

# THE SAWDUST

NEWSLETTER OF THE CHARLOTTE WOODWORKERS ASSOCIATION

Volume 17, Issue 4

April 2010

## Newsletter

If anyone would like to contribute articles, information or provide suggestions for the newsletter, please send them to me. We need to make this a group effort.

Thanks also to Peter Stoffel, who assists with note taking at the meetings, and to Mike Smith for the photos - much appreciated.

Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net)) - Secretary



## **FOR THE MAY CWA MEETING ONLY PLEASE NOTE**

**Meeting will be on May 11, 2010  
The Second Tuesday**

**(Instead of the normal third Tuesday of the month)**

During this meeting Eugene Thorndahl will provide a presentation and demonstration on 'hide glue'.



## **2010 Membership.**

Have you renewed your membership? If not, please see Fred Miller during the monthly meeting or mail your dues to Fred at 1208 Salem Drive Charlotte NC 28209.

Dues are \$30.00 for new members and \$25.00 for renewals. Make checks payable to "Charlotte Woodworkers Assoc." or "CWA".

We welcome our returning and new members and encourage you to bring your woodworking friends to our meetings, so they can also join CWA.



## Band Saw Boxes

Tony Profera at CWA's April meeting presented a comprehensive and excellent instructions for making "Band saw Boxes". (He even provided the detail notes included here in 'The Sawdust'. Thank you Tony.)



### What are Band Saw Boxes (BSB)?

- The basic idea is that the box (or a portion of it) is already contained in the block of wood.
- In typical box making flat dimensional boards are "joined" to make the sides, bottom and top.
- With BSB's the sides are already contained in the wood blank, the interior and exterior shapes and are cut with the band saw.
  - You are taking away material to make the box...
- BSB's are good projects to do between your larger WW projects as a break.
  - They go together fairly quickly (excluding possibly the sanding). For example: I was able to cut one out from a blank in under an hour.

(cont'd on page 4)

## CALENDAR OF EVENTS

May 11th - 6:30 pm **CHARLOTTE WOODWORKERS ASSOCIATION MEETING**  
 (Note: This is a change to the normal third Tuesday meeting date to accommodate the presenter. )

May 13th - 6:00 pm **SPECIAL PROGRAM BY LIE NEILSON FOR CHARLOTTE WOODWORKERS ASSOCIATION MEMBERS AT JPM**  
 (Using planes, sharpening planes, etc. - see additional information and the need for volunteers on this page →)

May 14th - noon to 6:00pm **LIE NEILSON TOOL SALE AT JPM** (Open to the Public)

May 15th - 10:00am to 5:00pm **LIE NEILSON TOOL SALE AT JPM** (Open to the Public)

June 15th - 6:30pm **CHARLOTTE WOODWORKERS ASSOCIATION MEETING** (Presentation on the use of Google SketchUp planned)

### WOODCRAFT STORE IN CHARLOTTE UPCOMING CLASSES:

Apr 22 (Thur.) Table Saw Use - Beyond the Basics - 6:00pm - 9:00pm  
 Apr 24 (Sat.) Turn a Wall Street Pen - 9:30am-12:30pm  
 Apr 25 (Sun.) Lidded Bowl - 12:30pm - 4:30pm  
 May 6 (Thur.) Beginning Scroll Saw: Heart-Shaped Box - 6:00pm - 9:00pm  
 May 9 (sun.) Basic Lathe - 12:30pm - 4:30pm  
 May 15 (Sat.) Make a Bandsaw Box - 9:30am - 5:30pm  
 May 22 (Sat.) Beginning Pen Turning - 9:30am-12:30pm  
 May 23 (Sun.) Embellished Surface Texturing on Turned Platter - 12:30pm - 4:30pm



### Treasurer's Report: as of 3/31/10

|                 |         |
|-----------------|---------|
| Opening balance | 2019.48 |
| Deposits        | 280.00  |
| Checks          | 347.15* |
| Closing balance | 1952.33 |

\*includes \$225 for scroll saw purchased

### LIE-NEILSEN TOOLWORKS HAND TOOL EVENT IN CHARLOTTE, NC

Lie Neilson Toolworks, under sponsorship by CWA, will be hosting at the JPM facilities a tool sale and demonstrations that will be open to the public on May 14 (Fri.) and May 15 (Sat.). (Note: CWA members regularly receive a 10% discount.)

On May 12th (Wed.) CWA needs volunteers to help clean up the shop and clear an area for the sale/demonstrations.

In the evening of May 13th (Thur.), after Lie Neilson has set up its tables, a special event for only CWA members will be held beginning at approximately 6:00 pm.

CWA plans to have a table during the tool sale on May 14 and 15 to provide an opportunity for potential new members to learn about and join CWA. Please contact Bruce Bogust if you can volunteer some time to man the table. There will also be a signup sheet at the May 11 CWA meeting.

### HAND TOOL EVENT at

## Jackson Park Ministries

*Woodshop, Warehouse Facility*

**FRIDAY, MAY 14TH, NOON-6PM  
 SATURDAY, MAY 15TH, 10AM-5PM**

**4001 Sentry Post Road - Charlotte, NC**

**FREE ADMISSION**

**DIRECTIONS & PARKING:** On site parking.

*The Woodshop at the Jackson Park Ministries has been the meeting place of the Charlotte Woodworkers' Association for the last few years.*

**Lie-Nielsen Toolworks employees will be present to answer questions, do demonstrations and more.**



### The CWA 2 X 4 Contest

CWA members brought their "2x4" projects to the April CWA meeting. Mike Smith initiated the contest. Each person who entered the contest made something out of a single common 2x4 board.

Eight participants showed their projects, which included a checkerboard with storage, a bookstand/bible holder, a small inlaid table, a folding stool, a two bowl set, a large set of small boxes, a band saw box, and a hula hoop. (Amazing creations.)



Each project participant described their project and how they went about creating their projects.

CWA members then voted in an anonymous ballot for their top pick. The First Place vote getter was Bob Field's for his hula hoop and Second Place was Mike Smith for his checkerboard with storage. Bob will select either a nine (9) piece Irwin Marples chisel set donated by Irwin, or a \$50 prize from CWA, with the remaining prize awarded to Mike.

Bob's Hula Hoop:



Mike's Checkerboard with storage:



## Band Saw Boxes

*(cont'd from page 1)*

- Making a simple BSB requires only advanced beginner skills.
- These boxes are very popular especially with the fairer sex.

### **SIZES & STYLES:**

- Very small to bread box sized.
- Simple and Symmetrical.
- Highly Complex and Sculptural.
- Size is limited to the size of your band saw –but do not attempt a very large block of wood unless you have a very strong saw.

### **CUTOUT and ASSEMBLY METHOD:**

- Non typical construction method, but really a simple concept (see handout).

### **SAFETY:**

- Safety is a concern when using the band saw to cut small parts. There is a reason why the butcher uses a band saw to cut meat!
- Video on the Carter web site showing Alex cutting out a Reindeer in about 5 minutes. (Web Link)
  - Do not follow his example! It would not surprise me if Alex gets the nickname "Lefty" soon if he continues to make showoff cuts like this.
- The area in front of the blade (that fans out at 45 degrees) is the danger zone.
- Be aware that the blade can easily come out the side of a cut and bite you.
- Do not force the wood - let the blade do the work. Cut slowly and under control. Speed is not the goal.
- You will get a better cut when you let the blade do the work and there is generally less sanding.
- Backup your work with a **wood block** as you cut.
  - A small notch in your scrap block can help turn the work when making curved cuts.
- Try to plan cuts with a flat on the table to prevent binding.
- Good BS safety video by Ellen Menke (Web Link)
- Don't be afraid to use your band saw, just be sure you show it the respect it deserves.

### **BAND SAW TUNING:**

Your band saw must be tuned and cutting accurately to be successful in making these boxes.

- See Gordon Combest's presentation in the **CWA newsletter** on TW Blades and band saw setup and tuning (Sept. 2009)
- Sharp blades are a must.
- Typically a 1/2" blade or thinner is used for the curved cuts.
- Keep the blade lubed:
  - Apply Spray Vegetable Oil to a rag and apply to backward turned blade.
  - Reapply about every 4 minutes of cutting.
  - This lubricates the blade so it runs cooler, smoother and quieter, deflects less, and also keeps pitch from building on the blade. Extends blade life.
- Round the back corners of smaller BS blades helps reduce binding, and allows for a tighter radiused cut.
  - Hold a medium grit sharpening stone on the blades back edges.
- Make practice cuts on your "crap scrap" before using those "fine scrap blanks".
- A good source for a band saw blades Charlotte is Ferris Belt & Saw.

*(cont'd on page 5)*

## PRODUCTS:

- The **Carter Bandsaw Stabilizer** is recommended by some folks when making curved cuts with any blade less than 1/4" in diameter. This guide has a bearing wheel that has a small groove in the center for the back of the BS blade to ride in so there is less side to side deflection while permitting the blade to flex.
  - To install: Take off the lower and upper guides. Re-Install the Carter Stabilizer on the upper guide.
  - Cost: \$80. I'm hoping to purchase one "post recession".
  - Question: Anybody have one of these installed on their band saw?

## DESIGNING CONSIDERATIONS:

- There are lots of BS Box templates out there on the web. (Photo)
- If attempting your first BSB project avoid making a curvy, sculptural project.
- What is the max height your band saw cut?
  - Obviously you shouldn't glue up blanks that won't fit in your BS to cut.
- You need to know how your band saw cuts especially for tight curves (do some testing on scrap)?
  - What is the tightest radius you can cut?
- What is the smallest sanding radius of your OSS?
  - If smaller you will be hand sanding those inside radiuses (This might be ok for 2 – 4 corners, but 8 - 12 corners of hand sanding might make you wish you had reconsidered the design.

## PROJECT BLANKS

Blanks can be one solid block of wood, or a laminated blank made from glued up blanks.

- Solid wood blanks:
  - No glue up required.
  - A more uniform look.
  - Obviously longer to dry.
- Laminated Blanks: Reduces checking, stronger, adds visual interest, less time for the wood to dry.
  - Laminated Blanks are easily made from off cut scraps hanging around the shop. Clean up that scrap bin.
  - Flat surfaces are a must for good glue ups.
  - Consider orienting the grain for an interesting book matched look.
  - Use contrasting woods for a striking appearance.
  - Symmetrical layering of contrasting woods adds interest.
  - Exotic or figured woods on the front and back also add interest.
- When gluing spread glue evenly then clamp with good pressure.
  - I use Titebond 2 or 3.
- **HD Steel G clamps** are a good way to apply the pressure needed to prevent any voids in the blank.
  - Voids may not reveal themselves till later in the project.
- When clamping use cauls or clamping pads to keep from marring the good faces of your blank.

## CUTTING OUT THE BOX:

As you work it's best to clearly mark all project pieces as you go.

- It's easy to get the parts mixed up and cut, sand, or glue the wrong piece. Recovery can be sometimes be made with a design change, but sometimes a project "do over" is needed. DAMHIKT.
  1. Glue a printed cutting template to the face of the blank with tacky glue or spray adhesive. Or simply draw the shape on the blank.
  2. Cut the basic blanks exterior to shape. Cut carefully and stay slightly outside the line.
  3. Carefully sand back to the line to achieve the final box exterior blank shape.
  4. Cut off the back of the box body
  5. Cut the drawer(s) out of the blank.
    - a. Plan for entry cuts to follow the grain to make it easier to glue the gap closed later and make it less noticeable.

*(cont'd on page 6)*

6. Glue the entry cut (if there is one).
  - a. Note: many BS Boxes do not require an entry cut to be glued - such as the whale tail box.
7. Cut the back and front off of the drawer blank, mark which sides are in and out and set aside.
8. Mark and cut the drawer hollow(s).
9. Sand the interior of the drawers.
10. Glue the back and front of the drawer(s) back on.
11. Sand the outside of the drawer
12. Ease the drawer to box opening interface if desired
13. Adjust the opening around the drawer(s) by gluing in spacers.
14. Attach a handle
  - a. The cutoffs from the drawer interior can be used to make a handle.
  - b. Use a set of sharp dividers to mark 2 holes on the drawer face and the back of the handle.
  - c. Drill holes to accommodate small dowels.
  - d. It's ok to drill through the drawer front gluing.
    - i. Glue dowels in the handle first then push it through the drawer face.
  - e. If using white or yellow glue clean up any squeeze out (after about 20 mins.) with a toothpick drinking straw or mixed drink stirrer.
  - f. Option: Gel Instant Glue
    - i. Only a very small amount applied with a toothpick is needed. Titebond Isocyanurate.
  - g. **Beaded handles** work well too. Very easy and look nice on smaller boxes

#### **SANDING:**

- Sanding Boxes?
- BSB's typically require more sanding than similarly sized box projects.
  - Note: The more sculptural the contours the more sanding there might be.
- Sanding box pieces along the way can ease the task.
- Note: do not sand surfaces that get glued back on (such as the backside of the drawer front) or they probably won't meet exactly.
  - The inside of the body of the box and the drawers seem to be hardest to sand (interior curves).
  - Sand drawer interiors before gluing the front and back on.
  - An Oscillating Spindle Sander (or drum sander attached to a drill press) is very useful for sanding the interiors of the boxes body and drawers.
- If your box has curves you might consider sanding to a higher grit (320?) so any finish won't soak into the grain too heavily.
- A 1 lb. cut shellac is also useful as a 1st coat to make the finish more even.
- Lot of ways to finish these boxes just but be aware of edge and end grains that take stains and finish evenly.

#### **SOME TOOL OPTIONS FOR SANDING:**

1. 12" disc sander
2. 6 x 48 Sears Flat belt sander w 9" Disc sander
3. Oscillating Spindle Sander
4. ROS & Pad Sander
5. Scrapers (when possible)
6. **Microplanes:** available in "fine" and "coarse" in "flat" and "round".
7. Sandpaper in assorted grits

#### **EVENING THE GAP BETWEEN THE BOX BODY AND DRAWERS.**

- Makes for a better more symmetrical look?.
- It helps if the edges are rounded.
- Shimming the gap:
  - Wood shim of the same wood as box.
  - Self stick felt strips.
  - Bamboo skewers
  - Velcro strips with the fuzzy side out (helps box slide in and out)

*(cont'd on page 7)*

## LINING DRAWERS:

Option: **Adhesive Backed Pseudo Suede** material.

- Cutout a piece of rigid paper to match the inside of the box then use as a temple to cut the suede. Fit carefully using the eraser side of a long pencil to help get it fit up.

Option: Flocking

- A soft suede like fiber lining typically associated with the interiors of jewelry boxes.
- Advantage: If you plan to line or flock the drawer interiors you can avoid a lot of sanding time.
- Some people think it gives a professional interior finish, others think it looks like something straight out of a grade school craft fair.
- Colored Suede Tex Fibers are blown onto glued interior surfaces (like drawers) and allowed to dry. The Leftover fibers that don't stick to the glue can be poured out and saved for future use.
- 3 oz of fiber material in the small kit will cover 15 sq/ft of drawer interior.
- To apply flocking:
  - Tape off the any of the exterior areas that you do NOT want to be covered with the flocking.
  - Create a small **Flock booth** out of a cardboard box and a plastic bag:
    - Cardboard Box with corners cut out and the bag corners pushed through the openings to hold the bag in position.
  - Evenly spread glue inside the drawer with a brush.
  - Load up the tube sprayer with fibers. Note: there is also an air sprayer available that attaches to an air compressor (\$\$). The tube works well enough.
  - Place your drawers sideways in the box to permit spraying horizontally.
    - Move drawer as needed for full coverage.
  - Let drawers dry for a full day.
  - Shake off the excess fibers into the bag.
  - Remove drawers from the box and set safely aside.
  - Save the fibers shaken in the bag for future use. They are still good.
  - Allow the flocking to dry for another 24 hours or until completely dry.
  - Brush out any excess with a soft brush.
  - Full drying can take up to one week.

Option: Line with nice cloth.

- Velvet makes a nice lining.
- Cut index cards paper to the exact size inside the drawer. Cut lining to size.
- Tape off and spray the interior of the drawer with spray adhesive or use a **school glue stick** to adhere lining.

Option: No lining at all.

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*(See Page 8 for additional resources)*

## ADDITIONAL RESOURCES:

### VIDEO LINKS:

- Learn to Make a simple Band saw Box (by B.Merritt):
  - <http://video.google.com/videoplay?docid=326024557203395619#docid=-6850720101777389899>

### CWAX NEWSLETTER:

- Gordon Combest Presentation to CWA: The Sawdust Sept. 2009
- [www.charlottewoodworkers.org/Newsletters/September%202009.pdf](http://www.charlottewoodworkers.org/Newsletters/September%202009.pdf)

### BAND SAW BOX PROJECT LINKS:

- [www.rd.com/18259/article18259.html](http://www.rd.com/18259/article18259.html)
- [www.sawdustandshavings.com/woodworking/](http://www.sawdustandshavings.com/woodworking/)
- Sculpted Band Saw Boxes - Stingray from Popular Woodworking:
  - [www.popularwoodworking.com/article/Sculpted\\_Band\\_Saw\\_Boxes\\_-\\_Stingray/](http://www.popularwoodworking.com/article/Sculpted_Band_Saw_Boxes_-_Stingray/)
- Lift Lid BS Box Build: <http://www.sawmillcreek.org/showthread.php?p=826743>

### BAND SAW BOX BOOKS:

- Sculpted Band Saw Boxes: Design, Inspiration & Construction by Lois Ventura (2008)
- Ultimate Band saw Boxes by Donna Menke

### BAND SAWBOXES YAHOO GROUP:

- [bandsawboxes@yahoo.com](mailto:bandsawboxes@yahoo.com)

### BAND SAW BLADES:

- Timberwolf blades:
  - Combest Industries Belmont NC (see CWA Newsletter link above)
- Woodslicer Resaw blades:
  - <http://www.highlandwoodworking.com/woodslicer12resawbandsawblades705to137.aspx>
- Carter Bandsaw Blade Stabilizers:
  - [www.carterproducts.com/product\\_list.asp?cat\\_id=14](http://www.carterproducts.com/product_list.asp?cat_id=14)
- Donjer flocking:
  - Sold at woodcraft
  - [www.donjer.com/](http://www.donjer.com/)
- Ferris Belt & Saw



## Boy Scouts of America

### *Woodworking Merit Badge:*

We anticipate another session for 20 scouts sometime in the Spring. Please be prepared to assist.

### *Explorers Post:*

We have had keen interest from area Scouts. An Explorer Post (A co-ed teenage division of Boy Scouts for 14 - 21 year olds) has been exploring a variety of areas of wood working in the broadest sense including framing, cabinet making, furniture making, wood turning, etc. They' meet at JPM generally meet once a month on the 3rd Saturday of the month.

Post members that want to also join CWA get a student membership rate of \$15/ year.

Bruce Bogust mentioned the Post is finishing up portable tool boxes. Next the Explorers will be working on a 'three legged stool' project, which will give them simple turning, wood planning, and jointing experience.



## Other Items from the Woodpile

David Powles plans a discussion of the most important piece of equipment in your shop.

In support of that discussion an online survey was conducted by Pete Stoffel and the results will be discussed at the next CWA meeting.

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Plans for the June CWA meeting includes a discussion and presentation on the Google "Sketch Up" computer drafting tool.

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Bruce mentioned that there is now a good size air conditioned and heated classroom at JPM, which CWA will be able to use when the weather is extreme and the shop or tools are not required for a meeting presentation.



## JPM Shop Use

Any current CWA member who would like to use the shop is welcome to do so! All that is needed is to schedule the time! If you have something specific you need to do and you need our tools or a bigger shop to work in, please do so!

JPM has plans to expand again by adding 3-phase power. Additionally a large classroom will be added. It is planned to accommodate groups of up to 25 people!

CWA will be looking into the acquisition of assorted "Big Iron" (3 phase) shop equipment such as Jointers, Planers, and Table saws. A wide belt thickness sander was noted as good piece of equipment for CWA to have.

To use the shop contact Jim Emory at:  
[JimE@JacksonPark.Org](mailto:JimE@JacksonPark.Org).



## SHOP TOURS

Mike Smith organizes club membership shop tours. The goal is to have shop tours scheduled that are in the same general geographic area to reduce the distances traveled between shops and permit time to adequately tour several shops in a day.

Please sign up even if you don't have a fancy shop

If you would like to put your shop on the shop tour list, please contact Mike at:  
[mikececilsmith@carolina.rr.com](mailto:mikececilsmith@carolina.rr.com)

Note: all shop tours are for active CWA members only. Please refrain from bringing guests, family members, friends, dogs etc...

Once enough shops are committed a date will be set.



**The CWA meeting raffle** could benefit from your donation. If you have any tools (old or new) or shop supplies you would like to donate to be raffled, please bring them to the meeting and let Mike Smith know.



## CWA MEETING PRESENTERS

All members are asked to keep an eye out for anyone that might make be a suitable program presenter for our CWA club meetings. Who knows, it might even be you!

### Recent presentations have included:

- Carving
- Woodworking Project Photography
- Bandsaw Setup and Bandsaw Blades
- Turning an Offset Padfoot Table Leg
- Marquetry
- Sharpening
- Dulcimer making
- Shaker Table Build Workshop
- Wheel making
- Windsor chair making
- Spoon Carving
- Fitting a Drawer
- Power Carving
- Bandsaw Boxes

**If you know of someone with a woodworking skill that could be of interest please contact Dave Powles at: (704) 506-0403.**

*✍*

### *April Meeting*



*✍*

## CWA Google Groups

### There is a new method for CWA membership to communicate!

With a single email we can let you know what's happening. You can also view all the 2009 published club newsletters.

### Note: You Can Join This Group on Your Own!

To join:

Paste the entire line below in your web browser's address bar:

<http://groups.google.com/group/charlotte-woodworkers?hl=en>

- Hit "enter", Click the link "Join this Group" (on the right).
- Create a Google account if necessary (all they want is an email address and password). Please save your password in a secure place for future use.
- Once "signed in" select the radio button "Email" at the bottom and enter a nickname.
- Send an email out to the group to introduce yourself!
- Use "charlotte-woodworkers@googlegroups.com" as the "send to" in any email communication to all members of the group.



## Boy Scout Woodworking Merit Badge (Spring Session)

JPM has been holding shop sessions for 20 Boy Scouts to work towards receiving a woodworking merit badge. (see info on page 3)

Jim Emery is seeking volunteers from CWA membership to assist with Saturday workshops, as another session will be offered this Spring. Workshop sessions are anticipated to be held as morning and afternoon sessions.

This is an outstanding way to introduce young people to woodworking. With many school shop programs being phased out this may be the only contact our youth have to a woodshop and the craft of woodworking.

If you would like to put your name on that list to help or would like to find out more please contact Fred Miller at: [fredmiller2@gmail.com](mailto:fredmiller2@gmail.com).

Watch for additional information to be published to the CWA Google group.



### Regular CWA Meeting Time and Place

Meetings of the Charlotte Woodworker's Association are held the third Tuesday of each month, except for December. Meetings are held at Jackson Park Ministries Woodshop at Sentry Post Drive, Charlotte, NC.

Please check the web site

([www.charlottewoodworkers.org](http://www.charlottewoodworkers.org)) for directions.

Note: you may see construction on Sentry Post Drive as they have been working the area of late.

A social and refreshment time starts at 5:30pm; our meeting starts at 6:30pm. Come to the meeting early and get to know your fellow woodworking enthusiasts!



### Best Quote of Last Few Months

*"The most dangerous tool is the next one you will use"*

**Tony Profera**

*(editor: A good safety conscious perspective to have.)*

## *The CWA Library*

Books and DVDs are available from the CWA library for a buck a month. Contact Maurice Blackburn at [MBlackburn1@Carolina.RR.Com](mailto:MBlackburn1@Carolina.RR.Com)

Also, please help your fellow woodworker and make your club newsletter even better by contributing a short book review.

Remember, your review is redeemable for a free DVD rental from the CWA library!

Send your book review to Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net))



## **The Classified Section**

Other tools may be posted on the JPM shop bulletin board, so check the board at meetings.

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This space is reserved for classified ads! If you have any woodworking items for sale that you think would be of interest to the membership please contact: Roger Callahan ([roger\\_callahan@bellsouth.net](mailto:roger_callahan@bellsouth.net))

Include a complete description of the items(s) and a picture or 2 (if possible).



## 2010 CWA Officers



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Vice President, in-charge of programming  
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Wayne Manahan  
Web Site  
(704) 786-0768  
[WManahan@VNet.Net](mailto:WManahan@VNet.Net)

# Directions to Jackson Park Ministries



From the intersection of I-85 and Billy Graham Parkway:

- 1.) Take Billy Graham Parkway South.
- 2.) Turn Right on Paul Brown Blvd / West Blvd. (this will be after the main entrance to the airport)
- 3.) Turn Right on Airport Drive.
- 4.) First left on Sentry Post Drive.
- 5.) At the end of Sentry Post Drive there is driveway on the left. Enter here. Using the photo above, drive down the driveway and around to the warehouse with the "x" on the top.

From the intersection of South Tryon Street and Billy Graham Parkway (where Woodlawn turns in to Billy Graham). Also exit 6 from I-77.):

- 1.) Take Billy Graham Parkway North.
- 2.) Turn Left on Paul Brown Blvd / West Blvd. (this will be at the light after the Tyvola Road exit)
- 3.) Follow from Step 3 above...

## CWA SPONSORS

*Please thank them every time you use their services.*

### WOODCRAFT

Mr. David Boyuka  
1725 Windsor Square Drive  
Matthews, NC 28105  
(704) 847-8300

### THE WOODWORKING SHOP OF CHARLOTTE

Jim Rivers, Manager  
4728 South Blvd.  
Charlotte, NC 28217  
(704) 521-8886  
Notice: this shop has **closed**.

### WHOLESALE TOOLS

4200 Barringer Drive  
Charlotte NC 28217  
**1-800-438-3580 (Service)**  
Web link: <http://www.wttool.com/>  
5% - 20% discount with current membership card.

### FARRIS BELT & SAW

235 Foster Ave.  
Charlotte, NC 28203  
704-527-6166  
complete sharpening services and abrasives

### HORIZON FOREST PRODUCTS

...has left Charlotte. We look forward to their return  
in another year or two.  
Chad Mitchell, Manager  
704-369-0485

## CWA MENTOR PROGRAM

The following members have offered their help to anyone interested in learning skills or new techniques in their area of interest. Contact each person to arrange times to get together if interested.

Wayne Manahan  
Sharpening  
704.786.0768  
[wmanahan@vnet.net](mailto:wmanahan@vnet.net)

If you are willing to mentor new woodworkers please let us know. Thank you!



*"I have a lightning hammer –never strikes the same place twice.*

*-John Leake*

Roger Callahan  
3334 Whistley Green Dr..  
Charlotte, NC 28269

BUILD RATE  
US POSTAGE  
PAID  
PERMIT NO.  
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ADDRESS CORRECTION REQUESTED

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