MODEL DOCUMENTATION STANDARDS

Included in this packet are;

- Model Documentation Standard for AP Evaluations
- Quick check sheet for filling in form NMRA#902-2026
- National Contest Evaluation form- NMRA#902-2026

MODEL DOCUMENTATION STANDARDS FOR AP EVALUATION

1. Purpose of Model Documentation

Your documentation helps model evaluators understand:

- **What you set out to build**
- **How you built it**
- **Why you made certain choices**
- **How your model relates to the prototype**

Clear documentation ensures evaluators can accurately assess your work in all categories.

“What did the modeler try to do? How well did the modeler do it?”

Your goal is to answer these two questions before the evaluator even picks up the model.

2. General Documentation Expectations

Your documentation should:

- Be **clear, concise, and organized**
- Support your claims with **photos, plans, or references**
- Explain your **methods, materials, and decisions**
- Highlight work that evaluators **cannot easily see**
- Avoid unnecessary filler or excessive narrative

Documentation does **not** replace the model, but it helps evaluators understand what they’re looking at. Keep in mind that in a celebration setting, each evaluation team will only be able to spend 5-10 minutes with each model. The more you ask them to read, the less time they’ll have to look at the model. It’s suggested that extensive model documentation includes a summary. The recommended maximum length for each section in a summary is: Construction, 1 page; Detail, ½ page; Conformity, ½ page plus drawings/photos; Finish/Lettering, ½ page; Scratch-building, ½ page. This makes the summary document 3 pages in length.

Avoid

- Long narratives
- Unrelated prototype history

- Excessive personal commentary

3. Required Documentation Sections

Below are the recommended sections every modeler should include, aligned with the five AP evaluation categories.

A. Construction Documentation Requirements

Construction documentation should explain the following. Construction is the largest contribution to a model's score.

1. Starting Point

- Kit name and manufacturer
- Scratchbuilt starting materials
- Donor parts or kit bash sources

2. Major Construction Steps

Describe the key processes you used, such as:

- Creating your own drawing/CAD
- Cutting, shaping, or fabricating parts
- Kit bashing modifications
- Assembly techniques
- Use of jigs, fixtures, or templates
- Any 3D printed or laser cut components

3. Complexity Indicators

Point out:

- Difficult assemblies
- Multi-part joints
- Repeated precision work
- Alignment challenges

- A table here with the number of subassemblies, parts for each, material for each can compress a lot of information into a small amount of space. E.g.

Subassembly	Wood	Styrene	Brass	Paper	Commercial	3D/Laser Cut	TOTAL
Frame	60	2	15	0	0	10	87
Platform	20	0	4	0	1	0	25
Deck	54	0	0	0	0	12	66
TOTAL	134	2	19	0	1	22	178

4. Hidden Work

If something is hard to see, document it clearly.

Your goal: Help evaluators understand the *effort* and *skill* behind the construction.

B. Detail Documentation Requirements

Detail documentation should list:

1. All Added Details

- Underbody components
- Piping, brake gear, or rigging
- Doors, hatches, or functional parts
- Replaced cast-on details

2. Complexity of Details

Explain:

- Which details were scratchbuilt
- Which were modified
- Which were purchased and added

3. Functional Details

If something works (e.g., sliding doors), state it clearly.

Your goal: Show the *quantity* and *complexity* of detail you added.

C. Conformity Documentation Requirements

This is the most documentation-heavy category.

1. Prototype Identification

Provide:

- Prototype railroad or manufacturer
- Model designation
- Year or era represented

2. Reference Materials

Include:

- Photos
- Drawings
- Plans
- Historical references

Note: Kit instructions do *not* count as documentation.

3. Selective Compression

If applicable, explain:

- What was compressed
- Why it was necessary
- How you preserved key prototype features

4. Logical Construction Practices

Show that your model follows real-world practices:

- Correct materials
- Correct arrangement of components
- Correct structural logic

Your goal: Demonstrate that your model is a faithful, logical representation of a real prototype.

D. Finish & Lettering Documentation Requirements

Your documentation should explain:

1. Paint Scheme

- Colors used
- Paint types and brands
- Masking or separation techniques
- Number of colors and complexity

2. Lettering

- Decal sources
- Any custom decals or stencils
- Placement references
- Assembly of multi-part lettering

3. Weathering (Optional)

If weathered, describe:

- Techniques used
- Prototype references
- Why the weathering matches the era and service

Your goal: Help evaluators understand the *difficulty* and *intent* behind your finish.

E. Scratch building Documentation Requirements

scratch building documentation should clearly identify:

1. Scratch built Components

List all parts you fabricated from raw materials, such as:

- Wood
- Plastic sheet or shapes
- Metal stock
- Wire
- Paper or cardstock

2. Fabrication Methods

Explain:

- Cutting, shaping, bending, soldering
- Casting or photo-etching
- 3D printing (if used, describe your design work)

3. Plans

If you drew your own plans, include them. If you used prototype plans, cite them.

4. Masters and Castings

If you created masters or molds, document the process.

Your goal: Show the *quantity* and *difficulty* of scratchbuilt work.

Need help filling out the NMRA#902 National Contest Form ?

When you are ready to submit your Model RR Layout or your models for an AP certificate or Merit Awards, filling out the paperwork can be a daunting task. By filling out the required paperwork, we want to make it less complicated for you to obtain the best scores for your models. Below is a Quick help sheet for filling out the Form 902;

Hints for NMRA Contest Write-Ups for NMRA for Form 902

Construction ***Include the following:***

- Hours of Labor
- How it was constructed
- Any fabrication
- Kit bashing
- Altered purchased or kit parts
- Masters made for castings
- Photo etched parts

Loads

- Explain how the load is secured (for open loads)
- Bolted, nailed, wedged, banded, chained, braced…
- Complexity of Construction

Explain why this was hard or where it was hard.

DON'T ASSUME the evaluators will know!

Detail - ***Include the following:***

- List all parts involved
- How hard was it to do
- Quantity of detail
- Board by Board construction
- Bolt heads, nail heads & door knobs
- Placement of colors and lettering
  - Consider Stripes and multi-colors
  - Is the lettering placed as the prototype
  - or prototypically for freelanced models

DON'T ASSUME the evaluators will know!

Conformity - ***Include the following:***

- Prototype appearance
- Plans or photographs
- Research involved
- Was selective compression used and where?
- Accuracy of lettering
  - Is the lettering placed as the prototype
  - or prototypically for freelanced models

DON'T ASSUME the evaluators will know!

Finish & lettering - ***Include the following:***

Multi-colored

Consider stripes and multi-colors

Quality

Decals

Excess film

Air bubbles

Homemade?

Correct Fonts?

Dull-coat to remove shine and hide decal film

DON'T ASSUME the evaluators will know!

Scratch-building - ***Include the following:***

Plans and or Photographs.

What parts were scratchbuilt and how .

DON'T ASSUME the evaluators will know!

List the quantity of parts that were scratchbuilt.

Quality is done in Construction

List what parts are exempt DON'T ASSUME the evaluators will know!

Describe the % of the car that was scratchbuilt

DON'T ASSUME the evaluators will know!

Give details of scratch-built components

DON'T ASSUME the evaluators will know!

IF IN DOUBT…DON'T ASSUME EVALUATORS WILL KNOW, TELL THEM.
IT'S ALWAYS BEST TO GIVE TOO MUCH DETAILED INFORMATION THAN NOT ENOUGH.

NATIONAL CONTEST EVALUATION FORM

NMRA

Form 902 Revision F 01/05/2026

Please Print All Information

Entry No.

Entry Name _____

1. CONSTRUCTION (Maximum 40 points) Points Awarded

Model Basis – Select the description that best applies to your model

- ❑ Scratch Built -- Complete (>90%)
- ❑ Scratch Built -- Partial (<90%)
- ❑ Kit Bash – Multiple kits not per kit plans
- ❑ Kit Built – Per kit plan (> 90%)

Name of kit or major parts and manufacturer _____

Construction Techniques – Select all methods and materials that apply to your model

- ❑ Drew own plans
- ❑ Used commercial plans
- ❑ Used kit plans
- ❑ Followed construction article
- ❑ Cut and fit metal
- ❑ Cut and fit plastic
- ❑ Cut and fit wood
- ❑ Cut and fit cardstock
- ❑ Cut and fit glass
- ❑ Soldered metal
- ❑ Made patterns
- ❑ Made molds

Describe in detail how model was built, its complexity and the methods used. _____

2. DETAIL (Maximum 20 points) Points Awarded

Describe complexity, difficulty, refinement and quantity of detail parts added. Identify all commercial parts.

3. CONFORMITY (Maximum 25 points) Points Awarded

Describe prototype design. Include prototype documentation (beyond what was supplied in kit).

4. FINISH & LETTERING (Maximum 25 points) Points Awarded

❑ Weathered ❑ Hand Lettered ❑ Decals ❑ Dry Transfers ❑ Spray ❑ Airbrush ❑ Dry brush ❑ Stain

❑ Non-Weathered - Describe methods and materials _____

5. SCRATCH BUILT (Maximum 15 points) ❑ Kit Built Classification Points Awarded

List all parts scratch built; note special refinements _____

6. TOTAL POINTS (Staff Only) **Total Points**

Tabulated by _____ Verified by _____