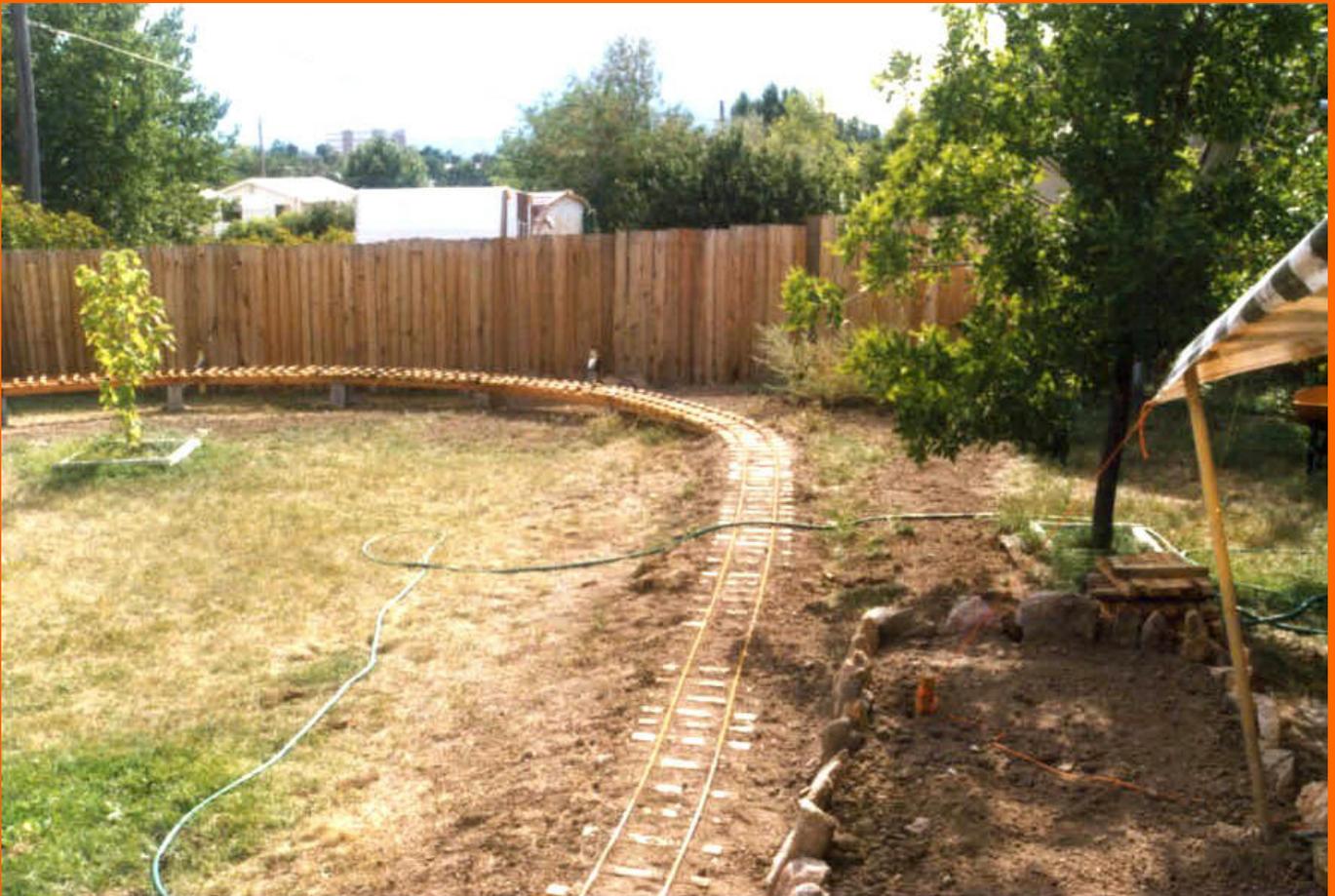


## Track Construction Project

### Backyard Railroad

by Jim Fyles



**I**t all started over LGB. The wife didn't like it, it was too small so off to the club we went. We were guests of the [COLORADO LIVE STEAMERS](#) and spent the day riding trains. When we got home the wife asked me about building a railroad in the yard. So we started with the grading and all that entails.

The railroad is a 150 foot loop with one bridge (I haven't finished it yet). Everything has been on the ground for around 7 years now. It's getting to be time to redo some of the ties.

I used a water gauge (clear plastic hose with water and food coloring) for the grading, lots of string for the curves and a few choice words. All in all, we did well and have had a lot of fun. The track also serves as a test track. The wife and I have carried a lot of heavy frames in and out to see how well they worked.

At first, as you can see by the picture, it was elevated as the yard slopes badly. This idea worked OK until I derailed at the corner at the highest point on the track and fell off with the train behind me. It hurt for about a week. As I recall, the fall from my seat on the engine to the ground was about four feet. After that incident, everything was constructed on the ground. I switched from steel to real rail and now I don't have to worry about falling off. I used a lot of dirt to fill in the low areas and they are still low, but the train goes around just fine.

I would say this to anyone thinking about building a railroad in your yard:

**Quit talking about it and just do it!** It's fun and you will have many years of enjoyment. I think if I redid the railroad I would use pre-treated lumber, even if it cost more. Tie plates would also be nice to look at.



# Q and A

by Jim Fyles

**Q.** Where did you get your rail?

**A.** I bought my rail at the same time the club did as it was a lot cheaper, however Cannonball has rail (<http://www.cannonballltd.com>). If you have a steel yard nearby, you could use steel channel 3/4 X 3/8 X 3/8. It will work OK. It's hard to bend for curves but it can be done. The cost per foot would be less. I don't like aluminum wheels on steel rail though, as they don't last very long.

Please see pictures below for the tie specifications (taken from the Colorado Live Steamers track plan). I would be careful with what you treat the wood with as EPA can get rather tough on you. Treated lumber is one way to go but it's expensive. Motor oil can be used. As I said, check with your local EPA for what is ok to do.

**Q.** How far apart are the ties?

**A.** I set the ties too far apart to start with. The further apart the ties are, the more derail problems you have. I learned that the hard way. I nearly broke my wrist when I derailed. It took many weeks for it to heal. Now the distance between ties is about the width of a 2X2. It takes a lot of ties, but the track is easier to maintain, curves work better and the ballast is easier to use.

**Q.** What type of engines do you operate?

**A.** I run several engines on my line. One engine is my version of an SW7 switch engine. Please note that the only "store bought" items are the wheels. The rest is home made. I also run the "Casey Jones" (see below) and the "Trolley" at times.



**Q.** What did you use for ballast?

**A. DO NOT use round rock (pea gravel).** The darn stuff will never settle in. It always moves. Use chipped rock which may be called fines or chippings in some places. Sharp angular corners help the stones to "lock" together. Study some real railroad ballast and see what it looks like. The rocks fit together and lock the ties in place. I think we are using road gravel now and it's the same type of rock. Just don't waste your time and money on "pea gravel".

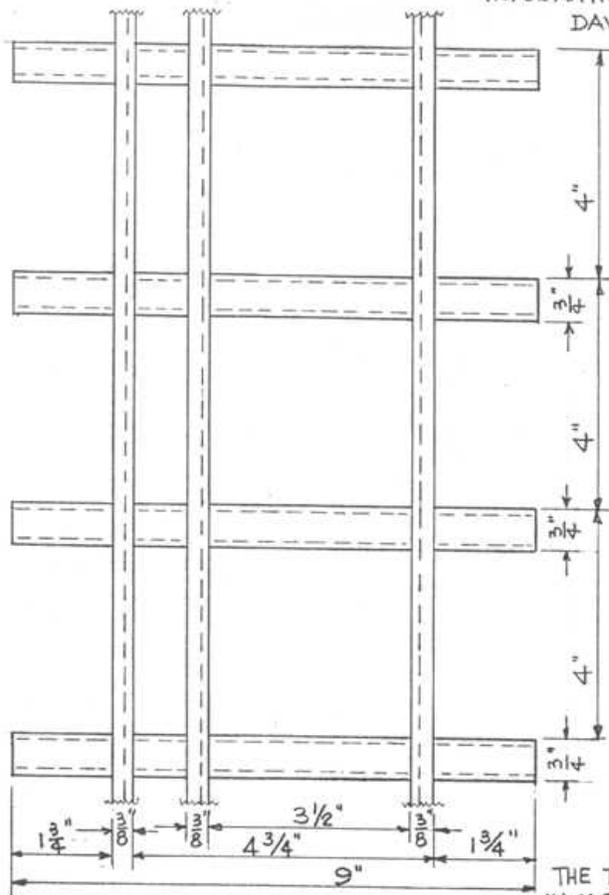
**Q.** How did you figure the radius of the curves?

**A.** I guess there are all kinds of formulas for doing the radius, but I sure don't know what they are. I went with a "just do it" approach. It worked out AOK. I had 75 feet from the fence to the house and that worked out to be about a 15' curve. I cut the yard in half and stuck a stick in the center with a long string and made the curve to see if I had the room. It worked out to be a bit over 15'.



I had already built up two power trucks with 10 inch centers. I just guessed that 15 foot curve would work and it did. I still wonder if it would go on a smaller curve. I would guess that if you had a big steam engine you could forget about using a 15' radius. For a small wheel base it shouldn't be a real problem. I know that the 1" scale will run very well. I would almost rather do the whole track for 1" as the curves and track would be a lot easier to build. You could have track all over the place. It might be worth looking into for a small lot.

INFORMATION SUPPLIED BY  
DAVID HARR



NOTE: THIS  
TRACK WAS  
LATER MOVED  
TO THE BLACK  
FOREST SITE.

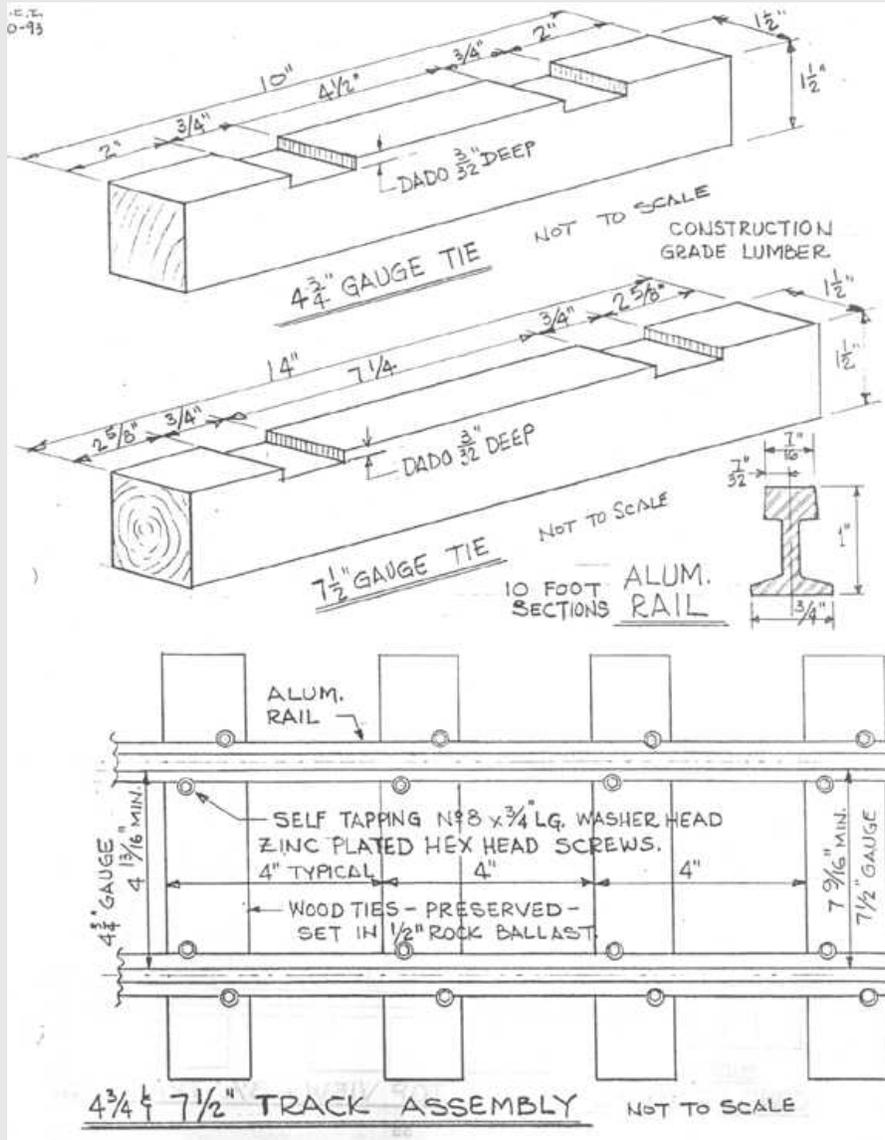
TOP VIEW  
SCALE: HALF SIZE

THE TRACK WAS MADE  
IN 10 FT. SECTIONS OF ALL  
WELDED CONSTRUCTION.  
CURVED SECTIONS, ALSO  
10 FT., HAD A 30'-0" RADIUS.



END VIEW HALF SIZE

THIS TRACK, MADE FROM STEEL CHANNEL,  $\frac{3}{4} \times \frac{3}{8} \times \frac{1}{8}$ ", WAS  
BUILT BY C.L.S. FOR USE AT FORNEY MUSEUM.



All in all, I believe I would say that if you want to build a railroad in the backyard, "Just do it"! Use what you have on hand or what you can find at low cost. I don't think you have to spend your life's saving on a track. In a club, lots of people will use the track so it needs to be heavy duty. You don't need to go to that extreme in your own backyard. With us backyard guys, just about anything will do.

Jim Fyles

