

The Construction Specifications Institute

KNOXVILLE CHAPTER MEE TUESDAY, FEBRUARY 11TH

DDD FELLOWS CEMETERY HELPING A COMMUNITY REDISCOVER ITS HERITAGE

Presented By: Katherine Ambroziak, Associate Professor, Associate Dean for Academic Affairs and Research School of Architecture 865.974.3270 aambrozi@utk.edu

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CALHOUN'S ON THE TENNESSE

400 Neyland Drive Knoxville, TN 37902 (865) 673-3355

Our Chapter meetings are generally on the 2nd Tuesday of each month and are at Calhoun's on the River in one of the upstairs meeting rooms.



Lunch Seminar 11:30 am 12:00 pm

CSI Members

First-Time Guest \$20 Returning Guest/

Non-Members

Please RSVP to csiknox@gmail.com by 3:00 pm on Monday, February 10th

ORGANIZED SEPTEMBER 1958 CHARTERED MAY

THE KNOXVILLE CHAPTER MEETS ON THE SECOND TUESDAY OF EVERY MONTH. GUESTS ARE WELCOME!





CSI KNOXVILLE IS A MEMBER OF THE CSI GULF STATES REGION

THESPECK Editor

Stacy Flick Colbaugh - Editor scolbaugh@lewisgroup.net

THESPECK is published monthly by the Knoxville Chapter of the Construction Specifications Institute. Readers are encouraged to submit articles and images of the construction industry interest for our membership. All submittals should be sent via e-mail in a typical file format, such as .pdf, .docx, or .jpg Please verify the accuracy of the information such as correct dates, spelling, and grammar. Deadlines are the 25th of each month.



CALENDAR OF EVENTS

FEBRUARY 2020

- O4 <u>CSI Board Meeting</u> Tuesday, February 4th, Lunch meeting from 12:00 pm - 1:00 pm Location: Lewis Group Architects 6512 Deane Hill Drive, Knoxville, TN 37919
- CSI Chapter Meeting Tuesday, February 11th,
 11:30 am at Calhoun's on the River "Odd Fellows
 Cemetery, East Knoxville" Katherine Ambroziak
 Associate Dean for Academic Affairs and
 Research

MARCH 2020

- O3 <u>CSI Board Meeting</u> Tuesday, March 3rd, Lunch meeting from 12:00 pm - 1:00 pm Location: Lewis Group Architects 6512 Deane Hill Drive, Knoxville, TN 37919
- 10 THE EAST TENNESSEE CSI BUILDING PRODUCTS
 SHOW 2020 Tuesday, March 10th,
 at The Foundry Knoxville, TN.

Seminar: Ann McGauran, TN State Architect, Credit: 1 LU HSW

Please Register by 3:00 pm on Monday, March 9th.

SEMINAR REGISTRATION

KNOXVILLE CHAPTER: FEBRUARY 2020

- **52** Professional
 - 1 EMERGING PROFESSIONAL
 - 2 STUDENT
 - 2 EMERITUS
- 2 RETIRED
- **59 TOTAL**



PRODUCTS SHOW

Tuesday
MARCH
10

SAVE THE DATE!



THE PRESIDENT'S MESSAGE

SAVE THE DATE: PRODUCT SHOW!

Mr. Geoffrey Cavalier, CSI, Assoc. AIA, NCARB CSI Knoxville Chapter President cavaliergeoffrey@gmail.com

Next month, on March 10th, The CSI Knoxville Product Show will be at The Foundry. If you are interested in reserving a booth for this event, there may be just a few



booths available! The product show is a great way for product reps to exhibit their company and products in front of Knoxville's contractors, architects and other designers. Of course, the invert is true that if you are someone who specifies, draws, installs, or constructs building products, this is a great opportunity to see what new products are out there and be able to ask questions in person.

This event also features TN State Architect, Ann McGauran, as the keynote speaker. This is an opportunity to hear what the state of Tennessee has planned concerning architecture and construction, as well as an opportunity to ask questions.

This is probably CSI Knoxville's largest event. It is free and you don't have to be a member to attend. There will be free food and plenty of door prizes. I always enjoy the opportunity to bump into colleagues I haven't seen in a while and even meet new people. I hope to see you there!

Mr. Geoffrey Cavalier, CSI, Assoc. AIA, NCARB
CSI Knoxville Chapter President
cavaliergeoffrey@gmail.com



CSI HIGHLIGHTS

Have you are considered participating in the upcoming CSI Product Show? It is coming up on March 10th at the Foundry in Downtown Knoxville.

A you are aware, this annual highly trafficked event is the only Building and Architectural Product show in our area that draws many members of the design and construction community in our area. This year keynote speaker for the event, is Tennessee State Architect, Ann McGauran, which she will be speaking prior to the Product Show at 3:30pm – 5:00pm.

Please see the link below for a Vendor Booth Application and floor plan layout of the space. You can mail a check or you can register and pay via credit card on the Knoxville-Chapter website https://csiknoxville.org/exhibitors.

I hope that you can attend as an exhibitor representing your company and even consider joining this professional organization. More details on the web site at https://csiknoxville.org/

If you are interested in participating or have any questions, please feel free to contact Josh Brook who is organizing the Product Show. He can be reached via email at joshua.brock@generalshale.com or by phone at (865) 388-1833.

As always it is going to be a fabulous event and we would appreciate your help in participating and spreading the word.



CSIknoxville february 2020

Presentation Summary

KATHERINE AMBROZIAK ODD FELLOWS CEMETERY RECLAMATION INITIATIVE

Katherine Ambroziak's research examines how designers and users become conscious of their built and natural environment and what this may mean to the generation of healthy perceptions and memory. She focuses on spatial theory related to sensory response and body perception, ritual theory, and contemporary memorial theory.

A licensed architect in the State of Tennessee, she is active in community engagement as both an academic and civic pursuit. Since 2009, she has served as the primary designer and coordinator of the Odd Fellows Cemetery Rehabilitation Project, a conservation and reclamation initiative that aims to educate and support the communities of East Knoxville through the design and future implementation of a sustainable memorial landscape.

Learning objectives:

- To understand the goals of memorial landscape design;
- To explore a community-informed effort to restore/ reclaim a neglected public space based on these goals;
- To explore both typical and out-of-the-box methods of community engagement;
- To gain an appreciation for "slow" progress.

A. Katherine Bambrick Ambroziak Associate Professor and Associate Dean for Academic Affairs and Research College of Architecture and Design University of Tennessee Knoxville

Odd Fellows Cemetery Reclamation Initiative, Project Coordinator Knoxville Re-Animation Coalition, Advisory Board

1715 Volunteer Boulevard Knoxville TN 37996 aambrozi@utk.edu





CSI TECHNICAL

WHAT I LEARNED FROM CSI...

SAVE THE INTERNET! DATA CENTER FIRE Suppression Systems

MR GARY T. BERGERON, CSI Kelso-Regen Associates, Inc. **CSI Knoxville Technical Chair** gary@kelso-regen.com



Most of us use GPS mapping systems, cloud data storage, Siri, Google, or Alexa, but how many of us think about the computer data centers that make these systems possible? Busy making our life easier, these centers contain computers and storage devices worth millions of dollars. Clean agent fire suppression systems, or other fire prevention systems, protect the data centers from fire so repair or replacement of the computer systems is possible.

In the past, fire suppression systems used an ozone depleting gas called Halon 1301 which, in 1994, was discontinued and replaced by environmentally friendly



Clean agent gas cylinders https://www.indiamart.com/proddetail/halon-fire-extinguisher-15943312262.

clean agent gases. These new gases are non-conductive, non-corrosive, and leave no residue; which can prevent costly downtime in data centers. Some common gases are Inergen, ECARO FE-25, Fike's FM 200, and 3M's Novec 1230; however, many still refer to the new suppression systems as Halon.

Clean agent gases work by saturating the room, breaking the chemical reaction fire needs, and extinguishing the fire. The saturation level required to extinguish a fire



Computer Data Centers

https://videohive.net/item/servers-racks-walkthrough-in-modern-data-center-cloud-computing-datacenter-room/23431227





Clean Agent Gas Discharge http://keystonecsa.com/Blog/DataCenter/6/Preventing-accidental-cleanagent-discharge-within-a-data-center

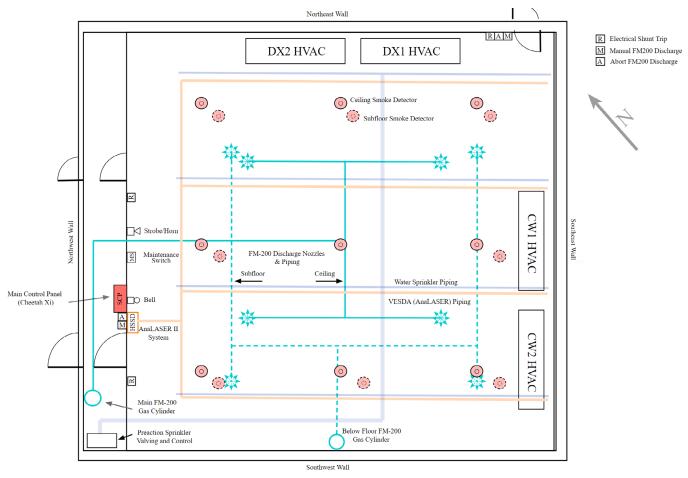
requires a sealed room to prevent escape of the fire suppression gas. All network cables, electrical conduit, HVAC ductwork, and other room penetrations are sealed airtight with caulk, duct dampers, or other approved methods. Entry doors into the facility are also equipped with door gaskets to contain the clean agent gas. After all the penetrations and doors are sealed, a blower door test is performed to verify the air-tightness of the room. If the data center room is large enough, a one- or two-way vent, specifically designed for the gas, will be installed to alleviate the pressure generated by the gas discharge. Damage of walls or the room may result if an improperly designed vent is installed.



Improperly Vented Room http://keystonecsa.com/Blog/DataCenter/15/Room-Pressurization-The-Other-Component-of-a-Data-Centers-Clean-Agent-Fire-Protection-System



Clean agent manual release and abort switch http://www.aoc.nrao.edu/widar/subsystems/fire/



Data Center Schematic Diagram http://www.aoc.nrao.edu/widar/subsystems/fire/

The volume of the computer room dictates the size of the gas cylinders and/or the required distribution piping. Small data rooms can be protected by a 50 lb. gas cylinder, in a corner, with one nozzle. Larger and more complicated data centers require several 300 lb. or 500 lb. gas cylinders. This distribution piping system includes multiple nozzles in the room and below the raised access floor. Refilling multiple gas cylinders can be expensive. Most suppression systems require many heat detectors and/or smoke detectors to report a fire before the gas discharges. There is usually a short time delay, of 5 to 10 seconds, before the gas discharges so personnel can exit the area. Some data center fire suppression systems are equipped with an abort switch to prevent accidental discharge.

The photos and schematic diagram below illustrate noteworthy features of a data center fire suppression system. If you need further information, please come to the next local CSI chapter meeting to discuss this and other building systems.

Gary T. Bergeron
Principal and Co-Owner
Kelso-Regen Associates, Inc.
Consulting Engineers
201 Sherlake Lane, ste 101
Knoxville, TN 37922
CSI National Robert P. Brosseau Award 2017 recipient
CSI Gulf States Region Technical chair, Wetzel Award
Winner 2018
O: 865-588-5348
C: 865-748-6304

https://www.linkedin.com/in/garybergeron/



March 10. 2020 East Tennessee Building Products Show

3:30pm - 7:00pm

Foundry on The Fair Site 747 World's Fair Park Dr Knoxville TN 37902

Bring your friends, learn what's new with our keynote speaker, eat, drink, and have a one on one with amazing product reps!



Everyone in the Design and Construction Industry is invited to this free event!

Keynote Speaker

Ann McGauran

Tennessee State Architect



Ann is an Architect with over 25 years of architectural, project management and real estate operations experience, primarily with large multi-facility institutions. Ann has served in a variety of real estate roles for the State of TN since 2013 and was unanimously appointed as State Architect by the Tennessee State Building Commission (SBC) in 2017. As the chief staff officer of the

SBC, Ann provides real estate expertise on capital projects and transactions affecting the States ~90 million sq. ft. and ~900, 000 acre portfolio. Ann graduated from Auburn University with a Bachelor of Architecture and received a Master's in Healthcare Management from Owen School of Business at Vanderbilt University. Ann is NCARB certified and earned her initial architectural licensure from Florida and is currently licensed in Tennessee.

Ann, her husband Mick and their two sons Sean and Liam, live in Nashville.



East Tennessee Building Products Show

 Check in:
 3:00 - 3:30 pm

 Keynote Speaker:
 3:30 - 5:00 pm

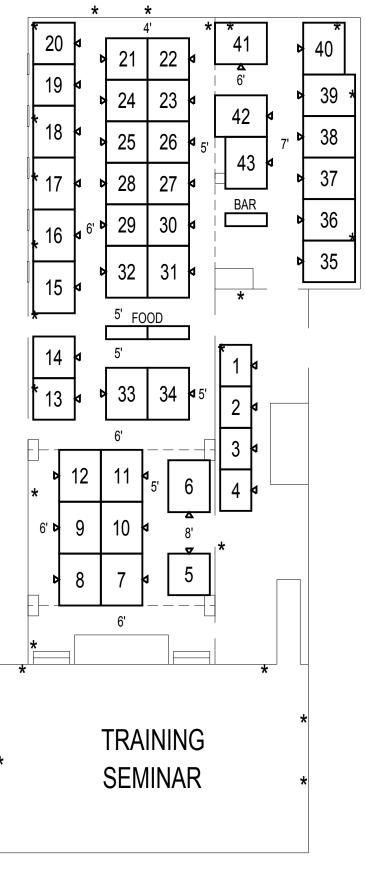
 Exhibits
 5:00 - 7:00 pm

 Hors D'oeuvres
 5:00 - 7:00 pm

 Hosted Beer &
 5:00 - 6:30 pm



2020 ETN BUILDING PRODUCTS SHOW



43 TOTAL BOOTHS (19) 8'x8' BOOTHS / (24) 8'x10' BOOTHS

CSI EDUCATION

A Guide to Construction Contracts & Execution Methods

By Ms. Susan Davis, RA, CSI, CDT, PMP babydavis111603@aol.com

At CONSTRUCT 2019, Antonio Fratangelo and Jake Ortega of JA Cost Engineers and Advisors gave a presentaion on contracts and execution methods.



This is a summary as understood by Susan Davis.

Construction execution methods can be: Lump sum Cost plus / GMP Unit pricing T&M Earned value Cooperative design (DB, IPD)

Each has its own merit and are appropriate for different types of work.

Methods can be blended in the same contract. Such as a lump sum contract with cost plus change orders. Be sure to define to what degree these terms apply. For instance, if you have a T&M contract, are you going to require subcontractors to submit actual cost or will you allow a lump sum bid from subs?

Lump sum, unit price, and earned value are reimbursed based on amount of complete work. The pay application is not tied to the amount the contractor has actually spent.

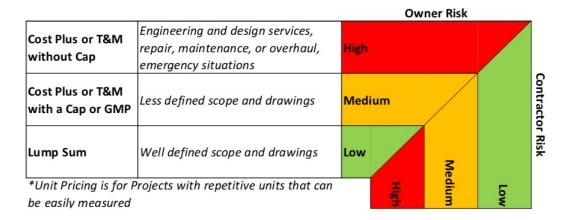
Cost plus and time and material are different. In cost plus, there is actual cost for materials, labor, general conditions, and a multiplier for overhead and profit. T&M establishes a rate that includes general conditions and overhead and profit.

Cost plus/T&M with a GMP has evolved as a way to even out risk between owner and contractor. Cost plus or T&M without a max favors the contractor. Lump sum favors the owner. GMP puts both parties at risk.

Integrated project delivery (IPD) is emerging as a trend to manage risk cooperatively. The designer, construction manager (CM), subs, and owner set aside part of the budget or fee which is split at the end of the project.

CM language in contracts is really similar to the legal definition of fiduciary responsibility. This means they must put the owner's well being ahead of their own. This can cause internal conflict when the CM is actually a general contractor.

4: Deciding on the Right Execution Method





Even though we usually start a contract from a template (AIA, Consensus Docs, etc), be aware that they are templates. They require you to edit them to fit your project. Some areas that you may want to pay special attention to:

Order of precedence
Work breakdown structure
Changes (units predefined)
Reporting
Trending and forecasting
Allowable general conditions
Calculation of multipliers
Self performed work

A handy addition can be a matrix that shows if items are overhead, general conditions, or project cost. Also include examples of how multipliers are calculated mathematically.

Understand what errors and omissions really are. Errors require rework. Omissions are essential parts that were left out.

Some areas where you may find conflicts: Division 01 Exceptions and clarifications Value engineering

Our aim in CSI is always to be clear, correct, complete, and concise.

Ms. Susan Davis, RA, CSI, CDT, PMP CSI Knoxville Chair: Bylaws and Operating Guide



MEMBER SPOTLIGHT

CSI MEMBER WHITNEY KAUL JOINS TENNESSEE LIGHTING SALES

Whitney Kaul, CSI, IIDA, LEED GA, Joins Tennessee Lighting Sales

Knoxville CSI member Whitney Kaul has joined Tennessee Lighting Sales as their Outside Specification Sales Representative for the Knoxville office. Whitney



acquired her associates degree in Civil Engineering and bachelor degree in Interior Design from East Tennessee State University in 2008 through their joint program with Pellissippi State. After working the past few years in interior design practice, she earned her Tennessee registration in Interior Design.

When asked what scope of projects that Tennessee Lighting Sales supports, she replied, "I am involved in a variety of projects from residential, education, healthcare, hospitality, industrial and roadway. I support architects, interior designers and electrical engineers by helping them with whatever lighting needs that they have with their projects. We can help with any projects that has lights."

Whitney has been a member of CSI since 2015. She explained how CSI has impacted her in the design and construction profession. "CSI has been a big asset to me in the profession. I have found a family within the building community that supports each other. CSI Knoxville is a group of people that I can go to for advice on a particular project and also for overall professional advice. The Knoxville chapter is a very welcoming group of people who always want to see you and the chapter succeed. They truly care about each other."

Whitney has been a tremendous asset to our chapter. She currently serves as treasurer and manages to keep us financially sound.

You can meet Whitney and see what Tennessee Light Sales has to offer at the East Tennessee Building Products Show 2020 on March 10 at the Foundry on the World's Fair site.

Knoxville Chapter

HINDSIGHT

PHOTOS FROM JANUARY CHAPTER MEETING

Photos by Stacy Colbaugh, CSI, CDT, AIA





CSI GULF STATES REGION LEADERS - 2019-2020

CSI GULF STATES REGION OFFICERS AND COMMITTEES

OFFICERS

PRESIDENT Suzan Jordon, CSI, CDT 865-389-9476 Suzanwjordan@yahoo.com

VICE PRESIDENT Cindi Brooks, CSI, CDT 423-827-4848 cindibrooksgsr@gmail.com

SECRETARY Mike Zielinski 901-652-5612 mzielinski@lrk.com

TREASURER
Randall Lewis, AIA, CSI (2nd Yr.)
601-948-4601
rlewis@jhharchitects.com

IMMEDIATE PAST PRESIDENT Bruce Martin, CSI, CDT, RRC 423-634-9959

bmartin@dillardconstruction.com

INSTITUTE DIRECTOR - GULF STATES REGION William Sundquist, CSI 423-385-4598 wsundquist@wgpaver.com

COMMITTEES

ACADEMIC AFFAIRS Kent Kile, CSI, CCPR (1st Yr.) 615-347-4572 kkile@ppg.com

AWARDS
Betina Latiker (1st Yr.)
601-209-4671
blatiker@hotmail.com

CERTIFICATION
Floyd Sterling, FCSI, CDT (2nd Yr.)
318-226-0056
fsterling@shreveland.com

EDUCATION
Kent Kile, FCSI, CCPR (2nd Yr.)
615-347-4572
kkile@ppg.com



ELECTRONIC COMMUNICATIONS Randall Lewis, CSI, AIA 601-948-4601 rlewis@jhharchitects.com

FINANCE Ryan Hatler, CSI, J.D (2nd Yr.) 850-316-7217 ryan@hatlerlaw.com

FUND RAISING / PRODUCT SHOWS Melanie Kenney (2nd Yr.) 615-979-9497

mkenney@southlandbrickandblock.com

MEMBERSHIP
Jill Colby, MBA, CSI, AIA (2nd Yr.)
615-330-2746
jillcolby@colbyassoc.com

OPERATING GUIDE Cindi Brooks, CSI, CDT (2nd Yr.) 423-827-4848 cindibrooksgsr@gmail.com

PLANNING Billy Mathis, FCSI, CDT (2nd Yr.) 501-758-7443 bimathis@taggarch.com

PUBLICATIONS
John Dunaway, CSI, CCS, AIA (5th Yr.)
601-948-7337
john@ccdarchitects.com

TECHNICAL
Gary Bergeron, BS, CSI, ASHRAE,
ASPE, USGBC (5th Yr.)
865-588-5348
gary@kelso-regen.com

SPECIFICATION COMPETITION Thomas Clarke, FCSI, CCS, CCPR, CCCA, SCIP (2nd Yr.) 601-832-5339 tlcfcsi@aol.com

NOMINATING Suzan Jordon, CSI, CDT 865-389-9476 suzanwjordon@yahoo.com



CSI KNOXVILLE MEMBERS – FEBRUARY 2020

Aubrey Bader, CSI-S

Mrs. Michelle Barillaro, CSI

Mr. Gary Bergeron, BS, CSI, ASHRAE, ASPE, USGBC

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Ms. Stacy Colbaugh, CSI, CDT, AIA

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Ms. Patricia Corbitt, CSI

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Whitney Kaul, CSI, LEED GA

Kent Kile, FCSI, CCPR, CDT

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Paul Shamiyeh, CSI

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Membership has its benefits

Your CSI member benefits include generous discounts on CSI standards and formats such as *MasterFormat 2016 Update*, as well as discounts on numerous resources to assist you in the preparation of specifications, as well as other construction documents.

Not a CSI Member? Join Today! Go to www.csiknoxville.org

2019-2020 KNOXVILLE CHAPTER CSI LEADERS



OFFICERS

President President - Elect Vice-President Secretary Treasurer Past President	Geoffrey Cavalier Aaron Miller Will Dunklin Kathryn Fuller Whitney Kaul Aaron Miller	cavaliergeoffrey@gmail.com amiller@mhminc.com wdunklin@gmail.com kathrynf@mbicompanies.com whitneykaul@gmail.com amiller@mhminc.com	(615) 964-1260 (865) 357-5646 (865) 525-6322 (865) 584-0999 (865) 591-7732 (865) 357-5646
DIRECTORS			
2019-2020	Suzan Jordan Gary Bergeron Brian Sickles	iamswj@yahoo.com gary@kelso-regen.com brian.sickles@ssainc.com	(865) 389-9476 (865) 748-6304 (865) 867-7582
	Kathy Proctor Josh Brock Josh Buchanan	ksp53@me.com joshua.brock@generalshale.com josh@tnmarble.com	(865) 599-7783 (865) 388-1833 (865) 995-9500
COMMITTEES			
Members Services Membership House	Samer Shatara Suzan Jordan	sshatara@denark.com iamswj@yahoo.com	(865) 388-3661 (865) 389-9476
Education Education / Programs	Will Dunklin	wdunklin@gmail.com	(865) 525-6322
Student Chapter President (Fall) President (Spring) Secretary	Aubrey Bader Kari Essary	abader@vols.utk.edu kessary@vols.utk.edu	(704) 930-6110 (850) 545-1746
Recognition Technical Certification Awards	Gary Bergeron Daniel Smith	gary@kelso-regen.com dsmith@maston.construction	(865) 748-6304 (865) 389-6691
Communication Publication/ Website Publicity/ Marketing Faculty Advisor Academic Affairs	Stacy Flick Colbaugh Mirelys Calise James Rose Gary Bergeron	scolbaugh@lewisgroup.net mirelysc@calisedesignstudios.com jrose18@utk.edu gary@kelso-regen.com	(865) 599-3956 (407) 619-8617 (865) 719-0743 (865) 748-6304
Fundraising Product Show Product Show Co-Chair Golf Tournament Golf Tournament Co-Chair	Josh Brock John Hockensmith Wes Crow Josh Brock	joshua.brock@generalshale.com jhockensmith@mhminc.com wcrow@johnsongalyon.com joshua.brock@generalshale.com	(865) 388-1833 (865) 357-5485 (865) 770-0727 (865) 388-1833
Chapter Administration Planning / Historian Bylaws & Op Guide	Kathy Proctor Susan Davis	ksp53@me.com babydavis111603@aol.com	(865) 599-7783 (865) 271-7998