, Jr. & Co., Inc. Michael Goldmeier 2700 Sonic Drive Virginia Beach, VA USA 23456 804/468-5100

Cardinal Building Corp. Ronnie Anglin 3345 Croft Street Norfolk, VA USA 23513 804/853-4163

Challenge Constructors, Inc. George Fuller

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Cochran Construction Co. John Edelblute P.O. Box 9329 Hampton, VA USA 23670 804/826-2510

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A. R. Kessel, Inc. Alan Kessel 6531-A Orr Rd. Charlotte, NC USA 28213 704/597-8505

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Building G-C's, Inc. Leonard Pease P.O. Box 224 42 Bissell St. Tower Hill, IL USA 62571 217/567-3632 **Carolina Steel Erectors**

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LeMaster Steel Erectors Robert LeMaster P.O. Box 2365 Elkhart, IN USA 46515 219/262-1531

Metal Building Repair, Inc. Ken Simon 375 Preda Street San Leandro, CA USA 94577 415/569-1446

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Peeples Erec. & Constr. Inc.

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Phoenix Steel Erectors, Inc.

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Harry Lynn Schlitz P.O. Box 1816 South Gate, CA USA 90280 213/567-2255

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S & S Structures, Inc.

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Carroll Reed 630 E. Shelby Fort Worth, TX USA 76140 817/293-1755

Achilles USA, Inc.

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ACI Building Systems, Inc. Mitch Broadway

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Akzo Coatings Inc.

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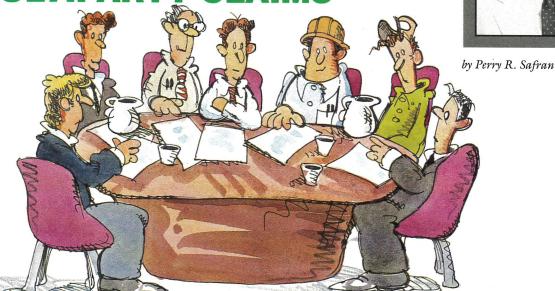
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LETTER OF THE LAW

"PROJECT ARBITRATION" IN MULTIPARTY CLAIMS



As is commonly the case, construction disputes are multiparty affairs with interrelated claims and defenses. Under state and federal rules of procedure, these parties can usually be brought into the same court for litigation. When this is the case, all claims, counterclaims and defenses of these parties can be heard.

Standard form construction arbitration agreements, however, have provided separate arbitration agreements between parties. Consolidation of interrelated claims, therefore, is usually restricted at best.

Owners and contractors—vulnerable to added costs under this framework—should assess the risks before adopting standard form agreements.

As an alternative, owners and contractors should consider "project arbitration" agreements which bind all of the relevant parties to one arbitration clause. This would effectively give the dispute the advantages of consolidated claims while at the same time provide the benefits of arbitration.

While such agreements could take on many forms, the following is a possible model agreement:

Sec. 1 "All claims, disputes or controversies arising out of or relating to this project and between or among parties with agreements arising out of or relating to this project shall be settled and decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association and judgment upon any award rendered by the Project Board of Arbitration may be entered in any Court having jurisdiction."

Sec. 2 "The parties to this project shall include the Owner, Architect, Engineer, Construction Manager, Contractors, Subcontractors, Suppliers, Sureties, Professional Liability Carriers and other persons with express or implied agreements to provide services, labor, materials, plant supplies, equipment, guarantees or indemnification for the planning, design or construction of this project."

Sec. 3 "Upon the filing of any demand for arbitration by any party to the project, the American Arbitration Association shall appoint a Project Board of Arbitration of three members who shall serve until all claims, disputes or controversies are decided regarding all parties to the project."

Sec. 4 "The Owner agrees to include this Project Arbitration Agreement in all of its agreements with parties to this project. All parties further agree to incorporate this agreement by reference in all of their agreements with all other parties to this project."

Sec. 5 "The parties mutually agree that this Project Arbitration Agreement is severable from the other terms and conditions of agreements between project parties. All parties mutually agree that all claims, counter-claims, defenses or issues of arbitrability, consolidation or other matters involving the interpretation and application of this Project Arbitration Agreement and all other agreements shall be decided and determined by the Project Arbitrators."

continued on page 30

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Letter of the Law

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Sec. 6 "Notice of the demand for arbitration shall be filed with the American Arbitration Association and with all adverse parties. The demand shall be filed with the American Arbitration Association within the time limits specified by the applicable statute of limitations.

Owners often rely on design professionals to prepare standard form agreements. But because arbitration clauses can increase an owner's litigation costs and risk of inconsistent awards, a designer may be legally obligated to disclose potential problems with these clauses.

In any event, owners, design professionals and contractors should consider the consequences of these standard arbitration agreements. They may save valuable time and resources in the face of complicated controversies for all parties involved.

Perry Safran is a Raleigh, North Carolina construction engineer/attorney who specializes in Construction Law. Perry combines 10 years of construction engineering with 10 years of legal practice to offer a unique service. Perry travels frequently and lectures on a variety of construction industry issues. If you have a question for Perry, please contact him at: SAFRAN LAW OFFICES, 120 South Boylan Avenue, P.O. Box 587, Raleigh, NC 27602-0587, Telephone: (919) 828-1396, Fax: (919) 828-7993. With thanks to James P. Laurie III. Campbell University School of Law.







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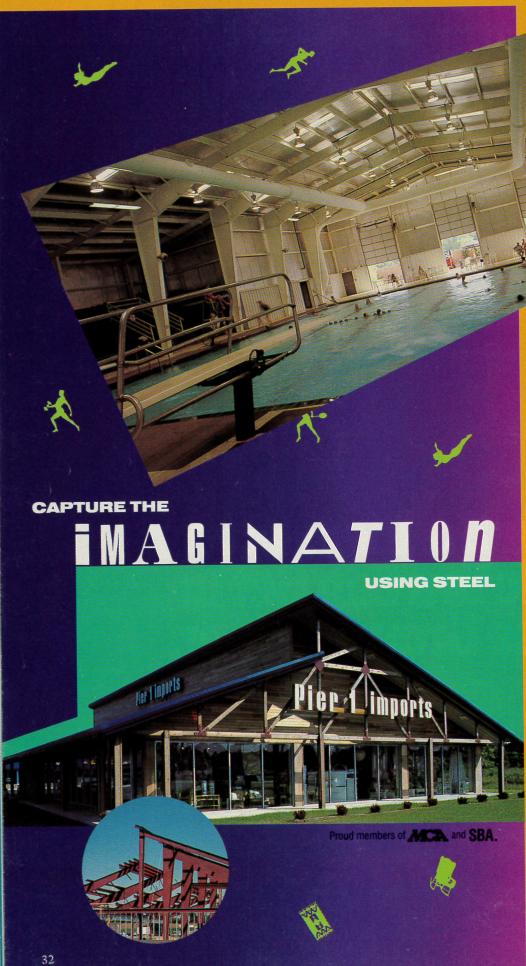
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