STRUCTURAL BUILDING
COMPONENTS™
THE FUTURE OF FRAMING

January/February 2009

www.sbcmag.info

Could Balloon Frame Wall Systems Make a Comeback?

Plus...
Designing a Cone Roof,
New Code Requirements
for Bracing Wall Panels
...and more!

Framing the AMERICAN DREAM

CHANGE SERVICE REQUESTED

SBC Magazine • 6300 Enterprise Lane • Suite 200 • Madison, WI 53719

PRSRT STD
U.S. Postage
PAID
Madison, WI
Permit No. 2223

SHOPNET REDUCES 95% OF PLANT PAPERWORK AND ADDS 20% MORE DESIGNER EFFICIENCY

For plant owners: Increased profits, fast ROI

MiTek® ShopNet® is a production management system that increases productivity throughout your wall panel plant and gives you a fast return on your investment.

- Helps managers organize and manage production in less time.
- Frees designers from shop floor paperwork- so they can get back to designing.
- Reduces costs for paper, ink and copiers.

ShopNet is flexible enough to adjust to fit your plant's unique layout and processes, and works with everything from wood-topped tables to highly automated wall panel machinery.

- Keeps track of every part in your plant.
- Tracks employee labor by job.
- Built on secure, industry-standard Microsoft SQL™ software.

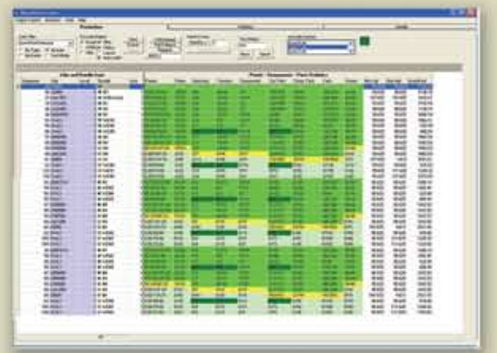
ShopNet integrates with many brands of machinery, including MiTek wall panel machinery, Koskovich™ equipment, Virtek Laser MC®, Virtek PanelLine® and others.

MiTek® SHOPNET®

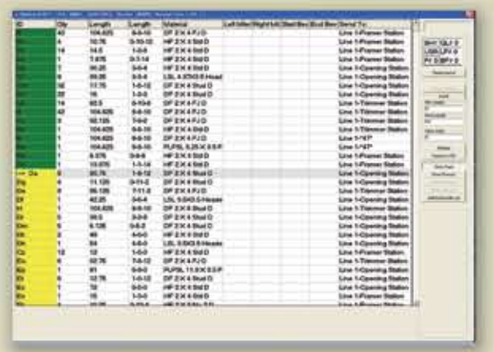
Wall Panel Plant Software

For designers and managers: More productivity, less paperwork

ShopNet is a streamlined workflow system that reduces paperwork and raises productivity for designers, managers and operators alike. It starts by freeing designers from the burdens of producing and managing shop floor paperwork (which eats up 25-30% of their time). It integrates with files from design software packages such as eFrame®, Trussframer®, WalStar®, WalPlus® and others.



The ShopNet Management Console gives you a bird's eye view of the status of your production.

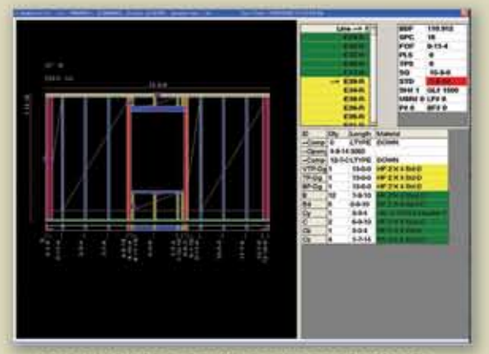


Cutting stations can batch cutting across bundles, levels, and even across jobs, with links to the industry's most popular cutting equipment.

ShopNet makes managers more efficient, too. Its exclusive master console gives them an eagle's-eye view of the plant:

- Quick access job data, using exclusive, easy-to-read colored screens.
- Ability to choose to batch jobs across bundles, levels or in groups.
- Exclusive drag-and-drop production order changes.
- ShopNet loads and tracks each cutting and assembly station.
- Early warning system for production problems.

ShopNet helps operators and workers, too. It shows them exactly which tasks to do, in the exact order specified by the manager. The exclusive job order feature communicates changes easily and clearly. They have no paperwork to sort through -- no unnecessary information to figure out.



Assembly Stations give the operator concise data in exactly the order determined by the Production Manager.

MITEK VALUE DELIVERS RESULTS.

SOFTWARE
EQUIPMENT
CONNECTOR & BRACING PRODUCTS
ENGINEERING SERVICES

MiTek®

Call today to arrange a software demonstration: 800.325.8075 www.mii.com/shopnetvalue

STRUCTURAL BUILDING COMPONENTS™
THE FUTURE OF FRAMING

Jan/Feb 2009 • www.sbcmag.info

contents

Tools for Your Trade

*Indicates Charter Advertiser Status
Listing based on contracts received as of 12/15/08.

These companies provide significant sponsorship of the structural building components industry.

GoldAdvertisers

A-NU-Prospect*

BCMC*

Clark Industries*

Eagle Metal Products*

ITW Building Components Group Inc.*

Lakeside Trailer Manufacturing*

MiTek Industries, Inc.*

Monet DeSauw*

Panels Plus*

Qualtim, Inc.*

SBCA*

Simpson Strong-Tie Co.*

Southern Pine Council*

Viking – Wall Panel Systems*

Wood Truss Systems, Inc.*

For more information about our 2009 Program Advertisers or advertising in general, visit the SBC website at www.sbcmag.info or call 608/310-6706.

SilverAdvertisers

Eide Machinery Sales, Inc.

Finnforest USA*

Hundegger USA LC*

Pennsylvania Lumbermens Mutual Insurance Co.

BronzeAdvertisers

DOW Building Solutions

Hoover Treated Wood Products, Inc.

Precision Equipment Manufacturing

Stiles Machinery, Inc.

Wasserman & Associates, Inc.

Many thanks for their ongoing support!

STRUCTURAL BUILDING COMPONENTS™ THE FUTURE OF FRAMING

Editor's Message

Lighten the Mood in 2009

by Ben Hershey

"If a cow laughs, would milk come out its nose?"

There is not one of us in this industry that is not being affected by the current economic downturn/correction or whatever you want to call it. Times are tough right now; people are losing their jobs, business sales are down and credit is tight. And while we cannot control the economy, what is clear to me is that those businesses that emerge from this will be more lean, better equipped, and better positioned if they take advantage now of the opportunities to improve themselves.

Ask yourself as you read this: What am I going to do today to better myself, my family, my business or my relationships? If you do not start with a positive approach, how do you accomplish that improvement? I am sure some of you may get an email or call from someone, or a passing comment that makes you smile and improves just that moment in time. I encourage all of you to try something. I have made it a habit to send out a message to all of my employees each day that is encouraging, uplifting or motivating. With all the bad news we are bombarded with, I realized it was better to try and start their day out with something else to think about.

What am I going to do today to better myself, my family, my business or my relationships? If you do not start with a positive approach, how do you accomplish that improvement?

So you are asking, "Ben, what has it done?" I can tell you this, I see a few more happy faces and smiles that come through in their conversations with others. What are some of these positive thoughts and where do I find them when I need them? Books, tapes, motivational websites, etc. Here is one of the thoughts I sent out, "If you start your day with a smile, imagine the possibilities." We are all in this together with our employees and those around us. We are not going to change the world or the economy overnight, but imagine what would happen if you start with those around you.

I would like to start the year off with an appeal to all component manufacturers regarding the suppliers who advertise in ***SBC Magazine*** and those who exhibit at the BCMC Show. Our vendors need to hear from you! They provide services, equipment, new ventures and risk management opportunities to all component manufacturers. They are in the same situation you are, and making decisions about what magazine or show they are going to market their goods and services in. SBCA committees and staff are creating new ways that they can reach out to you and spread the message of what they have to offer. Our company makes a habit of only buying from those companies that support our industry through ***SBC Magazine*** and the BCMC Show. It is not only important to me, but should be to all of you. Their support of our industry translates to programs that benefit you through SBCA. Those advertisers and exhibitors who have supported our industry can also assist you at times like this. Contact them, schedule a time to meet to discuss your needs; you might find that they are very willing to help you or give you some bits of advice. Let them know that we appreciate their support of our industry's magazine and the BCMC Show.

Continued on page 8

at a glance

- ❑ Businesses that emerge from these challenging times will be well-positioned if they take advantage of opportunities to improve.
- ❑ We cannot change the world overnight, but we can make a difference by encouraging those around us to be positive.
- ❑ Our company buys only from vendors that support our industry through SBC Magazine and the BCMC Show.
- ❑ Meeting with them to discuss your needs at this time may be very valuable to your company.

Editor's Message

Continued from page 7

Now back to what I said above about bettering yourself and your company. How can SBCA help you with that? Have you checked out the SCORE program and the various components of it? Assistance with quality control, benchmarking, risk management, Truss Technician Training, and safety come immediately to my mind. Are you using these programs to improve your business? How about using BCSI documents, the jobsite packages to train your customers? Truss Technology Workshops to train inspectors, engineers, architects and fire officials? All of these programs were developed to make the job of promoting your company easier. So ask yourself, if I were using this program now, would I be better positioned in the future?

Right now there is just so much of the economic pie to go around and we are all fighting for that piece. But all downturns have an upside and you need to position your company so that our customers see the benefit we bring. The SBCA programs have been developed over the past several years to do exactly that for you. And to those who are not members of SBCA, I ask you to consider making the investment now. I know we are all evaluating costs and asking what we can do without. In my opinion, SBCA is not one of them; I believe the benefit you gain now and in the future will pay for itself many times over.

As you know, one of those important goals has already been accomplished—changing the name of our association to SBCA. The editorial focus of this issue of ***SBC*** represents one of the reasons that I feel this change is so important to the long-term growth and sustainability of our industry. Wood and steel wall panel manufacturing is one of the ways in which component manufacturers have expanded their markets beyond roof truss manufacturing. Conversely, more and more builders and framers are finding that building walls in a controlled environment is much more efficient and economical than building them on the jobsite. Now that SBCA's name properly encompasses the activities of its membership, we are better positioned than ever before to serve our members' needs. If you are engaged in wall panel manufacturing, I encourage you to seek out the many resources SBCA has developed for you.

2009 is off and going. We have a new President, Barack Obama, and I know my wish as I am sure is everyone's is that we wish him well and hope for the best in the decisions he and others in our government are making for the betterment of our economy and country. Again, I encourage you to contact our advertisers and BCMC exhibitors. See what advice they can give you this month and please remember to thank them for their support of the industry. Have a great month and enjoy the articles and advertisements in this issue! **SBC**

SBC Magazine encourages the participation of its readers in developing content for future issues. Do you have an article idea for a future issue or a topic that you would like to see covered? Email your thoughts and ideas to editor@sbcmag.info.

STRUCTURAL BUILDING COMPONENTS™ THE FUTURE OF FRAMING

Publisher
Truss Publications, Inc.
6300 Enterprise Lane • Suite 200 • Madison, WI 53719
Phone: 608/310-6706 • Fax: 608/271-7006
trusspubs@sbcmag.info • www.sbcmag.info

Editor
Ben Hershey
Alliance TruTrus, LLC • bhershey@sbcmag.info

Art Director
Melinda Caldwell
608/310-6729 • mcaldwell@sbcmag.info

Managing Editor & Circulation Director
Libby Maurer
608/310-6724 • lmaurer@sbcmag.info

Editorial Assistant & Staff Writer
Emmy Thorson-Hanson
608/310-6702 • ethorson-hanson@sbcmag.info

Editorial Review
Suzi Grundahl
608/310-6710 • sgrundahl@sbcmag.info

Advertising Sales & Marketing
Peggy Pichette
608/310-6723 • ppichette@sbcmag.info

Jan Pauli
608/310-6746 • jpauli@sbcmag.info

Kirk Grundahl
608/274-2345 • kgrundahl@sbcmag.info

Staff Writers for January/February
Molly E. Butz • Anna L. Stamm • Larry Wainright

Accountant
Mike Younglove
608/310-6714 • myounglove@sbcmag.info

Computer Systems Administrator
Rick Saindon
608/310-6717 • rsaindon@sbcmag.info

Send all ad materials, insertion orders, contracts & payments to:
Truss Publications, Inc.
6300 Enterprise Lane • Suite 200
Madison, WI 53719
Phone: 608/310-6706 • Fax: 608/271-7006
trusspubs@sbcmag.info • www.sbcmag.info

The mission of *Structural Building Components Magazine (SBC)* is to increase the knowledge of and to promote the common interests of those engaged in manufacturing and distributing structural building components. Further, *SBC* strives to ensure growth, continuity and increased professionalism in our industry, and to be the information conduit by staying abreast of leading-edge issues. *SBC's* editorial focus is geared toward the entire structural building component industry, which includes the membership of the Structural Building Components Association (SBCA). The opinions expressed in *SBC* are those of the authors and those quoted, and are not necessarily the opinions of Truss Publications or SBCA.

New SBCA Product: Guide for Handling, Installing & Temporary Bracing of Wall Panels

A new safety document pertaining to wall panels is now available from SBCA. The Wall Panel Summary Sheet, *Guide for Handling, Installing & Temporary Bracing of Wall Panels,* was developed to demonstrate proper techniques on unloading, storing, lifting, erecting, installing, and temporarily bracing wall panels for framers and builders.

The Summary Sheet was developed with input from the SBCA Engineering & Technology Committee. Because of the diversity of the review group, the sheet represents the differing panel framing practices of many different markets. For instance, it covers tips for lifting wall panels by hand, by crane or by forklift, and includes recommendations for t ransporting panels both vertically and horizontally. It also covers how to set panels starting with exterior or interior walls.

Additionally, it includes specific information for protecting wall panels from weather and damage at the jobsite, temporary bracing guidelines to prevent wall panels from toppling during erection, installation tolerances to keep the wall panels in plane and plumb, and basic construction loading and materials placement recommendations. Numerous graphics and ANSI standardized safety alert symbols accompanied by written instructions provide an easy-to-follow reference.

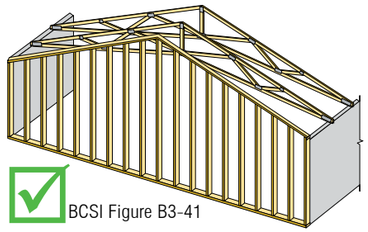
Users of the BCSI B1 Summary Sheet will find the format of the Wall Panel Summary Sheet is very similar. It measures 11x17 and is printed in full-color. Like BCSI B1, it is blank on the back—perfect for printing wall panel placement diagrams! **SBC**

Technical Q & A

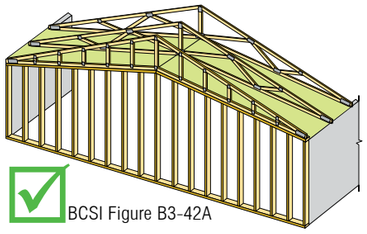
New Code Requirements for Bracing Wall Panels

by Larry Wainright

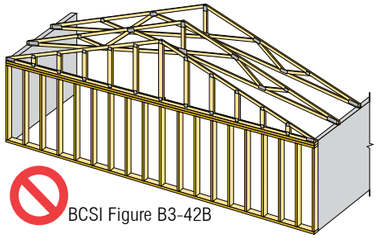
Read about new IRC provisions concerning panels.



BCSI Figure B3-41



BCSI Figure B3-42A



BCSI Figure B3-42B

at a glance

- ❑ Continuous studs are required to eliminate hinge points in gable end walls per the 2009 IRC.
- ❑ The "all walls" language has been clarified by allowing mixing of braced wall methods.
- ❑ The wall bracing section of the 2009 IRC has been extensively rewritten and reorganized.

Wall panels are manufactured to the prescriptive provisions in the building code; therefore, they are not engineered and do not require sealed wall panel design drawings. For buildings falling within the scope of the International Residential Code (IRC), the design and construction of walls is specified in Chapter 6, Section R602.10, which contains the prescriptive wall bracing requirements. These provisions, which were somewhat simple when first included in the 2000 IRC, have undergone modifications in the three latest IRC editions—2003, 2006 and 2009. The 2003 and 2006 editions of the IRC contained modest revisions to wall bracing requirements. However, significant changes were introduced into the 2009 IRC via the 2007 IRC Supplement and additional proposed changes at last year's code hearings. Additionally, an ICC Ad Hoc Committee on Wall Bracing (AHC-WB) has been charged with looking into the bracing requirements for future editions of the code. (Information on the committee can be found online at: www.iccsafe.org/cs/cc/ahc-wb/index.html.) Needless to say, with all the changes and variability involved, wall bracing has been a hot topic in the residential code.

One significant change in the 2009 IRC is a requirement that wall studs be continuous from the anchorage at the bottom of the wall to the anchorage at the top of the wall. Section R602.3 states:

> **2009 IRC R602.3 Design and construction**. ...Studs shall be continuous from a support at the sole plate to a support at the top plate to resist loads perpendicular to wall. The support shall be a foundation or floor, ceiling or roof diaphragm or shall be designed in accordance with accepted engineering practice.

This language effectively prohibits the use of flat bottom chord gable trusses at the end of volume ceilings (e.g., cathedral and scissors) since the studs are not continuous to the top support. A similar requirement is included in Section 2308.9.1 of the 2009 International Building Code.

Another significant change is the so-called "all walls" language that was in the earlier versions of the code. The 2006 IRC, section R602.10.5 read as follows:

> **R602.10.5 Continuous wood structural panel sheathing.** When continuous wood structural panel sheathing is provided in accordance with Method 3 of Section R602.10.3 on all sheathable areas of all exterior walls, and interior braced wall lines, where required, including areas above and below openings, bracing wall panel lengths shall be in accordance with Table R602.10.5…

This was misunderstood by many to believe that if the continuous sheathing method was required on a wall with narrow sections, such as the panels next to a garage door, then the entire building needed to be continuously sheathed with structural wood panels. The 2007 supplement to the 2006 IRC corrected this language to appropriately clarify the application of the continuously sheathed method as follows:

> **R602.10.4 Continuously-sheathed braced wall line using Method 3 (wood structural panel).** Continuously sheathed braced wall lines using wood structural panels shall comply with this section. Different bracing methods shall not be permitted within a continuously sheathed braced wall line. Other bracing methods prescribed by this code shall be permitted on other braced wall lines on the same story level or on different story levels of the building.

SBCA THE LOAD GUIDE

Finally, the 2009 IRC wall bracing provisions have been extensively reorganized and the provisions modified with the intent of making this section of the code easier to understand and apply. Tables that required the user to calculate wall length percentages have been replaced with tables that specify the required length directly. The various bracing methods, along with several alternate methods have been renamed using acronyms to make it easier for users to recall and the requirement for a minimum of two braced wall panels per braced wall line has been restored. With all of the changes that have occurred in the wall bracing sections of the code, users will need to be well informed of the changes and how they will affect their business.

SBCA's *The Load Guide (TLG): Guide to Good Practice for Specifying & Applying Loads to Structural Building Components* contains more detailed information on the requirements contained in the IRC. TLG Beta Version 1.03 was released in November and is a free download available through SBCA's website: www.sbcindustry.com/loads.php.

For those currently using the 2006 IRC, ***SBC Magazine*** published a **TQ&A** article in January/February 2008 issue that provides a closer look at the wall bracing provisions contained in that version of the code. It can be found in the online archives at www.sbcmag.info. SBC

To pose a question for this column, call the SBCA technical department at 608/274-4849 or email technicalqa@sbcmag.info.

editor's note:

Correction to November's Technical Q&A

In the article on page 10 of the November 2008 issue, we inadvertently omitted the source of the truss arching data presented. The information in the article was reproduced from Section 20 of WTCA's First Edition of the *Metal Plate Connected Wood Truss Handbook* (1993). In addition, Figure 1 of the article was reprinted from Figures 20.7.7 and 20.7.8 in the handbook. Specifically, Section 20.7 discusses partition separation, and references a technical note written by Professor Don Percival of the University of Illinois at Urbana-Champaign for the Small Homes Council-Building Research Council. (Prior to publishing the handbook, WTCA obtained permission from Professor Percival to reprint his technical note.) We apologize for any inconvenience caused by our omission. SBC

New SBCA Members

REGULAR MEMBERS

Bear Truss & Panel LLC
6 Foundry Village Rd
Colrain, MA 01340-9779
413/624-346
Mr. Kristopher Backman

Standard Building Systems
3147 Fruitridge Ave NW
Grand Rapids, MI 49544-9774
616/784-9963
Mr. Tony Burton

ASSOCIATE MEMBERS

Hoover Treated Wood Products, Inc.
154 Wire Rd
Thomson, GA 30824-7988
706/595-9855
Ms. Kate Perkins

Listing as of 12/11/08.

SBC ASSOCIATION™ The Future of Framing

For more information about SBCA membership, contact Anna (608/310-6719 or astamm@qualtim.com) or visit www.sbcindustry.com.

Safety Scene

Steel Components & Electric Screw Guns: Minimizing Musculoskeletal Disorders

by Molly E. Butz

Safety issues to discuss with your crew.

A task doesn't need to be complicated to potentially be hazardous. This is the case with cold-formed steel component manufacturing. Most folks will agree that the fabrication process is straightforward with minimal safety concerns. However, one key manufacturing tool, the electric screw gun, can be cause for concern when it comes to musculoskeletal disorders. Fortunately, encouraging good work practices, fine-tuning the design and layout of work areas, and strategically organizing schedules or even adapting the tools themselves can reduce the physical stress put on a worker's body while using a screw gun and diminish or eliminate the potential for injuries.

In an effort to eliminate the potential for MSDs, one Midwestern manufacturing company has introduced a screw "machine" to its steel component manufacturing area. This proprietary mechanism eliminates the need to hold the screw gun and improves safety by reducing operator fatigue.

Unlike circular saws or pneumatic nail guns, screw guns are not inherently dangerous. Nonetheless, repetitive use, as well as awkward angles and the need for excessive force can be the foundation for some sneaky injuries: musculoskeletal disorders (MSDs). MSDs can present themselves in a number of ways, from numbness and tingling to aching and stiffness—think Carpel Tunnel Syndrome. If ignored or simply overlooked, MSDs can lead to days away from work, doctor's visits and expensive workers' compensation claims.

One way to avoid these possible complications is by teaching and encouraging good work practices. A few moments spent stretching at the beginning of each shift can help loosen up the various muscle groups. Additionally, good posture and body positioning throughout the manufacturing process is critical (download a printable poster from **Support Docs** at www.sbcmag.info). This includes:

- Keeping the distance between the worker and the table as short as possible
- Keeping the body and shoulders square to the work table
- Keeping arms and screw gun centered inside the plane of the body
- Keeping the feet shoulder width apart

Figure 1 shows good body positioning where the worker is not bent over, as close to the table as possible and keeping his body and shoulders square to the table.

Continued on page 14

at a glance

- ❑ Screw guns are not inherently dangerous, but if not used properly, they can cause musculoskeletal injuries.
- ❑ Weight, balance, handle shape and diameter, trigger position and size are factors that contribute to their comfort and efficiency.
- ❑ One Midwestern manufacturing company uses a screw "machine" in its steel component manufacturing area.

Figure 1.

Figure 2.

Safety Scene

Continued from page 12

Figure 2 shows the worker in an awkward bend at the waist, putting unnecessary stress on his back, shoulders and wrist.

The design and layout of the assembly areas can also help minimize the stresses and strains on a worker's body. "The system that we use is a rail table," offers Chris Pogreba of Precision Steel Truss. These walk-through style tables, Pogreba explains, have strategically placed supports that allow employees to easily approach the pieces of steel and screw the joints together. Open table formats also reduce hazards created by workers crawling under or over the tables or components. Furthermore, adjusting the height of the work table can make an impact as well. Tables that are too high require the worker to apply any necessary force with their arms and wrists rather than from the shoulder; tables that are too low lead to awkward bending and potentially low back strain. "The tables [we use are] waist high," says Pogreba. "That way you don't have to bend over at all."

The screw guns themselves also play a role in warding off MSDs. Several factors contribute to the comfort and efficiency of most hand tools, including: weight; balance; handle shape and diameter; trigger position and size; as well as the general comfort and feel. Heavy, out-of-balance screw guns can put unnecessary pressure on the wrist, elbow, shoulder and back. "The lighter the better," Pogreba adds. Likewise, poor overall shape of the handle and positioning of the trigger can cause cramping in the hand and fingers. To ensure a good fit, much like the selection process for personal protective equipment, ask your employees to participate in tool selection. This way they'll have an added sense of ownership for their tools and they'll be more likely to have a screw gun that's comfortable and easy for them to use.

The final strategy in limiting the potential for MSDs is through scheduling. The principles are straightforward: keep each employee's tasks varied and allow a reasonable amount of time for breaks from the manufacturing process. This can be accomplished by organizing the projects in a logical order to keep production and people moving. In addition, implementing cross-training allows employees to perform any of several jobs efficiently which allows for more flexibility in scheduling.

Electric screw guns are an integral part of the steel component manufacturing process. Spending just a few extra dollars on a screw gun with a lighter, ergonomic grip or taking 15 minutes out of the day for a tool box talk on body positioning can keep MSDs from creeping up on you and your employees! Safety first! SBC

Thanks to Cascade Mfg Co for submitting the photos for this article. To pose a question for this column, contact Molly at mbutz@qualtim.com or 608/310-6741.

Could Balloon Frame Wall Systems Make a Comeback?

by Brice Hereford

Tall walls are not a framing relic, but possibly a new opportunity for component manufacturers.

On many quarters of the building industry today, the balloon framing of walls is considered an archaic building method. I disagree with that premise and believe that balloon framing was a system developed way ahead of its time. In the light of the advances in technology and equipment in use today, we are better equipped to fabricate these wall panels and erect them on site easier than at any prior time in building history.

Balloon Frame: A wooden building frame composed of closely spaced members nominally 2 inches in thickness, in which the wall members are single pieces that run from the sill to the top plates at the eave. [Source: Fundamentals of Building Construction, Edward Allen and Joseph Iano (2004)]

Balloon Framing's History

Balloon framing was invented in the 1830s in Chicago after the invention of mass manufacturing of nails and the development of sawmills that could cut 2x_ dimensional lumber pieces from timber. This method was a change from the laborious timber framing that was standard up until then. Balloon framing spread around the country quickly and built many of the triple-decker multi-family housing units in cities from Seattle to Boston.

I created the drawings presented in this article based on projects I worked on in Cambridge, MA in the mid- to late 1970s with architects Doug Bell, Jerry Fandetti and others. They were townhouses built to replace several large Victorian houses that had fallen into disrepair. These were also some of the first condominiums available on the market in those days. With our primitive methods of site building the sill to peak walls and setting them into place, we were developing an advanced energy efficient framing system to respond to the oil shortages of the 1970s. (See house photos above and on cover).

at a glance

- Balloon wall framing applications are considered an archaic building method.
- CMs can build tall walls by laying out extra long studs on a table and placing truss plates on the joints. Then roll the gantry over them to secure the plates.
- If you are building balloon or "tall" walls, we want to hear from you! Email editor@sbcmag.info.

With the development of the truss and component industry and the low costs of crane rentals at the jobsite, balloon framing can now come into its own.

Into the 1980s and '90s, balloon framing was starting to occur elsewhere in the country, most notably in Portland, OR where Bill Reed of R&R Energy Resources was building houses using balloon framing in the 1990s at $25 per square foot!

Over time, western framing or box framing (now called platform framing) supplanted balloon framing, primarily due to the ease and availability of smaller length studs and building floor by floor.

With the development of the truss and component industry and the low costs of crane rentals at the jobsite, balloon framing can now come into its own. There are many advantages to this type of framing. It uses less wood and the structure shrinks and settles less. The wall panel system is easy and inexpensive to build and insulate at the yard. In fact, both windows and siding and insulation (cellulose or foam) can be installed on the ground before installation. Used in conjunction with floor sections and roof trusses, buildings can be built in less than a week. This further reduces the cost of wall panel framing. And given the recent focus on green building practices, balloon framing is a "green solution" in that it uses fewer resources and is quickly assembled and insulated. It can also be very energy efficient and may help qualify for "green points" under LEED, Green Globes or NAHB.

Continued on page 18

Balloon Frame Walls...

Continued from page 17

Tall Walls Not a Stretch for Component Manufacturers

Not only are there on-site framing advantages to balloon framing, but I believe that building component manufacturers are perfectly positioned to fabricate these "tall" or "jumbo" walls. They can be made on truss tables with truss plates to quickly and securely fabricate extra long studs and efficiently construct the wall panels, complete with fire-blocking and ribbon boards or ribbon strips. Additionally, engineered wood products such as LVL, LSL or engineered rim board for the end studs, plates and ribbon strips further reduce shrinkage while increasing the load carrying capability. With the use of 8x24' OSB board, sheathing these walls are quick with the additional shear strength indicative to such large sheets of OSB.

From there, the tall walls arrive on the jobsite where a crane will pick and place them with ease. The use of structural wood screws to connect the panels to each other and to the floor system makes for an extremely simple installation with added strength at the connections.

Currently, many of you make wall panels, but most are standard one story heights. By increasing the size to two or two-and a-half story wall heights, you may be able to save 25 to 40 percent on panel installation as compared to site built construction.*

I believe that with the current housing market and future urban housing needs, there is a convergence here that will greatly benefit component manufacturers over the next few years.

You also have the option of creating your own installation crews or developing a network of builders who are very conversant with this building system and will do the erection of the walls, floor and roof with little if any supervision from you.

I believe that with the current housing market and future urban housing needs, there is a convergence here that will greatly benefit component manufacturers over the next few years. Though the single family and tract housing market has slowed way down, there has been a marked increase in wood framed multi-unit, multi-story projects nationwide. Balloon framed wall systems present an attractive aesthetic alternative to what I'll call rather unattractive "boxes"! These are great for urban infill projects and many communities are in the process of replacing their existing housing stock.

What follows are some tips for assembly and installation I've gathered over the years.

*Estimated percentage of time and material savings based on SBCA's Framing the American Dream study and a cost comparison conducted by Blenker Building Systems (see J/F 2008 issue of *SBC Magazine*).

FABRICATION

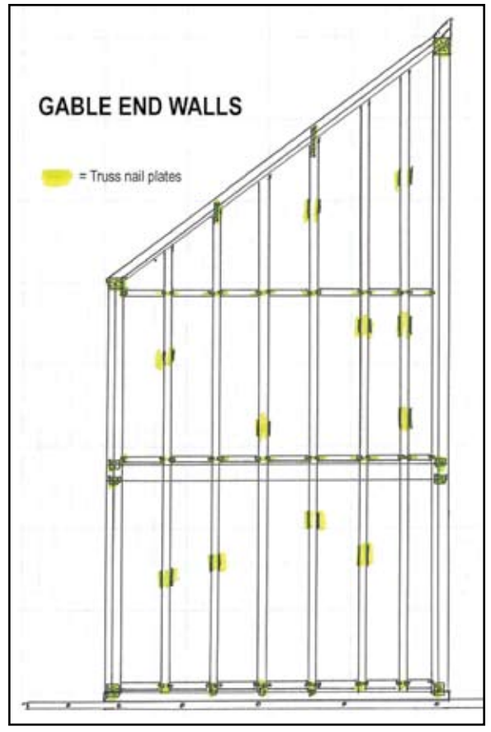
With some adjustments, it is possible for building component manufacturers to build these jumbo wall panels using the very same equipment that they use to make large roof trusses. The first step is to make up the extra long studs by laying the wood sections on a table and placing truss plates on the joints and then rolling the gantry over them to secure the plates. Once all the studs have been made the suitable length for the wall, it is laid out on the truss table. Nail the sole and top plates to the studs. Truss plates (TPs) will be used in the following areas (see illustrations):

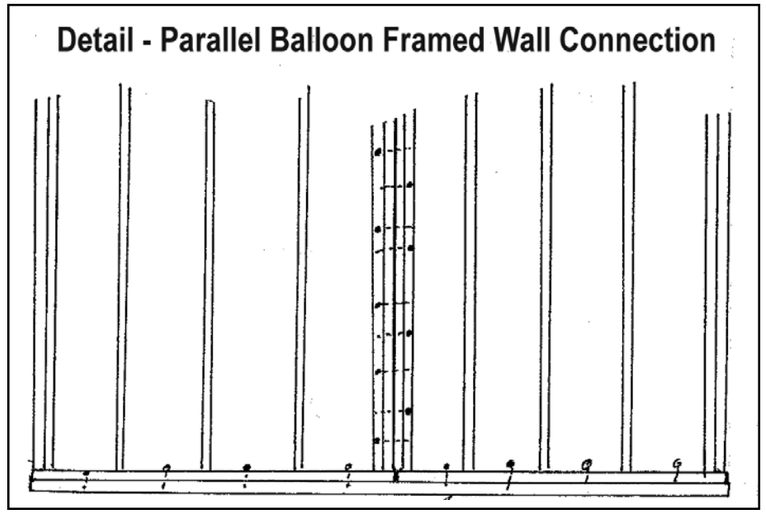
1. The four corners will have large TPs to maintain the integrity of the walls angles.
2. TPs should be used to connect the top and bottom plate to every third stud to help maintain the continuous load path.
3. Fireblocking will be connected to the studs with TPs.
4. Ribbon strip will be cut into the studs and secured with nails and TPs at every stud.

Once the TPs and ribbon strip are installed, the gantry rolls over the wall and secures the TPs.

The next step is sheathing the wall. The availability of 8x24' OSB panels makes sheathing quick and easy with little if any blocking needed. The fastest way is to set the sheathing in place, chalk the stud lines and have workers nail it off with guns right on the table.

Continued on page 20





Balloon framed wall applications in custom homes. A tall wall for the vaulted great room of a custom home is craned into place. Although the home is only one story, the walls are considered balloon framed because of their height.

A commercial application of a balloon wall. A version of a tall wall is set with a crane at a commercial site. With the concrete foundation poured, framers secure the walls to the trusses in aerial lifts.
(Photos courtesy of Blenker Building Systems, Inc.)

Balloon Frame Walls...

Continued from page 19

It is possible to clapboard the wall and set the windows at this time as well if desired. It is far easier, less labor intensive and less expensive to perform all of these functions on the table in a controlled environment rather than in the field.

Once a wall is complete it is rolled outside and set carefully in a staging area and covered with poly or tarps if necessary.

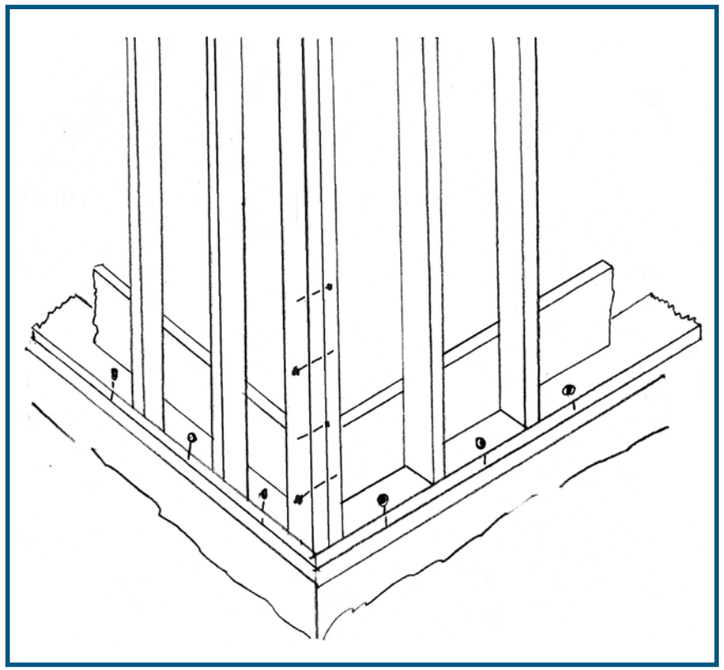
INSTALLATION

With the invention of the all terrain, extended reach forklifts for jobsites, many building walls can be hoisted into place with these vehicles instead of a rented crane. However, if a crane is required, with suitable advance planning, the building's walls, floors and roof can be set in under a week. Before the set, it is imperative that the mudsill is level. It is important for the concrete foundation walls to be as level as possible. Any variance at this level increases greatly at the top of a two to three story wall. Make any modifications needed to the mudsill, shave it down or add shims under it to ensure a level surface for the walls. This is critical.

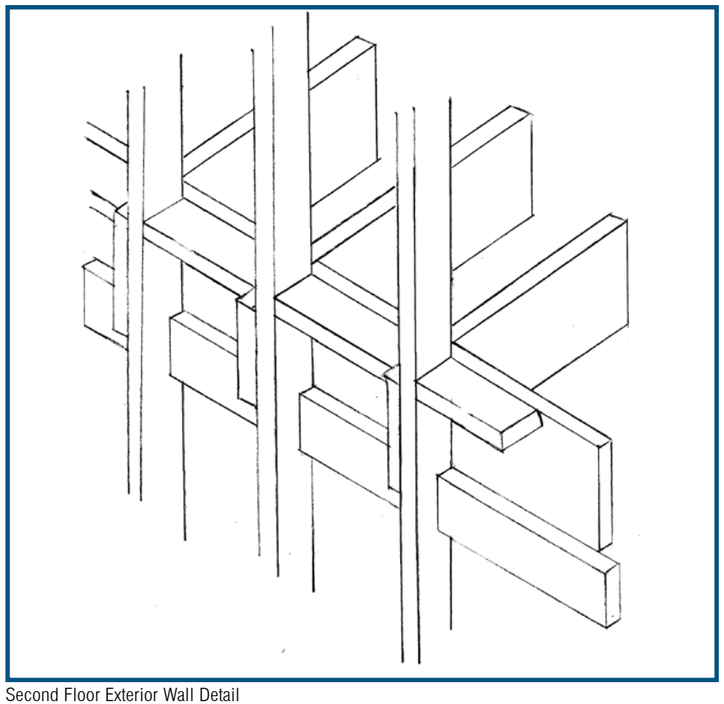
The walls are delivered to the jobsite in the order in which they will be raised. The crane hooks onto one and lifts it up and sets it on the mudsill. Structural wood screws are used to connect the sole plate to the mudsill. Long 2x4s are used to brace the walls. Once the first wall is set, plumbed and leveled and braced securely, the next one is lowered into place, leveled, plumbed and connected to the first wall (see detail on page 19). The more precise you are at leveling and plumbing now, the less time required later to make this happen. Continue setting walls in place one after the other for single or multiple units. Structural wood fasteners on the market (FastenMaster Loks, GRK Fasteners RSS screws, USP's wood screws or Simpson Strong-Tie SDS screws) give the connections greater shear strength than nails with the added advantage of being easily removable if later adjustments have to be made.

Continued on page 22

Multiple townhouse units can also be erected in remarkably short periods of time with this method.



Perpendicular Balloon Framed Wall Connection – Outside Corner



Second Floor Exterior Wall Detail

Balloon Frame Walls...

Continued from page 21

Once the walls are set, it is time to work on the floors. There are several options for floor systems. You can use open web floor trusses or I-Joists or dimensional lumber for the joists. The ends will rest on the 1x4 ribbon strip let-in to the studs, and will be secured by fasteners to the stud. These flooring components can be hoisted up from below or lowered in from above with the crane which is still on-site. Several joists could be lowered in at once by the crane if they are all tied together. The floor system could be pre-assembled in panels eight feet wide and lowered in by the crane at an angle so they will fit first onto one ribbon strip and then to the other end is lowered into place and secured. The structural wood fasteners through the joists into the studs will also serve as a further anchor for the walls to keep them in place.

There is also the alternative of having a timber-frame, post-frame or post and beam superstructure utilized instead of the ribbon strips supporting the floor joists. It could be lowered into place and the floor system would be built on these. This would eliminate the necessity of the ribbon strip. The exterior walls could be tied into this superstructure as needed.

Once the floor systems are in place, the roof trusses can be set. Then the roof is sheathed and the house is closed in. With proper timing and coordination a single home could be erected in three to four days, thereby saving the extra expense of the crane for extra days. Multiple townhouse units can also be erected in remarkably short periods of time with this method. SBC

Brice Hereford is a LOK Product Manager for FastenMaster. He welcomes the opportunity to discuss this and/or work with any component manufacturer, builder, engineer and developer to build these structures. He can be reached at 413/537-4219 or briceh@verizon.net.

Balloon Framing Allowable by Code

The 2006 IRC encourages balloon framing in section R301.1.2 - Construction Systems: "the requirements of this code are based on platform and balloon-frame construction for light-frame buildings." Figure R602.3.(1)—Typical Wall, Floor and Roof Framing illustrates balloon framing, while Table R602.3(5)—Size, Height and Spacing of Wood Studs, indicates that maximum allowable unsupported stud length can be as long as 20' for nonbearing walls and as long as 10' for bearing walls without engineered design. In balloon framing, floor joists are allowed to rest on 1x4 ribbon strips. Section R502.6—Bearing states: "The ends of each joist beam or girder shall have not less than 1.5 inches of bearing on wood or metal and not less than 3 inches on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjacent stud…" Fireblocking is imperative and adequately referenced in section R602.8—Fireblocking Required.

While the 2006 IBC does not specifically allow balloon framing, it doesn't disallow balloon framing either. It defers to the IRC in Section 2308, Conventional Light Frame Construction, in which section 2308.1 states: "Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height….shall comply with the International Residential Code." Further proof is found in Chapter 23, Section 2308.8.1 Bearing within the Floor Joist section: "Except where supported on a 1-inch by 4–inch ribbon strip and nailed to the adjoining stud…" Hence, IBC does allow balloon framing.

The language in IRC Section 2308 that applies to multiple single-family dwellings, or townhouses, is an example of the ideal application of balloon framed walls. These townhouses are ideal for replacing aged, existing housing stock requiring replacement in the next decade. They would also serve as a welcome alternative to the current phase of multi-story, multi-unit wood frame structures that are proliferating across the country and tend to lack architectural and structural appeal. SBC

In Memoriam

Mike Stineman

Mike Stineman, 64, of Citation Homes died December 2, 2008 after a year-long battle with leukemia. Stineman, former owner of Citation Homes in Spirit Lake, IA, was active in the Iowa Truss Manufacturers Association (ITMA). A graduate of Iowa State University, he married Barbara McMahon in 1965. The family moved to Spirit Lake, IA, in 1974, where Mike became Controller at Citation Homes and then served as President/CEO until early 2008.

"He was one of the original supporters of ITMA," said chapter president Tom Lambertz. Because of his location, Mike had to travel the farthest to get to ITMA meetings, said Lambertz. "But he always made the drive."

Roger Gibbs said Mike was one of the manufacturers who jumped right on board when ITMA was formed. "He felt very strongly about being involved in an organization that would bring the group together," he said.

He served on the ITMA Board for a number of years, on various committees and as secretary/treasurer for a number of terms. Fellow chapter member Ray Noonan said Mike was always willing to help. "When Cascade burned in 1997, Mike picked up my duties as secretary/treasurer until I could get the company back on its feet," he remembered.

Lambertz recalled that Mike was a good businessman and a strong supporter of the component industry. Noonan said he envied Citation's ability to retain long-time customers. "Mike had multi-generational customers—that's just the kind of business he ran," he said.

Several years ago, ITMA hosted a golf outing near Citation Homes. "We thought instead of him traveling to us, we'd bring the event to him this time," said Lambertz, noting Mike also welcomed the chapter to his plant for a tour.

Early in 2008, Mike made the difficult decision to close his business. Lambertz said it was tough on Mike. "He had a real spot in his heart for his employees, so I think it was hard for him."

In addition to his involvement in ITMA, Mike served as president of the Rotary Club and the Iowa Lumberman's Association. He also enjoyed being a grandpa, cooking, I.S.U. and Steelers sports, current events, annual Canadian fishing trips and weekly lunches with his friends, boating, and traveling with Barb.

Stineman was remembered at a memorial service on December 5 at the United Methodist Church in Spirit Lake. Memorials may be directed to the family for the American Cancer Society Hope Lodge in Rochester, MN, and the Spirit Lake United Methodist Church. As a celebration of Mike's life, his family asks that those who treasure him donate blood at their local blood banking service. SBC

Designing a Cone Roof

by Libby Maurer

Careful thought and a little creativity go a long way in a "first time" design.

at a glance

- Andrews Truss designed and built the trusses for a cone-shaped tower measuring 75' tall and 21' across.
- The tower was part of a 4,000 sq. ft. vacation home in northwestern North Carolina located near the "Tail of the Dragon" highway.
- This was technician Phil Close's first experience designing trusses for a tower this shape.
- The key, he said, was a lot of careful thought before beginning the design.

The trusses for the roof system shown here were designed and built at Andrews Truss, Inc. in North Carolina. Though the company is well known for designing unique roof and floor systems for custom homes, this was the first time the company was asked to design a "cone" roof system, according to senior technician Phil Close.

The trusses were designed for a round tower measuring roughly 75' tall and 21' across. Close began by inputting the walls in a radius in four sections of 32 pieces, totaling 128 sections. "We wanted that many sections to get as close to radius as possible," he said, noting that the more sections that are made, the more of a true, round shape you get. Close said although it pays to be exact when designing a structure this complex, creating the initial radius was a tedious process.

He then added planes on each of the 128 sections to create the cone shape, at a 12/12 pitch and a 14-1/2" cantilevered overhang. Close said one feature of the software Andrews uses "auto-solved" all the planes in the cone. With the exact cone dimensions defined, Close was ready to tackle the design of the structural elements of the roof frame.

"I knew the only way to proceed would be to construct a frame within the cone," he said. So Close free-handed an actual grid marking straight lines—both horizontal and vertically—through the cone. This design served as the basis for a simple girder frame that he then created an electronic drawing for.

Continued on page 27

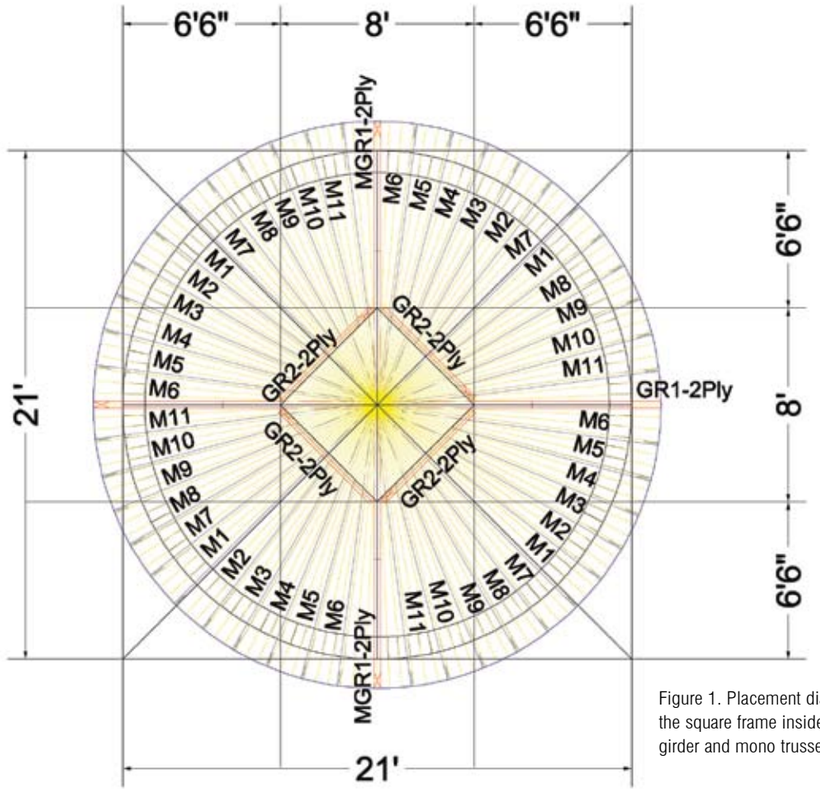


Figure 1. Placement diagram showing the square frame inside the cone, girder and mono trusses.

View of the framed tower from the inside.

Designing a Cone Roof

Continued from page 25

The frame formed a perfect 8' square, which Close then crisscrossed with two intersecting lines, dividing the cone area into four equal quarters (see photo on facing page). To form the "X," one 2-ply girder spanned from one wall of the cone to the other (GR1), and two 2-ply mono trusses (each MGR1 trusses were half the length of the long girder) tied into the square frame, intersecting GR1. He then designed the elements of the 8' square, which was constructed with four 2-ply girder trusses with flat top chords to be hung 4' from the center of the square (GR2). All of the GR1, GR2 and MGR1 trusses were designed to be 6' with a flat top chord. (See Figure 1 on page 25.)

Next, eleven different types of top chord bearing mono trusses were designed in all of the four sections, each spaced at 16-1/2" on center at the exterior wall. Close designed the total of 44 monos to sit on one of the trusses that make up the girder frame (GR2). Half of the mono trusses had top chords that would extend up to the tip of the cone from the GR2 trusses. This was done, Close said, to give the framer a way to create the desired "cone peak" look.

Located in the remote western part of North Carolina, Andrews is perfectly situated to serve the vacation and custom home market in local resort areas like the Smoky Mountains to the north. The roughly 4,000 sq. ft. vacation home is set on the side of a mountain overlooking Lake Santeetlah (see photo above). Close said it is near the start of the "Tail of the Dragon" highway, a road well-known by motorcycle riders and other thrill enthusiasts. The highway boasts 16 miles and 318 turns!

For any other component manufacturer, the road's rugged characteristics would present an interesting challenge. But Andrews' truck drivers were well-equipped to navigate the twists and turns. "Since we're in the mountains of North Carolina, there are some places we just couldn't get to without customizing our trucks and trailers," said Close. "So we have all sorts of wild things here."

Continued on page 28

View of Lake Santeetlah from inside the tower.

Designing a Cone Roof

Continued from page 27

Prior to erecting the trusses, Close sat down with the framer to discuss how the mono trusses should be set. "It only took about ten minutes," he said. Because the jobsite was on a steep mountain, it was necessary to frame as much of the system as possible on level ground. So Close arranged for the girder system to be assembled on the home's deck, and then the system was lifted into place by crane. The crane was fitted with a bucket attachment which raised the pieces up to the tower while a framing crew secured them from inside the upper room. The 44 mono trusses were set one quarter at a time, starting with M1 in one quarter and proceeding with M2 through M11 in the same quarter. The process was repeated in each of the other three quarters, again using the bucket to lift the monos to the tower. The framer used the same bucket system to sheath the outside of the cone.

The key to dealing with the pressure of carrying out a complex design scenario for the first time and getting it to fit together perfectly on site is, simply enough, "a lot of thought," said Close. Thinking through each of the challenges with logic and an eye toward creativity was well worth it. "I was at the site after the cone was set and everyone from the builder to the homeowner was thrilled with the results," he said. **SBC**

If you have an interesting project to share with SBC readers, please email editor@sbcmag.info.

Chapter Corner

For more information about SBCA Chapters and how to become more involved, contact Anna L. Stamm (608/310-6719 or astamm@qualtim.com) or Danielle Bothun (608/310-6735 or dbothun@qualtim.com). Contributions to Chapter Corner, including pictures, are encouraged. Submissions may be edited for grammar, length and clarity.

Chapter Spotlight

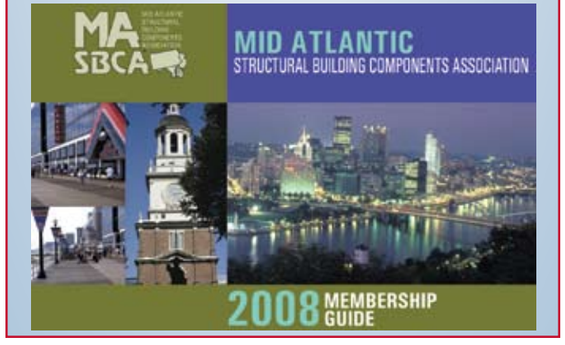
Marketing Brochures & the Mid Atlantic Chapter

by Anna L. Stamm

Chapters distribute membership rosters when they are providing a Truss Technology Workshop (TTW) or truss plant tour so that everyone receives the contact information of all of the companies that are supporting their education. The chapter is more than just the specific company that was able to accommodate the group on that day—the chapter includes all the companies that have an interest in educating the marketplace and expanding the use of structural building components.

Now the Mid Atlantic Chapter has gone one step further and created an impressive marketing brochure (see below). With assistance from staff, the chapter conducted a confidential survey of its members' businesses. By including general statistics on its membership, the brochure further demonstrates the economic importance of structural building component manufacturers in the local market. This 11 x 17 brochure can be used anytime a member would distribute a chapter roster. Also, an 8½ x 11 insert has been designed to list the benefits of chapter membership, so the brochure can pull double-duty in membership recruitment efforts, too.

The chapter has already been distributing the brochure at all of its educational events this fall. Now there's another update to make: changing the chapter's name and logo! At their November chapter meeting, the members agreed to evolve the name from Mid Atlantic Wood Truss Council (MAWTC) to Mid Atlantic Structural Building Components Association (MASBCA). The revised brochure will debut in February when the chapter delivers a seminar at the Pennsylvania Housing Research Center's Housing & Land Development Conference. Soon, everyone will know that MASBCA is the local group to ask for information on the structural building components industry! SBC



Chapter Highlights

Central Florida Component Manufacturers Association

The Central Florida Chapter continued to hold its meetings on the third Tuesday of alternating months. Items high on the agenda included: the pending changes in the 2007 Florida Building Codes, that will now go into effect on March 1, 2009; the law to label buildings with truss construction, Fire Safety-Lightweight Trusses, known as House Bill 727 or the Aldridge-Benge Firefighter Safety Act by Rep Gibson; education and truss plant tours; SBCA Board and Committee meeting updates; and the local economy.

The November meeting also welcomed Dan Melzer of Power Patriots to instruct members on how to achieve significant savings on their plants' electrical costs. Regulating the electricity demand at the plant results in a reduction in AMP draw, less wear-and-tear on the electric motors, and significant cost savings. Optimization can save up to 25% on electricity bills, so members thanked him for his informative presentation.

Structural Building Components Association of the Capital Area

The Capital Area Chapter held its final meeting on 2008 in November at the Hyatt Dulles. With a program on "Advanced Lumber Buying Techniques," the special guest speaker was Matt Layman of *Layman's Lumber & Panel Guide.* His presentation included information on identifying when the markets will make their move, how just-in-time is just-bad-buying, speculation is not a four-letter word, always know what you need, never need to buy, and the John Wayne way...always be willing. Everyone appreciated the excellent question and answer session, too.

At the meeting, the chapter's robust educational efforts were reviewed. The chapter hosted a booth at the 10th Annual Fire and Emergency Services Higher Education Conference (through FEMA) in Emmetsburg, MD in May. In September, it provided a bracing seminar for Code Officials of James City County in Williamsburg, VA. In October, two big events were held: a full day educational session, including copies of BCSI for each attendee, and truss plant tour for the Maryland Building Officials Association (MBOA) and a presentation on Green Building and Structural Building Components for the Virginia Building and Code Officials Association (VBCOA). Several additional tours and seminars were in the works for 2009.

In keeping with the evolution of the overall association's name, the chapter also decided to change its name from Wood Truss Council of the Capital Area to Structural Building Components Association of the Capital Area. Possible new logos were reviewed by the Board during their teleconference in December.

SBCA Canada Chapter/ Chapitre Canadien de la SBCA

The Canada Chapter held its fall meeting in Denver, CO while members were gathered for BCMC 2008. For first-time meeting attendees, a quick recap was provided on the chapter's background and the desire to leverage the resources and funding of WTCA/SBCA for projects that would benefit Canadian members. As such, the focus has been on adapting publications for the English/French market and adding metric measurements as necessary. Noted as the chapter's biggest success was the translation of the JOBSITE PACKAGE / PAQUET DE CHANTIER. Available since August, the feedback from manufacturers has been positive and sales continue to increase.

Under priorities for 2009, the attendees ranked the translation of Truss Technician Training (TTT) as their number one choice and also the Long Span JOBSITE PACKAGE. The emphasis will be on adding metric measurements and revising the code sections to account for CSA provisions. A subcommittee will be asked to review our work and provide assistance on Canadian specific issues.

At the subsequent Board teleconference held in November, the Board unanimously approved a motion to update the chapter's name from WTCA Canada Chapter/Chapitre Canadien de la WTCA to SBCA Canada Chapter/Chapitre Canadien de la SBCA. A letter announcing the name change and inviting feedback on the chapter's priorities and tasks was distributed in December.

Wisconsin Truss Manufacturers Association

Wisconsin Chapter members met on November 13 in Fond du Lac, WI for our fourth and final meeting of 2008. We had a good turn-out with representation from most of the state. Topics of discussion included code updates to the UDC, ongoing truss training for our customer base and a review of the economic conditions and their effect on our membership. We discussed conducting truss training for the Carpentry Training Center in Pewaukee, WI in December 2008 and for the South Central Wisconsin Builders Association in February 2009. Also, we will conduct truss training for the Wisconsin Retail Lumber Association in February 2009. And finally we are sad to see our administrative support and all around great person, Debbie Johnson, leaving our association after nine years of service to pursue more time with family and career. We will miss Debbie greatly and wish her luck in her new endeavors. Our next meeting will be February 12 in Fond du Lac, WI. See our website for more information at www.wiwtca.com. SBC

Classified Ads

Your Ad Here

Do you have a job opening, used equipment for sale or some other business opportunity to communciate? A classified ad in ***SBC Magazine*** is the perfect medium to reach the industry. Plus, when you place a classified ad in ***SBC Magazine***, that ad will also be posted as a word-only classified on our web site—at no extra charge! In a hurry? Can't wait for the next issue to come out? You can place your ad online. Visit www.sbcmag.info for more information and to check out the current list of classifieds. To make a space reservation for your classified ad, call Mindy at 608/310-6729 or email mcaldwell@sbcmag.info.

Calendar of Events

Check out SBCA's website at **www.sbcindustry.com** for the most current calendar information.

January

- **20:** Central Florida Component Manufacturers Association (CFCMA) Chapter Meeting
- **21:** WTCA–Arizona Chapter Meeting
- **21-23:** CSA/FBMA/SBCA Joint Winter Education Conference: Preparing for the Building Industry's Future, Renaissance Resort at World Golf Village, St. Augustine, FL.
- **27:** Mid South Component Manufacturers Association (MSCMA) Chapter Meeting
- **29:** Joint Alabama/Georgia/Kentucky/Tennessee SBCA Chapter Meeting

February

- **2:** SBCA's Ohio Chapter TTW. Educational presentation for the Ohio Building Officials Association (OBOA) Joint Conference.
- **4:** SBCA's Michigan Chapter TTW. Educational presentation for the Huron Valley Code Association of Code Officials.
- **5:** West Florida Truss Association (WFTA) Chapter Meeting
- **11:** Southwest Florida Truss Manufacturers Association (SWFTMA) Chapter Meeting
- **12:** Wisconsin Truss Manufacturers Association (WTMA) Chapter Meeting
- **12:** SBCA's Mid Atlantic Chapter TTW. Educational presentation for the Pennsylvania Housing & Land Development Conference.
- **12:** SBCA's Wisconsin Chapter TTW. Educational presentation for the Wisconsin Retail Lumber Association.
- **19:** Minnesota Truss Manufacturers Association (MTMA) Chapter Meeting
- **19:** SBCA's Wisconsin Chapter TTW. Educational presentation for the South Central Wisconsin Builders Association.
- **26:** Iowa Truss Manufacturers Association (ITMA) Chapter Meeting

March

- **3:** WTCA–Illinois Chapter Meeting
- **4:** SBCA's Ohio Chapter TTW. Educational presentation for the Five County Building Officials Association.
- **10:** Colorado Truss Manufacturers Association (CTMA) Chapter Meeting
- **12:** Missouri Truss Fabricators Association (MTFA) Chapter Meeting
- **12-13:** SBCA Open Quarterly Meeting, Denver, CO. All are welcome to attend!
- **17:** Central Florida Component Manufacturers Association (CFCMA) Chapter Meeting
- **18:** Structural Building Components Association of the Carolinas (SBCAC) Chapter Meeting
- **24:** California Structural Building Components Association (CalSBCA) Chapter Meeting

Contact SBCA staff for details about upcoming meetings: Anna (608/310-6719, astamm@qualtim.com) or Dani (608/310-6735, dbothun@qualtim.com).

Advertiser Index

For more information & to contact *SBC* advertisers, visit www.sbcmag.info/advertisers.

Parting Shots

Share your stories and photos with us! Send submissions to **partingshots@sbcmag.info**.

This month's shots come from loyal submitter Chris Lenauer of Pioneer Truss Company. The trusses being built at left are double radius, meaning both the bottom and top chords are curved.

The 38' trusses were designed and built by Pioneer for the new office of Capital Energy, a propane company, located outside of Jefferson City, MO. Salesman Mark Lenauer said the owner originally asked Pioneer to design typical roof trusses. "But when I talked to him the next day, he said he had a dream about wanting something more unique for the building," Mark said. So technician Tim Gooch scrapped the original plans and created this double radius design. As shown in the photo at right, pieces of custom-curved engineered wood were applied to the top chord on the jobsite in order to make a perfect radius. SBC

ASK YOURSELF ....

-ARE YOU TOLD "WE DON'T SUPPORT THAT MODEL & YEAR ANYMORE" ?
-INSTALLATION TAKES LONGER THAN 4 HOURS ?
-ARE YOU WAITING DAYS FOR SAW REPAIR ?
-ARE YOU SATISFIED WITH YOUR TECH SUPPORT ?

Saw Parts For Every Model From 1970 to Present

Knowledgeable Staff

Professional Grade Engineering Backed By

Professional Grade Support

Computers & Tech Support for Multiple Saw Manufacturers

Minimum Down Time - Same day shipment on parts

Call Today

1-877-642-4900

Quick Response

Installation of all models in less than 4 hours

Made in Mid-Missouri

MONET DESAUW, INC.

3100 Dogwood Drive, Fulton
Missouri 65251
573/642-4900 - Fax 573/642-3736
email: sales@desauw.net
http:\\www.desauw.net

For reader service, go to www.sbcmag.info/monetdesauw.htm