

# NMRA - NFR - SLD

## SCRATCHBUILDING

Presented by Lorne Munro  
Jan. 2015

# WHY SCRATCHBUILD

- To produce a model of a specific building
- Create a structure that nobody else has
- Maybe your favorite station or other lineside structure
- Maybe even rolling stock .... see my current caboose project on display today
- Model of some building you have photographed
- Just the satisfaction of building from scratch

# WHERE TO START

- Need a drawing/design
- Drawing/sketch can be made from a photograph
- Plans from hobby magazines - NMRA Magazine
  - Model Railroader
  - RMC
- Pictures from the internet
- Research your chosen build

Note: The NMRA Magazine is an excellent source of subject material.  
It is the source of today's scratchbuilding project.

# MATERIAL SELECTION

- Study your chosen subject ... photos
- Study the drawings
- Magazine articles will give suggestions for materials required
- Material may be wood, styrene, plaster, etc.
- Windows, doors, etc. may be purchased from suppliers
- You do NOT have to scratchbuild everything.
- If you do not have the actual building dimensions, estimate using normal window/door sizes.

## **SOURCING MATERIAL**

- Make a shopping list of required materials
- Visit your local hobby shop (my preferred source)
  - they can order for you if not in stock
- Check out hobby suppliers on the internet
  - Walthers is an excellent source
  - Canadian sources

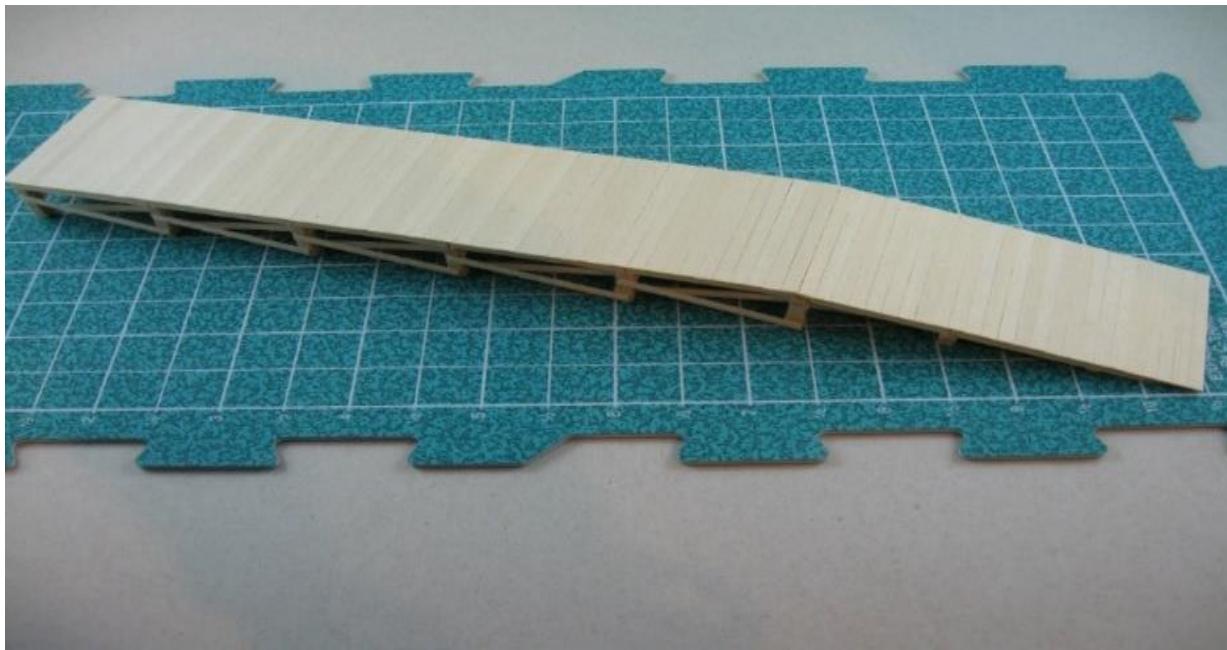
## TOOLS

- I would think that you likely have all the tools you need.
- The tools that you have with you today will probably be sufficient to get started.
- More specialized tools can be added later.

## CONSTRUCTION

I will now show you the steps I followed in building the Loading Ramp.

# RAILROAD LOADING RAMP SCRATCHBUILDING CLINIC

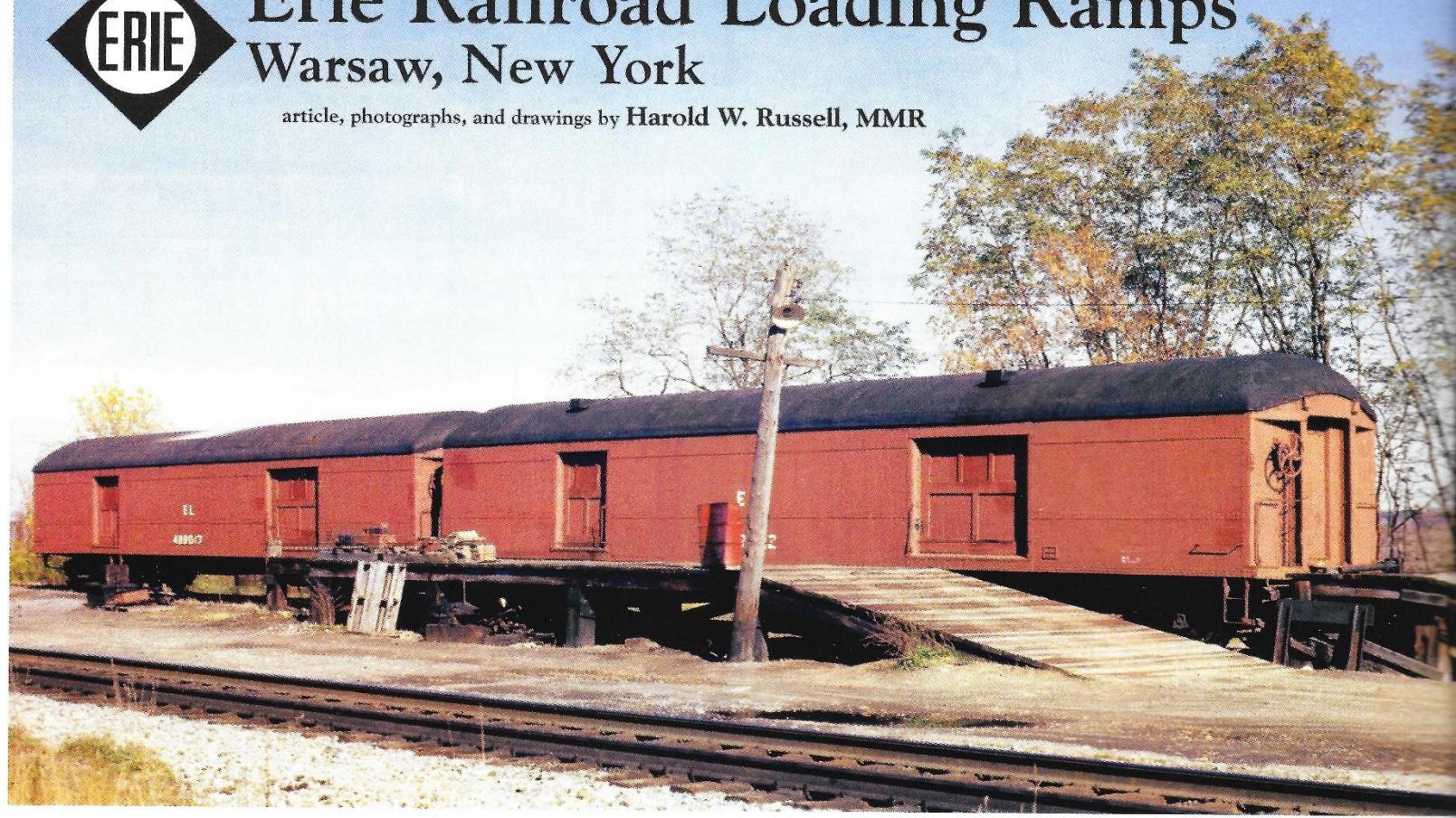




# Erie Railroad Loading Ramps

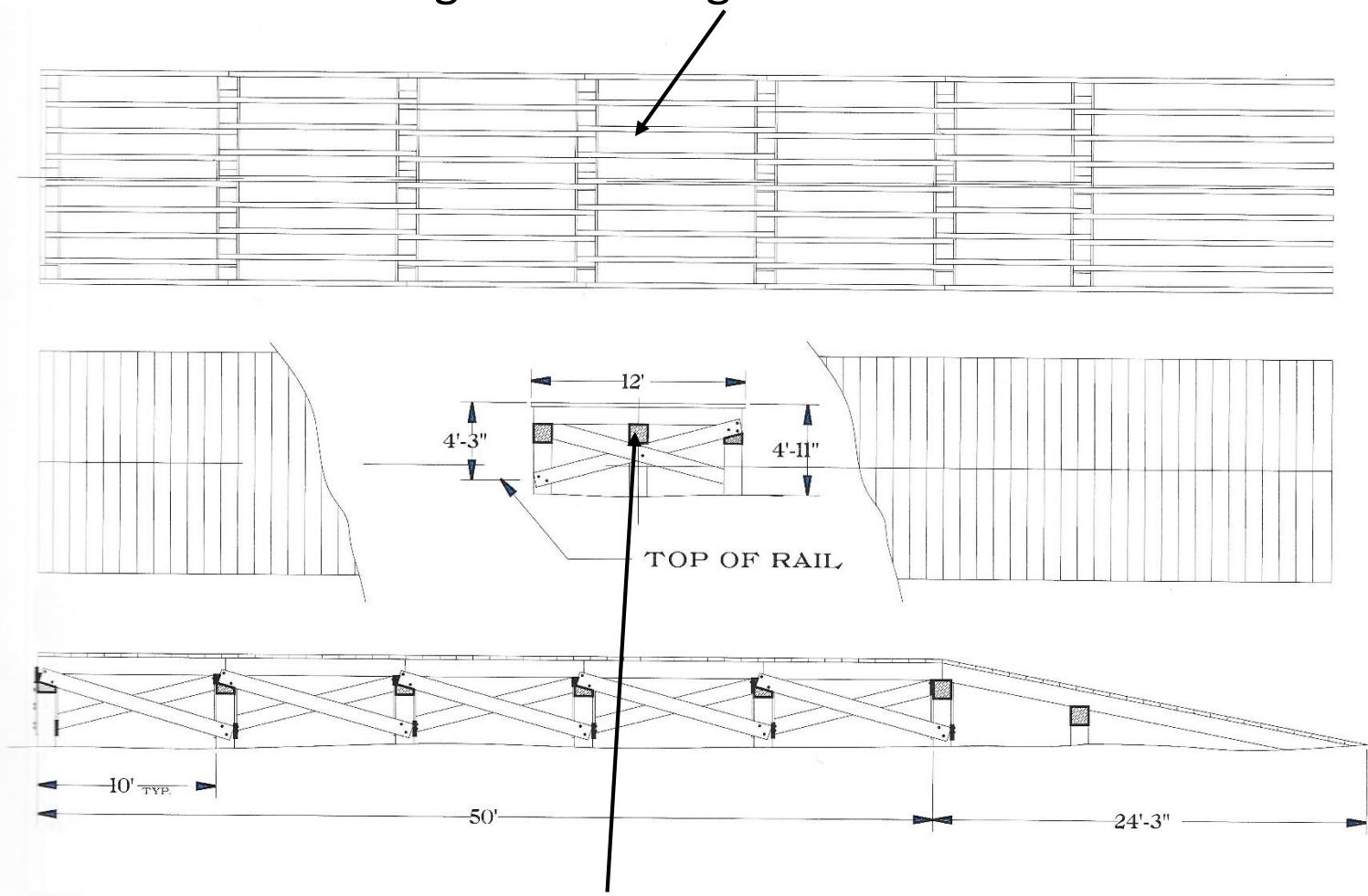
## Warsaw, New York

article, photographs, and drawings by **Harold W. Russell, MMR**



Loading Ramp Picture from NMRA Magazine (Scale Rails)  
February 2010 Issue

- We will be using fewer stringers than are shown here.

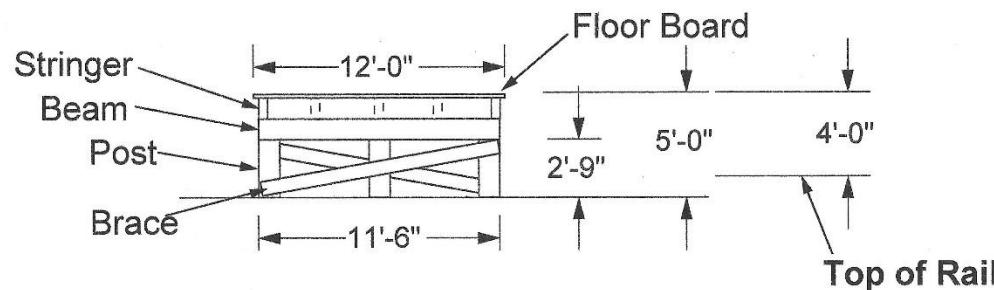
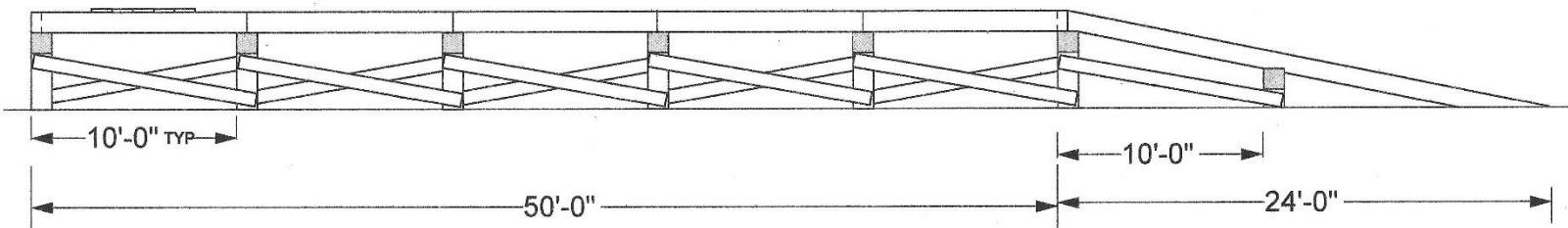
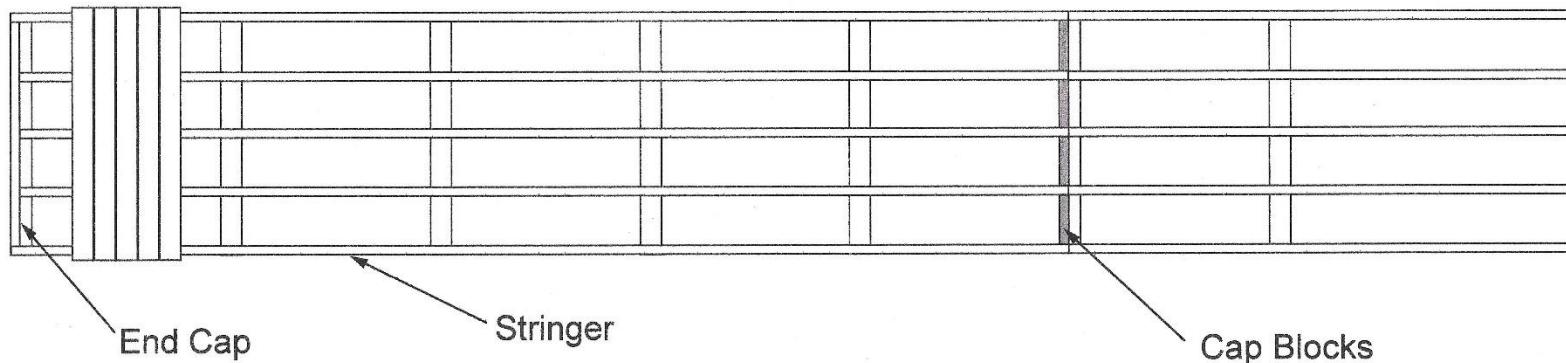


February 2010

- There is an error in the end elevation view of the magazine plans.

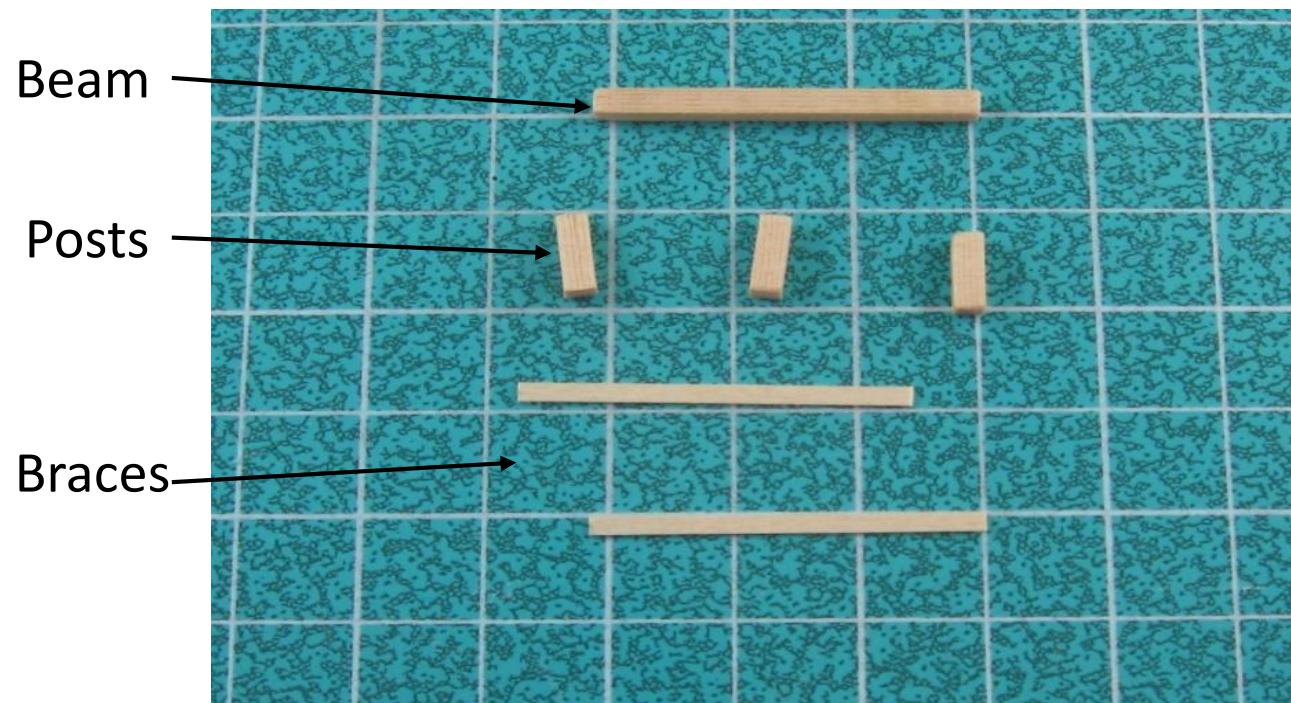
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## Revised Design



<b>SLD CLINIC - JAN 2015</b>
<b>LOADING RAMP</b>
Drawn by: Lorne Munro

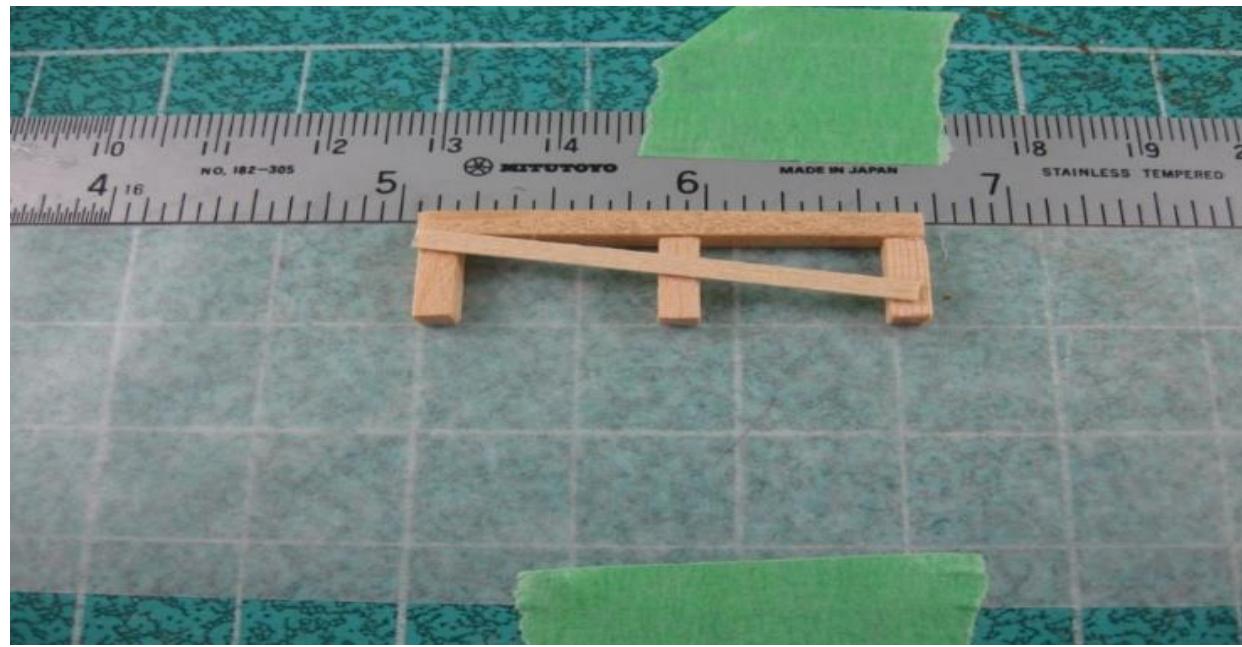
- Dimensions for these components are given in the handouts



- Assemble the posts and beam as shown using a straight edge
- Use wax paper under the assembly (glue does not stick so readily)
- Remember to use glue sparingly ... a little goes a long way!



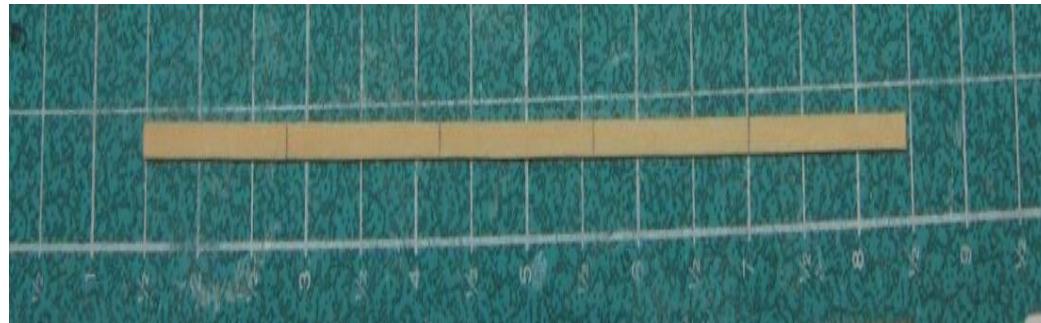
- Glue first 10'-6" brace to post and beam assembly



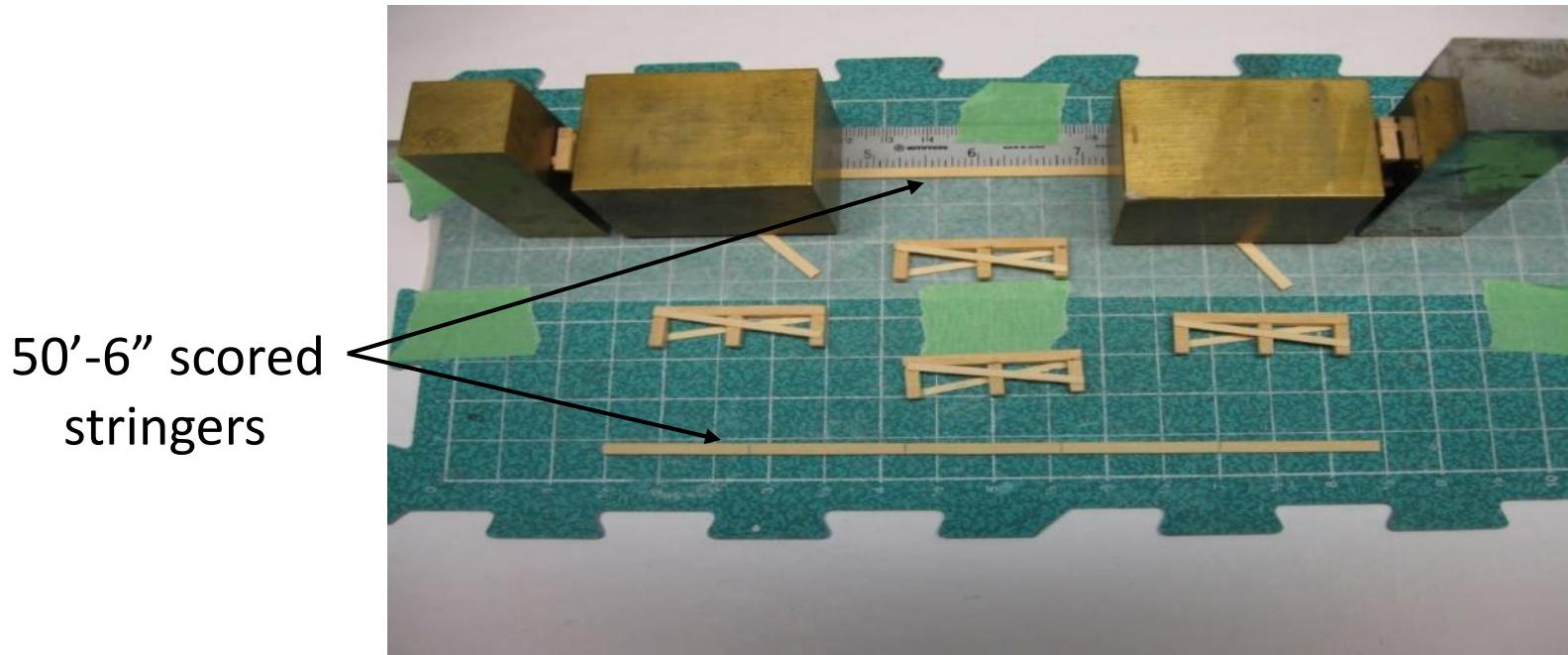
- Gently turn partial assembly over so that second brace can be glued in place.
- This is when weight should be applied to the completed sub-assembly.
- This process is repeated until you have (6) sub-assemblies.



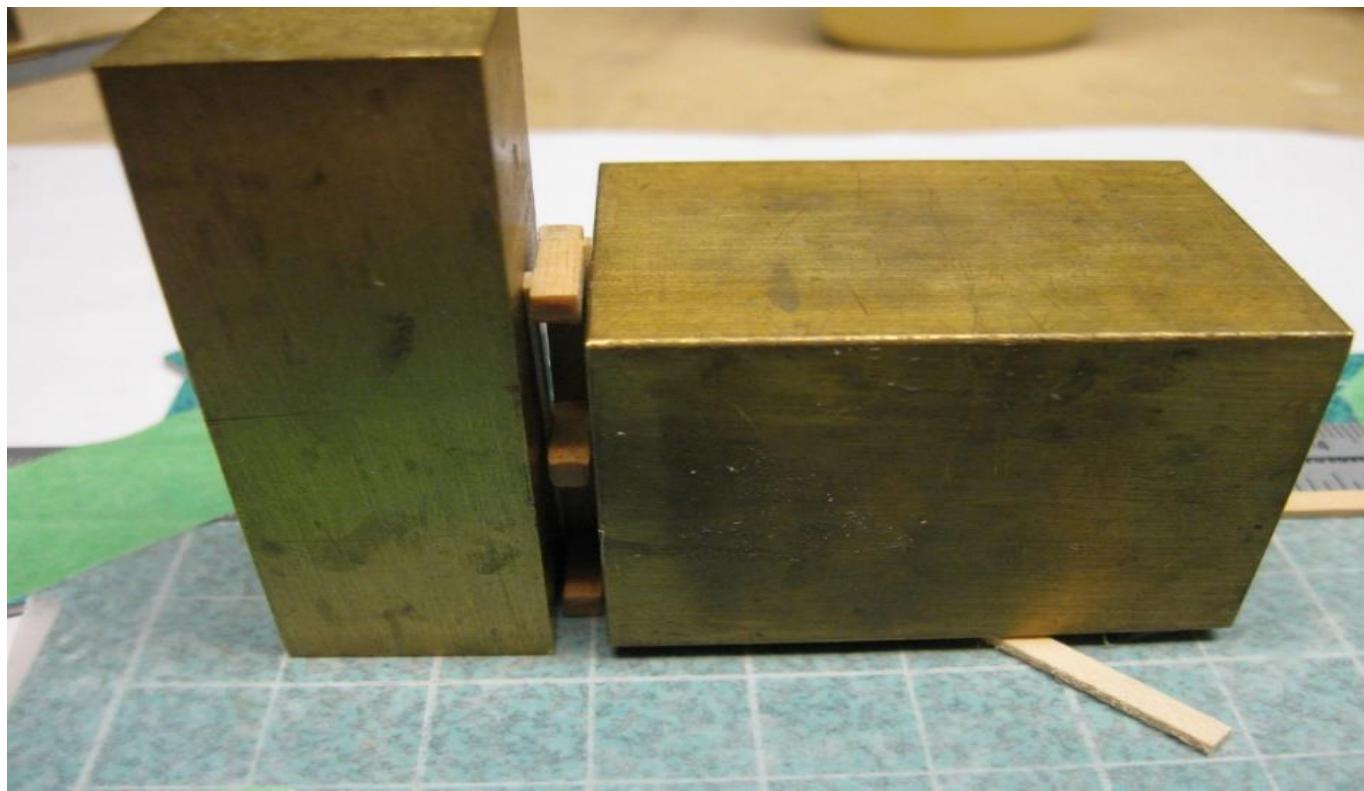
- (2) 50'-6" stringers
- Score both stringers ... 1<sup>st</sup> score @ 10'-6" from end  
... next (3) scores @10'- 0" intervals
- Remaining (3) 50'-0" stringers are not scored
- Note: the scoring is for visual effect only



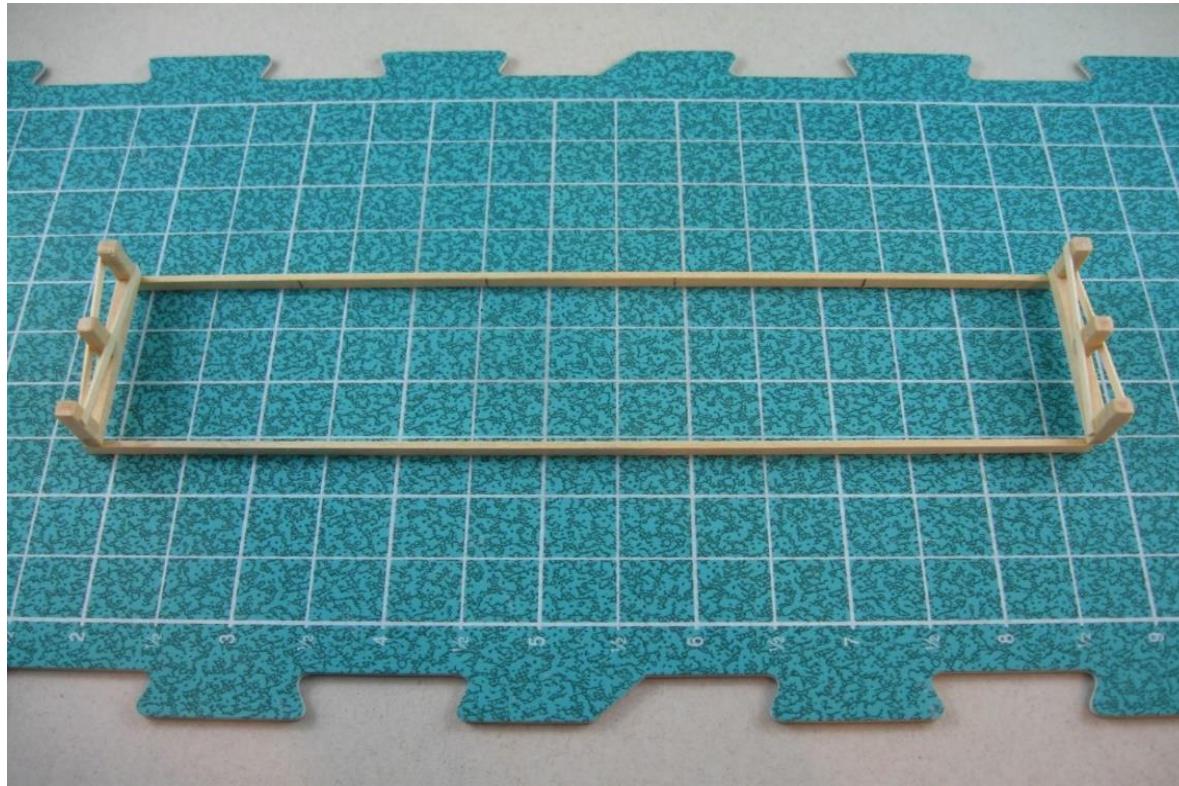
- glue sub-assembly to each end of 50'-6" long scored stringer  
(see handout for proper gluing location of these (2) sub-assemblies)
- the scored stringers are to be facing out
- the sub-assemblies must be square to the stringers



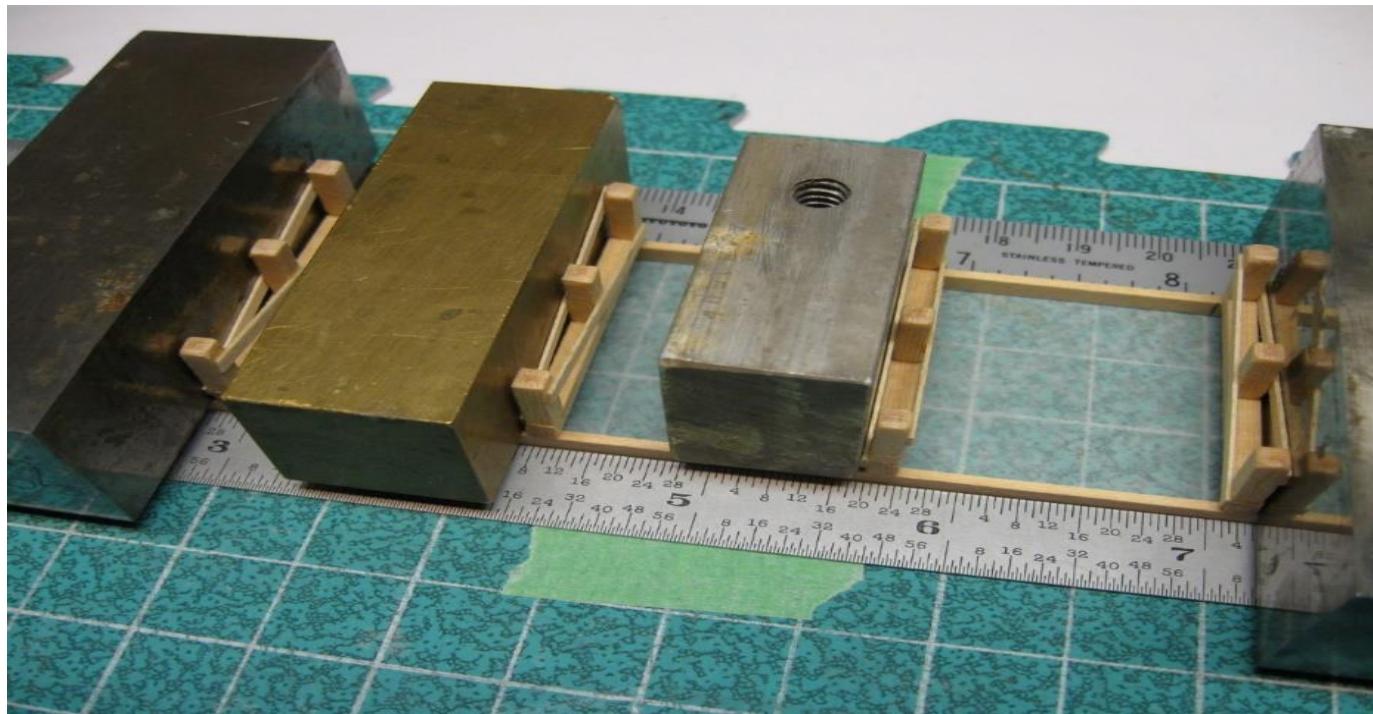
- a closer view of sub-assembly and stringer gluing step



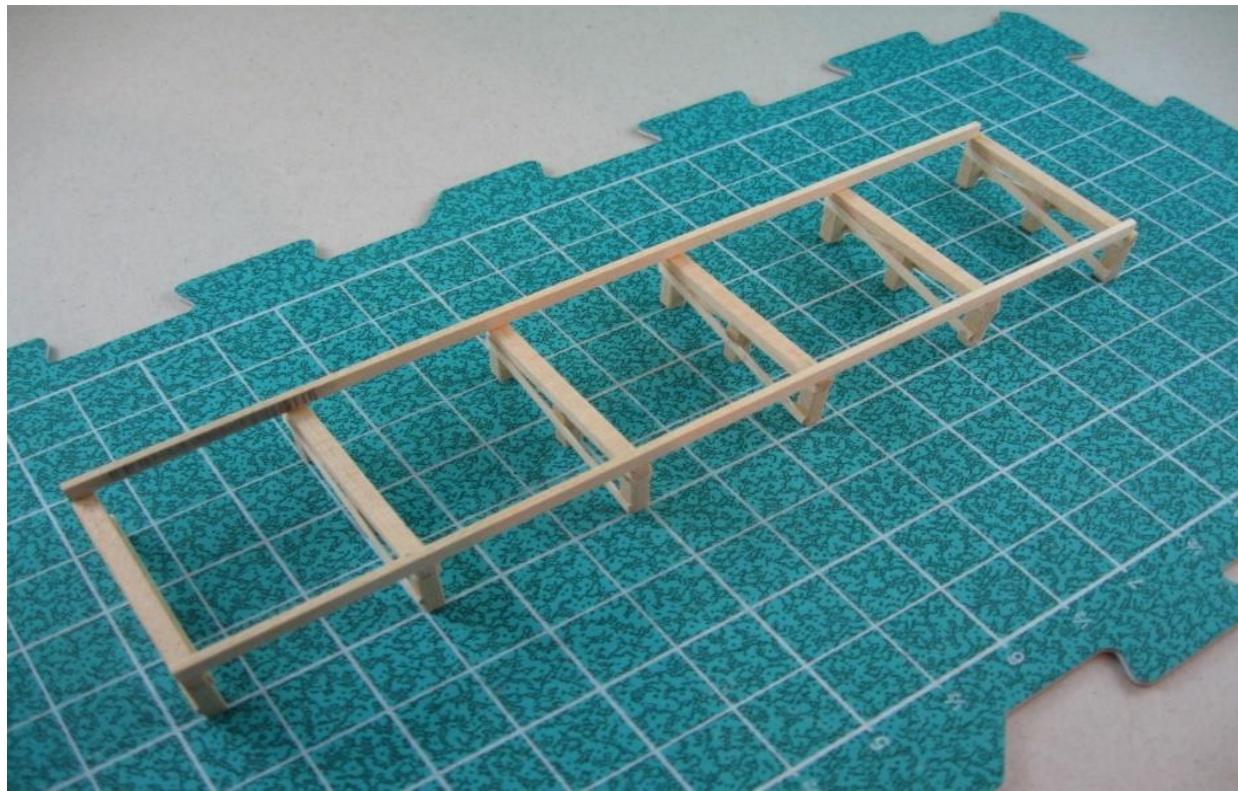
- View of end sub-assemblies glued to scored stringers



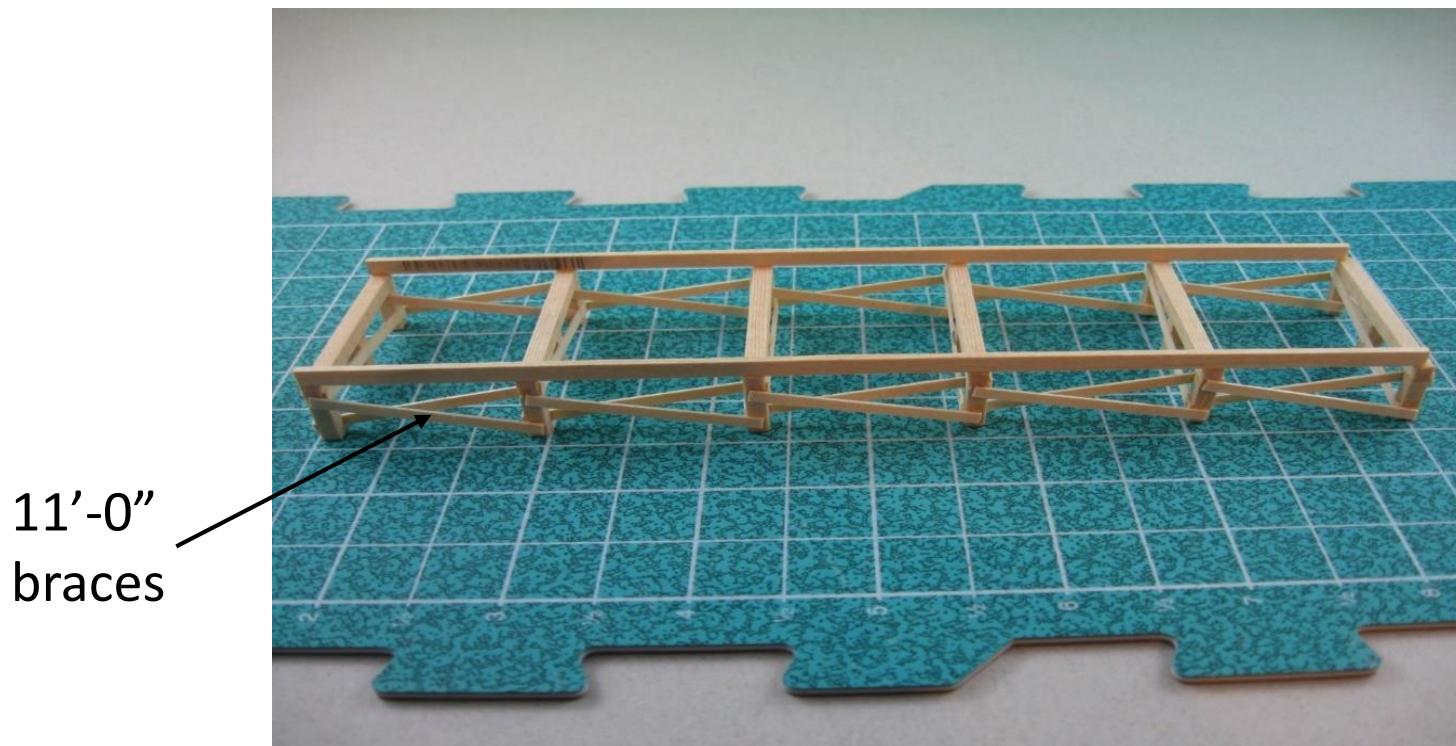
- glue remaining (4) sub-assemblies to stringers @ 10'-0" intervals  
i.e. scored locations
- Note: use two straight edges to keep stringers from bowing while gluing



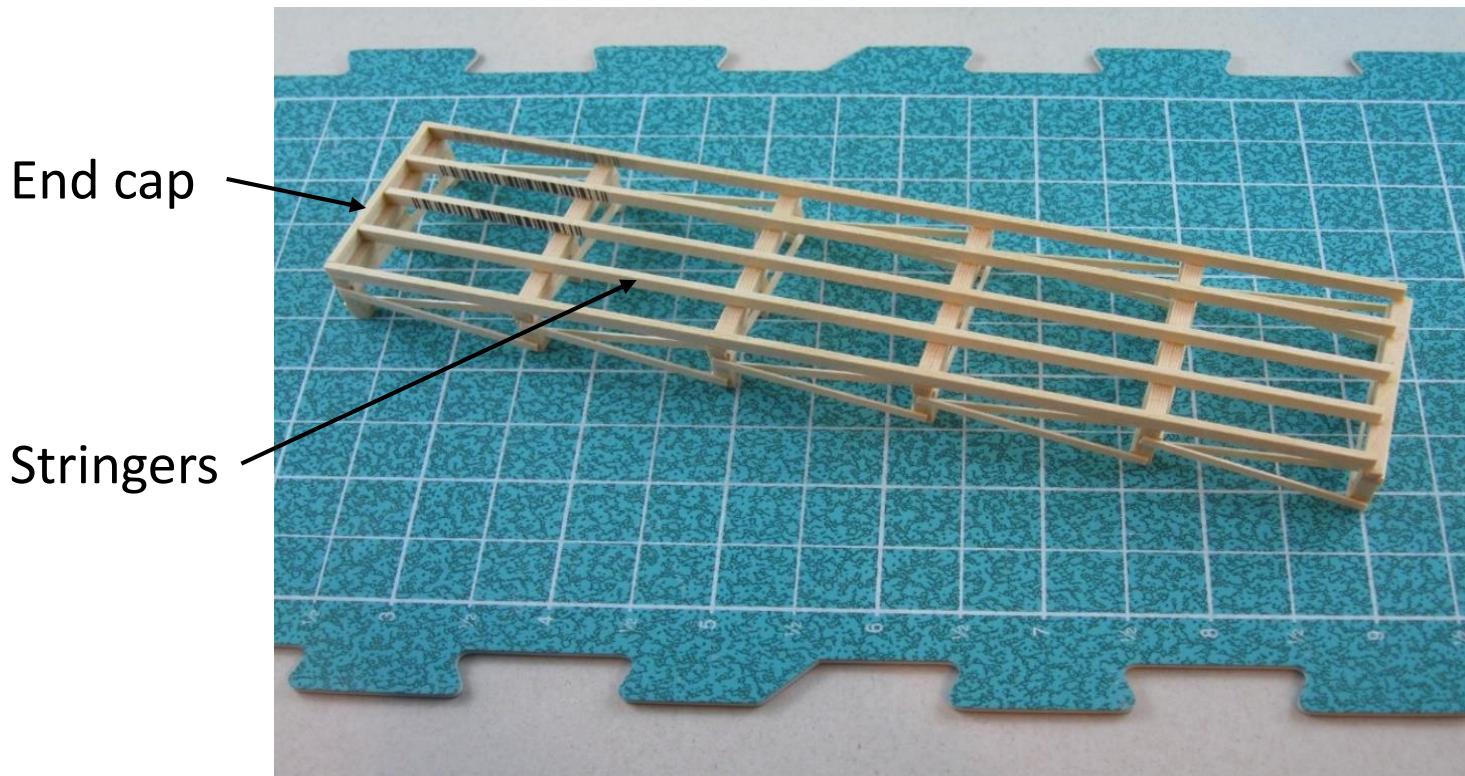
- sub-assemblies with outside stringers



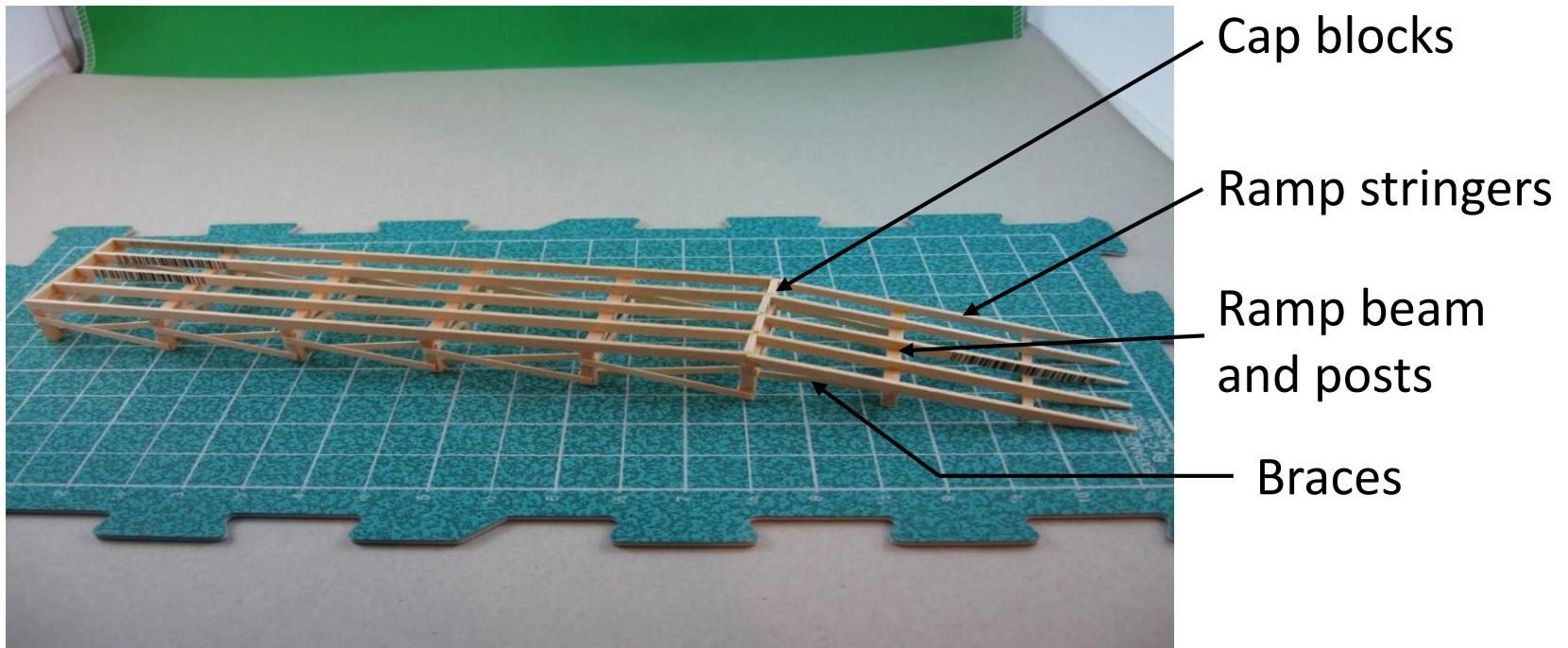
- glue braces to inside and outside of posts



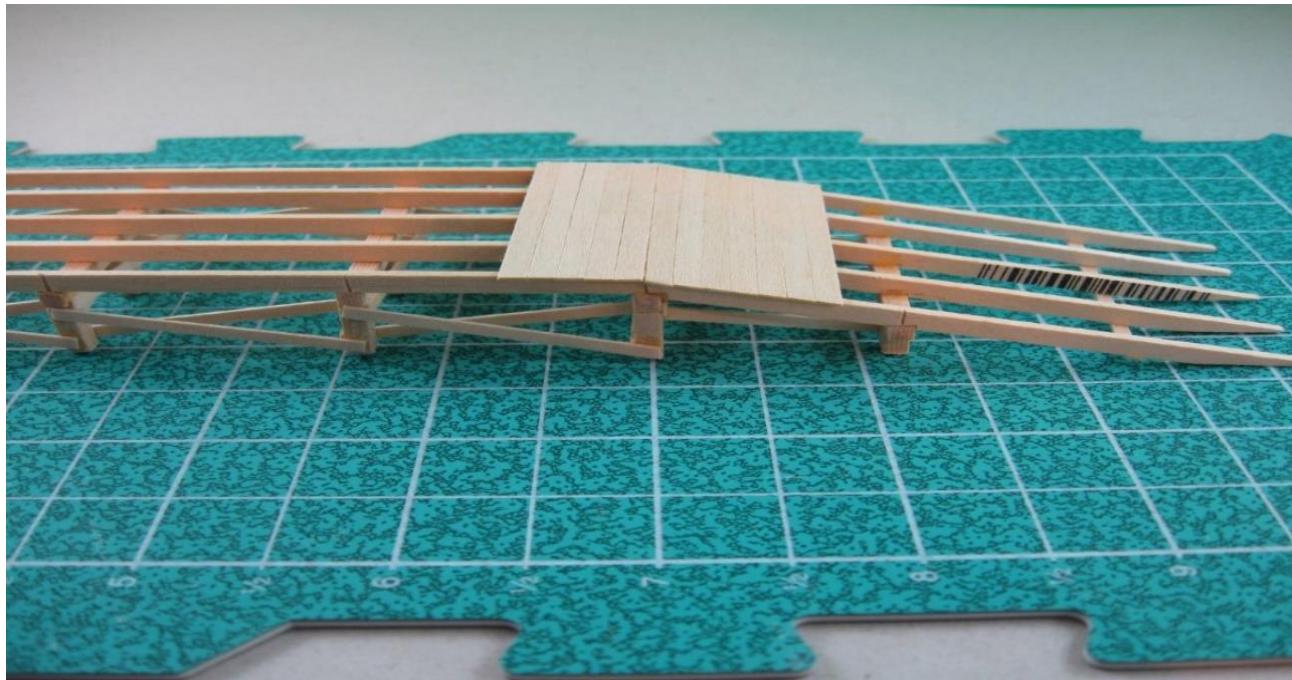
- glue end cap in place between (2) outside stringers
- glue (3) remaining 50'-0" stringers in place



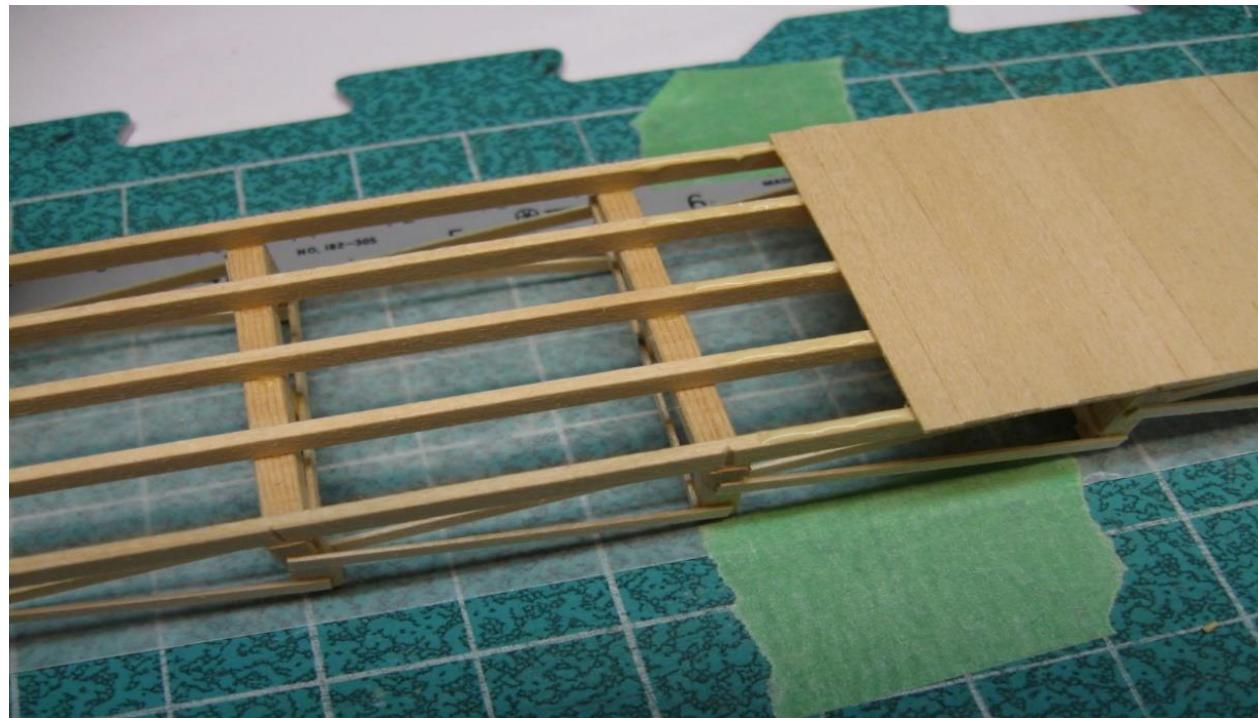
- cut to suit and glue in (4) cap blocks
- cut and glue (5) ramp stringers in place  
(notching instructions given in handout)
- add ramp beam, posts and braces



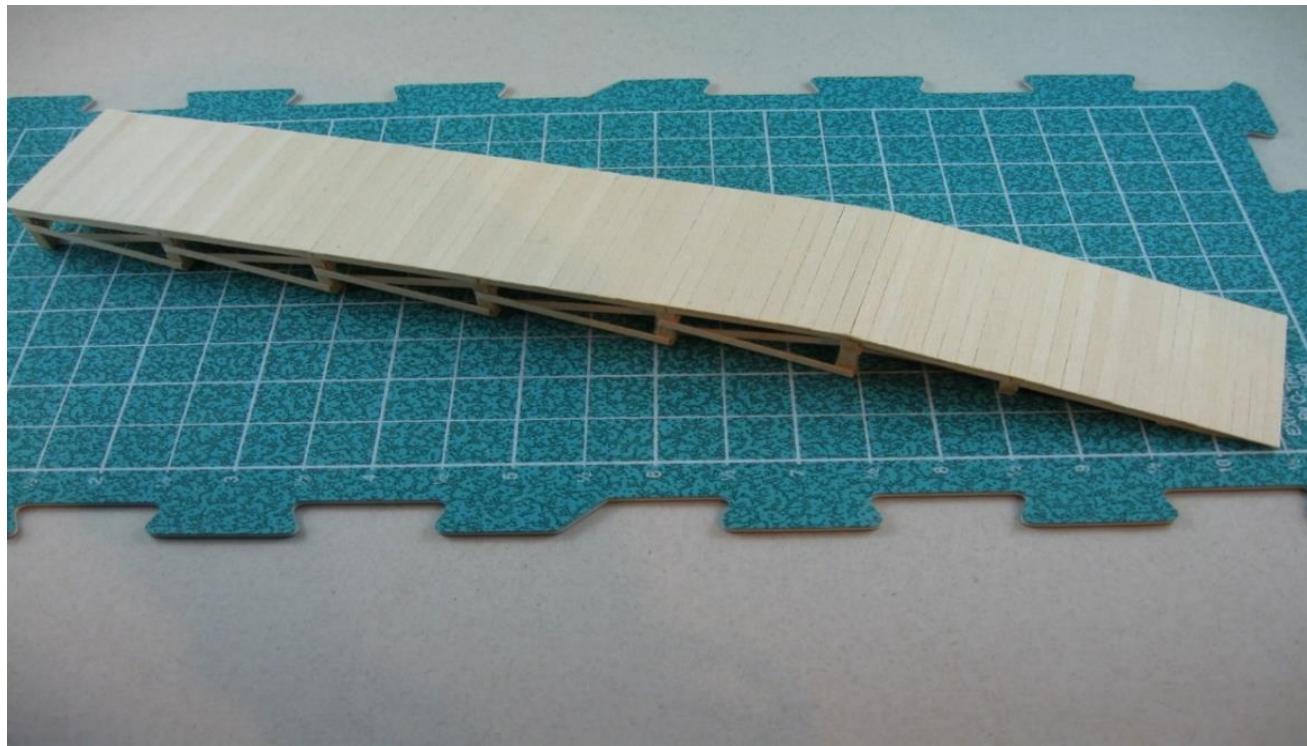
- Cut 12'-0" long floor boards and glue in place
- **Note:** leave a slight space between each board to allow for expansion when stained



- Glue several boards at a time
- **Note:** the 3" overhang on each side



This is your completed Loading Ramp ... ready for staining.



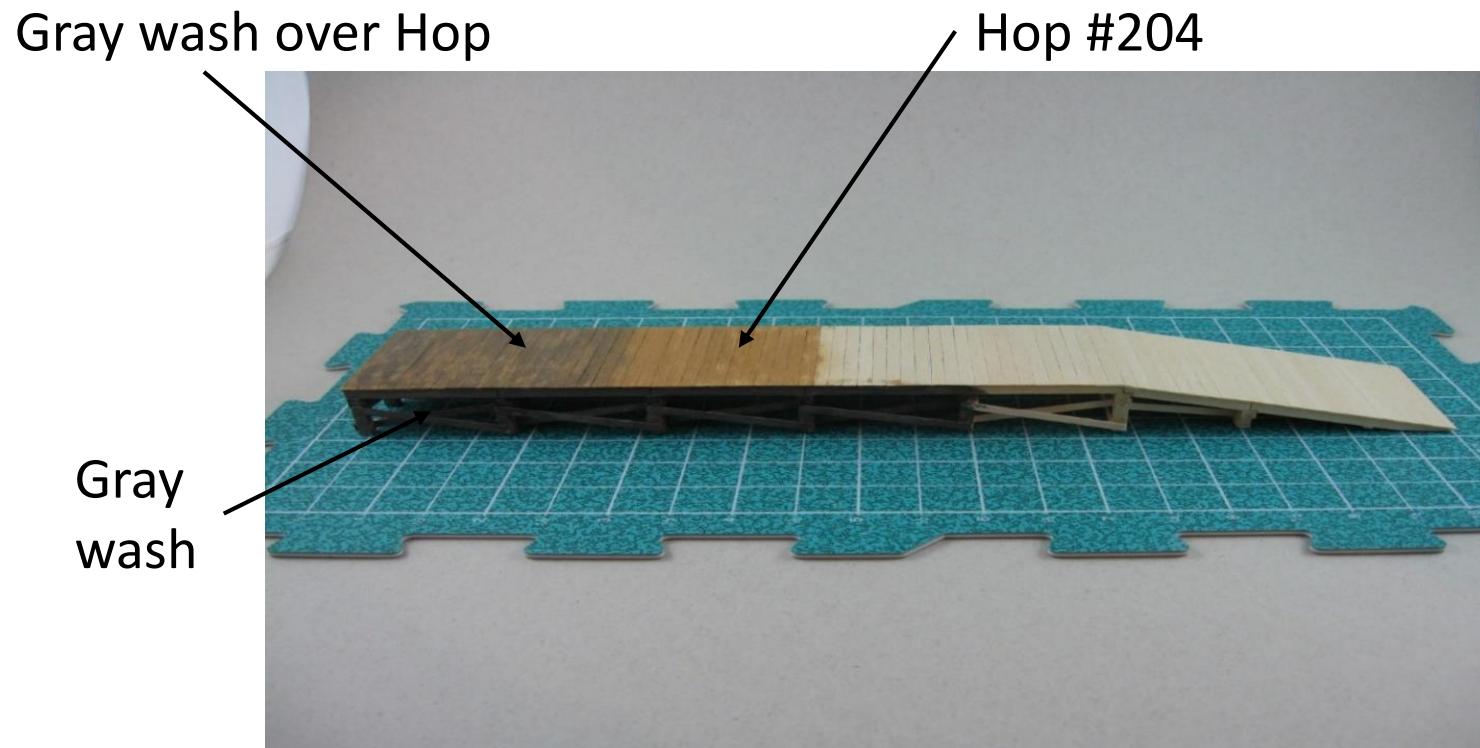
- I use SAMAN stains.
- They can be mixed to achieve many colours.
- They are water soluble so can be watered down to make a wash.



- Weather-It can achieve a gray appearance ... just keep adding coats to arrive at the desired results.
- There are different makes of Acrylic paints which can be used.



- Colour ramp to suit yourself.
- can be weathered or left as 'new' construction
- single boards can be left unweathered to make it appear that they have been replaced



## SUGGESTION

If you think you would like to give SCRATCHBUILDING a try, then you should purchase a copy of:

Model Railroad STRUCTURES from A to Z  
by  
Wayne and Mary Cay Wesolowski