

NMRA - NFR - SLD

SCRATCHBUILDING

Presented by Lorne Munro
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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 you 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

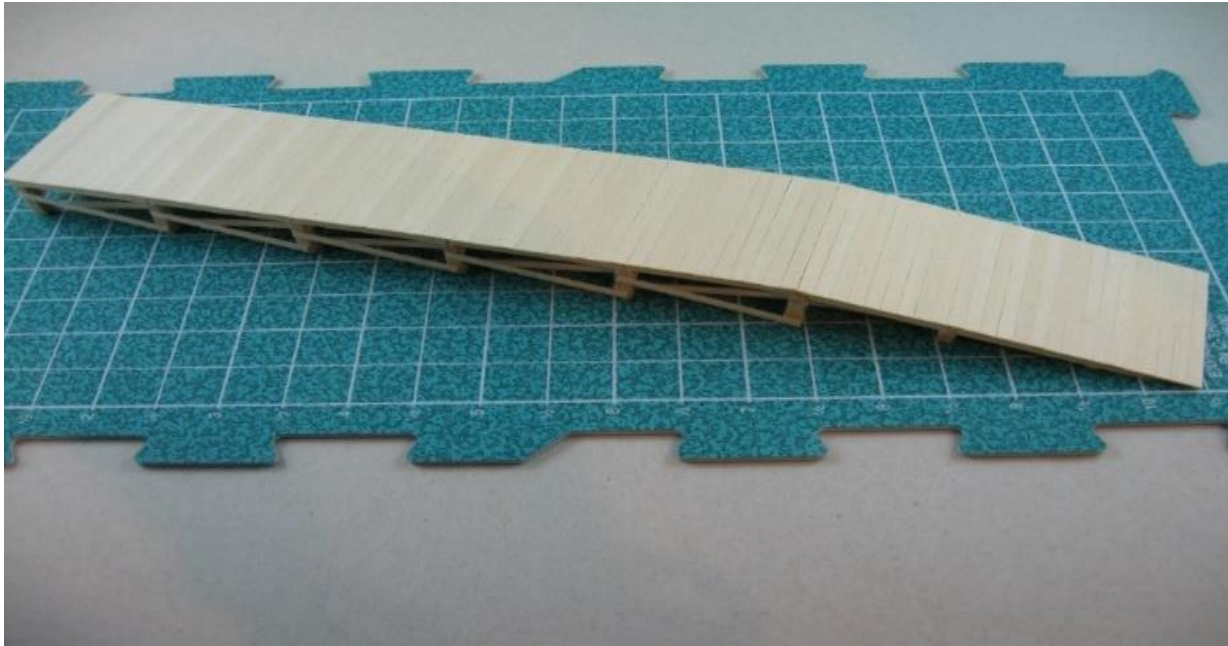
TOOLS

- 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

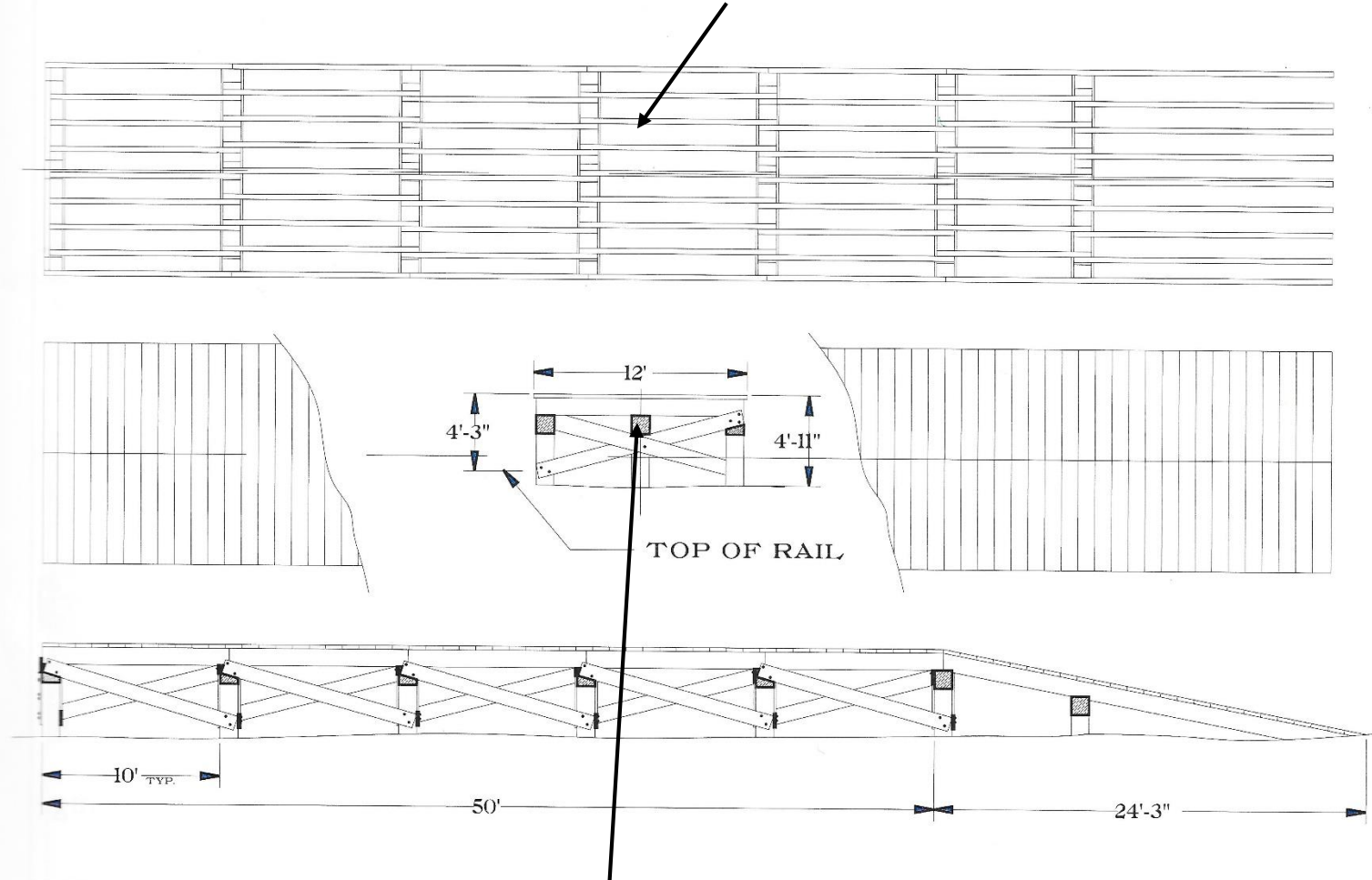
Warsaw, New York

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.

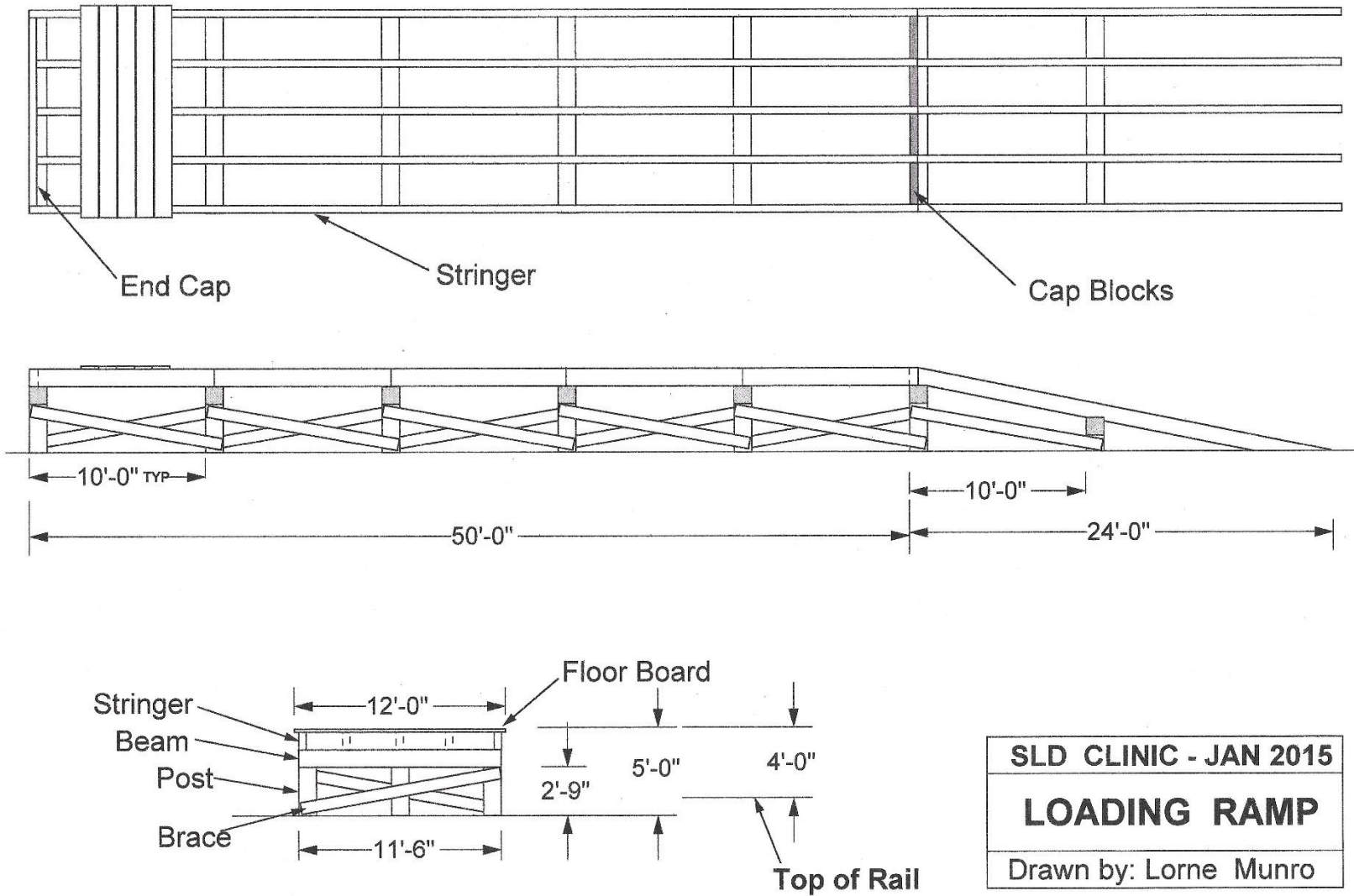


February 2010

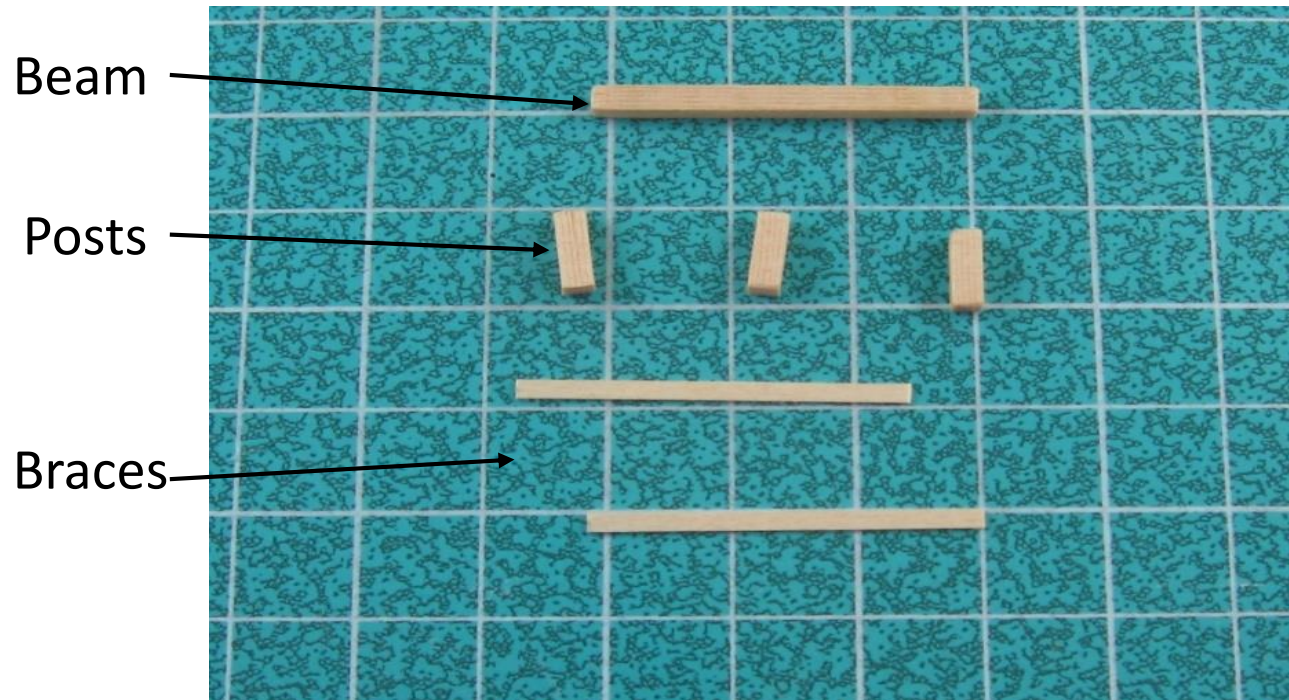
- There is an error in the end elevation view of the magazine plans.

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Revised Design



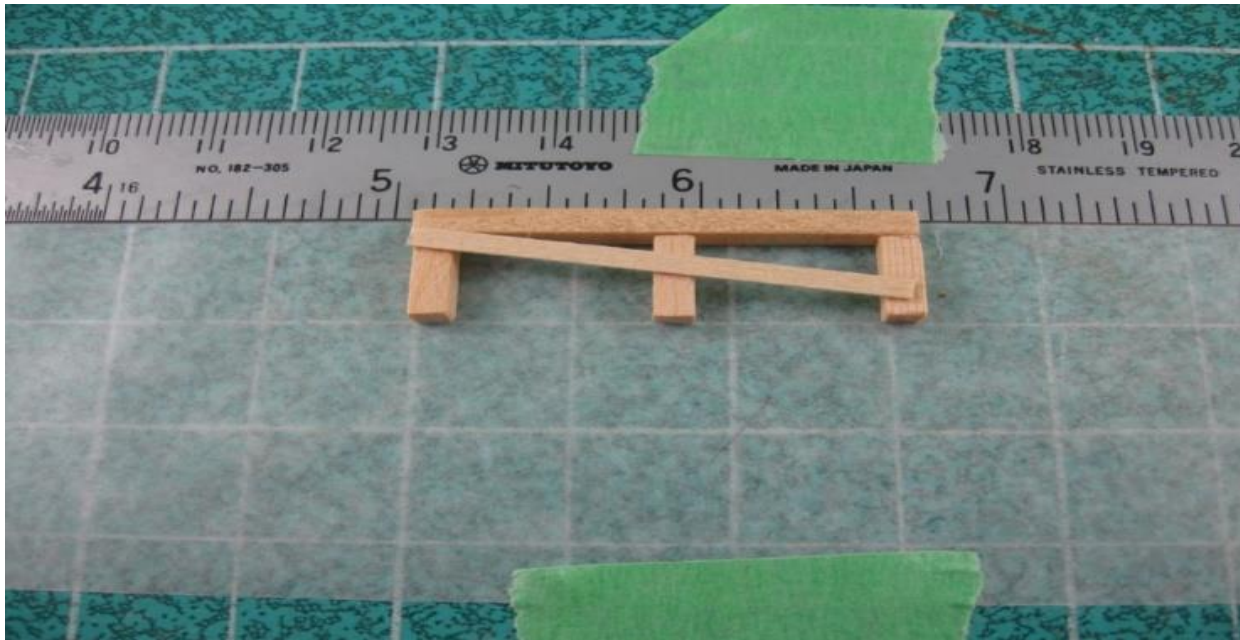
- Dimensions for these components are given in the handouts



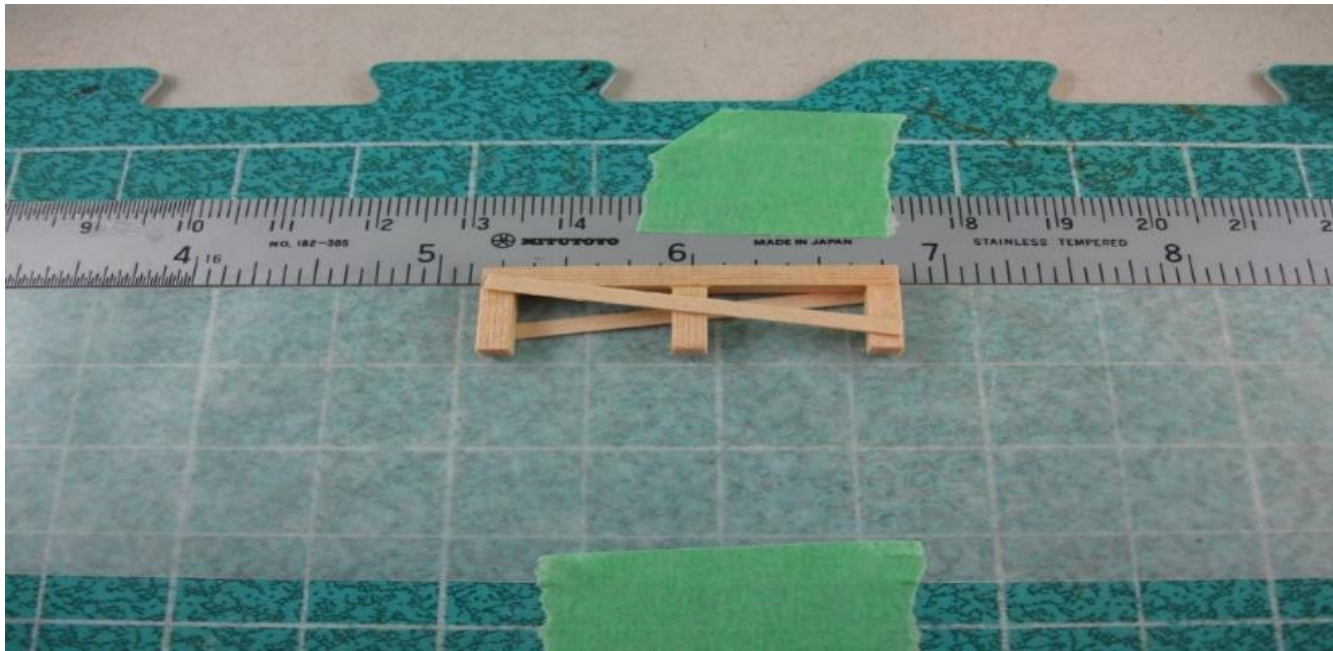
- Assemble the posts and beam as shown using a straight edge
- Use wax paper under the assembly (glue does not stick so readily)
- Remember to use glue sparingly ... a little goes a long way!



- 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.

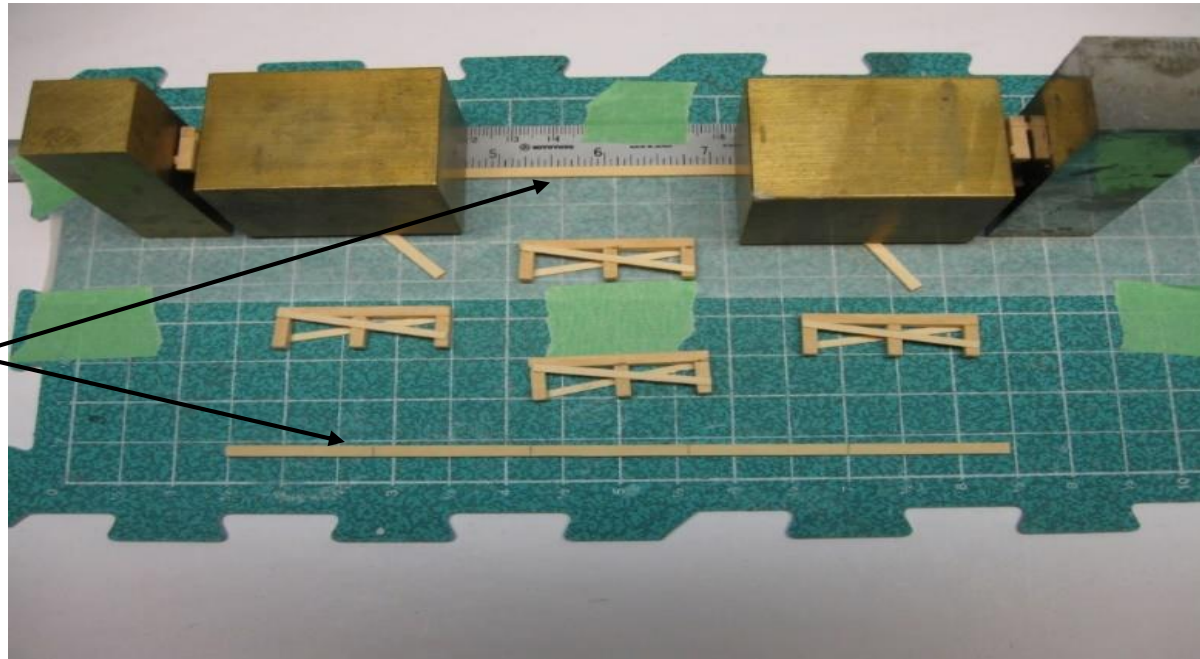


- (2) 50'-6" stringers
- Score both stringers ... 1st score @ 10'-6" from end
... next (3) scores @ 10'- 0" intervals
- Remaining (3) 50'-0" stringers are not scored
- Note: the scoring is for visual effect only

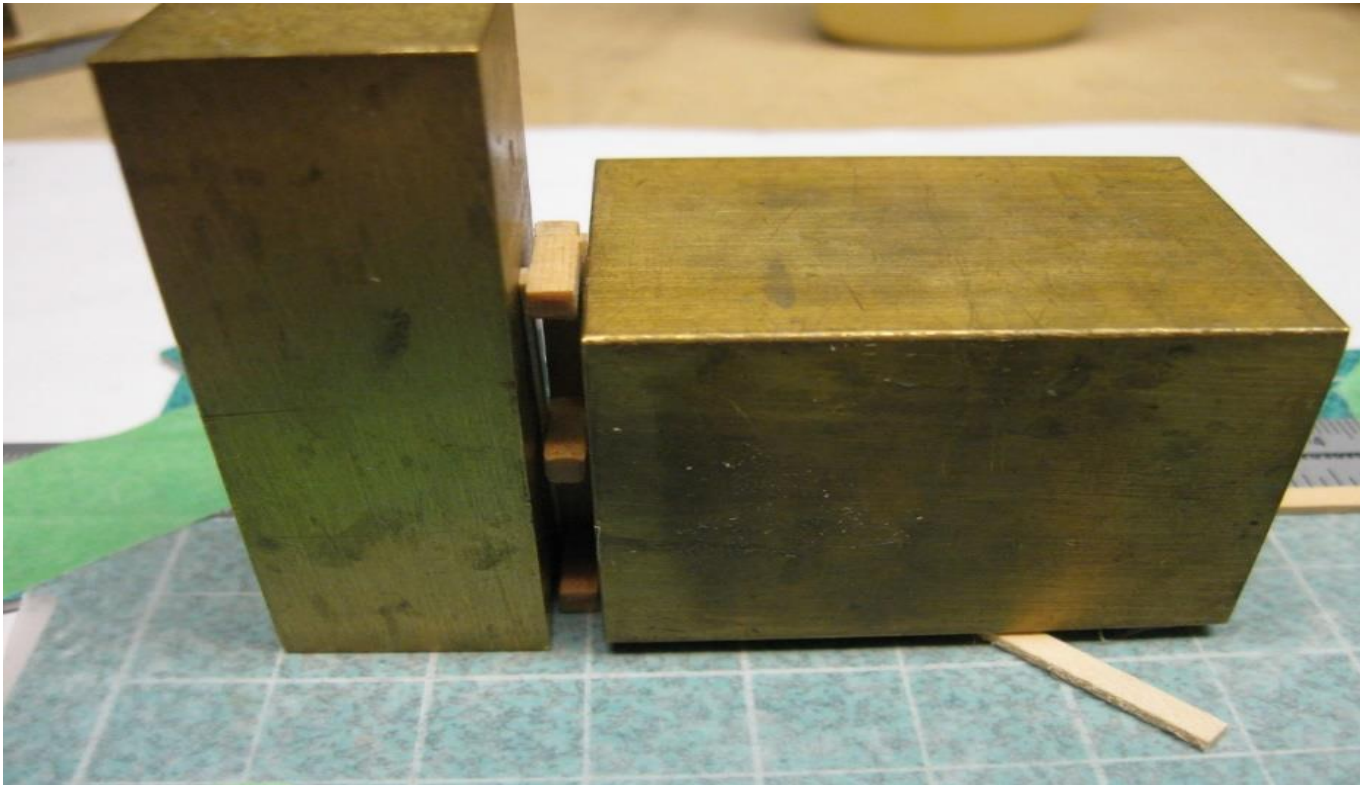


- glue sub-assembly to each end of 50'-6" long scored stringer (see handout for proper gluing location of these (2) sub-assemblies)
- the scored stringers are to be facing out
- the sub-assemblies must be square to the stringers

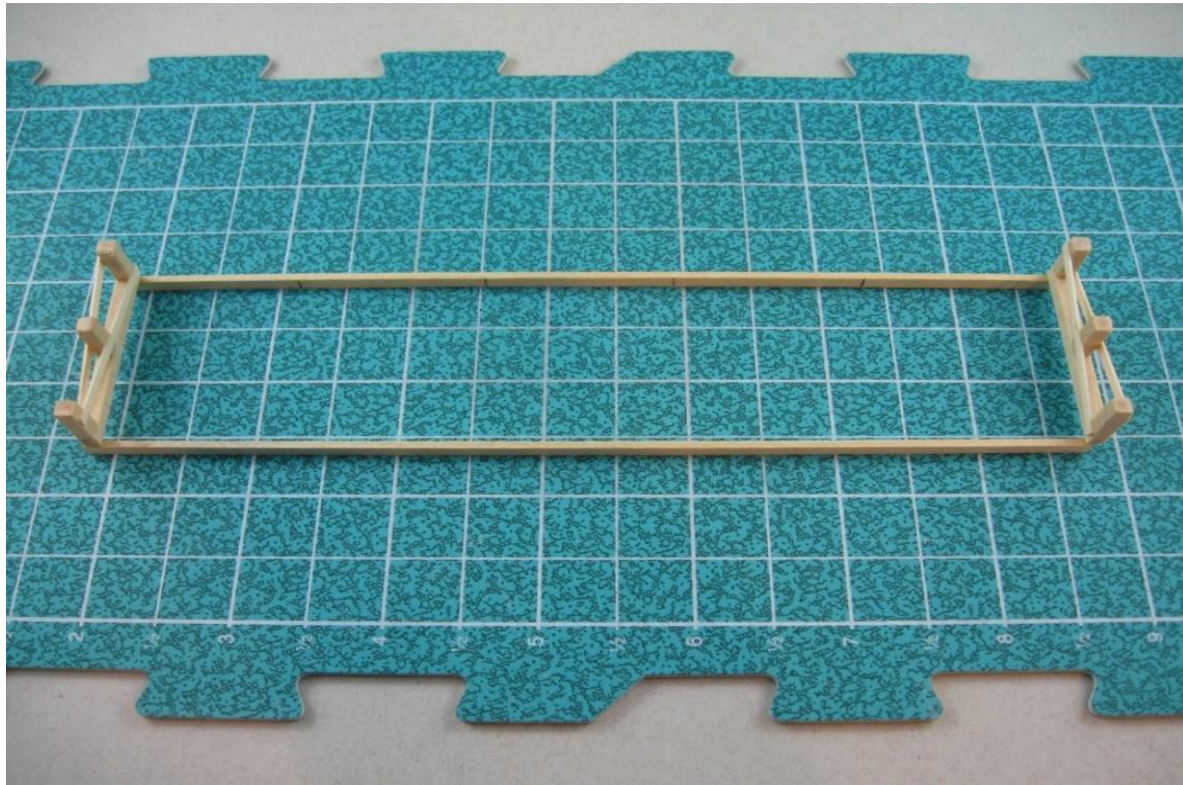
50'-6" scored
stringers



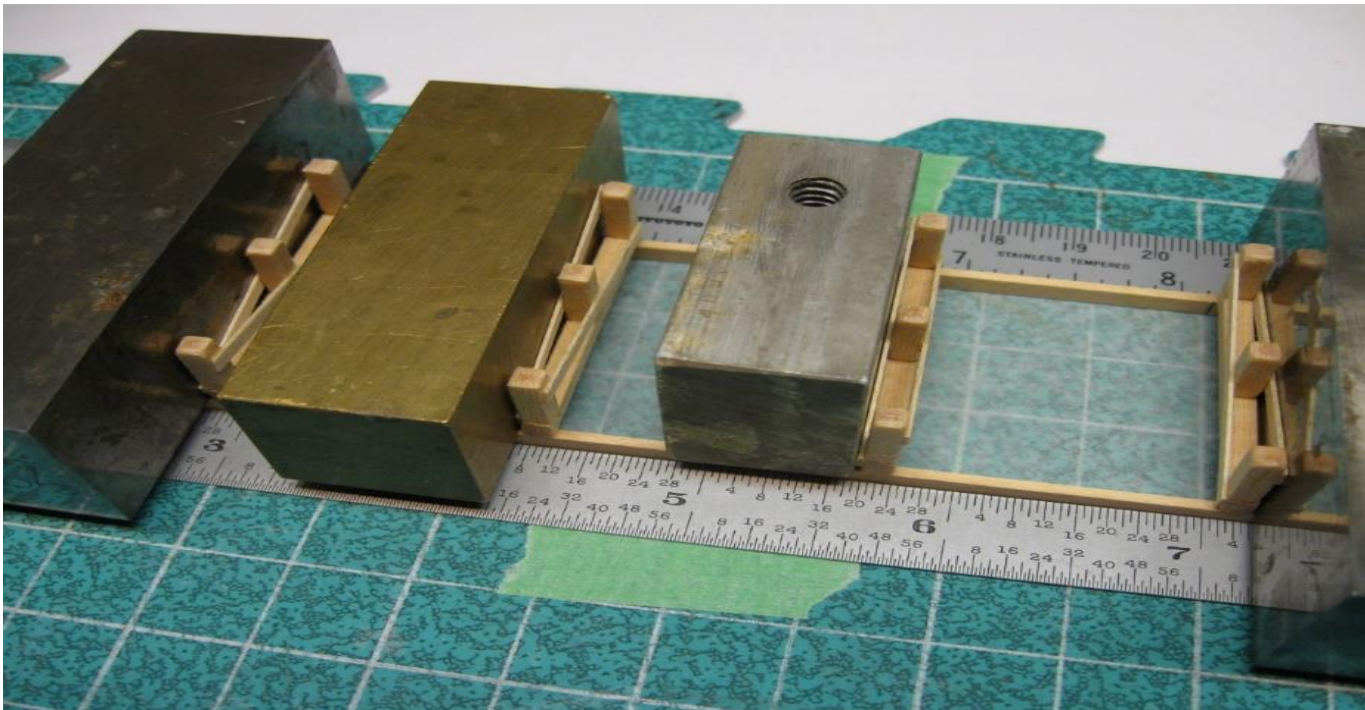
- a closer view of sub-assembly and stringer gluing step



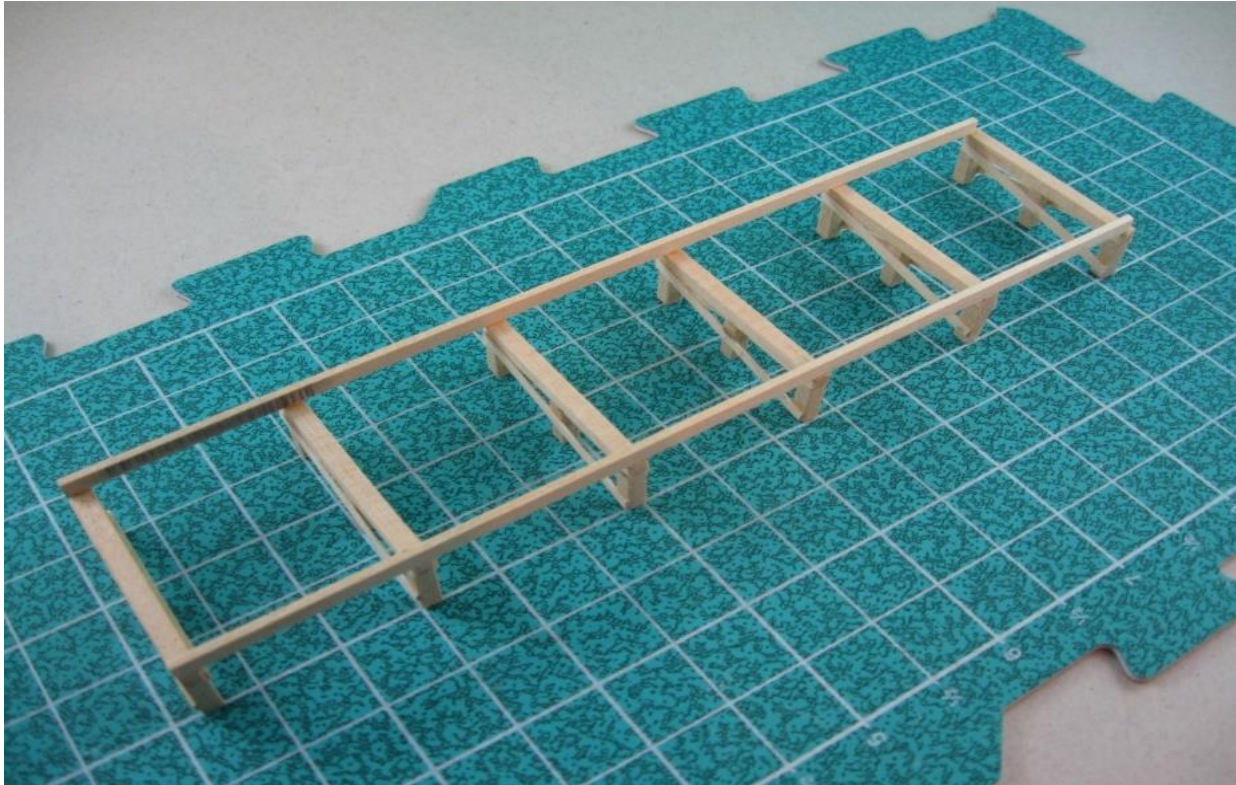
- View of end sub-assemblies glued to scored stringers



- 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

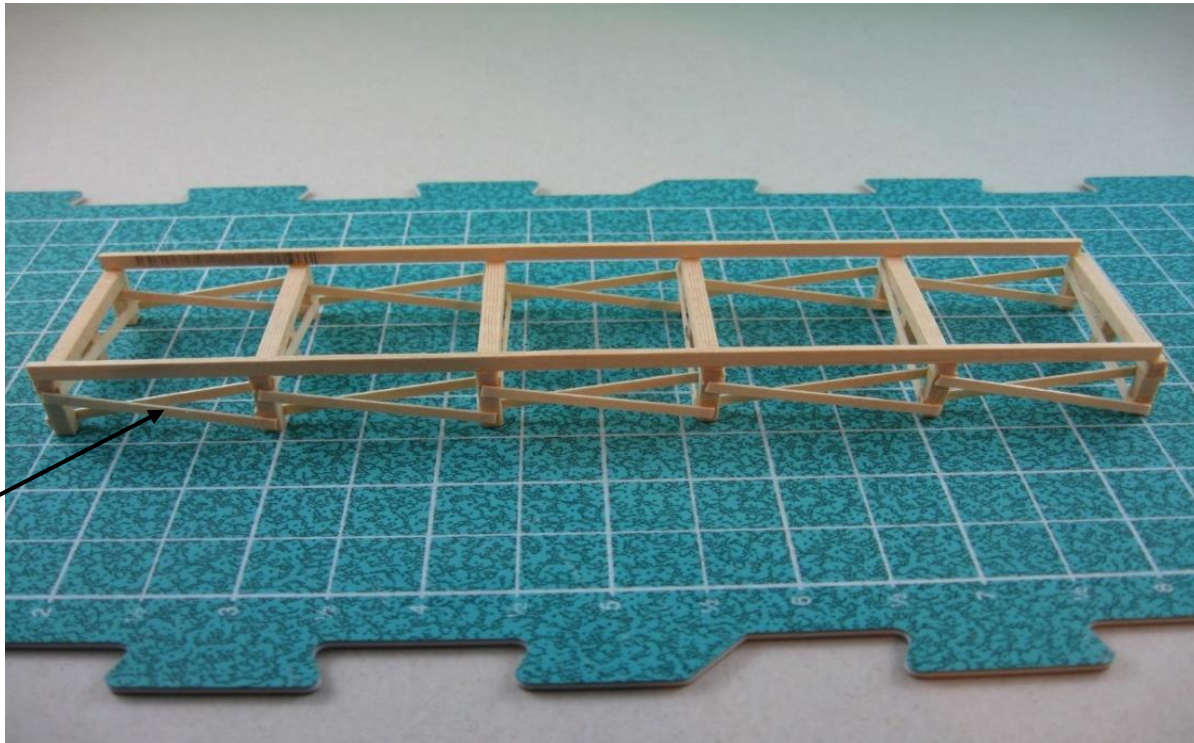


- sub-assemblies with outside stringers

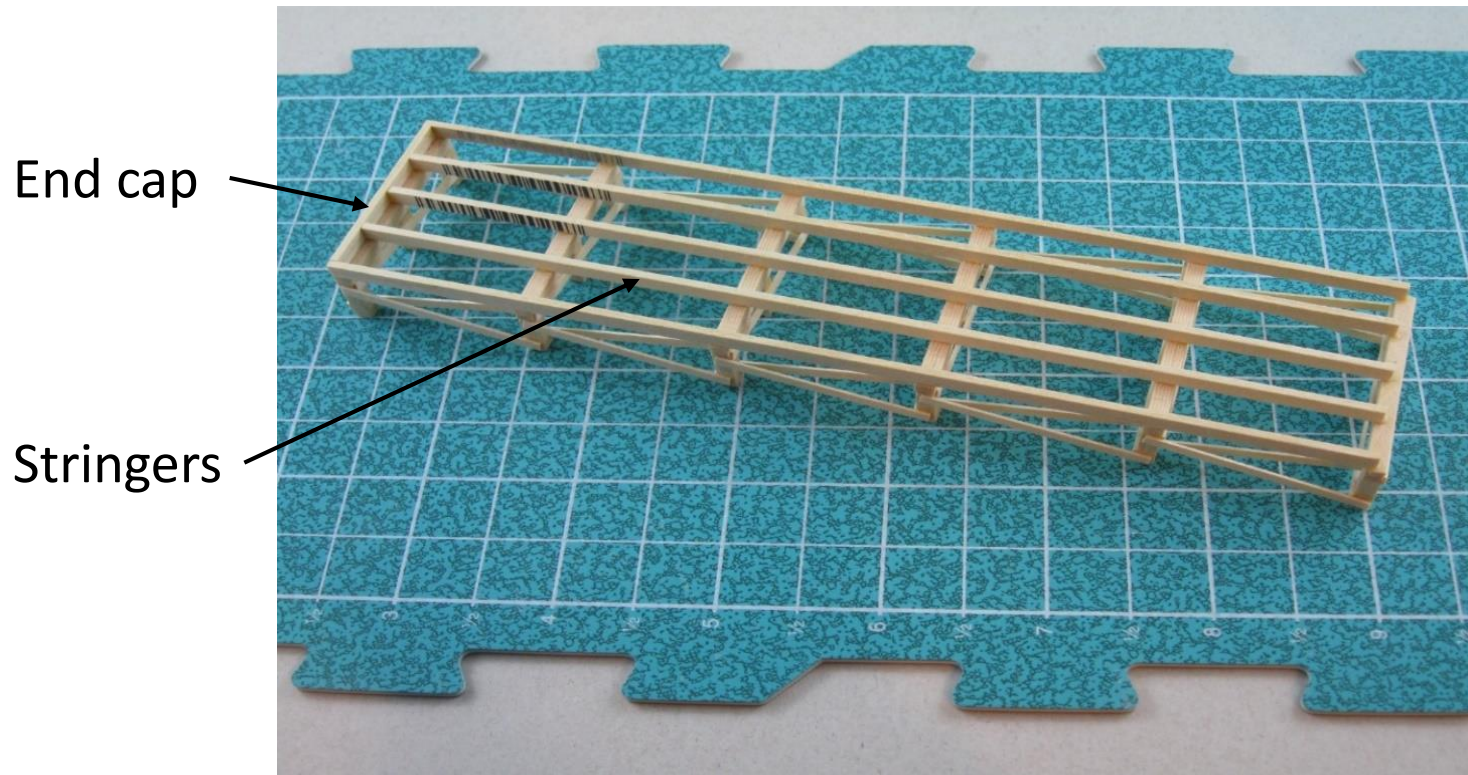


- glue braces to inside and outside of posts

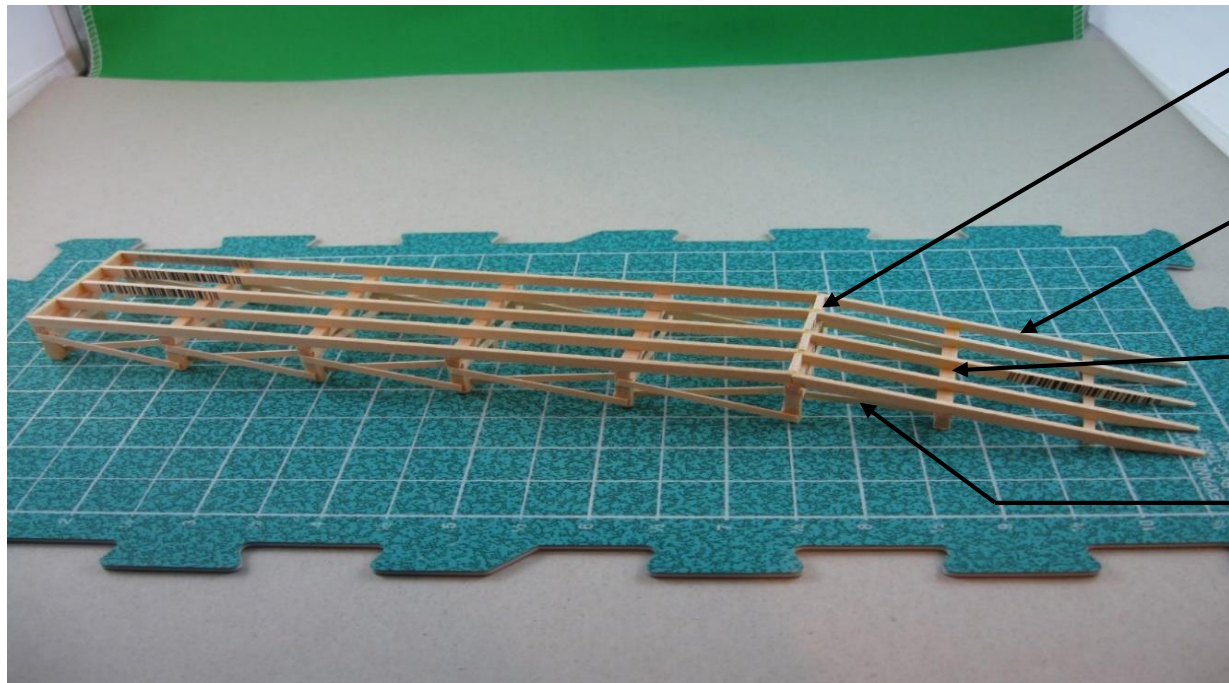
11'-0"
braces



- 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



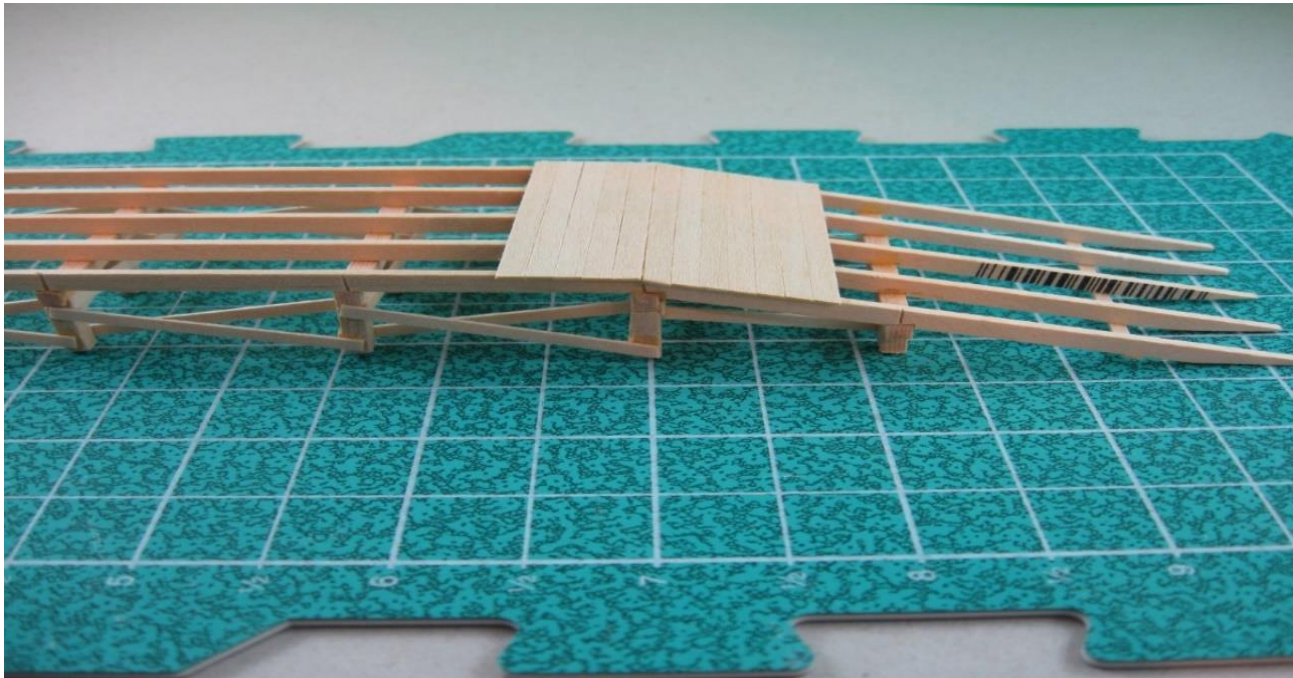
Cap blocks

Ramp stringers

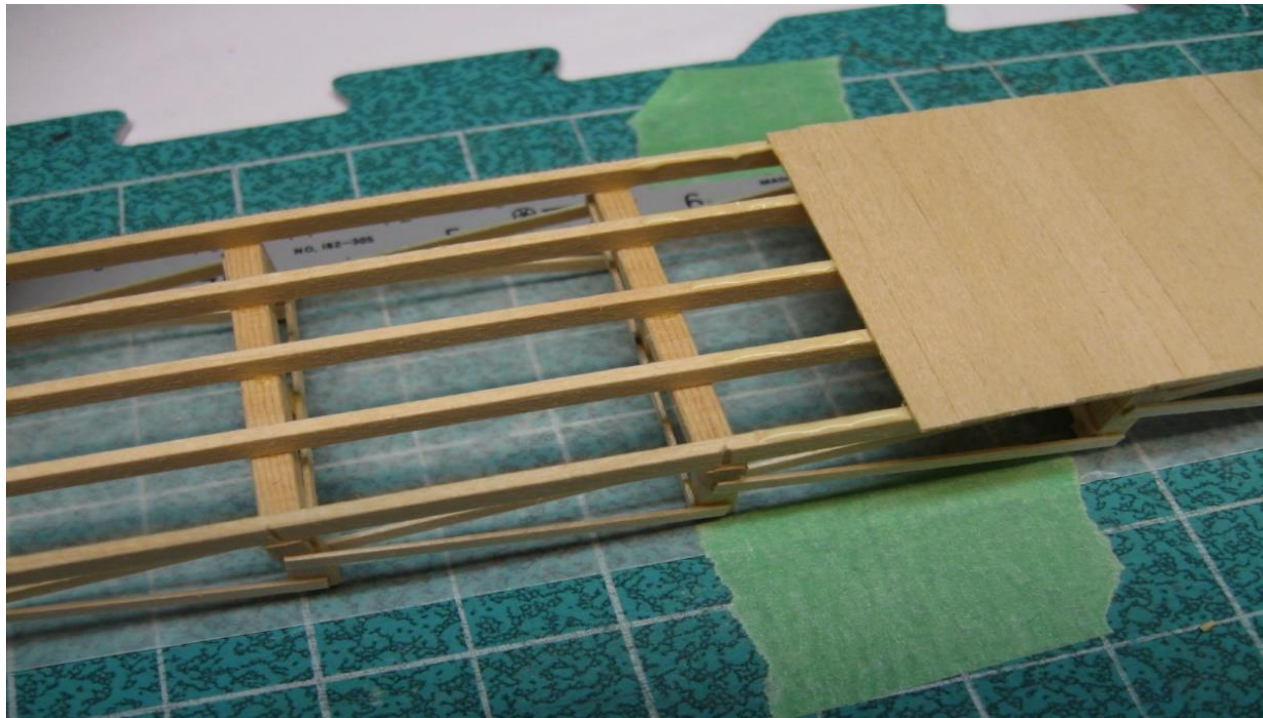
Ramp beam
and posts

Braces

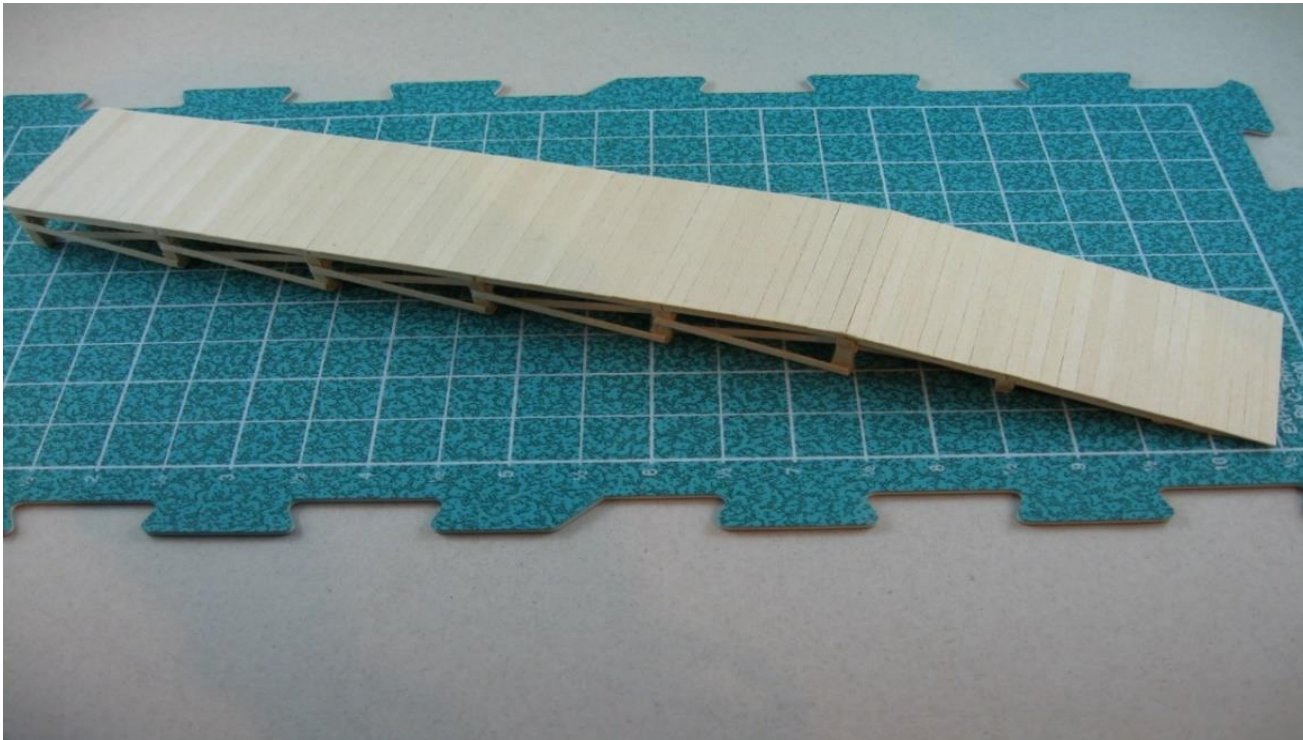
- Cut 12'-0" long floor boards and glue in place
- **Note:** leave a slight space between each board to allow for expansion when stained



- 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.

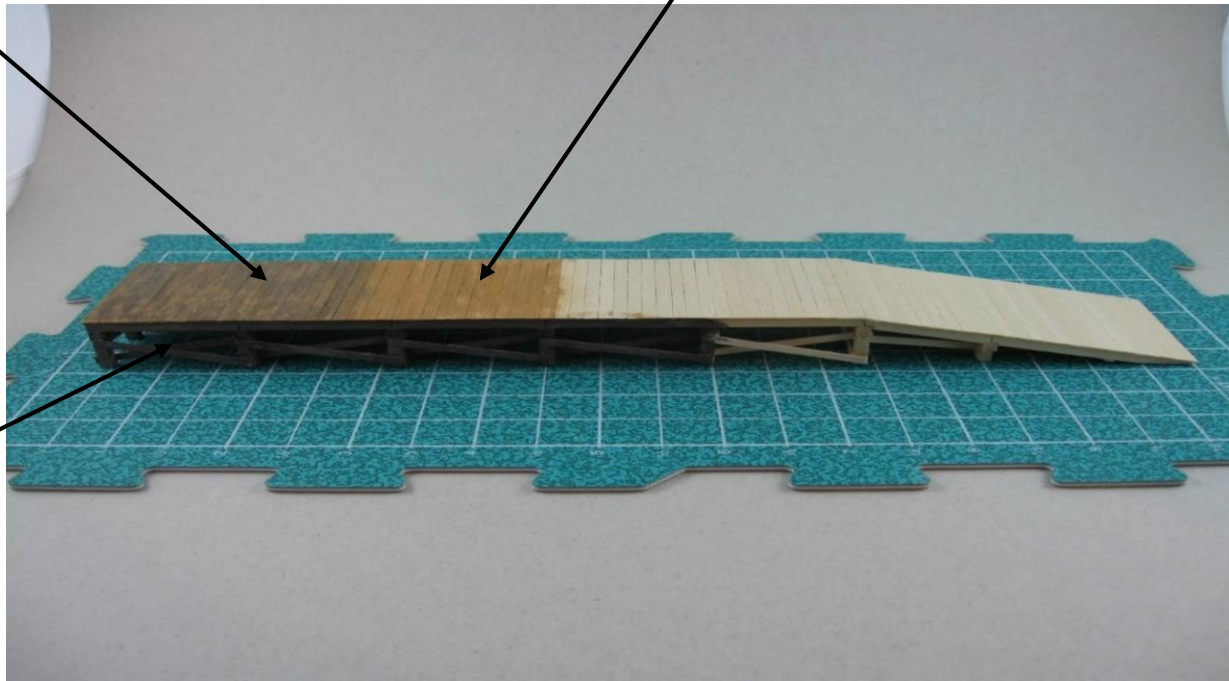


- Colour ramp to suit yourself.
- can be weathered or left as 'new' construction
- single boards can be left unweathered to make it appear that they have been replaced

Gray wash over Hop

Hop #204

Gray
wash



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