



# SAABE TIMES

*A publication of the San Antonio Association of Building Engineers*

*April 2005*

*Mark Your Calendar—*

## JOIN US FOR OUR APRIL LUNCHEON

The next General Membership Meeting of the San Antonio Association of Building Engineers is set for 11:30 am on Wednesday, April 20. This month's speaker and meeting sponsor is Ken Major of Holes of San Antonio. Holes of San Antonio is a full service concrete sawing and drilling company that was started in 1977. Since then, they have grown to be the largest company of its kind in south central Texas. Holes of San Antonio is a family owned company with Ken, his father (George Sr.), and his brother (George Jr.) continually trying to grow the company. They have recently expanded their service base to include concrete structure scanning to better serve their customers. Concrete structure scanning is the non-destructive process of looking inside concrete to find conduit, post tension cable, re-bar etc., using Ground Penetrating Radar and 3-D Structure Scanning, the newest technology in the industry.

The meeting will be held in the first floor Travis/Bowie rooms, to the right of the entrance. There is plenty of parking at the back of the restaurant. **Please make sure to check in at the front desk when you arrive.**

Please RSVP to (210) 408-1699 by Tuesday, April 19. PLEASE RSVP so we can be sure to have enough meals on hand!

We hope to see you there! ❖

## CELEBRATING **20** YEARS OF EXCELLENCE IN BUILDING ENGINEERING

### The Envelope Please.....

The San Antonio Association of Building Engineers is pleased to name Jock Tilghman, Sr., CBE-J, as 2004 Building Engineer of the Year. This special award recognizes an outstanding contribution to our industry.



**Jock Tilghman, Sr.**

The Building Engineer of the Year exemplifies the pinnacle of professionalism in the building engineer trade. Based on interviews, documentation, and building tours, Tilghman demonstrated a thorough understanding of all issues affecting his property. Marcia M. Barber, RPA (Property Manager at Corporate Square), said, "I have had the pleasure and honor of working with Jock Tilghman for over four years. He possesses qualities of professionalism, dedication, technical expertise and is a team player. I can't think of any person more deserving to win the SAABE Building Engineer of the Year Award than Jock." SAABE President Bob Beal said, "Jock's dedication to education, property, and manager is, without doubt, 'Top Notch.' We are very lucky to have such a class act associated with SAABE. He exemplifies the qualities and attributes that we expect in the Building Engineer of the Year."

A special thank you is in order to this year's BEOTY committee chair Doug Graves and his committee members, who toured the buildings of all the nominees and met to decide this year's winner. If you're interested in serving on next year's BEOTY committee, please give Doug a call. ❖

## A Message from the President

by Bob Beal

Well, BEOTY is over with and another year is creeping on by. It is hard to believe it is already April. Time to the plant the tomatoes, clean out the smoker, air out the tent, and enjoy beautiful south Texas. I love my job, but when the weather is 70 degrees and not a cloud in the sky, I wish my chiller room and office had no walls. This year we plan to have a couple of SAABE outdoor socials. It is hard to get three people to agree on anything, let alone 180, so if you have any ideas or comments on what you would like to do, please let one of us know. I was thinking a day at the lake with plenty of drinks and meat on the grill. I know some of our members have boats. SAABE will buy the gas now that it is over \$2.05 per gallon. If all the ladies at SABOMA can get together for an annual *camping trip*, I know we can put something together.

### Charles Gilbert

Over the last three years, it has been my pleasure to be in the company of my dear friend and SAABE's vendor representative, Charles Gilbert. Charles has accepted a position with Brown and Root doing mechanicals in Afghanistan. All I can say is: "*Charlie, take your hat!* It gets pretty hot in the summer over there." You can bet your bottom dollar he is going to be busy working on all the equipment that keeps our people and troops comfortable. And yes they do have air conditioning in some of the tents. I say we buy him a turban with the SAABE emblem. A "class act"

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is just one of the one of the things that Charles exhibits with his persona, professionalism, mannerisms, and the fact he is just one great person. I really think he's leaving so he doesn't have to sing at the Trade Show this year. As much as I hate to admit it, I listen to "talk radio," and sometimes during lunch, I listen to Brad Messer on 550, KTSA. The topic on one day was Middle Eastern affairs and why it seems that most of the people over there do not like America and Israel. A caller was speaking very informatively about the subject and had what appeared to be a lot of knowledge about the history of the Middle East. I was impressed. As the caller continued, I noticed a similarity to his voice and immediately said to myself, "that's Charles Gilbert." After the conversation the host said, "Thanks for calling, Charles." The next time I saw him I asked if that was he I heard on the radio. He reluctantly said yes, as if embarrassed. Charles is a well-spoken man and I have a feeling that Charles will be mayor, a city councilperson or a politician one day. Remember—it is still dangerous in Afghanistan, and it is not just our troops that face those dangers. I am proud to be a friend to someone who will leave his family and friends to go over to that mess to help America succeed (oh, and also for a nice paycheck). Good luck, Charles my man, and wear that SAABE turban proud. Be sure and take lots of pictures because when you get back we expect you to give us a presentation of all your activities at one of our luncheons.

### Chapter 10 Electrical Code Revisions

It looks like we succeeded in keeping our Maintenance Electrical Technicians permits. We will stay on it until the end. As soon as it is all over, someone owes us a beer. Especially (Mr. Code Man) Charlie "M." Seriously, thanks to all that helped out and we will have a little celebration if and when we do succeed. ❖



## Tech Talk #93: Glass—What You Know May Not Be as Clear? by The Charlie

### Ordinary or Annealed Glass

In the production of flat glass, the molten silica-based mix is cooled slowly under carefully controlled conditions. This annealing procedure removes undesirable stresses from the glass. Cooling occurs in an annealing process; hence, the glass is termed “annealed” or “ordinary” glass. Annealed glass is commonly recognized after breakage by its elongated shards. Many buildings utilize annealed glass on their window panels. This is why it is never a good idea to be standing around the outside of a large office building during a fire, tornado, hurricane, hail storm, etc.

Annealed or ordinary glass, which has been heated to a temperature near its softening point and then forced to cool rapidly under carefully controlled conditions, is described as “heat-treated glass.” The heat-treating process produces highly desirable conditions of induced stress, which result in additional strength, resistance to thermal stress, and impact resistance.

### Heat-treated/Strengthened Glasses

These glasses are classified as either fully tempered or heat strengthened. According to Federal Specification DD-G-1403B, **fully tempered glass** must have a surface compression  $>10,000$  psi, and an edge compression  $>9,700$  psi. **Heat-strength glass** must have a surface compression between 3,500 and 10,000 psi, and edge compression between 5,500 and 9,700 psi. The fracture characteristics of heat-strengthened glass vary widely from very much like annealed glass near the 3,500 psi level, to similar to that of fully tempered glass at the 10,000 psi level. The basic principle employed in the heat-treating process is to create an initial condition of surface and edge compression. This condition is achieved by first heating the glass, then cooling the surfaces rapidly. This leaves the center glass thickness relatively hot compared to the surfaces. As the center thickness then cools, it forces the surfaces and edges into compression. Wind pressure, impact, thermal stresses or other applied loads must first overcome this compression before there is any possibility of fracture.

**Fully tempered glass** is used in many applications because of its safety characteristics. Safety comes from strength and from a unique fracture pattern. Strength, which effectively resists wind pressure and impact, provides safety in many applications. When fully tempered glass breaks, the glass fractures into small, relatively harmless fragments. This phenomenon, called “dicing,” remarkably reduces the likelihood of injuries, as there are no jagged edges or sharp shards. Fully tempered glass may also receive a safety glazing material when manufactured to meet the requirements of the ANSI Z97.1 Standard, and Federal Standard CPSC 16 CFR 1201. Federal Standard CPSC 16 CFR 1201, as well as state and local codes, require safety glazing material where the glazing

might reasonably be exposed to human impact. This includes doors, tub and shower enclosures, sidelights, and certain windows. Applicable building codes should be checked for specific information and requirements.

Because of its high resistance to thermal stresses and minor impact, tempered glass is used in skylights and sloped glazing. On rare occasions when tempered glass in these applications fails, it may also fail completely from the frame, but the individual fragments from tempered glass are relatively small and harmless, but don't count on it. A number of these fragments may be loosely joined and fall in this manner. Such pieces do not have the sharp edges normally associated with broken glass but may have “significant weight.” Some building codes may require the use of screens under skylights. The use of screens may also be dictated by considering the risk of breakage and the resulting consequences.

Tempered safety glass is very easy to recognize on buildings and automobile rear windows on a sunny day if you are wearing “polarized” sunglasses. At nearly a right angle to the glass, you will see a symmetrical pattern/shadows in the glass created during its tempering process.

Tempered glass should also receive the same care as annealed glass. Unfortunately, familiarity with the greatly improved strength of tempered glass may mislead people to exert less care in handling it. Careless handling and improper installation sometimes produce edge damage. Delayed breakage can ensue when edge-damaged tempered glass is subjected to a moderate thermal or mechanical stress. Full penetration of the compression layer will likely produce instantaneous total fragmentation of tempered glass. Hence, tempered glass cannot be cut or modified following heat treatment.

**Next Month:** Laminated and bullet resistant glass

**CHARLIE'S LAW:** The easiest way to find something lost is to buy a replacement!

**JUSTA MAINTENANCE MAN** ❖

### CBE Applications Online

You can now download an application for the Certified Building Engineer program on SAABE's web site at [www.saabe.org](http://www.saabe.org)

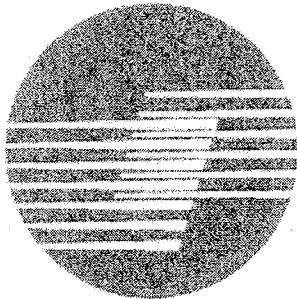
**“GET SMART” AT THE SAABE/SABOMA TRADE SHOW!**  
**THURSDAY, MAY 19 • 4:30–8:00PM**  
**AIRPORT CONVENTION CENTER**

Mark your calendar! The SABOMA/SAABE Trade Show is back—Thursday, May 19 at the Airport Convention Center from 4:30–8:00 pm. Vendor booths are nearly sold out; let Laura Bray know if you’d like to be on a waiting list. You can find an exhibitor contract and booth map on our web site at [www.saabe.org](http://www.saabe.org). We’re still looking for door prize donors (minimum value, \$100) and food sponsors (\$100). This is a great way to get some name recognition for your company. Call Laura Bray (210-408-1699) if you’d like to sign up.

To cut down on that long registration line which forms during high traffic times, you will be able to **pre-register** your attendance. That way, your nametag will be ready for you to pick up at a separate desk dedicated to pre-registered attendees. Stay tuned for more details on how to take advantage of this time-saving option.

The Trade Show committee adopted a new policy this year that non-exhibiting vendors must pay \$100 to attend the show, whether they are members or not. If your company is a food or door prize sponsor, this payment will be waived. The fee also does not apply to spouses of managers/engineers/exhibitors who may work for a non-exhibitor as long as they do not attempt to market their products or services. As always, property managers and engineers/maintenance staff can attend at no charge.

This year’s theme is “Get Smart at the SAABE/SABOMA Trade Show,” featuring classic TV shows. Vendors are selecting “classic TV” shows as booth themes, and many of them will attend “in costume.” There will be lots of great door prizes and good food. Come in costume, or come as you are, but do not miss this fun event!!



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### It Pays to Advertise in *SAABE TIMES*

<u>Dimensions</u>	<u>1 Issue</u>	<u>3 Issues</u>	<u>1 Year</u>
Full page	\$110	\$280	\$1,000
Half page	\$60	\$150	\$575
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Send ad copy (preferably in GIF or JPG formats) and payment to SAABE, PO Box 780785, San Antonio, TX 78278, or email (preferred) to [laurabray@braycommunications.com](mailto:laurabray@braycommunications.com).

### Vendors Wanted to Offer Training Sessions

SAABE is looking for vendors to offer lunchtime classes or seminars on topics of interest to building engineers. Our goal is to have a supplemental class on the last Thursday of every month (except November and December). Please contact Laura Bray (408-1699) if you'd like to offer a training session to SAABE members. ❖

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**Carolyn Knight**  
Protection One  
823 Nakoma, Ste 105  
San Antonio, TX 78216  
(210) 525-0600  
carolynknight@protectionone.com

**Ulysses Mendoza**  
Transwestern Commercial Services  
8200 IH 10 W, Ste 315  
San Antonio, TX 78230  
(210) 525-8228

**John Ruggles**  
Catholic Charities  
202 W. French Pl.  
San Antonio, TX 78212  
(210) 222-1294  
jruggles@catholiccharities.com

**John Esley**  
JOBS Building Services  
5504 Bandera Rd., Ste 306  
San Antonio, TX 78238  
(210) 684-0843  
jesley@JOBS-AMST.com

**Randy Westling**  
Travis Commercial Services  
9601 McAllister Frwy, Ste 1100  
San Antonio, TX 78216  
(210) 308-9888

If you know someone who'd like to join SAABE, have them visit our web site at [www.saabe.org](http://www.saabe.org) to obtain a membership application. ❖

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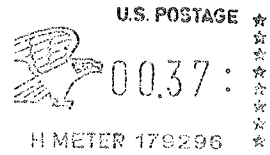
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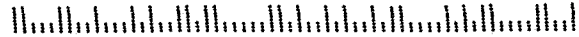
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**SAABE TIMES**  
**April Issue**

*Final Thought:*

*"Of all the properties which belong to honorable men, not one is so highly prized as that of character." — Henry Clay*

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**Membership Luncheon**

**April 20, 2005**

**Time: 11:30 a.m.**

**Location: Alamo Cafe on 281  
 Concrete Structure Scanning  
 Sponsored by Holes of San Antonio**

**Upcoming Programs:**

**Wednesday, May 18**

**Alamo Café**

**Program to be announced**

The SAABE Times is edited by Laura Bray and printed monthly for the San Antonio Association of Building Engineers by:



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