



# S.A.A.B.E. TIMES

A Publication of the San Antonio Association of Building Engineers

December, 1998

## Season's Greetings!

Join your fellow SAABE members for a very special holiday luncheon, December 16, 1998. There is no presentation scheduled for this meeting, just lots of mingling and good cheer between SAABE members! And since you can't have a proper holiday get-together without food, members will be treated to a special complimentary buffet. The menu includes:

*Carved ham*

*Rolls*

*Stuffed potato skins*

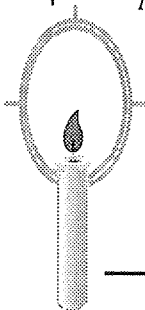
*Mozzarella cheese sticks*

*Jalapeño poppers*

*Chicken tenders*

*Tamales*

*Chips & salsa*



## Education Corner

by Mike Lusk

**Some upcoming Seminars:** The following seminars are from National Technology Transfer (NTT). Their toll-free number for enrollment or other questions is (800) 922-2820. Also, I can fax you a copy of the course brochure if you are interested.

- Hydraulics Training, San Antonio, January 12-14, 1999. \$985.00
- Centrifugal Pumps, San Antonio, January 7-8, 1999; Day one: \$395.00; Day two: \$395.00; or both days: \$595.00
- High Voltage Safety, San Antonio, January 26-27, 1999. \$695.00
- Boilers, an Operators Workshop, San Antonio, February 9-11, 1999. \$985.00
- Troubleshooting Electrical Control Circuits, San Antonio, February 9-11, 1999. \$985.00

Recently I have received a few questions about the SAABE Building Engineer Certification Program, commonly referred to as Certified Building Engineer (CBE). For those of you who do not recall, it is a program for recognizing those in your profession who have, through work experience and continuing education, achieved various levels of advancement skills. The program is currently being reviewed by selected members of the organization with the purpose of bringing it up to date. When this review is finished we should have a program that more accurately reflects what is happening in the building engineering profession of today.

## Employment Opportunity

Experienced Building Engineer wanted for 150,000 square foot building. Competitive salary based on experience. Fax resume to (210) 694-0993 or call Primary Capital at (210) 696-7911.

## Election Update

Don't forget...the election of SAABE Officers and Directors will take place at the General Membership Meeting on December 16th. Nominees to date are:

- President: Paul Thompson, SMA of Pyramid Property Management
- 1st VP: Elena Castillo of KCI Properties
- 2nd VP: Tom Lasater of The Carlyle
- Treasurer: Rhondo Jauer of One Riverwalk Place

For those of you were present at the November meeting when nominations were made, Robert Andrews was also nominated for 2nd VP, but had to decline due to other commitments.

# Above the Ceiling

by Paul Thompson

## Wrap It Up (I'll Take It)

Another year is coming to an end...generally a time to wrap up loose ends and reflect on what you've done and maybe even what you'd like to do. So who am I to buck tradition?

### 1998: A SAABE Year in Review

**Monthly General Membership Meetings and Presentations.** I think that this is an area where we've always excelled. Some of the issues covered this past year have included: Electrical Deregulation, City Electrical Licensing Requirements, Basics of DDC HVAC Controls, Variable Frequency Drives, Legal Issues, Preventing Cooling Tower Corrosion, Gas and High Voltage Electrical Safety and many more. The knowledge gained from these alone more than offsets the cost of membership! Many thanks to our Associate Members and other presenters.

**The SAABE Newsletter.** Do you all remember back two years ago? The "Newsletter" was a one page sheet to announce who was sponsoring the next meeting. Contrast that with November '98; ten pages, pictures, Education Corner (Mike Lusk), Tech Talk (Charlie Mikolajczyk aka "The Charlie"), ongoing roofing information column (David Webb), the Grapevine, new members, classifieds (Lynn Forester), and advertisements to help offset the cost of printing. Still working on getting my article in on time (some things never change).

**Trade Show.** We have now hit two home runs in a row (that would even be good for Mark McGwire!) These successes have really helped our pocketbook and also our standing with our SABOMA partner. Not to mention putting on the best building trade show in South Texas!

**Our Association.** It's no secret that we had fallen on hard times in the past and had to do some hustling just to keep standing. Newsletters skimpy and late. Trade show on rubber legs. Slow or no responses to questions. Haphazard invoicing, etc., etc. But I'm here to tell you we set up forms, tied some re-bar and **poured some concrete:**

- Regularly scheduled invoicing and quick response to questions
- Membership cards and certificates
- First membership directory since '91 (now annual)
- Financially solvent
- Insurance coverage of Association
- Building Engineer of the Year Award (now annual)

- Working with other organizations (SABOMA and Association for Facilities Engineering Chapter 169)
- Donations to charity (to Christian Senior Services for fan purchase)
- Some help to members in need (\$500.00 to help with Charlie Mikolajczyk, Jr.'s hospital bills)
- SAABE caps and t-shirts
- 50% growth compared to 1997 — up from 65 to 99 paid members!

Of course, nothing worth having comes easy and there were a lot of hands setting bricks and mixing mortar:

- Our current Board of Directors met regularly, worked hard and steered the course.
- Membership Committee made the Directory possible.
- Trade Show Committee — 'nuff said.
- Building Engineer of the Year Committee to restart a tradition.
- Our great Association members for their support, meeting sponsorship, help with technical problems, etc.
- Everyone at Ink, Spot, Ink for the newsletter, directory, etc.
- Everyone at the Pyramid who puts up with me.
- Lynn Forester, our new Association Coordinator (I am personally going to take credit for hiring her). She has provided the grease and oil to get this old machine purring again, back on track and ready to roll!
- John Boldt and the Sons of the Pioneers. Thanks.

### On the Horizon: 1999

So much for 1998. The board recently looked into the SAABE crystal ball and came up with some direction, goals we'd like to accomplish and things we'd like to do:

- Update SAABE's Certified Building Engineer application
- Update bylaws
- Set up codes classes with TEEEX
- Salary survey
- More social events — possibly a picnic in the summer? Looking for ideas.
- More involvement with other organizations
- Set up Finance Committee
- Get the newsletter out on time. If not, Lynn will fax a meeting notice.

*continued on page 3*

## Above the Ceiling

*continued from page 2*

- Continued growth, especially more engineers from other areas: schools, hospitals, hotels, etc.
- More good presentations: SAWS on flat rates, Y2K, IAQ, bomb threats, AFE on organizing equipment data, etc.
- Alternate ways to finance luncheons — more on this to come
- Concrete steps towards our long-term goal of getting the City to enact a Building Engineer's License. Just as is required for any other professional trade, we believe that the health of the occupants and the financial investment in the facilities are too important to be left to people who cannot show they meet basic, well-defined standards.

1998 has been a good year for us, a year to work on the foundation. Our new pillars are set deep. We've stripped the forms and found the concrete still green, but solid. Looks like a good base to build on.

## Bits and Pieces

Elections are this month, see listing elsewhere in this issue. As you know, our Building Engineer of the Year, Robert Andrews, was nominated, but declined. Maybe next time. As you may know, Phil Anderson is leaving the Board after 28 years (I think this is correct). Also, Charles Mikolajczyk ("The Charlie", formerly "Doctor Charlie") is going, but he promised to continue writing Tech Talk into

the future. We will miss these guys, but — speaking for all the other vampires on the Board — it'll be nice to get some new blood.

Congratulations to my former neighbor, Tomi Sue Beecham, incoming president of our brother (sister?) organization, SABOMA, and all the new officers and directors. We look forward to working with you all.

SAABE caps and shirts are still available at our monthly meetings. These are free to members, very reasonable to everyone else! Such a deal!

Many thanks to Gay Gueringer and Greg Esmon for the great presentation on maintenance liabilities at the November meeting. We all need to know how to cover our assets.

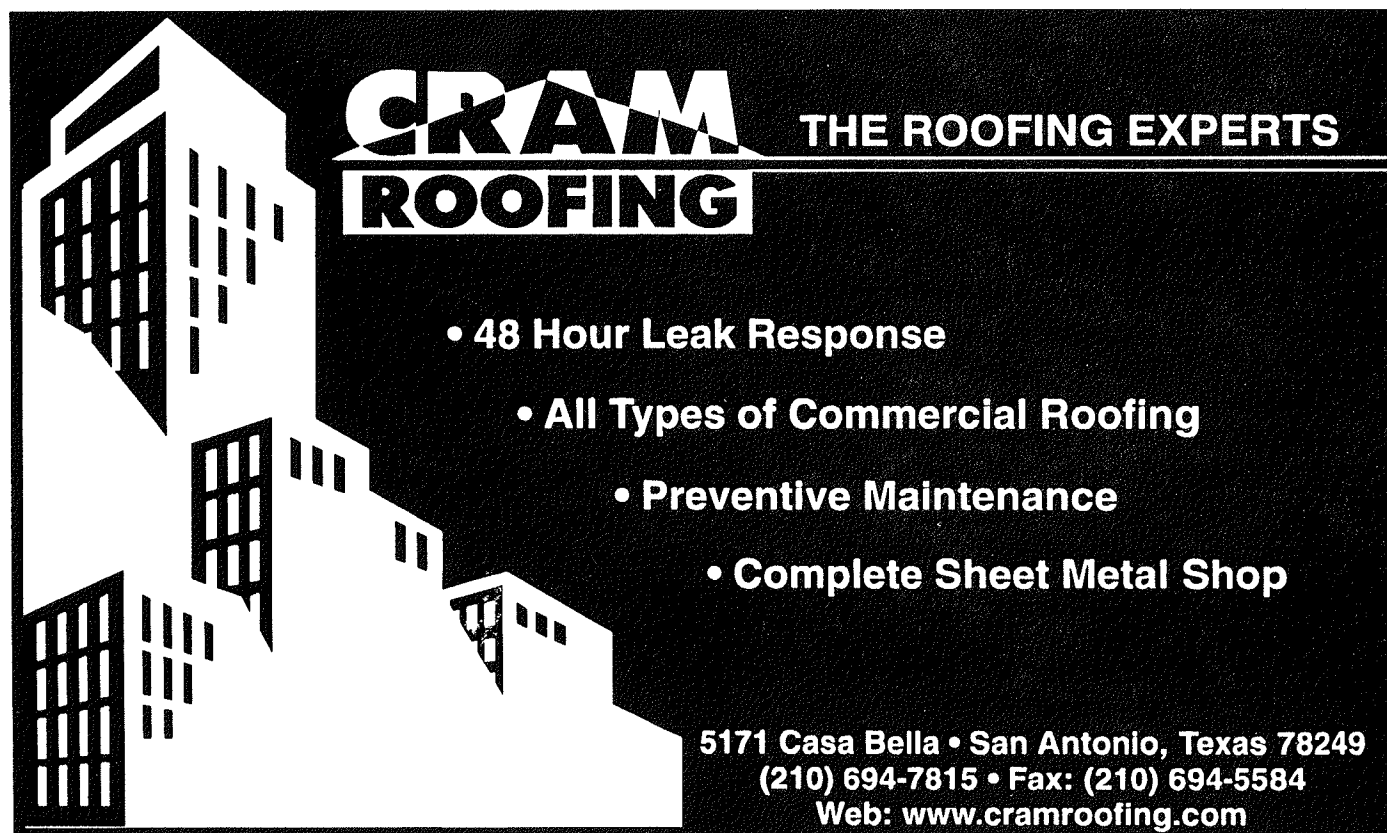
Father Paul talking about repairs to the leak in the new roof: "Dey was up dere, I was down here...so I don't know if the roof was fixed or not."

...and on keeping up the church buildings and grounds: "Sometimes you wake up and think that there is nothing left to do, but it's not so. You'll never get finished."

From my friend, Robert Reid (SAISD) on designing HVAC: "Keep it simple."

And our own "The Charlie": "I'm just a maintenance man."

Words to live by. Happy Holidays to all, everyone come to the December Christmas Party Meeting and pig out on us, and if I don't see you, have a happy New Year!



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## Site Testing Smoke Detectors In Commercial Occupancies

### Sensitivity Testing

Functional tests confirm that the components of a fire alarm system are working together correctly, but they tell us nothing about the sensitivity of the detector or its ability to detect different quantities of smoke. While overly sensitive detectors may cause false alarms, detectors that are not sensitive enough can delay alarms, thereby reducing the time occupants need to fight or escape a fire. Insensitive detectors may fail to activate altogether. Unless they are tested, these problems may not be recognized in time to prevent a tragedy. A fire alarm system's design is based on the sensitivity of its detectors. If the detectors no longer work to the designed sensitivity, there's no guarantee that the system will still work as expected, which increases the chance of false or late alarms.

"Smart" detectors (the latest thing in analog detectors), can actually "tell" the control unit when they're out of sensitivity adjustment or when they're dirty. Some manufacturers of smart detectors say that theirs need no external stimulus for the sensitivity test, although visual inspections and functional tests which introduce a stimulus through the vents are still required. Nonetheless, administering a measured quantity of smoke or simulated smoke and evaluating a smart detector's response may give you more confidence in the detector's true sensitivity because it allows you to verify that the detector responds to an external factor, as well as to its own self testing. A qualified, external sensitivity test would indicate such problems as blocked detector vents and malfunctioning electronics in the control panel or detector.

If you're not dealing with smart detectors, testing a detector's sensitivity is the only way to ensure that the original design conditions are maintained. NFPA 72 dictates that the responsible party shall ensure that each smoke detector is within its listed sensitivity range using a calibrated test method, the manufacturer's calibrated sensitivity test instrument, listed control equipment arranged for the purpose, a smoke detector/control unit arrangement that allows the detector to signal the control unit when it's outside its acceptable sensitivity range, or some other calibrated test method acceptable to the authority having jurisdiction. Detectors found to be outside the listed sensitivity range must be cleaned and recalibrated or replaced.

Sensitivity checks are divided, that is, detectors that are tested while connected to a system and those which are performed on detectors that have been removed from the system.

The Level 4 Check involves detectors taken out of the system. In one test, detectors are removed from their bases and installed in a unit where external voltage is applied to the sensor circuit output. The amount of voltage increase required to activate the detector is measured by reading the output voltage of the sensor chamber on activation. Because this test doesn't involve any smoke or other stimulus, it can not be described as fully realistic. It is also very time consuming.

A more advanced Level 4 test uses a smoke source instead. This test unit is designed to be used on site, although some versions require 120VAC AC power, which limits their portability. The detector is removed from the base and placed in a sealed box with a reference detector of known quality. Smoke from an incense stick is then introduced, and the reaction of the detector being tested is compared to the reference detector.

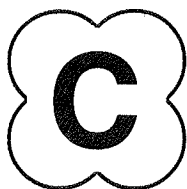
The Level 5 Check involves a sensitivity test in which an aerosol of known quality and concentration is introduced through the detector's vents to the sensing chamber. The reaction of the detector or system, whether conventional or analog, to this stimulus can then be compared to the expected results, and conclusions can then be drawn about the detector's sensitivity. This type of test truly examines the detector's sensitivity, its ability to respond to a defined smoke stimulus, and its ability to communicate with the panel and initiate an alarm. The system's integrity is maintained while its performance is fully evaluated, and time is saved because the detector is not removed from its base.

The operating principles of Level 5 devices vary. Older, traditional products require manual set-up, and a number of tests must be performed on the same detector, challenging both the upper and the lower limits of sensitivity. Newer products reduce the time and labor costs by incorporating automatic set-up and test cycles, as well as advanced test modes that allow everything to be accomplished in a single test.

### Summation

We may never perfect tests that will predict detector performance in all real-life situations. However, we must educate ourselves about the need and about the ways in which detectors can be tested. Maintenance organizations and system owners must commit themselves to regular and thorough maintenance, which can only be done by committing funds for routine testing. Otherwise, false alarms, fire deaths, and property losses may increase.

*"THE CHARLIE"*



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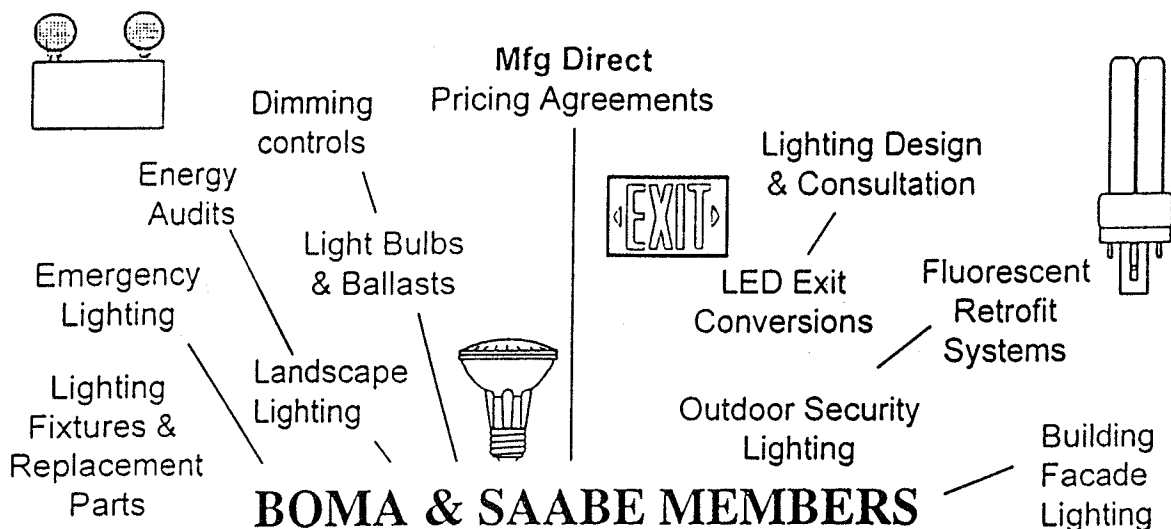


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# Heard It Through the Grapevine



- **Jeff Nannen** is now with Trammell Crow Company at NationsBank Plaza.
- **Charles Mikolajczyk** has been promoted to Senior Building Operations Manager with Trammell Crow Company.
- Yep, the former Elena Morgan is now known as **Elena Castillo**. Congratulations to Elena and her new husband, Mike, on their recent marriage.



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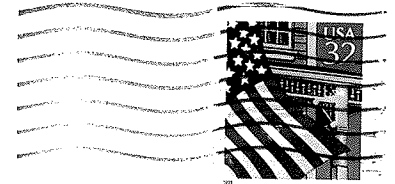


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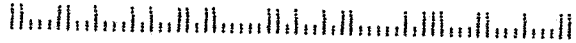
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San Antonio, TX 78269



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San Antonio TX 78230

**S.A.A.B.E. TIMES**  
**December Issue**

8230-7802  
02 *Hap*



**1998 Board of Directors**

Paul Thompson, SMA 524-9285  
*President*

Charles H. Mikolajczyk, Jr., CBE 341-0828  
*1st Vice President*

Elena Castillo 341-0064  
*2nd Vice President*

Mike Halvorsen, SMA, CBE 241-4440  
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Phillip Anderson, SMA, FMA, CBE 592-4547  
*Treasurer*

Mike Lusk 340-2533  
*Education Director*

Mike Alvarez 824-9581  
*Vendor Representative*

Lynn Forester 521-8838  
*Association Coordinator*

**Membership Luncheon**  
**December 16, 1998**

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

**Location:** Tex's Restaurant  
in the Airport Hilton

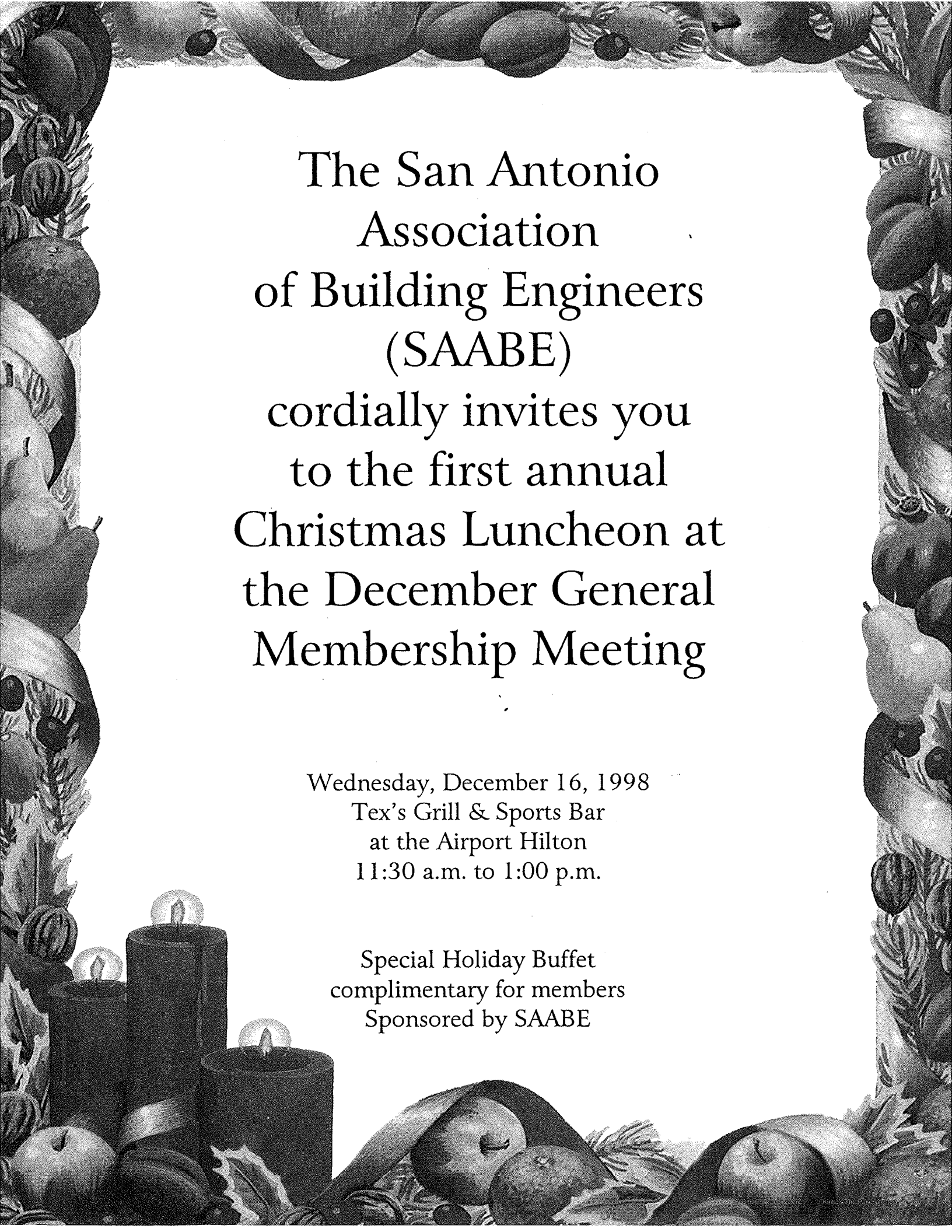
**Upcoming Luncheons:**

**January 20:** John Cochrane of PDI on  
Fire Codes

The SAABE Times is produced monthly for the San Antonio  
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210-340-5454  
email: inkspot@onr.com

A decorative border surrounds the text, featuring various fruits like apples, pears, and oranges, along with lit candles and pine branches.

The San Antonio  
Association  
of Building Engineers  
(SAABE)  
cordially invites you  
to the first annual  
Christmas Luncheon at  
the December General  
Membership Meeting

Wednesday, December 16, 1998  
Tex's Grill & Sports Bar  
at the Airport Hilton  
11:30 a.m. to 1:00 p.m.

Special Holiday Buffet  
complimentary for members  
Sponsored by SAABE