

# PGRS TRACKIN'

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Newsletter of the Piedmont Garden Railway Society – April 2016

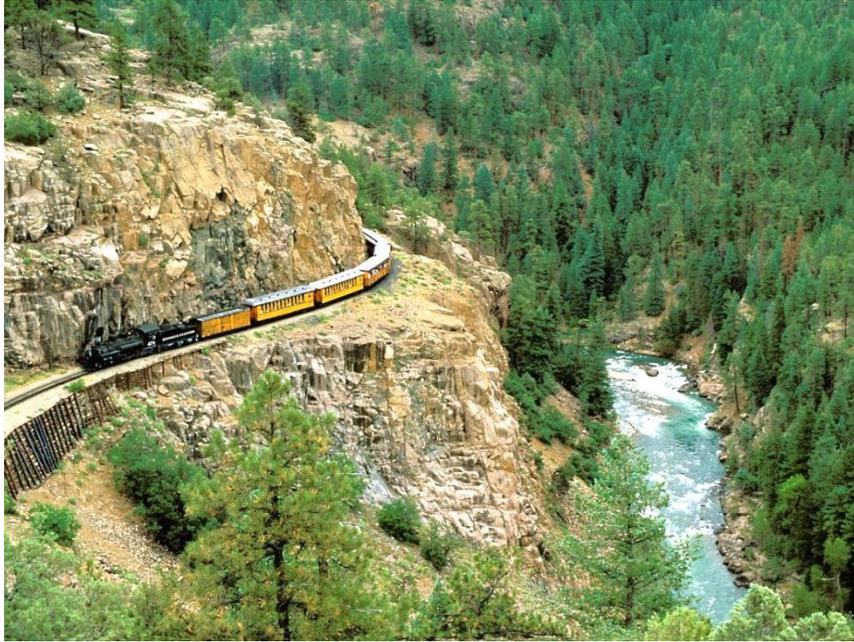
Editor: Scott Williams

Spring has sprung club members!

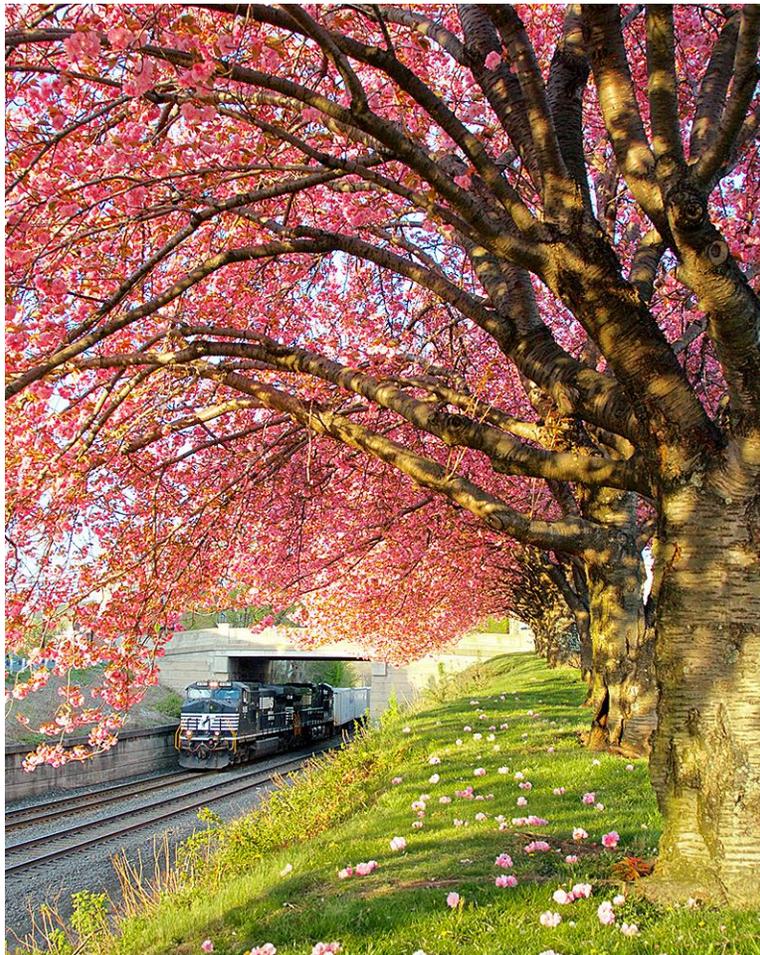


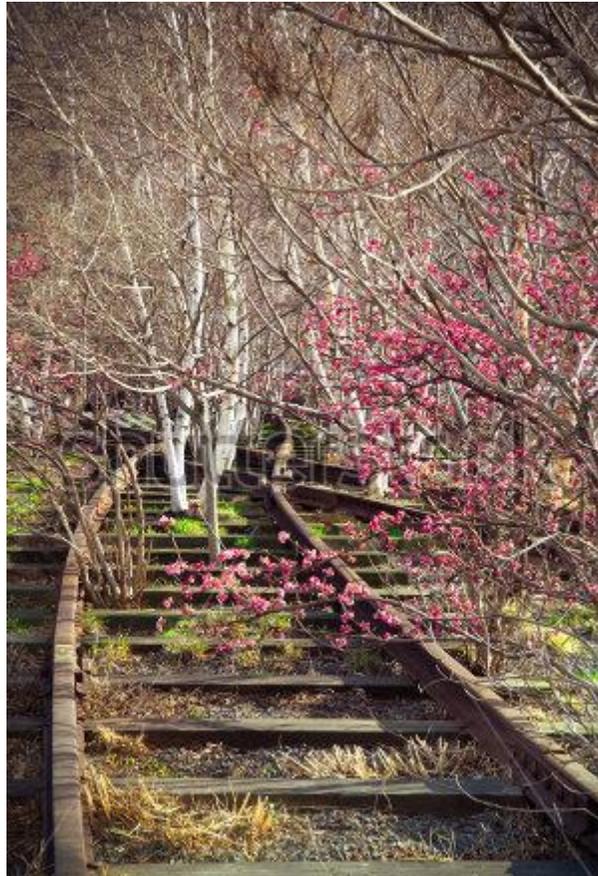
Time to get outside and do some maintenance work on the layouts we already have or start construction on those outdoor layouts you have been planning to build this year.





**Springtime**, winter finally bids farewell.





Hopefully you won't have this many weeds to pull this year.

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\*\* A reminder from Terry Ketcham that PGRS club members are invited to come by the Apple Valley Model Railroad Club in Hendersonville the last Saturday of each month to run their large scale trains on the club layout from 10 – 2 pm.

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## **PGRS BOARD MEETING MINUTES, MARCH 2, 2016**

**From; Don Watson, PGRS club Secretary/Treasurer.**

Meeting called to order at 10:00 AM

Attendees: Bill Huntman, Don Watson, Tim Wagner, Fran Monahan, Craig Riley, Pete Gendron, Jon Bole, Scott Williams, Larry Williams, Terry Ketcham, Sky Mayo.

### SUMMER TRAINFEST:

It was decided to use the same facility as last year (The Cottages at Brushy Creek in Greer, SC) It will be held in mid to late July. Don Watson will obtain a date.

Food and drink will be provided by the club.

The event will include: Sale and Swap meet, Show and Tell by members, Clinics, and Poster Presentations. Clinics and Poster topics will be provided later. An announcement will go out in a PGRS Newsletter to seek topic volunteers.

### JOINT ACTIVITIES WITH APPLE VALLEY RR CLUB:

The PGRS will pursue additional cooperative activities with the Apple Valley RR Club. Currently the PGRS has an open invitation to run trains on the last Saturday of each month. In addition, the PGRS will host in conjunction with the AVRR club a BBQ and train run on their largescale layout. Currently we are looking at a date in May. Details will be provided at a later date.

### WNC ARBORETUM RR ACTIVITIES:

The PGRS currently provides volunteers to help run and maintain the Rocky Cove RR at the WNC Arboretum. It has been proposed that the PGRS host an open house at the RCRR sometime this summer. No date has been set. Club members will be invited to bring their trains (battery operated only) and run them. Bill Huntman will be the lead contact and will look into the logistics.

*(PGRS Secretary/Treasurer's note: Since the PGRS provides the majority of the support to the RCRR, perhaps the board should consider making this an officially sanctioned club function.)*

### PGRS WEB SITE:

Scott Williams reported that steady progress is being made in developing a club website. Scott will provide a list of functions (in order of development) that the site will feature to the board and then to the membership in a future newsletter. The board voted to authorize funding for the development and operation of the site.

[[Editor's note](#); I have been working with Kevin Black, a Senior in Web Design at the local community college. Unlike other people I approached, Kevin was very eager to work on our webpage. He's balancing his time between college and his job but our schedules mesh once in a while and we get together and work on the webpage.

The goal of the webpage is to have an Internet presence for the PGRS that tells people 'surfing' the Net for info on train clubs who we are and what we're about. It will also have picture galleries of club member's trains and layouts. Ultimately we hope this will have a password protected, 'members only' section with an archive of newsletters, upcoming club event calendar and announcements. It's a work in progress but we're hoping to have something that looks 'slick' and works well so please bear with us.]

### 2016 OPEN HOUSE SCHEDULE:

Don Watson reminded the board that there have been as many as a half dozen members who have volunteered to host an open house during 2016. So far we have a commitment from Tim Wagner for September 24. Don will send out emails to those who have tentatively volunteered to try to obtain commitments including dates.

### PGRS OUTREACH PROGRAM:

The PGRS Outreach Program is currently limited to having tables at regional Train Shows. Pete Gendron and Fran Monahan proposed that the club build a small, lightweight portable layout to take to shows, etc. The board approved a budget to build a 16 ft. by 12 ft. layout. Pete and Fran will see to the construction. Terry Ketcham already donated almost enough track to build

the layout. More donations will be sought and if they can't find enough track, the club will provide additional funds to cover the cost of more track. The club is looking into our possible participation in the Charlotte Home and Garden Show next year.

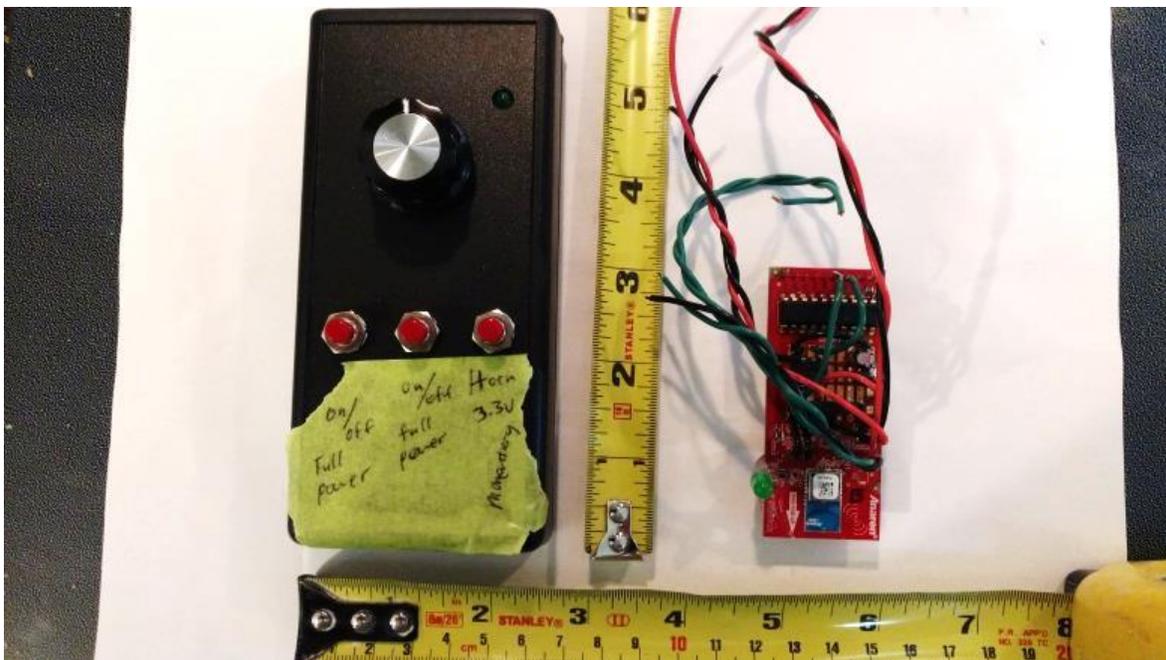
Meeting was adjourned at 11:30 AM.

\*\*\* Think you might have an idea for a topic to share at the summer Trainfest? We are looking for presenters. This should include examples you have built on a topic and/or accompanying slides to show at the Trainfest. We promise to have an extension cord long enough to get a big picture from the projector this time. [HA! Sorry Fran, just couldn't resist it.] Maybe you have a project you have completed or have been working on that is really cool but not up to a full on clinic presentation, or maybe you're a bit shy on public presentations. No worries! This summer we are also hoping to display Posters of projects if you think your project is something others would like to learn about but maybe not large enough for a 'Clinic' that you could display photos and documents on poster boards at the trainfest and share your experience on those projects with attendees.

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### Junior Wireless DCC system:

Jerry Bartle up in Waynesville has recently finished building the Junior Wireless DCC system that was published in last year's **Garden Railway magazine** and he sends his notes along on the project for fellow club members to review:



Here is the Garden Railways article:

<http://grw.trains.com/how-to/projects/2014/11/build-your-own-wireless-dcc-system-article-bundle>

The first download link is the article on how to construct the Transmitter and then the Receiver. The second and third links are the codes for programming the two boards. These code files need to be saved to your computer. I saved the article pdf so that I could enlarge the wonderful illustrations that Marc Horovitz added for reference. They greatly aid in the assembly process. The instructions in the article are good, with only a few hiccups. I will list these below.

It seems like a daunting project at first, but when you are done it seems pretty simple. Hopefully my tips make sense and they can be of assistance. If you have any questions, let me know. Or, I would be happy to assist in the building of one of these awesome scratch built r/c controls. I had mine running last night and the control is precise and the range is good. I could control the train from my basement as it was upstairs with no line of sight. You can build an operating transmitter and receiver pair for about \$55. You could build multiple receivers for various engines and just use the one transmitter.

The most tedious part is positioning and soldering the tiny 1/8" surface mount resistors and LED to the circuit boards. They are TINY!! They do come pre tinned, so all you need to do is hold them in place with an xacto knife and warm up the ends. It is a little hard to tell if both ends are attached. The rest of the components are a breeze after you conquer these.

The parts list in the article is accurate, except for the omission of a Green surface mount LED for the receiver board. It is in the instructions, but there is no part #. I ordered everything from Mouser.com, using the part #s in the article lists. You need one "RF Booster Pack Kit with MCU" and one "MSP430 Launch Pad kit". I ended up with two Launch Pads, but I think one will work just fine to program the radios separately. I programmed the chips and radios per the Texas Instrument instructions that came with them before loading the Throttle and Decoder programs. The radios are shipped as receivers and one needs to be changed to transmitter mode, leaving the other to receive. This may already be part of the program code file, but I am not sure.

You need to download this file for programming the codes: FET-pro430 v 3.4-0 Lite from:  
<https://www.elprotronic.com/productdata>

The knobs for the transmitter are available at Radio Shack, a standard 1/4" shaft knob.

Extra parts not in the article:

- The omitted surface mount LED is Mouser #: 755-SMLE13EC8TT86 It flashes when the receiver is hooked to battery and goes solid when the transmitter is On.
- 1 pack of whatever ohm 1/2watt resistors from RadioShack to cut the leads off to use for jumpers.
- 1 Diode from RadioShack. I got a 3amp 50PIV. Not sure what all that means, but I liked the 3amp rating. After I fried the first receiver I made, I decided to add reverse polarity protection with an inline diode on the positive power feed wire. It does give a voltage drop of 1/2 volt from the battery, but...it is piece of mind should the wires get crossed somehow. (like mine did)
- an alternate for the white colored buttons is red: # 104-0012-evx. - When I ordered my second batch of parts, mouser was out of the white ones.

Transmitter building tips:

- Save the large green LED for last. Bend the legs of the LED close to what they look like in the picture. Solder it onto the board and immediately slather a glob of hot glue on the legs and board, making a sort of retaining bracket out of glue. It is extremely easy to rip the mounting pads right off the

board by looking at the light wrong without the glue in place. And it is a pain to try to put back on again...I learned the hard way.

-There is a drill template for the control box that you can print out. The 3 holes for the pushbutton switches need to be moved down about 1/4". This gives a little extra room between them and the board. I found it easier to drill the potentiometer hole first, position the board inside the box and then mark where you LED ends up. That way you don't to worry too much about how you bed the legs of the LED. I used 22ga solid wire for the jumpers on the front of the board and 22ga stranded wire (for it's flexibility) for the pigtails and to connect the pushbutton switches.

Receiver building tips:

-In the receiver instructions, it says to cut one of the imbedded circuits on the board. The instructions are wrong in that one instance, but the illustration is correct. There is an X over the circuit that needs to be interrupted in the drawing.

-The horizontal line that is 2 spots below the X is the circuit that needs to be jumped. A piece of a wire from a resistor lead works perfect because it is already tinned with solder.

-Leave the tails long when you solder the components in the center of the board. The top 3 rows need to be connected horizontally in a line and it makes it easier to do this with a little length on the tails. Again, a piece of resistor lead works great.

Jerry's email for your questions; [jerrybartle@gmail.com](mailto:jerrybartle@gmail.com)

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## **Southern Railway Flat Cars in G Scale:**

By Wayne G. Hamilton

While browsing on EBay; I came across some LGB 53ft. GSC style flat cars. These cars are out of production, but come up occasionally for sale. I had wanted a few Southern Railway flat cars for my Murphy Branch outdoor layout. The four I purchased were in an ATSF road name, but would be great for a very simple kit-bash project. In studying Southern Railway prototype photographs, I found an idea for a display load too.

**Southern Railway  
Acquires 75 Modern  
53' 6" Flat Cars...**



**... with One-Piece  
Cast Steel Underframes**

Commonwealth One-Piece Underframe  
70-ton capacity flat car

A lot of 75 up-to-date 70-ton flat cars for the Southern Railway feature Commonwealth One-Piece Cast Steel Underframes and roller bearings. Latest design One-Piece Underframes provide the following important advantages:

- Lowest height from rail to top of decking.
- One-piece casting provides greater strength at less weight and eliminates maintenance.
- Flored center sills and wide top members provide better support for decking and loads.
- Unusually strong draft sills, draft pockets and bolsters.
- Auxiliary sills between bolsters and end sills provide for anchoring of upright ends.
- Highest resistance to corrosion.

Commonwealth Cast Steel Underframes result in maximum availability of cars, and equipment that is as maintenance-free as cars can be.



Car built by Thrall Car Manufacturing Co.

**GENERAL STEEL CASTINGS**  
GRANITE CITY, ILL.      EDDYSTONE, PA.

My 1954 General Steel Castings Advertisement



The prototype photograph that inspired my project.

Disassembly of the LGB flat car for repainting is very easy. The trucks and bolsters are held in place by just a few screws. The simulated wooden deck and grab irons are a press fit and then the under body brake system details just lift out. Testor's "ELO" decal remover is used to remove the current road name. For painting car, I used Rustoleum Flat Brown in both a spray can and brushed on from a can. The decking was given a dry brushing of gray over the existing brown coloring to simulate the weathered wood.



The models before work begins

Micro Mark brand white decal paper is used to make my new Southern Railway decals. In studying multiple prototype photos, I came up with accurate road numbers and car information. I used fonts available from Pete Willard at [www.railsimstuff.com](http://www.railsimstuff.com). I just create a Word document with a text box filled in with the car paint color, along with a “white” font. This is the only way for a regular inkjet printer to make white lettering, since there is no white ink. Make sure you seal the decal paper after printing with either a spray lacquer top coat or just use a water proof ink. I sealed mine with the Testor’s Dullcoat.



The proof sheet for my homemade decals; there’s enough for four flat cars. These cars are designed to be outdoor runners, so there are only four modifications to the stock model. One is replacement of the poorly detailed LGB trucks with Aristocraft roller bearing trucks, along with their metal wheel sets. The second is to body mount the Kadee #1 scale couplers. I used their #1907, AAR type “E” coupler. Third is the addition of angle cocks and working brake hose glad hands from Old Iron Designs. (*Unfortunately, they have stopped production of their 1:32 scale products*). The angle cocks are offset to the right a little to avoid interfering with the coupler swing. Lastly, the brake wheel is an important detail on this type car, so it was replaced with a new one from Trackage Details, part number TD-79. I also used a slightly smaller diameter brass rod for the brake wheel shaft. These few small details really make a difference in the overall car appearance.

Installing the Kadee couplers involves modifying the car ends as shown in the photographs. I made a saw guide from a small block of wood, which is the same width of the 1907 coupler box. I drilled the wooden block to hook over the truck bolster to make it easier to keep in place while sawing. The flat side of the saw blade runs parallel with the block sides. The horizontal cuts follow the existing opening in the car end beams. After making the saw cuts, I glued in coupler height shims made from a Plastistruct "I beam" that are 1/2" in width, along with styrene tubing to hold the coupler screw. Use of a Kadee coupler height gauge verifies the depth of the saw cuts and shim thicknesses.



The saw guide block



In place ready to saw



The completed cut-out



The shim and couple mount installed



Coupler installed with new trucks



Height gauge verification

After completing these steps, it was time to weather the rest of the car, the trucks, and the new couplers. This was done using pastel chalks, dry brush painting techniques, and all sealed with spray Dullcote. Adding G Scale ACI plates from Micro Scale decals finishes the flat car.

The last step is adding a realistic load. I chose a military load similar to the prototype photograph. Since my model pike is set in the mid-1970's, I chose to use a die cast tank model also of that era. A 1/32nd scale M-41 Walker Bulldog medium tank from "Forces of Valor" completes this flat car. It's secured like the prototype, with wood blocking and scale blackened brass chains.



The finished model viewed at grade

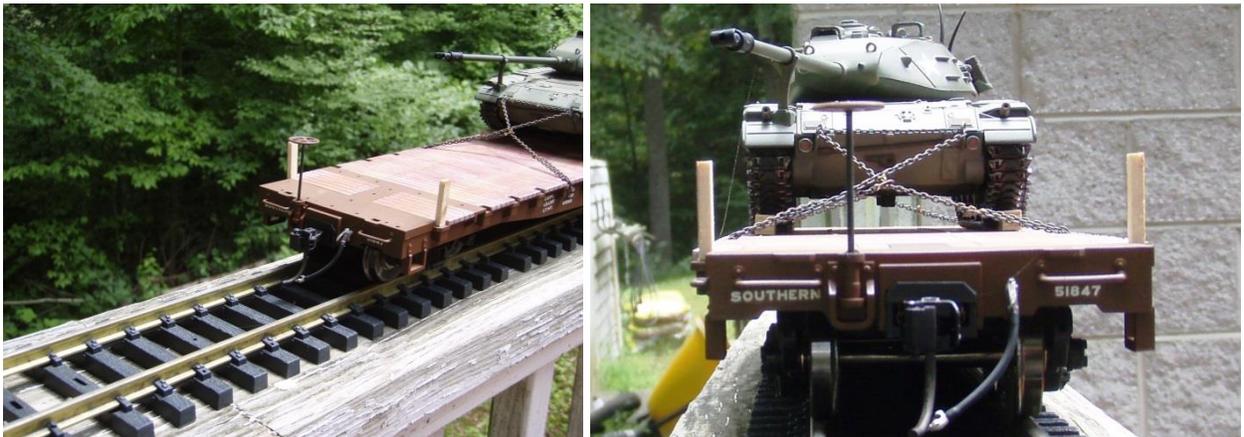


The "A" end glad hand and hose details

The chains that secure the load



The finished model seen from above and out in the sunlight



The "B" end details

This was a simple project using simple techniques and materials, but makes a great imitation of the prototype for my garden railway. I'm sure the Army National Guard unit on my pike will be happy to see their latest armor shipment arrive.

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Roving reporter Terry Ketcham visits the Monahan home and inspects the **PGRS club modular layout**. This is the layout Fran and Pete Gendron are building for use at Train Shows and Events.

"I was blown away by Fran and Pete's handiwork. The overall dimensions of the entire module layout are 13'-6" X 10'-8". Comprised of six 2'-0" X

6'-8" sections, each section locks into the next, using hinges. The track is permanently attached to each section, short lift out sections of track are attached using split jaw connectors where modules attach to one another. Each section has a 1"x2" framework covered with 1-1/2" insulation board and green indoor/outdoor carpet and is lined with a 4 1/2" fascia board. The fascia board is higher than the tracks so that the units can be stacked on top of one another for transporting or storing. The modules sit on six 2'x4' folding tables. This will make for an exciting PGRS display at the future shows."  
Terry





\*\* Fran Monahan sends this request:

“The club layout is in need of 48 rail clamps if anyone can donate some.”

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**Trivia Question:**

What narrow gauge railroad line got its nickname from a vegetable and provided passenger and freight traffic for the WW II Manhattan project?

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**Member Photos;**



Terry Ketcham sends this photo of the sawmill he built for display at the Rocky Cove Railroad at the NC Arboretum.

“The black legs are plastic to give better protection from sitting on the ground. Details inside are limited since the structure will be placed quite a distance from the viewing platform.”

Fantastic work Terry!! This will show Arboretum guests an example of the type of industry that sprang up once the railroads reached up in to the Smoky Mountains, connecting their timber resources to the rest of the world.



### **Apple Valley Car Barn**

Terry also sends this photo of the latest addition to Apple Valley's large scale train layout.

"Our G scale committee chairman, Doug Miller built this 10' long car barn. The roof is not complete as he isn't sure what material would be best suited for it. There is a door that slides into place that will cover the entrance to the barn.

The barn and adjoining 4 yard tracks will be powered by a separate Crest Revolution Train Engineer system. Right now we plan to just store rolling stock in the barn. Engines can be set up on any of the 4 yard tracks just outside of the barn, then back up and couple on to a string of cars in the barn. From there they can proceed to the mainline of the existing railroad."

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### **Membership:**

Please consider sharing this newsletter with friends who might be interested and if they wish to become members ask them to contact our PGRS Secretary/Treasurer for a membership form.

Don Watson  
125 Mistletoe Trail  
Hendersonville, NC 28791

[docwatson@morrisbb.net](mailto:docwatson@morrisbb.net)

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## Train Lover Luncheons:

The current luncheons are:

Columbus Area: Meets every Third Thursday of every month at Larkins Carolina Grill, 155 West Mills Street in Columbus, NC 28722. @ 1:00 PM. Contact Gary Poague 828-712-3429  
gpoague@windstream.net

Greater Greenville Area: Meeting the first Tuesday of every month - at 12 noon. It has been moved to Mutts in Greer as it is more centrally located for the greater Greenville area. Contact Ken Majchrzak at: kemajchrzak@gmail.com or call Ken at: 864-385-4951

Asheville Area: Meets the 4th Thursday each month. We meet at 11:30 AM at Gondolier Italian Restaurant and Pizza located at 1360 Tunnel Road, Asheville 28805. Contact Tim Wagner timwagner2012@gmail.com

The location is on the east end near the VA hospital, so it is recommended that you access Tunnel Road from I-40, exit 55. Take a left at the first light after you exit and a left at the next light. The venue will be on the right a few hundred yards from the intersection.

Winston Salem luncheons are currently being planned by Tony Potter and J.R. Snider.

Charlotte luncheons are currently being planned by Hank Paulson and Dave Smith.

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## Trivia Answer:

Beginning in 1880, the Denver and Rio Grande constructed a narrow gauge branch line from Antonito, Colorado to Santa Fe, New Mexico. The line goes through several small towns and villages as it follows the Rio Grande River through high mountains and desert. The branch line received the 'Chili Line' nickname from the bright red chili hanging outside on many of the houses along the railroad, as well as chili being a staple food for many in the area. One of the stops on the line was the Otowi station which was established where the railroad crossed the Rio Grande River and turned towards Santa Fe. Otowi served the nearby Indian pueblos and the nearby Los Alamos Boys School. Los Alamos became the site of the WW II Manhattan Project. During the war, people and some freight travelled to Los Alamos from Santa Fe to Otowi, where everyone and everything was transferred to buses and trucks for the trip to Los Alamos.

Trivia question this month comes from our club President. Thanks Bill.



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## Business Related to Our Hobby

Any Member who has a business related to our hobby is welcome to submit an entry for inclusion in PGRS Trackin' each month.



Garden Railroad Design  
Old Trains Wanted

### Jim's Train Sales

O & G Gauge New & Used Trains

**Jim Hendley**

Etowah, North Carolina 28729

Lionel, MTH, USA Trains, PIKO, LGB  
Bridgeworks Power Supplies, Bachmann  
Split-Jaw Rail Clamps, O & G Gauge Track

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[www.locomotionworks.com](http://www.locomotionworks.com)



**Peggy Keyes**

Owner / Chief Conductor

[RightTrackTrainMuseum@gmail.com](mailto:RightTrackTrainMuseum@gmail.com)

828.625-5551

**The Right Track Toy Train Museum**

A non-profit museum to benefit Pancreatic Cancer  
research

2414 Memorial Hwy (Rte 64/74)

Lake Lure, NC 28746

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