



The Local

Newsletter of the Mid-Eastern Region, NMRA
 The Local, 75, Number 4, July-August, 2020

Official publication of the Mid-Eastern region, NMRA – A tax-exempt organization

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Cancellation of the “Look South in 2020” Convention

There’s no way to sugarcoat the truth. Due to the continuing issues surrounding the COVID-19 pandemic, I have decided, with the consent of the Board of Directors and in concert with the Carolina Southern Division Local Convention Committee (LCC), to postpone the convention. Yes, I used the word “postpone.”

After consultation with the Carolina Southern and James River Divisions, the respective LCCs have agreed for James River to relinquish the 2022 convention, and the Carolina Southern team will push back their convention until 2022.

It’s with a heavy heart that this decision was made. With our membership falling mostly in the age range above 60 years of age, a significant number of us would be ill-served by having a convention. Also, at this time there is no assurance that the North Carolina Governor will have removed the various

pandemic associated directives on social distancing and sheltering at home.

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Now for the “positive spin”: for the 2021 Convention in Hunt Valley, MD. I hope that you each will work on one or two models to place in the model contest or in the Model Showcase for the Mt. Clare Junction Convention. As I mentioned in my email to the Region a couple of weeks ago, the stay at home order allows us to spend some dedicated time on our hobby.

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As for myself, I’m working on my layout so that it will be operational for the convention, actually sooner. The structures may be mainly mock ups, but the switching can still be done.

Chins up, folks. We’ll get through this and have some fun with our hobby while we do.

Mid-Eastern Region Board of Directors & Administrative Staff

	President: Kurt Thompson, MMR 350 Ternwing Drive Arnold, MD 21012 410-507-3671 president@mer-nmra.com		Director-at-Large Randy Foulke 919-649-8253 randy.railfan@gmail.com		Achievement Program Manager: Dave Chance 704-933-4200 loconut@carolina.rr.com
	Vice President: Ken Montero (804) 794-5704 Vp@mer-nmra.com		Director-at-Large and MER Photographer: Jerry Lauchle, MMR 814-404-6955 jlauchle@mer-nmra.com photographer@mer-nmra.com		Nominating Committee Chair: Bob Charles, MMR 717-763-1848 rcharles@aol.com
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	Ballot Committee Chair: Bob Minnis, MMR (434) 589-3011 kahlualab@aol.com				Archivist: Kevin O'Connor 919-593-2537 kjoconnor2@yahoo.com
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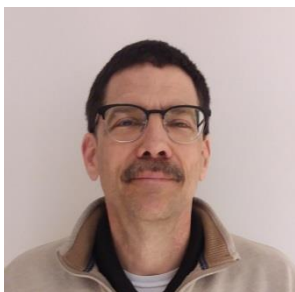
MER Board Meeting Schedule

1. MER Board Meeting October 8th, 2020 Starting at 7:00 PM
(Details: <http://mer-nmra.com/bod.html>).
2. MER Annual Meeting October 10th, 2020 Starting at 7:00 PM
(Details: <http://mer-nmra.com/agm.html>).

Mid-Eastern Region Division Superintendents					
	New Jersey Division 1 Bill Grosse (609) 585-4616 wgrossejr@gmail.com Division web page: njdivnmra.org		Potomac Division 2 Martin Brechbiel, MMR superintendent@potomac-nmra.org Division web page: potomac-nmra.org/		Philadelphia Division 3 Charles Butsch cabutsch@gmail.com (610) 446-2375 Division web page: www.phillynmra.org
	Tidewater Division 4 Fred Humphrey 757-482-9498 tidewater.mer.nmra@gmail.com Division web page: nmra-mer-tidewater.org		James River Division 5 Phillip R. Taylor (434) 589-6006 drphilster@gmail.com Division web page: jrdnmra.blogspot.com/		South Mountain Division 10 Alex Polimeni (540) 532-6244 arpolimeni@gmail.com Division web page: http://www.smdnmra.org/
	Susquehanna Division 11 Tim Himmelberger (717) 695-7958 timh@susquehannanmra.org Division web page: www.susquehannanmra.org		Carolina Southern Division 12 Alan Hardee (704) 868-6976 superintendent@carolinasouthern.org Division web page: www.carolinasouthern.org		Carolina Piedmont Division 13 John Sokash N/A jasokash@bellsouth.net Division web page: www.cpd13.org/
	Chesapeake Division 14 Mike Zitmann N/A super@chesdiv-nmra.org Division web page: www.chesdiv-nmra.org				

Candidate Statements for Officers to be Elected to the Mid-Eastern Region, NMRA Board of Directors

Candidate for President -- Kurt Thompson, MMR



For the last two years I have had the privilege of serving as your President. During that time we have made large strides as a region. We have managed to achieve two consecutive balanced budgets, something not accomplished in some years. The LOCAL has moved to a digital format saving many dollars for the MER. Much of our Life Fund has been transferred to a restricted account, the Clyde Gerald Fund, the proceeds of which supports ongoing operations of the Region. The convention department has been streamlined, creating a much more responsive and effective management. Our financial management team has implemented an investment strategy that is providing

much improved return on our investible funds. All this has been achieved with the support of our team. Thank you for the opportunity to serve you. To continue the modernization of our Region operations, I would ask your support for another two year term as your President.

Candidate for Vice President – Scott Unger



The introduction of DCC and sound played a big part in drawing me back to model railroading 5 years ago. In the summer of 2015, I jumped back in with both feet and started construction of a medium sized HO scale model railroad, re-subscribed to a few key magazines, and most importantly, joined the NMRA for the first time. I attended as many Division events as I could for the first couple years and served on a sub-committee when our Division hosted the Regional Convention in 2017. In late 2018, I volunteered to serve as the Assistant Treasurer for the Region to assist with financial accounting for the MER conventions. The Division in which I live is large geographically which led me to coordinate a Division event for the last two years in the eastern portion of the Division. The NMRA has given me a tremendous amount of enjoyment as I have met countless new friends and have been challenged to learn new skills. I look forward to continuing to give back to the NMRA as the MER Vice President and believe my professional experience in managing a not-for-profit for the last twelve years will allow me to do so productively.

Candidate for Treasurer -- Brian Kampschroer

Qualifications:

- NMRA Eastern VP: 4 years.
- NMRA Finance chair: 12 years.
- NMRA Director of Meetings, Conventions and Trade Shows: 9 years.
- NMRA Assistant treasurer, Washington, D.C. national convention.
- NMRA Treasurer of the most successful ever national convention, Valley Forge Express.
- Certified Meeting Professional.
- MER Assistant treasurer: 11 years.
- MER Auditor: 2 years.
- MER Treasurer or co-chair of 6 successful conventions.
- MER Director: 4 years.
- MER Founder, Susquehanna Division.
- MER Executive convention chairman: 7 years.
- MER Incumbent Treasurer: 4 years.



As promised when I first was elected Treasurer, we now have a convention registrar and convention treasurer fully integrated as staff of the MER, reporting to board members. This was accomplished with the cooperation of Bill Grosse, the former registrar, and Kirk Batemen, the current registrar. Consequently, the transition was seamless. The work to improve the fiscal health of the Mid-Eastern Region continues. We have a balanced budget for the first time in over fifteen years. We are working to improve our income with judicious investments, despite no change in NMRA support. As Treasurer, I continue to be an active member of the board, open to fresh and creative ideas. I appreciate your support.

Candidate for Secretary – Martin Brechbiel, MMR



I am running for re-election to the office of Secretary. I am currently in the middle of a 2 year term and believe that I have made significant contributions to its efficiency and smooth operations by application of a highly refined organizational skill set. I feel retaining me as Secretary will provide value with a “corporate memory” having been connected to the Board for greater than a decade; Secretary for 2 years, Director for 4 years, and Contest Chair for 10 years. I have maintained the Executive Handbook and all active records. As such, I have a productive relationship with the operations and governance of the MER. I try to bring new ideas forward to improve the attractiveness of our regional conventions, and in doing so hope to increase attendance. I also look

for ways to improve fundamental communications across the MER. I believe that I bring a unique perspective that adds value to serve the needs of the MER. I am an active NMRA member promoting and supporting modeling through active participation of the AP program entering contests, volunteering, writing articles for NMRA publications at all levels. I am currently serving as Superintendent of the Potomac Div.

Proposed Changes to the Bylaws of the Mid-Eastern Region

Change No. 1

Section 4. Budget Committee

A. The Budget committee members are the Treasurer, who serves as Chair, the Vice-President, the Editor of **The Local**, the Business Manager, and the Chairs of the Executive Convention Committee and the Contest Committee.

to read:

Section 4. Budget Committee

A. The Budget committee members are the Treasurer, who serves as Chair, the Vice-President, the Business Manager, the Convention Treasurer, the Executive Convention Chair, the Contest Committee Chairman.

Change No. 2

Article V, Section 3 (A)

A. There shall be at least two (2) meetings per year of the Board of Directors of the Mid-Eastern Region, NMRA, Inc., one of which shall be in conjunction with the Annual Meeting, and another shall be for consideration of the annual budget. These two (2) meetings shall be held at such time and place as directed by the President after consultation with the members of the Board of Directors and set at least two months in advance. The two (2) mandated meetings shall be in-person meetings of the Board of Directors.

to read:

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PRESIDENT'S COLUMN
Some Background
on Cancelling the
2020 Fall
Convention

Kurt Thompson, MMR

In the spirit of transparency, I want to add some information to the announcement of the postponement of the 2020 Convention that was being hosted by the Carolina Southern Division.

First, the decision to postpone the 2020 convention was not entered into lightly. The MER Board worked with both the Carolina Southern (CS) and James River Divisions (JRD) to arrange the postponement. JRD was involved since they were scheduled as the host division for the 2022 Fall Convention. JRD graciously offered to vacate their bid for 2022 and take another available slot in the convention rotation. With that, Carolina Southern agreed to take all their hard work done so far and move their convention two years into 2022.

Some will ask why the Carolina Southern Division wasn't offered the next available slot, i.e. the 2021 Convention. That answer is that it was simpler to move them two years instead of trying to rearrange the hotels and the attendant contracts for three conventions. JRD had not yet completed their hotel venue selection, and there was no hotel contract in place. Chesapeake Division is already farther along in their preparations for Mt. Clare Junction in 2021. Giving up that slot would have caused more trouble trying to reschedule their convention and to arrange a new contract for the hotel in Hunt Valley..

As some know, each host Division signs a contract with the MER when they host a convention. The contract spells out the basics of who does what and who's responsible for things.

It also clearly spells out how any profits or any losses are handled. For the past several conventions, there have been no conventions that have lost money. In the contracts, it is spelled out that any loss on a convention would be borne by the MER solely. No portion of the financial loss will be taken against the host Division. This is also a requirement within the MER Bylaws.

Even with the diligent work and efforts of our Executive Convention Chairman, Sam Rogers, the venue hotel in Charlotte was not amenable to rescheduling our convention out two year and waiving their cancellation fee. I can ascribe many motives to their decision, but leave it as a business decision. I personally had hoped they would prefer to keep our business and waive the cancellation fee. They did not.

The cancellation fee is \$3500.00. The MER will pay that fee out of this year's budget as an extraordinary, one-time charge. Luckily, the MER is in sound financial condition and can afford this bill.

With the cancellation of the convention, those who have registered and paid will be refunded in full. They will have three options: direct refund; move their registration to the Mt. Clare Jct. 2021 convention; or the postponed 2022 Look South Convention. Kirk Bateman, the MER Convention Registrar, will be in touch with all the paid registrants shortly.

I want to thank several people for their efforts in this postponement of the Look South in 2020(2022) convention: Neal Anderson, Carolina Southern's Local Convention Chair; Alan Hardee, CS's Superintendent; Sam Rogers, MER's ECC; the many CS volunteers; the James River Division Superintendent Phil Taylor, and Vice President Ken Montero.

I look forward to seeing many of you next Fall at Mt. Clare Jct. Now, get back to your workbenches and get those models ready for the contest room.



EDITOR'S COLUMN

Greg Warth

As your new Editor for *The Local*, I am at the same time both humbled and proud – proud to be part of such a wonderful organization and

humbled to be in the presence of so many accomplished modelers and writers. Even though I have built many of my own layouts over the years and have written many pages of information to share what I knew about this great hobby, my accomplishments pale in comparison to those of many of you who have done so much more.

In the past few months, as I have been preparing myself for this position, I have read and studied many of the previous issues of *The Local* with a new perspective. It's interesting how one's whole point of view changes when looking at the same material from the position of reader or visitor to one where you are the person who is going to be responsible for it. I have learned much also by watching all the emails that go back and forth from various members of the team who help to put this publication together.

Your previous editor, Jack Dziadul, has done an amazing job in collecting and organizing the information, the articles, the photos and all the innumerable details required for putting this together. The timing of when the articles will appear in conjunction with the space required to house those articles requires considerable thoughtfulness and collaboration with others on the team. His communication skills are exemplary and have been a huge part of what makes this all work. He has also performed extremely well in promoting the hobby and the goals of the organization overall as directed by your President and the Board. **These are big shoes to fill.**

During my preparation, I have seen how the members of this team have all worked arduously behind the scenes to produce a high-quality publication. Good communication between various team members is so critical and which is why it is working so well now. I am happy to be able to participate in such a well-oiled machine that is so productive, congenial and professional.

The educational articles that go into each issue are quite impressive as you know, thanks to all of our very skilled modelers who make up the membership of the Mid-Eastern Region. The details, the photos and the educational content of these offerings are every bit as good as what appears in marketed, mainstream model railroad journals. Many of them are geared toward helping the rest of us achieve our goals in acquiring AP certificates. If you read and study these articles, you will know exactly what to do to get to your MMR designation, not to mention the improvement in your skills as a scale modeler that will invariably occur as a result.

So, again, as I step into this position, I am greatly humbled and proud to be a part of it. Knowing what goes into the production of *The Local* and the great people behind it makes me appreciate my fellow model railroaders even more. They wear many hats and contribute untold hours of their time to this great hobby and are always so willing to help each other. I'm proud to be a member of such a group.

Please feel free to contact me anytime. I am here to serve you. If you have any new articles or photos you would like to present for publication or if you have any questions or concerns about *The Local*, please let me know. This is your publication, not mine. I want it to reflect what's on your mind and provide the information that you need to know.

Submitting an article for publication is easy. Make sure it is in Word format (.doc or .docx), not .pdf. Please submit photos separately from the written document. Mark each one as Photo 1, Photo 2, etc. Then, on the pages of your article, write in where you want each photo to appear using the same designation you have assigned to your photos, *i.e.*, Photo 1, Photo 2, etc. If the photos are not your own, you will have to get permission to use them from the source, the copyright holder. (This is easy - just write a quick email to the source politely explaining that you would like to use the photo in an article you are preparing for a non-profit publication, *The Local*, produced by the Mid-Eastern Region of the NMRA, for informational purposes only, and that you will be sure to include a reference to the source. Thank you very much, etc.) Usually they will be delighted to have you use their photo and will get back to you within a few days.

After you have completed your article, please send it in to gjwarth@gmail.com. You will receive a confirmation of its submission. It will then be carefully reviewed and may undergo some edits. The timeline on this process is variable, depending on the size of the article, number of photos, etc. You will be informed about its progress as soon as the reviews and edits are completed.

It will be fun to see your literary talent published in *The Local* as another significant accomplishment for you, establishing you as an author and racking up lots of points toward the Author AP Certificate! (<https://nmra.org/author>)

Let me know if you have any questions.

For advertising in The Local, please contact the Editor (Local-editor@mer-nmra.com).

The current advertising rates (one year) as follows:

- Callboard ads (Division and Clubs Only)..Free
- Business Card size\$60
- Quarter Page ad.....\$125
- Half Page ad\$225
- Half Page ad per issue (Div. only)\$25

and must include camera-ready art (text, doc/docx, jpeg, pdf, bmp, tiff formats).

The Local welcomes articles, photographs, and model railroad related material as contributions to members' education and enjoyment of the hobby. Materials should have a wide appeal. The Editor will exercise all due care of submissions, but contributors should not send paper/photo originals without retaining back-up copies. Editors, by definition, reserve the right and have the responsibility to make corrections, deletions, and changes to accommodate space. If your item is time-sensitive in any way, please advise the Editor. Otherwise, stories and photos that are accepted for publication are used in approximately the order they are received.

Publication Schedule Submission Deadline

Jan/Feb	Dec 1st of previous year
Mar/Apr	Feb 1st
May/June	Apr 1st
Jul/Aug	Jun 1 st
Sept/Oct	Aug 1 st
Nov/Dec	Oct 1 st

Please observe the following steps to submit your contribution. **1.** Compose and submit your text in Word format (.doc or .docx), not .pdf. **2.** Consider what photos, illustrations, or other graphics can go with the text. These are essential. But, **DO NOT** include/insert them into your text. **Do** put notations in the text such as "Insert Photo #1 here." Send the illustrations separately and numbered as you would want them in the text. JPG, GIF, TIFF, or PNG formats are best for photos. **3.** If you have captions for your photos, etc., create a separate text file for the captions, each of which will be numbered to match a numbered photo or figure. A special note on photos or other exhibits; please only send us your creative work or that for which you have written permission to use so we can give that source proper credit. We need to avoid any copyright infringement situations.

Deadlines and Schedules for 2020 Balloting

Our Bylaws require the publication of deadlines and schedules for nominations and balloting for every year in the first issue of The Local of each year. The dates and schedule for nominations, ballot and election results are in Executive Handbook, Section 5, Policies, Article VI.

The remaining dates for 2020 are:

July 5, 2020 -- You must be a member in good standing (paid up NMRA dues) based on the membership report supplied to the MER Business Manager from NMRA National as of 07/05 (the 5th of July) of every election year to be eligible to vote. If an individual is not a member or if membership has expired as indicated by the record supplied to the MER, and MER officials have not been informed by NMRA National of a valid renewal of membership by 07/05 (the 5th of July), that individual will not receive a ballot, nor be permitted to vote in that year's election.

August 1, 2020 -- Deadline for mailing paper ballots to members and for commencing electronic voting; could be mailed earlier depending on other deadline requirements.

September 8, 2020 -- Deadline for electronic voting, also last day as shown by postmark for mailing paper ballots.

September 12, 2020 -- Deadline for receipt by Balloting Committee of paper ballots sent by mail.

September 19, 2020 -- Deadline for Ballot Committee to transmit results to President, the Director overseeing this committee, and the Business Manager.

September 26, 2020 -- Deadline for The President to communicate the election results to candidates. The Business Manager also notifies the MER Web Master and the NMRA of the election results.

October 10, 2020 -- Deadline for publishing election results on MER's website.

MER 75th Anniversary Goals

By Kurt Thompson, MMR

The Mid-Eastern Region will be celebrating its 75th anniversary in 2021. You will recall that we have established goals for membership to reach 3,500 and for Master Model Railroaders to reach 105 by the October 2021 convention. The thermometers below will reflect our progress toward achieving these targets.

Just a reminder that if you change your telephone number, home or email address please notify either the NMRA National or myself to keep our records up to date. A current address on file saves the MER some money and allows you to receive all the benefits of NMRA membership.



Proofreaders:

Alex Belida , Martin Brechbiel, Ken Montero

Achievement Program Update



By Dave Chance, MER AP Manager (June 02, 2020)

Since the last report in *The Local*, the following Achievement Program certificates were earned and awarded:

Division 1 – New Jersey

- Paul More - Model Railroad Engineer Electrical
- John V. Gallaher – Association Volunteer

Division 2 – Potomac

- William Lyders – Model Railroad Engineer Civil
- Bernard Kempinski – Master Builder Prototype Model
- Bernard Kempinski – Master Builder Cars

Division 3 – Philadelphia

- Walt Miles – Golden Spike
- John H. Seibert – Association Volunteer

Division 4 – Tidewater

- Mark Nieting – Chief Dispatcher

Division 5 - James River

- George Gaige – Scenery
- Donald C. Wells – Association Volunteer

Division 12 – Carolina Southern

- Ed Smith - Model Railroad Author

Division 13 - Carolina Piedmont

- Robert S. Gamble – Golden Spike

MER's Newest MMR Bernard Kempinski of the Potomac Division, is the MER's newest MMR, No. 654 so offer your Congratulations the next time you see Bernie!

During this time of “social distancing”, it is an ideal time to work on those AP certificates that you have been putting off. You can discuss any questions with your Division AP Chair, or you can contact me: **704-933-4200** or **loconut@carolina.rr.com**

In a perfect world, this information will appear soon in the **NMRA** magazine. This should not deter you from giving recognition locally. Normally you will be able to recognize AP accomplishments long before the names appear in the **NMRA** magazine.

PROBLEM - The R&V form is for your personal use. Only use it with the Author Submission.

Please, **NO R&V FORMS** with other submissions.

Removing Clutter While Hoping to Attract New Members

By Kurt Thompson, MMR

After reading a post on the Model Railroad Hobbyist site about getting rid of magazines, I started going through the numerous back issues of model railroad and railfan magazines. The primary reason was the nice clean space under my layout had become a cluttered mess (again).



Photo 1 Kurt's clutter.



Photo 2 More of Kurt's clutter.



Photo 3 A hint of a model railroad is revealed.

As my wife and I enter our “empty nest” phase, it has become an ongoing task for us to declutter the house. Part of the decluttering was sending stuff with our daughter when she got married in the summer of 2018. More was unloaded to our son when he moved to his own place last August.

Since neither child is a model railroader, there was no chance to unload the excess magazines on them.

Therefore, I sat down with my back issues and started looking through them. As the post on MRH said, many of the articles appear outdated due to the changes in technology of our hobby. So how many articles did I really feel were of use to me now or in the future?

The first time through the back issues, I pulled out any article that I felt was relevant to completing my current layout. I was not completely careful by using an X-ACTO blade. A simple pull and tear down the spine of the magazine worked fine by me.

The articles were then stapled together and placed in viewing sleeves/slip covers. Later, they were sorted by categories and placed in binders.

If I tore an article out of the magazine issue, the remainder went into the box for paper recycling. If there was no article I wanted, I started to toss the entire issue in the recycling box. Then it hit me that there had to be a better use of these good condition magazines than the old heave-ho.

The torn apart magazines filled three paper ream boxes. The first round of magazines saved totaled sixty-five. This is after I had given away a significant collection of Model Railroader, Trains, and Railroad Model Craftsman about seven years ago.

Again, I was stymied with what to do with the back issues that were still intact and in good condition. Past experience had been the library was not interested in the back issues. The county library did not even have an active subscription to any model train magazines.

Then the light bulb came on, dimly at first. How many times had I taken a model train magazine or binder of selected articles with me to the dentist? The answer was “each time” since I never knew how long I might be waiting, though Dr. Anderson and his staff are very punctual and timely.

I waited until the following Monday to call Dr. Anderson’s office. I spoke with Diane and “offered” my back issues to them to put in the reception area, if they felt it would be appropriate. Diane quickly said that they would be happy to put some of them out (a few at a time). I then printed some DIY business cards to paper clip to each issue. The card said the magazine was free for the person to take with them. It also provided the website address for the Mid-Eastern Region.

This Model Train magazine is offered to you for your enjoyment. If you want more information, please go to the Mid-Eastern Region, NMRA website for information on model railroad activities in your area.
www.mer-nmra.com

Kurt Thompson, President, Mid-Eastern Region, NMRA, Inc.

Photo 4 MER business card clipped to the magazines.

Only time will tell if this new avenue of reaching potential members will bear any fruit. If the magazines give some

parent a few minutes of rest or reprieve as their children wait for the dentist, or they get some pleasure from thumbing through the issue, then I have met my purpose on one level.

Therefore, if you are trying to remember that the objective was to “drain the swamp while you’re butt deep in alligators,” or get rid of your good condition magazines, put on your thinking cap and get outside the box. Your dentist or doctor’s office may be happy to have some for their waiting room. I have even gotten permission to place some of my copies in the lobby of the body shop where I work.

Happy decluttering.

Upcoming Events*

2020	Dates	Event	City	State	Contact
JUL	28	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
AUG	8	2 Rail O Scale Train Show	Strasburg	PA	John Dunn 609-432-2871
AUG	22	Susquehanna meet	Denver	PA	dblank@susquehannanmra.org
AUG	25	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
SEP	10-13	Mid-Atlantic RPM	Linthicum Heights	MD	www.marpm.org
SEP	12	TCA train show	Mebane	NC	www.traincollectors.org
SEP	22	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
SEP	26-27	Old 97 Rail Days	Danville	VA	www.dcs.smv.org
SEP	27	TCA train show	Philadelphia	PA	http://adtc.com
OCT	2-3	Selma Rail Days	Selma	NC	www.selma-nc.com
OCT	2-3	Susquehanna Ops weekend		PA	www.susquehannanmra.org
OCT	3-4	Great Scale Model Train Show	Timonium	MD	www.gsmts.com
OCT	8	MER Board meeting	Zoom Meeting		http://mer-nmra.com/bod.html
OCT	9-12	NER Convention	Westford	MA	www.millcity2020.org
OCT	10	MER Annual Meeting	Zoom Meeting		http://mer-nmra.com/agm.html
OCT	15-18	Look South in 2020	Charlotte	NC	kklrailroad@yahoo.com
OCT	17	2 Rail O Scale Train Show	Strasburg	PA	John Dunn 609-432-2871
OCT	23-24	TCA train show	York	PA	www.easterntca.com
OCT	24-25	Great Scale Model Train Show	Timonium	MD	www.gsmts.com
OCT	27	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
NOV	1	TCA train show	Philadelphia	PA	http://adtc.com
NOV	7-8	Neuse River Valley Train Show	Raleigh	NC	www.nrvclub.net
NOV	7-8	Susquehanna open houses		PA	www.susquehannanmra.org
NOV	10	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
NOV	14-15	Susquehanna open houses		PA	www.susquehannanmra.org
NOV	21-22	Susquehanna open houses		PA	www.susquehannanmra.org
DEC	5-6	TCA train show	Raleigh	NC	www.traincollectors.org
DEC	8	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
2021	Dates	Event	City	State	Contact
JAN	28	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
JAN	30-31	Railroad Hobby Show	West Springfield	MA	www.railroadhobbyshow.com
FEB	25	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
MAR	23	Carolina Piedmont meeting	Apex	NC	www.cpd13.org
APR	23-24	TCA train show	York	PA	www.easterntca.com
APR	27	Carolina Piedmont meeting	Apex	NC	www.cpd13.org

*This calendar is updated and current as of May 25, 2020. Due to the high potential for change in events over the next few months, it is advisable to make sure the event you are planning to attend is still active.

Achievement Program - Recalculated

By Charlie Flichman, MMR

In reading the President's column in the May-June eLOCAL, I was surprised to see the number of Achievement Program (AP) certificates (674) that Dave Chance had processed since he took over for me as Achievement Program Manager on October 2017. At that time, 1257 certificates had previously been processed for the Mid-Eastern Region (MER) membership. During my tenure, I processed 455 certificates, which leaves 802 certificates for all the previous Achievement Program Managers.

I discussed this report with Dave and also with MER President Kurt Thompson. It turns out that the 674 number was incorrect, and it was actually 134 certificates that Dave Chance had processed. After this discussion, Kurt recommended that I write this article in order to demonstrate to the membership how many of these certificates have been awarded altogether and the process involved in managing the Achievement Program database. Once members see how many of these have been awarded, perhaps it would take away some of the "fear" of entry into the program. He also wanted the members to understand the process of keeping track of the numbers and what they mean. This article is NOT to be construed as a "pat me on the back" article, even though, I must admit, I worked quite hard on collection and correction of the data to get it where it is today.

When I took over as Achievement Program Manager in November of 2004, I got a few AP Statements of Qualification (SOQs) that Roger Cason, the previous manager, and that was it. The MER didn't have a master file of Achievement Program certificates earned in the Mid-Eastern Region. I emailed the NMRA national office and asked for a copy of their MER Achievement Program database. "You do not know what you are asking for" was the reply. But they eventually did send me a copy. It did need a lot of work. There were many certificates with no numbers. Some had duplicate numbers, because different Achievement Program Managers, not knowing what numbers that the previous managers had used, reused the same numbers.

Later in my tenure, at a regional convention, JJ (John Johnson), the MER Archivist, gave me the *original* Achievement Program paperwork from 1962 to 1999, handwritten by all the previous Achievement Program Managers. That information filled in a lot of holes. With the listing from the NMRA national office and the information from John Johnson, I produced a chronological, all-time list and renumbered the record numbers starting at 1 (I did not change any official certificate numbers). When I got to certificate No. 699, I contacted the NMRA office and explained the situation to them. I also sent them the updated Achievement Program list, which they start using. I told them that the next certificate number should be 827 in order to have future certificate numbers correspond to the total number of certificates awarded. They agreed. This now produced an accurate listing of AP certificates awarded in the MER with certificate and record numbers being the same. Now the Mid-Eastern Region can be compared with other regions.

So now the official Achievement Program certificate number your award and in the database record corresponds to the actual total number of AP certificates that have been awarded in the MER. Hopefully, we will continue using that numbering sequence. The current verified total as of this writing is 1391 Achievement Program certificates that have been awarded for members of the Mid-Eastern Region of the NMRA.

As a side note, Master Model Railroader (MMR) certificates have never been given MER numbers, except for a few isolated cases, since the start of the program in 1962.

[Ed. Note: *Charlie has received the NMRA Meritorious Service Award and the MER Lifetime Achievement Award for his extensive work on the MER Achievement Program database.*]

Achievement Program Article Series

By Greg Warth

We are enthusiastically continuing our educational series on how to achieve AP certificates and ultimately become Master Model Railroaders. There will be a total of at least eleven (or more) articles published in *The Local* to complete this series.

Our goal, as you may remember, established by MER President Kurt Thompson, MMR, is to increase the number of MER Master Model Railroaders by 75% (a total of 105 MMRs) by the time of the MER convention in October of 2021 – our 75th anniversary.

This issue of *The Local* contains four of the articles in this series to help inspire us to achieve that goal:

- “Master Builder – Cars” - by Ron Baile, MMR, p.15
- “Obtaining Your Master Builder – Prototype Models Certificate: Part 1” - by Andrew Dodge, MMR, p. 17
- “The NMRA Master Builder Cars Achievement Program Certificate” - by Ernie Little, MMR, p.22
- “Model Railroad Engineer – Civil” - by Ernie Little, MMR, p.44

All are excellent demonstrations on how to go about obtaining these certificates. The common theme: They are not that difficult. You just have to break each project down into small easy steps and don't try to rush through it. And, of course, try to have fun with it!

The following table shows the current lineup of articles to be included in this series:

Model Railroad Equipment	Category	Author
	Master Builder - Motive Power	Joe Walters, MMR
	Master Builder - Cars	Ron Baile, MMR
	Master Builder - Cars	Ernie Little, MMR
Settings	Category	Author
	Master Builder - Structures	Glyn Thomas, MMR
	Master Builder - Scenery	Mary Miller, MMR
	Master Builder - Prototype Models	Andrew Dodge, MMR
Engineering and Operation	Category	Author
	Model Railroad Engineer - Civil	Ernie Little, MMR
	Model Railroad Engineer - Electrical	Rod Vance, MMR
	Chief Dispatcher	Kurt Kramke, MMR
Service to the Hobby	Category	Author
	Association Official	Kurt Thompson, MMR
	Association Volunteer	Brian Sheron, MMR
	Model Railroad Author	Martin Brechbiel, MMR

Master Builder - Cars

By Ron Baile, MMR

If you have ever built a kit, and I would hope that you have, they usually tell you to read the instructions over several times. This will familiarize you with what the various components are, how they are to be assembled and what the finished product should look like when completed.

Well, the AP requirements for Master Builder - Cars are about the same. Read the requirements, then read them again. I once saw a young fellow lose many points because he hand lettered a scratch-built freight car. It was a nice car. His interpretation of the rules was that it had to be TOTALLY scratch-built, i.e., no decals. That is absurd! He only had to discuss this with someone a little more knowledgeable about the requirements, such as a Division AP Coordinator, before he ruined a nice model in order to avoid this mess.

It took me quite a few years to complete my Cars category. First, it was not a race. Second, I had a job, a family, and organizations to which I belonged. I just did not want my modeling to seem like another job that I just had to get done. However, one day I came to the realization that I was not getting any younger, my health was not improving, and so I had better do some things while I still could.

Let us look at the requirements for Master Builder - Cars. You should read the rules yourself so that you understand them completely and then re-read them. **DO NOT READ SOMETHING INTO THEM THAT IS NOT THERE!**

You must build eight **operable** scale models of railroad cars. Operable here means that if you couple it up to a locomotive, it should freely roll. Now, do not restrict yourself too much. Perhaps it is a mine car of some sort. Then the motive power might just be a donkey, but the car still has to roll. However, if it is that small, it may not garner as many points unless it is in S, O, F scale or some larger scale.

Did you ever wonder what it might be like to build in another scale or gauge? Here is your big chance to find out. The first prize that I ever won in a Regional contest was for an On3 gondola. I model in HO standard gauge. I had never modeled in On3, so it was a completely new experience. I took second place and a Merit Award. Oh, it was a kit too! So there were some points that I could not get (scratchbuilding). However, I added additional detail.

A couple of years later I came across a one-page plan for a unique narrow gauge car in *The Narrow Gauge & Short Line Gazette*. I scratchbuilt it out of styrene and brass. It won first place in freight cars at the NMRA National convention. I almost fell over!

Along those same lines, I won a prize at the National convention at Hartford with a scratch built model of an HOn3 car. I never modeled in HOn3 before. The way my hands shake today I probably will not ever touch that scale/gauge again, but it was something that I wanted to do.

I am not bragging about my abilities here. I know many men and women who are much better modelers than I am. I consider myself average, so if I can do it, then you can do it. If you have a problem doing something, ask for help. When we receive that MMR, we sign a pledge that we will, to the best of our abilities, avail ourselves to help others. Oh, I have lost plenty of contests too. However, it is a learning

process because generally the judges give useful comments as to what you could have done to improve your model.

Probably everybody we know has built at least eight models. Only four of these eight must earn a Merit Award. That is only 87½ points out of a possible 125. There must be at least four different types of cars represented. You cannot just build a string of eight log cars and just walk away. One of these cars has to be a passenger car. No one says that it has to be scratch built. It may be a high quality kit or a kit-bashed model. You simply have to build it and describe it in your SOQ. (ED: Statement of Qualification Form available at www.nmra.org Education / Achievement Program / Forms)

If you hate the hassle of hauling your models to a convention or cannot fit that into your busy schedule, then your Division AP Chairman can arrange to meet with you and evaluate your models. Find out ahead of time if he drinks coffee or something else.

Early on, I started to add brake rigging to my cars. I know you cannot always see these details from the sides, but if a judge turns that car over the lack of those details will stick out. Anytime that you can add details, you should do so.

If you model in either wood or styrene, make sure that your wood grain is in there. I like to add random knotholes, just do not overdo it. The ends of boards get beat up, so banging them with a knife blade helps relieve the smoothness. Do not forget the other side of the wood either.

Oh, the paperwork! It is not that bad. Keep good notes about each car as you go along. Note that only FOUR of your eight models need to be judged and earn merit awards. The other four only have to be described on the statement of qualifications (SOQ).

When judging, I do not want to have to read a book. Some people think they are writing their doctoral dissertations. It is only a freight car (or whatever). Some people write a page for each category: Construction, Detail, Conformity, Finish and Lettering, and Scratchbuilding. I tend to like that, but that is just my opinion. Others just write one page per car and that is all. It is up to you. Sometimes a copy of the magazine article that the car is based upon is helpful. A few prototype photos may be included, but do not go overboard. If you have, questions ask someone. There are people ready to help.

Now, read the requirements, read them again then clear your mind and go forth and model.



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Obtaining Your Master Builder - Prototype Models Certificate: Part 1

Andrew Dodge, MMR

Achieving a Master Builder – Prototype Models certificate can be one of the more challenging categories in the Master Model Railroader program. It requires some preplanning and discipline to more closely follow a prototype than our typical more “creative” approach in our modeling projects. In recreating a scene or scenes depicting a prototype, keep in mind that the modeler has to reproduce a place in time that cannot be fully encompassed within the limited spaces that we have in a basement, attic, or garage. The modeler has to be creative and design a scene that so closely resembles the prototype that it can fool the eye into “seeing” a convincing replica of a place and time. However, at the same time, the modeler must include accurately modeled rolling stock, motive power, and structures that are full size or can be convincingly compressed.

That said, if you have already completed and received your certificates for building rolling stock, cabooses, passenger cars, locomotives, and scenery, you have done all the hard work. That is, unless it is all or mostly freelanced. If you have equipment already based on a prototype, and you have done all the paperwork for the other certificates, all you should need to do is a cut-and-paste job from your prior Statement of Qualification forms onto the Master Modeler – Prototype Models form with the very important inclusion of how you followed the prototype with specific details.

Prototype model railroading has become more and more popular in the past several decades. In my own modeling efforts, the HO/HOn3 layout that I started in the 1970s was based on the Rio Grande in the late 1930s, but it was a design and visual disaster. By the time I returned to the United States in 1987, I had decided to make a clean break, and model in a different scale and time period. Such a dramatic break is not necessary to be awarded a Prototype Models award, but it might take some localized reworking of one’s layout.

To address each category of modeling in this area, let’s look at each one individually. Four different types of models must be included in your scene to be evaluated. One of the easiest ways to proceed in prototype modeling is to already have modeled items that are based on a prototype that you will use in your scene. It would be better still if those models already have been awarded certificates in the other Achievement Program categories. The scene requirement does not have to be large enough to fill a huge area of your layout, but it must capture the essence of what you intend to depict.

I will be using my models and experiences as a guide. However, remember that whatever period or location modeled, the issues are going to be the same. The types of cars and buildings, their colors, accoutrements, and styles will change over time, and you need to reproduce that timeframe in your modeling. You cannot have a Pennsy S1 running in California, but you can in 1940s Ohio.

In evaluating models submitted for the AP awards, I have found that the written detailed description is critical because the one doing the judging may not know much, if anything, about the model or its history. In presenting the paperwork for prototype modeling, providing the best possible images is absolutely critical. Without photos and a complete description, the individual examining the entry has, with almost certainty, no way to appraise the authenticity of your work.

The Categories of Railroad Equipment:

Six pieces of the following items must be included: at least one freight car, one caboose or passenger car, one structure, and one locomotive. Two of the six prototype models must be scratch built and the other four super detailed.

Rolling Stock:

I will not go into the AP requirements for rolling stock, which most modelers doing the prototype program have probably already completed. To do the prototype paperwork that goes beyond the standard required text for cars, I included some of the notes I submitted for freight equipment that the South Park used to transport riding horses.

The car in this scene was based on plans of cars used on the South Park in the early 1880s. (See attached photograph.) Work required carefully scaling the sides and ends with those in historic photos. Trucks are built up from various South Park castings to properly represent the prototype. Included in the model I used numerous nut and bolt castings, queen posts and turn bucks, and brake apparatus under the car and on the brake end of the car to match South Park equipment. Also included were all door track and hardware, and prototype polling pockets. Designed and made decals to match prototype, and weathered the entire car to match the dirt and weather environment in the region where the railroad operated.

To supplement the descriptions, I submitted the following photographs showing the prototype and the model.

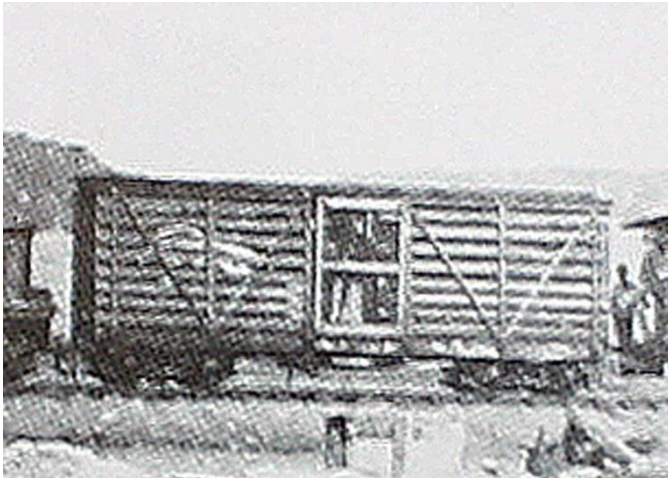


Photo 1



Photo 2

When providing the paperwork, plans, and photographs, make sure you are submitting the correct prototype plans that match your model. In the case of the Denver, South Park & Pacific's Tiffany Summer and Winter Cars, the railroad placed two different orders several years apart. Each of the two orders had slight variations in its hardware, etc. The initial plan shown below was the design for the first order, and the following image is of the model depicting cars of the original purchase.

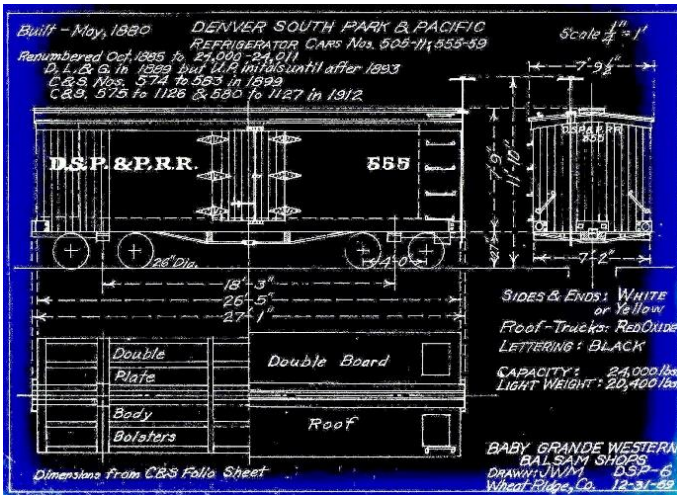


Photo 3



Photo 4

The following set of plans was for the second order. Although the plans are quite similar, they are not the same. A judge could not give a model based on the first set of plans as good a grade if you provided this second set of drawings. No matter how good the modeling work, the model and the plans do not exactly correspond to one another.

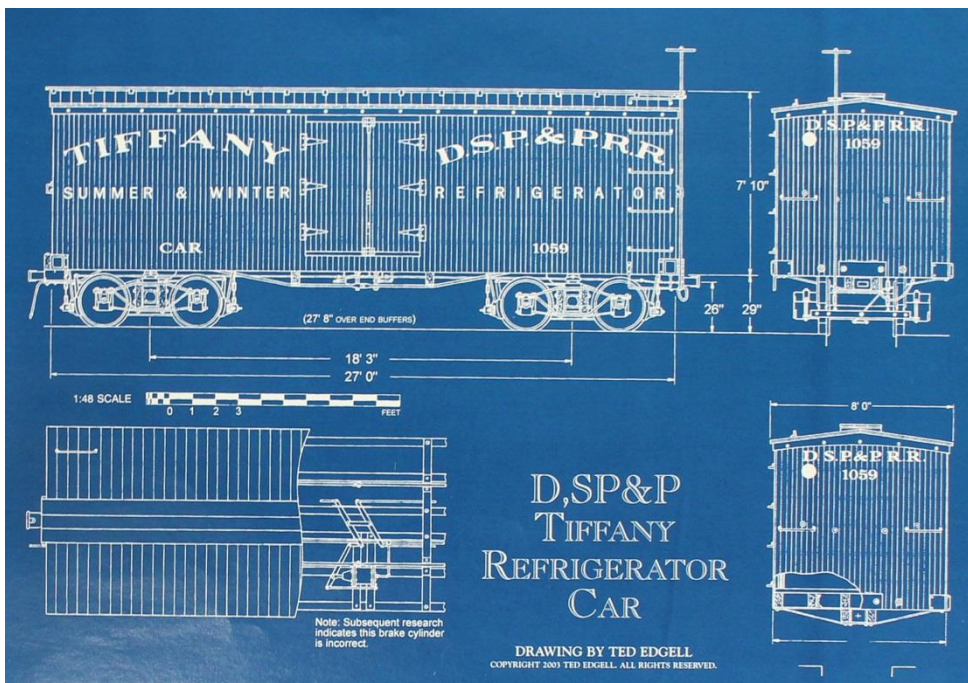


Photo 5

Caboose or Passenger Cars:

All the same issues that applied to the rolling stock freight cars are applicable to cabooses and all types of passenger equipment. Again, make sure that what you want to model conforms to what the prototype was using at that time. All the issues with passenger equipment apply equally to cabooses. I submitted the following text for my passenger equipment.

All work was designed to conform to the Denver, South Park & Pacific's baggage car shown to be used on the line in the early 1880s. All hardware matches the South Park prototype. Used standard car building practices of the 19th century in building the model. Created the artwork for special decals to match prototype.

Weathered the entire car to match the dirt and weather environment on region where the railroad operated.

All hardware matches the South Park prototype.

Again, when submitting a model to be judged, the photo of the prototype being modeled is an absolute necessity. This baggage car was photographed on a bridge near Buena Vista, Colo., in the early 1880s. My model version was based solely on this photo because the railroad's records have long since been destroyed.

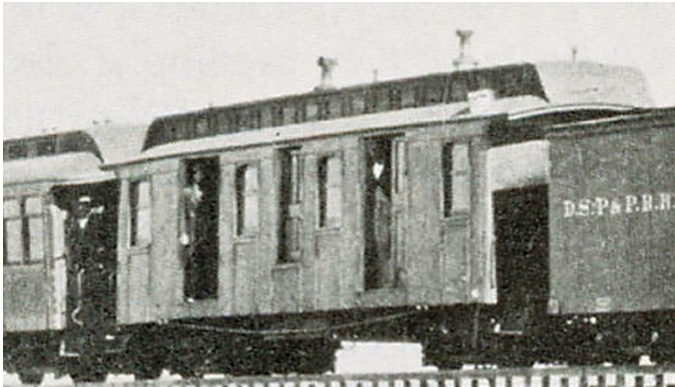


Photo 6



Photo 7

In the case of the South Park's Pullman cars, the time period modeled played an important role in exactly how to model the exterior of such a car. The Pullman Company continually pulled their cars out of service for upgrades. In the historical photo of the *Hortense*, the sides are covered in board and batten style, but the car's sides would shortly be recovered in beadboard siding. Since I modeled the transitional period with both styles in use, that would be prototypical, but in AP judging, your model and your photograph of the historical car must be the same.

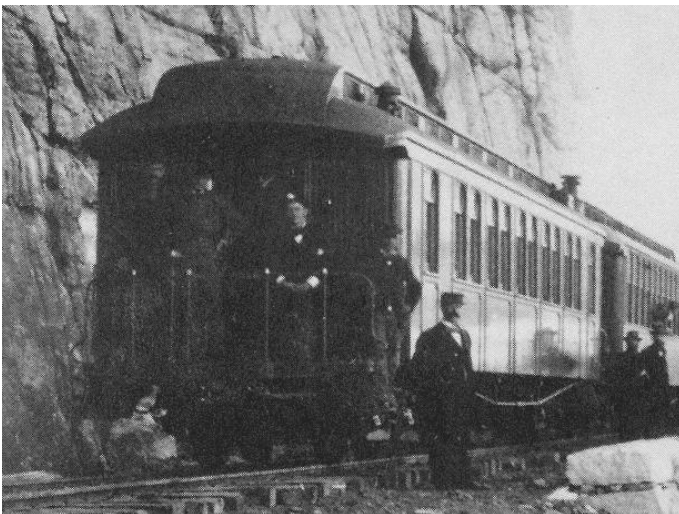


Photo 8



Photo 9

While discussing judging passenger equipment or any other item being modeled, one must know and apply the proper color to the model. It is highly perplexing for a person to evaluate a model of one color while the photograph shows an item with a different color. Also, be aware that it is not wise to assume the judges do not know the colors of various pieces of equipment on diverse roads at different times. Pullman cars, for instance, have one series of colors before the 1890s. During the last decade of the 19th century, a chocolate brown color was in vogue, which even extended so far as having the trucks painted the same color as the car body. Of course, we have the green color commonly used in the 20th century. But, even then weathering issues would have caused variations in shading.



Photo 10

Non-prototype colors and lettering will seriously detract from the overall evaluation of a model in the prototype category. Remember, you are reproducing a period in history, not your fancy.

We will continue our Prototype Models Part 2 in the next issue of The Local.

75th Anniversary Logo Contest

By Kurt Thompson, MMR

Reminder to submit your Logo Contest entry to me by the extended deadline of November 30, 2020. We have several very nice entries so far. **The winner will receive paid registration to the 2021 MER convention.** Full details are in the September-October 2019 issue of The Local.

The NMRA Master Builder Cars Achievement Program Certificate

By Ernie Little, MMR

In my quest to become a Master Model Railroader, I found that the Master Builder - Cars category was the most challenging Achievement Program certificate that I earned. This certificate is the one that is feared by many due to the requirements to meet it. What do you have to do?

First, before you start doing anything, take a deep breath, and think about what you are going to do and how you will do it. As an example, what scale are you going to work in? I would recommend not working in one of the smaller scales. I did my work on HO scale, and at times, I felt that I should have done it in O or G scale just because dealing with the “tiny” parts can be challenging. What cars do you want to build? In my case, I wanted to build railroad cars that I had seen or about which I had read that were on the railroad past or present. Are the cars for use on your railroad or just for judging and display? I thought about building them for my layout, but ended up building them for judging and display because I wanted to be able to show visitors what I had done. Also, I felt that the cars that I had constructed were not going to last out on the model railroad due to the number and size of small detail parts that seemed at risk to fall off. This is nothing worse than having an air hose/valve break off when you pick it up to move it right before the AP judging team is scheduled to arrive.

Second, are you going to work with wood or styrene? There are different construction needs for each of these materials, such as the adhesive, support of pieces, cutting, and painting. In my quest, I started to work with wood and then moved over to styrene. I found wood was easy to work with; however, it was fragile and subject to the effects of moisture and temperature affecting its stability, and subject to variable painting results, depending upon the product applied to the wood. Decaling wood can be challenging, as decals adhere best to a smooth surface.

Third, get yourself a large piece of tempered glass on which to do your work. There are several advantages to having a glass work surface over the standard cutting mat or board, especially when dealing with adhesives. I was fortunate that my Division Superintendent had a couple of pieces of ¼” tempered glass that he wanted to dispose of and sold them for a reasonable price.

Fourth, speaking of adhesives, pick an adhesive which works with you well. When you are scratch building a car, there are times when you want something to stick quickly, and then there are moments when you need some time to adjust a fit.

Fifth, research the cars you are going to build. If you can find plans for the car that show elevations and dimensions for the car, you have a virtual gold mine on your hands. Then again, you may not be able to find any details. As an example, being from Western Pennsylvania, I had been exposed to the oil industry. I found out that there was a wooden car called the Densmore tank car that was allegedly the first wooden tank car on the railroad. During my research, I found a patent number. From that information, I found a conceptual drawing of the car, but no dimensions. In searching the internet, I found material about the car that included basic dimensions, but that was not sufficient to help me in constructing my model. So, off I go to Titusville, Pennsylvania on a research trip, as I had seen the car at the Drake’s Well Museum. At the museum, I found the flat car with no tanks on it, and learned that the

vats (tanks) had been removed a few years ago due to wood deterioration. Disappointed, I then emailed the museum curator about it. The curator provided documentation on what they had on the car. This included an email from a gentleman at the Smithsonian Museum advising them that the car that they had was not correct with regards to dimensions and wheel sizes. So, from building a Densmore Car, I instead proceeded to build a horizontal wooden tank car that I had found in a book entitled “Easy to Build Model Railroad Freight Cars” which was published by Kalmbach Publishing in 1973. The moral of the story is that this took three to four months of my time to get started on my build.

Sixth, take your time and do it right the first time. I cannot tell you how many times I constructed a part of a car, only to go back and repeat the process because either the AP judges or I were not satisfied with the result. My first Merit Award car took two judging sessions, and the second one took three. However, when I constructed cars five and six, I was successful in achieving merit scores on the first judging. I had learned the difference between “good” and “craftsman” quality.

So what are the Master Builder - Cars requirements?

Requirement 1. Build eight operable scale models of railroad cars of which there must be four different types of cars.

You have to build eight scale cars, of which there have to be four different types, and they have to be operable. Of the four different types of cars, one has to be a passenger car. A passenger car is any car found in a regular scheduled passenger train, including baggage cars, express reefers, business cars, or other passenger carrying cars. No big issue here, other than you may have to deal with several windows and doors. The remaining three types of cars are up to you to pick. How about a tank car, stock car, cylindrical hopper, boxcar, or something that you find on the internet that was out there on the rail at one time? In reality, you could build three different cars and five of the same to meet this requirement. An operable car? What is that? Operable here means that they must be able to roll on the track, negotiate a curve, be pulled or pushed by something. That is all that is required; doors, valves, and such operational components just need to be on the car and do not have to operate.

In my Master Builder - Cars AP certificate journey I scratch-built five cars: a wooden tank car, a wooden gondola car, a wooden stock car, a cylindrical hopper, and a Southern Hogshead Tobacco car. I also constructed three kits: a Bethlehem Car Works combine passenger car and two 40' Mathers box cars. Here is a picture of my first merit award car which was the wooden tank car based on an article in the book “Easy to Build Model Railroad Freight Cars” (**Photo 1**). This car scored 91 points on second judging.



Photo 1 Wooden Tank Car

- Each of the eight models must be super detailed with either commercial parts or scratch built parts.

Super detailed means that you have to have those operational items found on the car you are modeling added to the car. This includes, but is not limited to, brake wheels, grab irons, ladders, windows, steps, rivets, brake hoses, and other detail parts that you get from commercial sources or scratch build. This is where you can experience a lot of frustration when attempting to use a kit for merit points. Kits tend to have a lot of “molded” on parts, and you have to replace these parts with parts purchased or made. The AP judges will look at your ladders, brake wheels, and underbody brake parts when judging. If they are just molded into the body, you will not attain points for their presence. Having the correct braking system, whether it be a K brake, AB brake, KC brake, or other, is a must on the underbody of the car that you are modeling. I learned a lot about braking systems during my journey, as I had absolutely no knowledge about the different braking systems, their components, and their function. I was fortunately able to consult with my Division AP Chair, who put me onto another Kalmbach book about freight cars called “Detailing Freight Cars” by Jeff Wilson. There is a significant amount of information about detailing a car in this book that can be used for the Cars AP certificate. **Photo 2** is the A end of my first merit car where I added polling pockets, a cut lever, an air hose and angle cocks. **Photo 3** shows the B end of my cylindrical hopper car, showing the brake system details. **Photo 4** shows the walkways on the top side of my cylindrical hopper. **Photo 5** shows the brake shoes installed on one of the trucks of my Southern Hogshead Tobacco Car. Photo 6 shows the supports and braking system on underbody of the Southern Hogshead Tobacco Car.



Photo 2 details on end of wooden tank car



Photo 3 details on b end of cylindrical hopper



Photo 4 top shot of cylindrical hopper

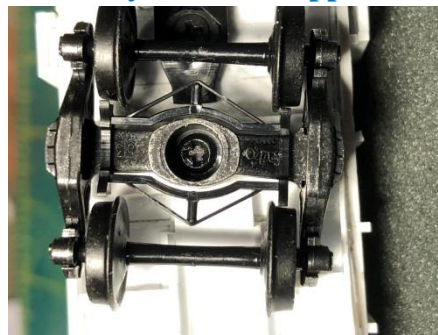


Photo 5 brake shoes on Hogshead Tobacco Car



Photo 6 Underbelly of Hogshead Tobacco Car

Details; the more you can add to your model the better score you will attain.

- **In addition to being super detailed, at least four of the eight models must be scratch built.**

Scratchbuilt is where you, the modeler, have done all of the necessary layout and fabrication required to produce the final dimensions, appearance, and operating qualities of the model. Do not let the term “scratch-built” scare you off, as it is only a little different from building a craftsman kit. I was fortunate enough to find two Ambroid kits at convention white elephant sales. One was a cylindrical hopper and the other was a Southern Tobacco Hogshead Car. The kits had all of the parts AND a set of scaled plans for each of the cars in the boxes. I took all of that, duplicated the kit parts in styrene, and constructed the cars. Talk about construction points: here is a great way to do it. The plans were easy to follow, and I was successful in recreating most of the parts in the kit. **Photo 7** shows how I duplicated one of the wooden side panels from the Southern Tobacco Hogshead Car kit into styrene plastic. **Photo 8** shows how I added vertical ribbing to the side constructed in **Photo 7**. **Photo 9** shows the start of construction of one of the side panels for stock car that I scratchbuilt. A jig was made to keep the slats straight and square. Two-sided tape was used to hold the individual pieces in place while gluing the interior supports. The jig was used on several of the cars that I built and was an important tool for me. Oh, the price was basically free as it was made with scrap basswood from one of the cars I constructed.



Photo 7 replicating a wooden side in plastic on the Hogshead Tobacco Car

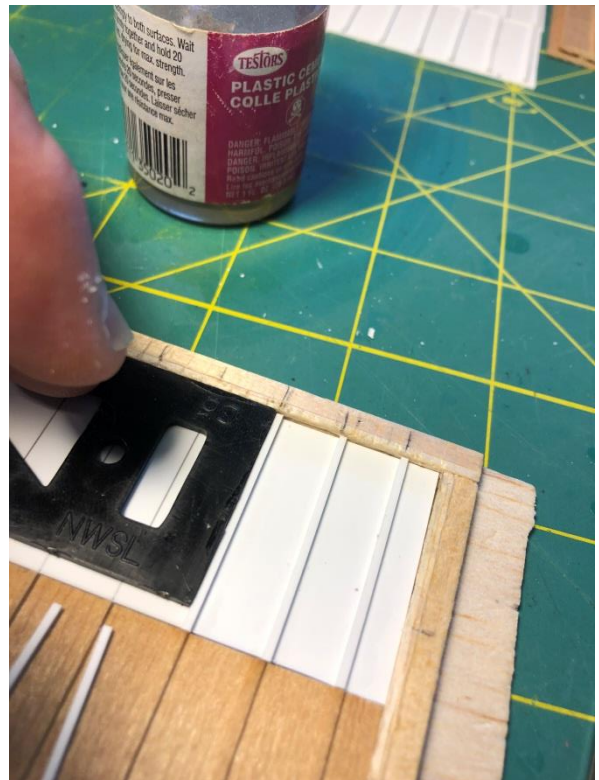


Photo 8 adding ribbing to the sides

Photo 9 building side wall of stock car with jig

Photo 10 shows the interior flooring, passengers, and luggage racks in the combine. The floor was made from No. 24 lb paper with a checkerboard black and white pattern printed using Microsoft Word. The passengers were commercially available, and the luggage racks were scratch built.



Photo 10 combine car with floors, passengers, and luggage racks

Something to remember is that you can still use a few commercial detail parts on the model. But most AP judges will require that 90% or more of the model being scratchbuilt for the model to be classified as scratchbuilt. There are parts that are specifically excluded from the scratch-built requirement:

- Wheels
- Couplers
- Light bulbs & electronics.
- Trucks.
- Brake fittings.
- Marker lights & drumheads.
- Paint, decals, etc.
- Basic shapes of wood, plastic, metal, etc.

("Basic shapes" are things that the builders of the prototype would have used as raw materials. For example, an "I" beam would be a basic shape; a commercial door or window casting would not.)

Requirement 2: Earn a score of at least 87-1/2 points on four of the eight models in either an NMRA sponsored contest or in AP Merit Award judging.

Only four of the models need to earn the required 87-1/2 points, which is 70% of the maximum score of 125 points in an evaluation. However, you must describe all eight cars on a Statement of Qualification form. All you have to do is construct four "craftsman" cars for the AP judges. The other four can just be super highly detailed. If you do not make the merit score on your first try, go back, fix what the judges commented on, and put it back up for another judging session. There is no limit on the number of times that a car can be judged. Here are the cars that I scratch-built for Merit Awards:



Photo 14 – Southern Tobacco Hoghead car 105 points on first judging.

Here are the other cars that I built that were super detailed, but did not receive a merit score. The two Mathers Box Cars were not judged, as I already had my four merit scores, and it was not necessary to have them judged.



Photo 15 – Reading stock car. (scratch-built) 55 points on first judging.



Photo 16 – Reading combine car (Bethlehem Car Works kit) 51 points on first judging.



Photos 17 and 18 – Proto 2000 40 foot Mathers Box Car Kits (No judging)

Requirement 3: Submit a Statement of Qualification form, which needs to include the following items.

Upon completion of all eight cars, you need to submit the Statement of Qualification (SOQ) form, which will list each car that you built. Then attach the individual car SOQ forms that provide a detailed description of each of the eight models. These forms will need to contain the following information:

- Identification of all scratch-built features
- All commercial components used
- Materials used in building the model
- If the model is a kit, whose kit is it?
- Verification of the Merit Awards (photocopies of the certificates or scoring sheets)

Photos of the model are helpful, though not required.

Remember that your eight cars do not have to be from the same era, or part of the country, or even the same scale. There is also no time limit on how long it takes you to get all of the cars built and judged, and the forms submitted.

If you are interested, you can go to my website at <https://norfolksouthernconnectorrr.weebly.com/> and click on the NMRA Achievement Participation link, which will take you for a webpage where you can locate a PDF file of my Cars AP certificate submission.

Good luck on your Master Builder - Cars venture, and remember to have fun. That is what model railroading is supposed to be about.

UPCOMING MER CONVENTIONS

2021 Convention – Chesapeake Division – Oct. 21 - 24, 2021 - Delta by Marriott Hunt Valley Inn, 245 Shawan Road, Hunt Valley, MD

2022 Convention – “Carolina Special Look South in 2020” – Dates and Location tbd

2023 Convention – Susquehanna Division – dates tbd - location tbd

2024 Convention – James River Division – dates tbd - location tbd

2025 Convention – New Jersey Division – dates tbd - location tbd



Background flats fill the wall on Bill Kachel's amazing layout (Photo by Jack Dziadul – Oct 2019)

<http://www.phillynmra.org/archives/layout/bill-kachel-prr-ho>

The Clam Box

By Jack Dziadul

Modelers creating proto-freelanced layouts often construct signature buildings that are easily recognizable to help establish the era and locale of the model railroad. I model the Eastern Route of the Boston and Maine Railroad, which includes the Town of Ipswich. Nothing better identifies Ipswich than The Clam Box. This fast food seafood restaurant, with its signature architecture in the shape of a takeout container, is well known to locals, as well as to tourists from around the country.

Fortunately, in 2010 Bollinger Ederly Scale Trains (BEST) produced a limited edition of 100 copies of Kit 1078, which has sold out. Several years ago, BEST sold the rights to numerous kits to Motrak Models. This sale included rights to The Clam Box. Motrak is planning to re-release the kit under its own brand later in 2020, so this review should also apply to the Motrak kit when it is released.

As expected with Bollinger products, this kit was well packaged and well presented in BEST's standard blue box (**Photo 1**). I always make a point of photographing each step in a model build, especially if it will be a candidate for an article or a candidate for an Achievement Program Master Builder – Structures evaluation.

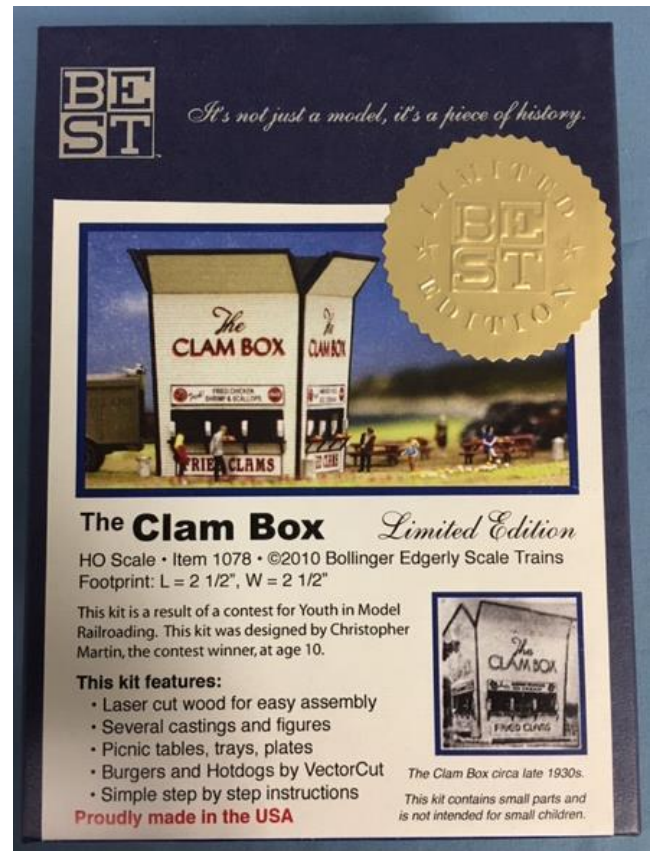


Photo 1: BEST uses quality boxes with descriptive color labels.

I have more than a passing familiarity with The Clam Box, as I grew up in Ipswich and re-visit each summer. The owner is a family friend, and I have been given access to every nook and cranny of the restaurant for detailed photography and measurements. The BEST kit was based upon the original 1935 footprint, not the modern day structure with the dining room addition. The restaurant first opened in 1938 after three years of construction. I will leave the more modern version to a future build, limiting this article to the kit construction.

The kit included a sealed package of laser cut walls, a separate package of cast details, stripwood pieces, and a separate package for decals, windows, and picnic tables (**Photo 2**). In addition, there was a package of laser cut parts for cheeseburgers from Vector Cut (**Photo 3**). I had never heard of Vector Cut. I tried looking them up to no avail. It must have closed shop. Yes, The Clam Box sold cheeseburgers, but, of course, they are most famous for fried clams.



Photo 2: 8 pages of instructions plus five sealed parts bags.

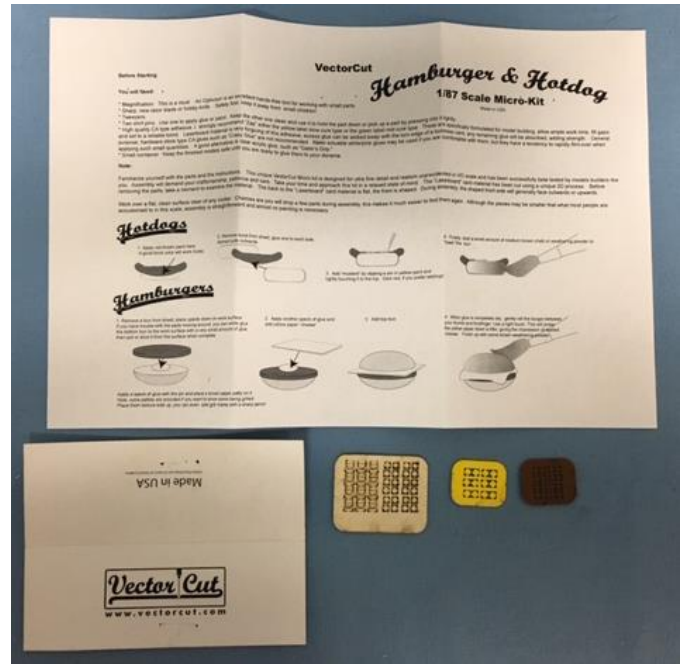
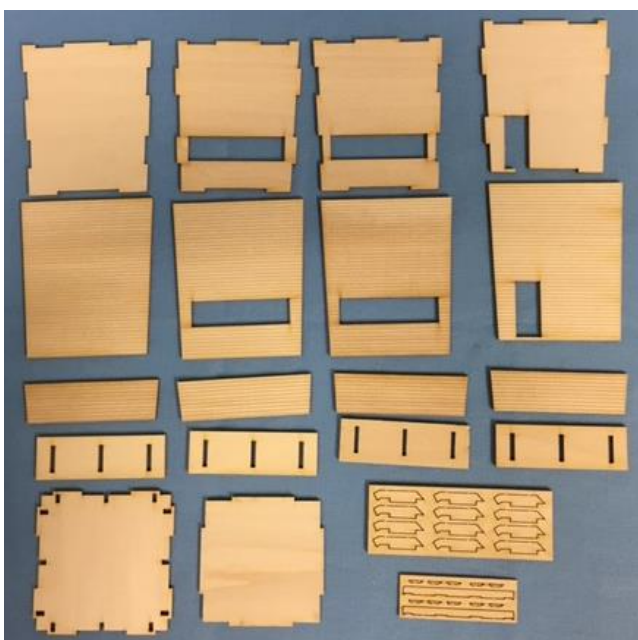


Photo 3: Vector Cut hot dogs and hamburgers for the little people. No fried clams, though.

The eight pages of instructions clearly spelled out the construction steps and illustrated the process with color photographs. A separate page discussed weathering wood. BEST includes this guide in each of its kits.

Modelers have a bad rap when it comes to reading instructions. When I skip or deviate from the instructions, I usually end up regretting it. So, step one was reading the instructions. Bollinger recommends painting the structure first. Okay, but deviation #1 came into play here. This kit uses an interior wall system that laminates to the outside clapboard walls, instead of interior bracing as in most laser cut structures. These pieces were glued back-to-back using carpenter’s glue before painting. This made for a very sturdy structure given its small footprint of 2 ¼” x 2 ¼” (3”x 3”is the top dimension) (Photo 4).



Modelers have a bad rap when it comes to reading instructions. When I skip or deviate from the instructions, I usually end up regretting it. So, step one was reading the instructions. Bollinger recommends painting the structure first. Okay, but deviation #1 came into play here. This kit uses an interior wall system that laminates to the outside clapboard walls, instead of interior bracing as in most laser cut structures. These pieces were glued back-to-back using carpenter’s glue before painting. This made for a very sturdy structure given its small footprint of 2 ¼” x 2 ¼” (3”x 3”is the top dimension) (Photo 4).

Photo 4 There are 18 major laser cut structure components. The inner walls are on the top row. The clapboard wall pieces are in the second row from the top. The rectangular pieces are the inner and outer top flap walls of the box. At bottom left are the roof and floor pieces. The smaller pieces are the top wall flap supports and the outside serving counters.

The paint scheme changed over the years. The kit suggests the original colors of white with blue trim. Today, a modeler would see gray with white trim. Original colors were used since this kit is based upon the 1930s version. Besides, the takeout boxes for the fried clams and French fries are white; therefore, we will stay with the original owner's logic. At some point in its history, the trim was red as evidenced by some old peeling paint scraps that were found during my 2017 inspection.

Inexpensive rattle can paints in flat black and gloss white were used for the primer coats of the roof and clapboard walls, respectively. The final coat of Apple Barrel White was applied to the walls with a damp sponge.

The stripwood trim pieces, counter windows, and Tichy plastic door were brush painted with Apple Barrel English Navy. The two three-piece ordering window counters were assembled before painting. This allowed for clean gluing surfaces on these small parts.

The four walls were assembled and glued with Titebond Wood Glue. They were dry fit first to assure a correct fit. The laser cutting was perfect and required no sanding of the edges. Both the roof and floor were set in place, but not glued. I had not yet decided what, if any, interior detailing would be done. Rubber bands held the walls in place overnight while the glue dried ([Photo 5](#)).



Photo 5: The inner and outer walls have been glued; the roof and floor dry fit. Rubber bands keep everything tight while the glue sets.

It did become obvious that some sort of interior was required given the two large windows at the ordering stations.

Searching Google Images on the internet for restaurant kitchen interiors, I found one that would work and sized it to fit when curved. The printed paper was glued to cardstock. When installed it would serve to block the views of the back walls. The kit provided four unpainted figures, but none was suitable for interior placement. Only one of them was even suitable as a customer. This was solved by searching through my stash of little people. I came up with two girls that, with their molded stand left on, were the correct height to be working the counters.

Another dry fit of the windows revealed that the “counter girls” needed a counter top on the inside of the windows. So I measured, cut, and painted 2” x 10” stripwood to create workspace for the order takers (**Photo 6**).

Photo 6: The corner trim has been painted and glued. The inside work counters are being installed.

Only one “The Clam Box” decal was provided when two are required. I went to plan B and made up signs using Word. I could not match the font perfectly, but “good enough” would do for this model.

Two white metal vent castings were provided for the structure. The outside wall mounted exhaust vent and the roof vent were stained with AIM Products Real Rust (**Photo 7**). These were attached to the building with Testors Super Glue. Four white metal trash cans also came with the kit, but will be saved for another project (**Photo 8**). Four laser cut picnic tables were also included. These will be saved for later layout placement or a diorama (**Photo 9**).

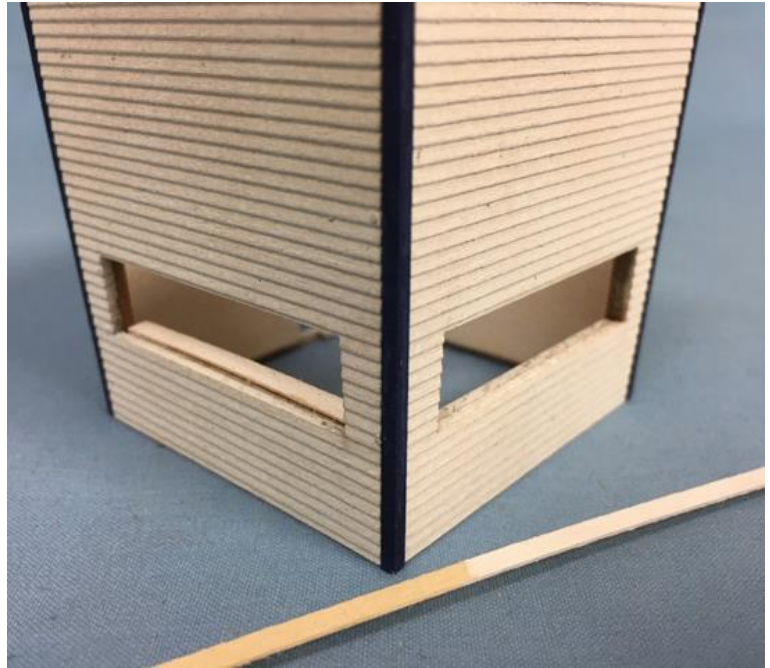


Photo 7: The white metal vent castings were weathered before installation. Ballast was added to the roof just add a bit of visual interest.



Photo 8: The details included in the kit are shown. Only the plastic Tichy door and the vent castings were used. The plastic figures and white metal trash cans have been saved for another project.

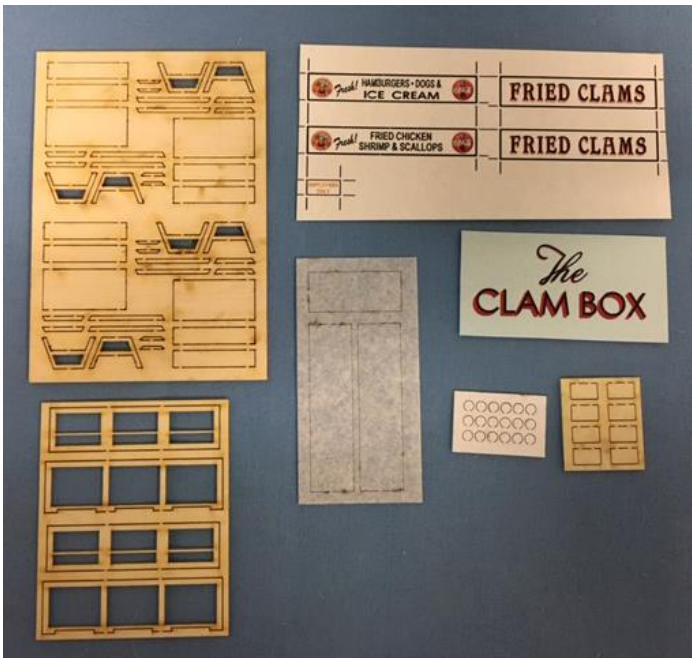


Photo 9: Since only one *The Clam Box* decal was provided and the kit is out of production, other signage was substituted. The picnic tables, paper plates and the trays have been saved for another build.

The model turned out well and creates a location statement for anyone modeling the B&M's Eastern Route (**Photo 10**).

Photo 10: The signs show a bit of red color bleed close up, but look fine from three feet away viewing. The finished model is a keeper and clearly identifies both the era and location.



Constructing a Brass Locomotive: The South Park's *Fairplay* - Part 1

By Andrew Dodge, MMR



Building a brass steam locomotive from scratch provides those who love precision and the ultimate in satisfaction. My first effort in scratch building a steam engine was to recreate the Denver, South Park & Pacific's engine No. 1, the *Fairplay*. Since delving into such a project is so far removed from opening a box with cast, cut, or formed parts, one should consider working up in stages before taking on what many consider the ultimate in model building. A quote by Ray Davis comes to mind that applies to this type of endeavor: "*Patience is not passive waiting. Patience is active acceptance of the process to obtain your goals and dreams.*" Napoleon Hill puts it another way: "*Patience,*

persistence, and perspiration make an unbeatable combination for success." Before starting, here is one more piece of invaluable advice learned as a Pontiac engine mechanic: *Never put together something mechanical you cannot take apart.*

Achievable Goals:

Preliminary steps are advisable. Working from something on the beginner level and then delving into an intermediate project would be a good method of learning the basics before doing your "graduate" project. Kitbashing should be considered as a first step before moving on to steps involving metalworking. The tools



needed at this level should include not much more than the basic workbench tools and maybe a six-inch measuring caliper, for more advanced projects. When you start doing some serious brass work, it is advisable to get a resistance-soldering tool and some machining tools (which would make life easier), doing some Internet searches for parts, and turning off the TV.

One set of intermediate steps taken while working up to scratch building an engine included a major facelift on this Bachmann engine (**Photo 1**). The cab was filed down to a flat surface, and then layers of black walnut wood were applied to the exterior. On the tender, some modest reworking was performed on the truck side frames and extra detail was added on top of the bunker. A higher level of work on the boiler area included the addition of new domes and smokestack, which were made on a lathe. If one is not up to that level, these types of parts are commercially available, as are the headlight and the cowcatcher.



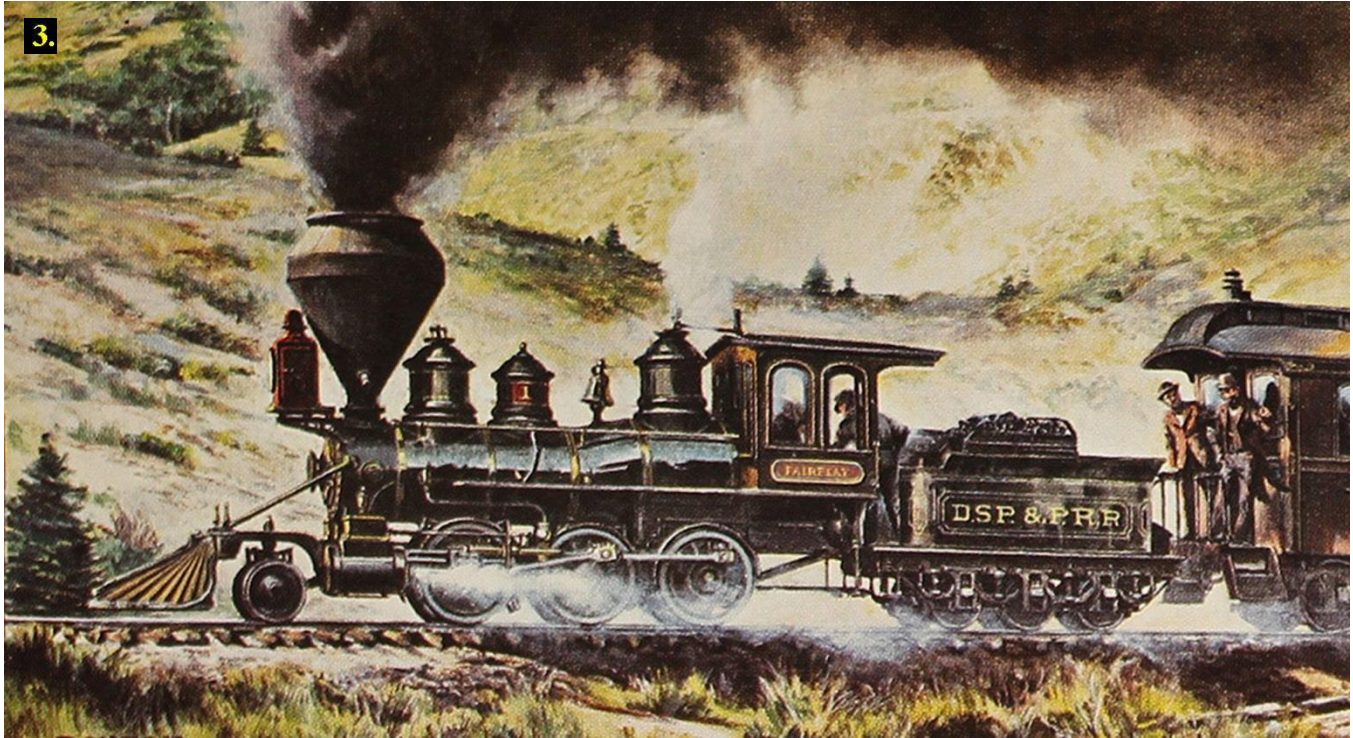
The next level of engine rebuilding, which was the creation of the South Park's *Dillon*, was a quantum step up from the Bachmann (**Photo 2**). This entailed the cutting of a shotgun type of boiler and making it into a wagon-top type boiler. For those not familiar, the shotgun type is made using a straight sheet of brass bent into a tube. The wagon top is the type where the firebox area has a larger in diameter and then has a tapered section between it and the forward area of the boiler that connects with the smokebox. Taking a saw and cutting a perfectly made boiler took some internal fortitude. But, once cut it was a simple building project to complete the new boiler. If you decide to do a wagon-top boiler, the flared section will take several test fittings. Try using heavy paper stock before going to brass. You are not building a cone. The boiler is flat across the bottom with the top of the boiler having the biggest angle of the flared area. Remember Hill's quote as it applies here.

Besides the cosmetic boiler work, I had to make new drivers and tires because the factory drivers had "rotted" and just spun around on the axle. However hard this was, I still did not have to machine a frame and construct a matching boiler and cab. Building a frame requires the modeler to create an exact and detailed rendition of the mechanical part of the locomotive that is the heart of its ability to operate as a smooth piece of machinery. The rest of the engine has to match the drivers and cylinders to make a complete package. One can always use the frame and drivers from a commercial model at this intermediate phase of building a locomotive.

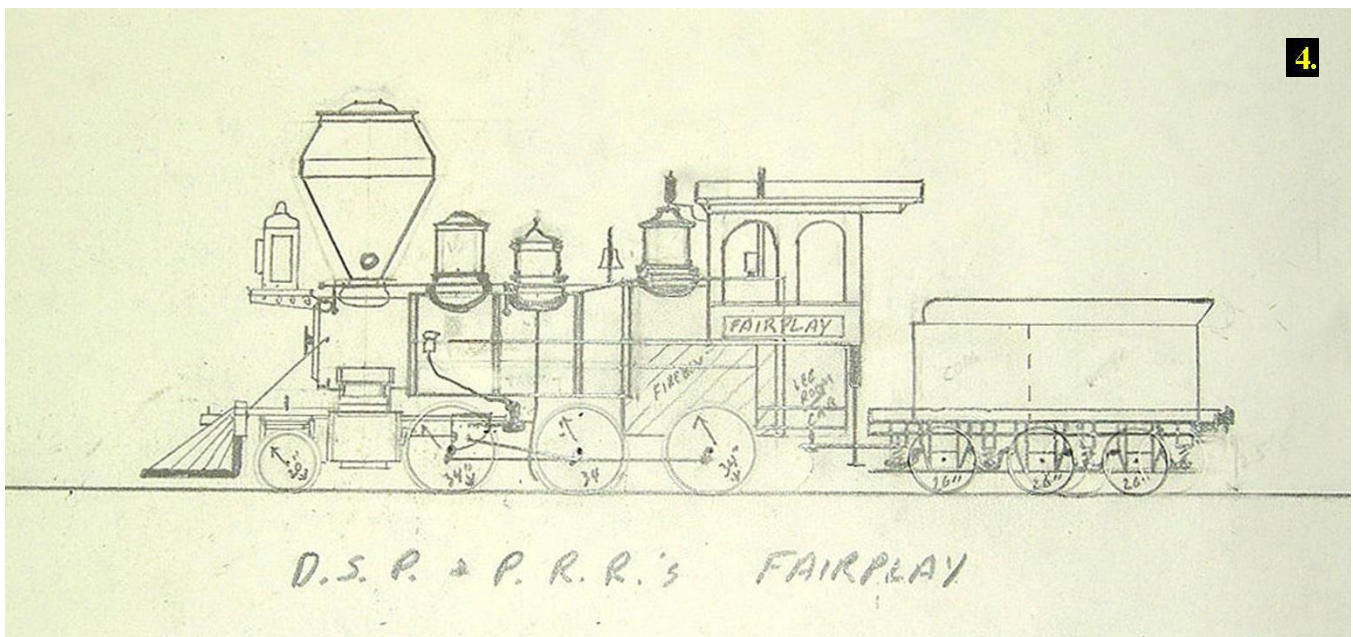
Developing a Plan:

The best advice when contemplating building a brass locomotive is to find an engine you like and an available set of plans that you could acquire from a historical organization, or has been published in a magazine such as *Model*

Railroader. Modeling the Denver, South Park & Pacific Railroad in the year 1882 requires relying on various sources such as photographs, artistic works, and the Union Pacific Equipment List and Renumbering – June 1, 1885. A photograph, too distant and pixilated to publish here, provided sufficient guidance to know that the Philip Ronfor painting of engine #1, *Fairplay*, was quite accurate ([Photo 3](#)).



Using that as a basis, and the UP records, which included wheel sizes, firebox length, length of the boiler tubes, etc., I was able to produce a scale drawing of the engine ([Photo 4](#)).



The painting included some important guidance for its construction including the piston pumps used to force water into the boiler instead of injectors, a range of cab information, and the locomotive's piping. Making two

identical piston pumps was a challenge, but proved to be an important learning tool. The two pumps were turned on a lathe, but one could do this on a drill press, using round brass bar stock (**Photo 5**).



This brings us to the important issue of materials. One can buy brass from a number of sources, but like any metal, there are different alloys that have distinctive working characteristics. For this project, K&S 260 brass was purchased from a local hobby supplier for the frame. It worked well enough using files because it was thin material. It was later learned that 360 brass alloy is the best for model railroading work and machining. When selecting brass, your modeling scale will play a role in your decision-making. My first brass engine was in On3, but it was a very small engine. HO modelers will likely have to choose similarly light and thin brass.

My next 13 engines were done in O scale Proto48, and I used 360 brass, 1/8" thick brass.

Beginning Construction:

Fabricating a model locomotive from scratch will require one to understand the multiple steps it will take to complete this type of project. In building a kit, all one has to do is follow a set of instructions one step at a time because all the planning has been done for you. That is not the case with scratch building. The modeler will have to be five, ten, and maybe 20 steps ahead mentally of what they are doing so you will know how each step contributes to the final product. The boiler will come together as one unit, the tender will be another, and the frame, bearings, cylinders, and drivers will be another unit. On this point, the planning and construction of the frame will have to be done in conjunction with doing the bearings axles, and driving wheels.

The Bearings:

Bearings of different sizes are commercially available if you would rather not make your own. I decided to make my own from 360 brass round stock. After drilling a hole just large enough to put a boring bar into the hole, a hole was bored just large enough for the 3/16" drill rod to rotate smoothly in the hole. Boring is a must since a drill bit will "wander" and the hole will not be accurate. Once bored (you can only bore out one or two bearings at a time), I



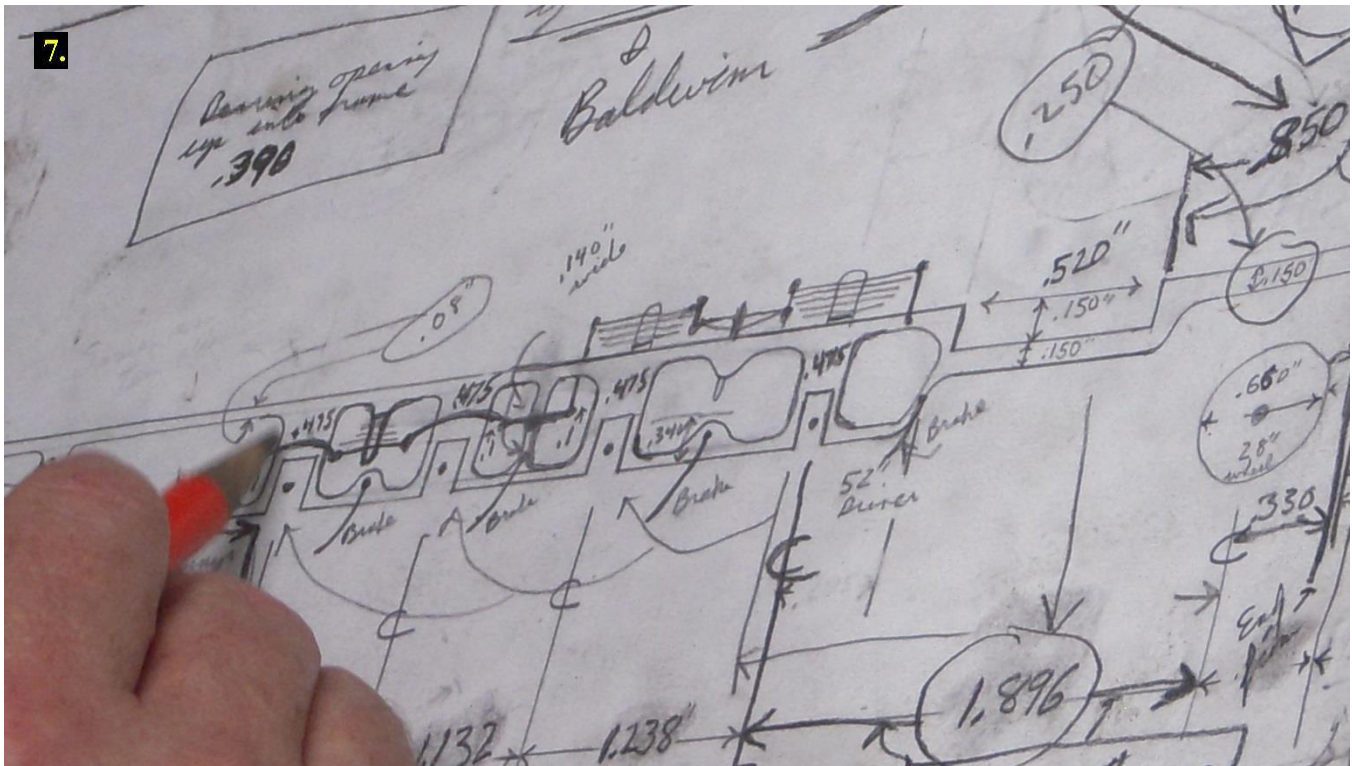
turned the outside down to the size that would fit over the opening in the frame, and then machined a slot that would fit nicely into the slots in the frame (**Photo 6**). (The frame openings or slots will be made only after all the bearings are finished and have exactly the same set of dimensions.) Not having a milling machine at this time, I designed the bearings to be round as well as the slots in the frame. To keep the bearings in place, the bottom of the bearing was cut flat so that the bottom frame plate would fit. This would also keep the bearings from turning in their slots.

Now that you have the bearings and know their exact size, you will be able to cut the slots in the frame.

The Frame:

Before doing any cutting, one should make a fairly detailed drawing of the frame with all the openings, spring placements, and most importantly, the placement of the drivers and the axle bearings (**Photo 7**). The plan shown here was for a later project and much more involved, but it does illustrate the need for accurate driver placement, i.e. spacing, and a ready reference in making the second side of the frame. It is critical that each frame piece be made individually and be an exact copy of the first piece. Good cutting tools and files are important, but to be

successful in building a locomotive frame, the modeler needs a 6" or 12" caliper for measuring (**Photo 8**). Not having a mill, I had to use hand tools, files, etc. Not easy, but very doable requiring complete accuracy.



Once you are happy with your frame layout, do your arithmetic. The old saying by carpenters of “measure twice and cut once,” should be applied ten times over in machining. Always count forward and backwards, from the middle out to each end, etc., multiple times to make sure each set of calculations and methods used comes out with the same set of numbers.

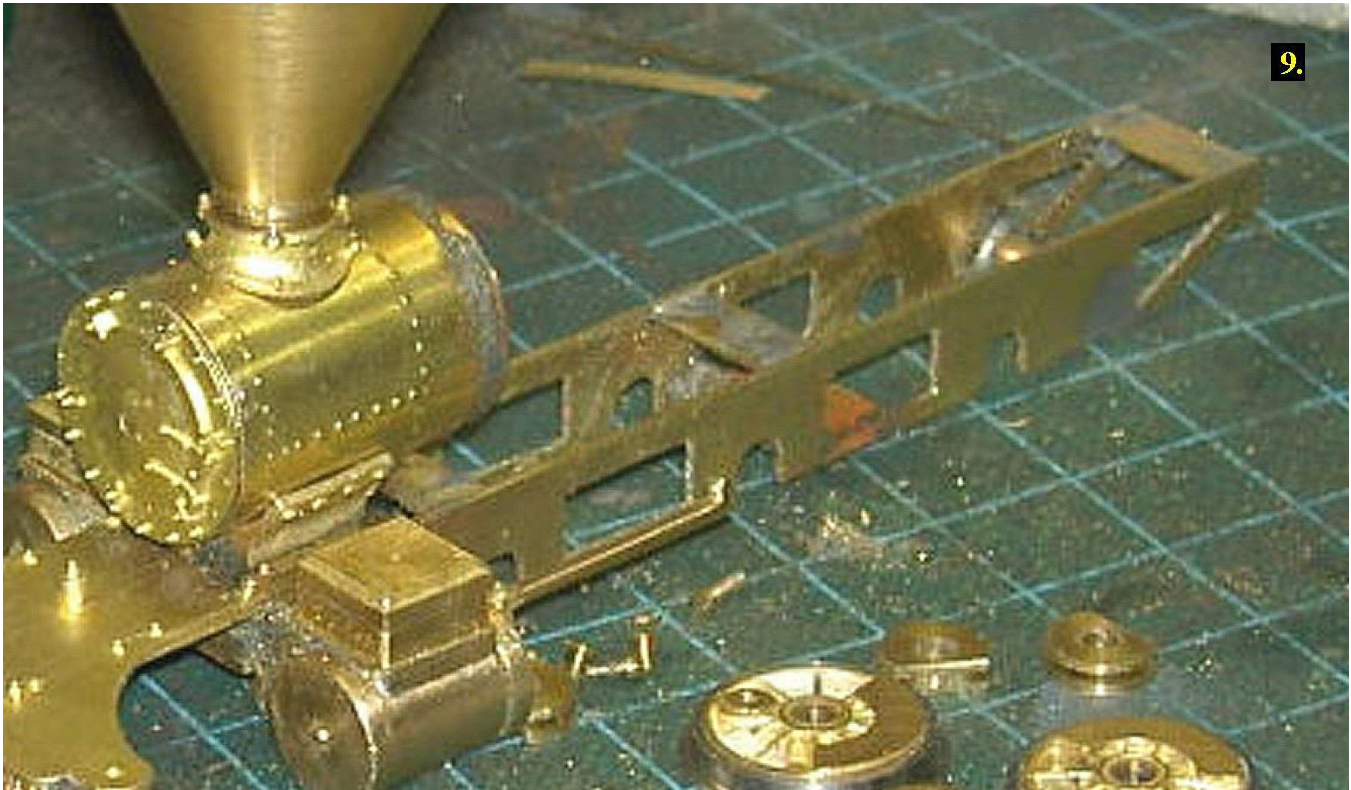
Setting the cylinder position is another critical aspect of your model project. While there are variations depending on the engine’s design, the cylinders must go directly under the smokestack, and has to be forward and clear of the front driver’s tire. The height of the centerline of the cylinder has

to be in line with the center of the driver axles or slightly above, but never below the centerline.

Referring to your plans, cut your two frame parts to length. When starting on the axle and bearing openings, I always start by cutting a smaller hole in the center of the space where the axle will be located. Referring to the space in your plan, set the caliper and lock it in place to the distance between the end of the frame and the backside of the rear bearing opening. Make the opening distance just big enough that the points of the caliper slide down into the bearing opening and the rear end of the frame like a warm knife into soft butter. No forcing and no loosey goosey - this will be an operating machine. The front side of that bearing opening should then be enlarged just enough for the axle bearings to slide in, and again no forcing and no loosey-goosey. Once finished, repeat the process for each additional axle opening, still using the end of the frame as your measuring point, NOT the

preceding bearing opening. The exact same process is followed for the other frame. After checking that all the bearings fit the slots properly, you can proceed to solder both frame pieces together ensuring that the frame is perfectly square. I used a machinist square and clamped the pieces together by the rear end of the frame before applying the solder. All the bearing openings are measured from the rear of the frame. Therefore, squaring the frame from the rear is an absolute must so the drivers and axles are all square to each other.

Before leaving the frame work, a word of caution if you are going to use 1/8" thick brass or some other type of bar stock. Do not open the bottom of the frame when first cutting your bearing openings. Referring to the frame built for this project, it is rigid enough, and sufficient material is left so the brass will not bend (**Photo 9**).

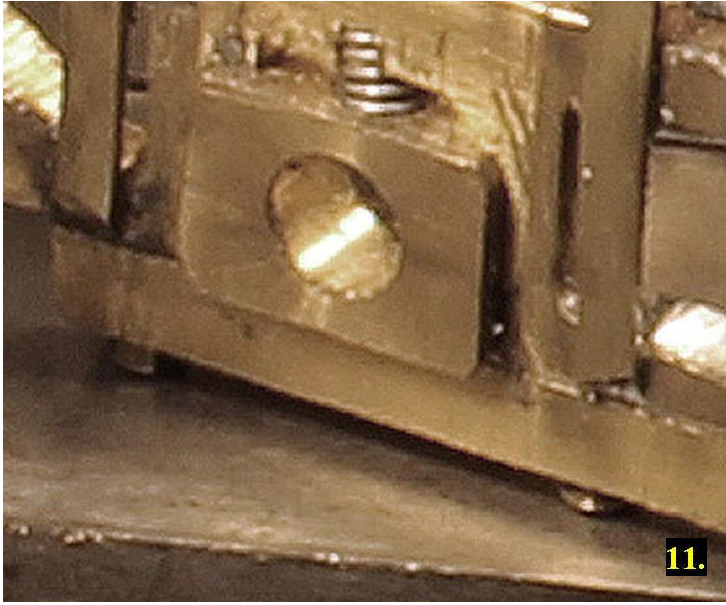


However, if you are using the type of material I used on my Colorado Midland engines and have to cut substantially larger openings, do not open the bottom of the frame (**Photo 10**). Once you have cut a holes large enough to accommodate the bearings, you have to construct bearing/frame caps that are tapped and bolted to the



bottom of the frame (**Photo 11**). On this small O scale engine, I used 0-80 hex-head bolts tapped into the engine frame. The photograph shows the front driver bearing with its spring, the frame, and the bolted frame caps. Remember, you will

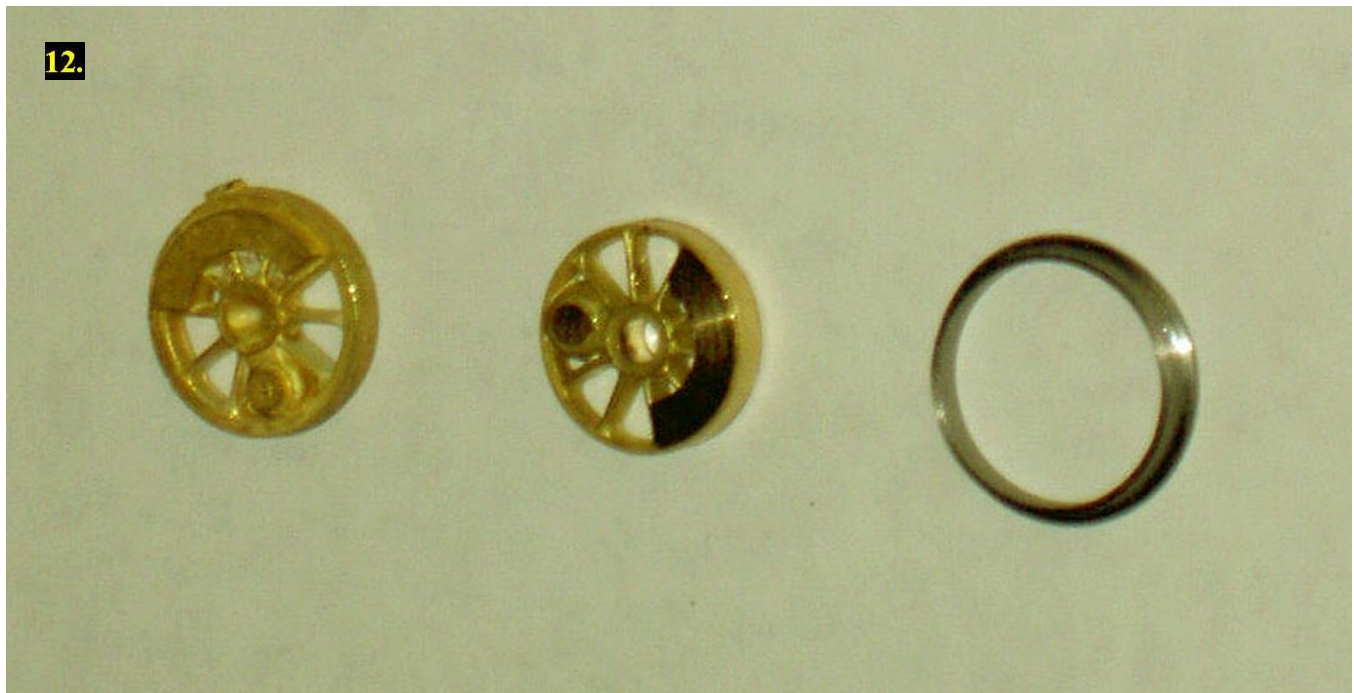
have to take this apart a number of times, so do it well. Once the cap is bolted to the frame, you can then open up the bottom of the frame. Otherwise, the brass frame will bend, and will no longer be true. The bolted cap will keep it true.



The Drivers:

With the completion of the design and layout of the frame, the modeler has to make the drivers. Now, if one is using drivers and the frame from a commercial model, you can skip this section. However, if you are going to make your own, then you are in for a modeling and machining experience where precision is critical. There are companies and individuals who have the needed tools and materials and who can make your parts, for a price. Since I was going to make 34" drivers, I made my own tires using 12L14 steel, which is an excellent alloy because it works well, does not require a high level of machining experience to cut, and is an excellent conductor of electricity. Nickel Silver and Stainless Steel are entirely different stories, so be forewarned (Photo 12). The NMRA supplies all the specifications on its

website under Standards - S-4.2 for all wheel configuration issues.



During my modeling life, I have seen all kinds of different ways in insulate the fireman's side wheels of the engine. Following the usual practice, I cut the wheel centers a little smaller than those on the engineer's side to accommodate the insulating material. I have used Mylar, but thin styrene should work as well. The size of the center must be 0.002" or a little larger than the opening of the tire. The tires will be pressed onto the driver centers. If they do not have a tight enough fit or you are concerned about the stability of the insulated tires, you can use Loctite 680. It is a liquid that can be purchased from MSC (www.mscdirect.com). It comes in a small bottle with an applicator end. Be careful, because it will set very quickly and can be "permanent." I would suggest pressing the rim and center together first, partially separate the two pieces, apply the Loctite, and then press the tire and center together again insuring that they are flat on the back side.

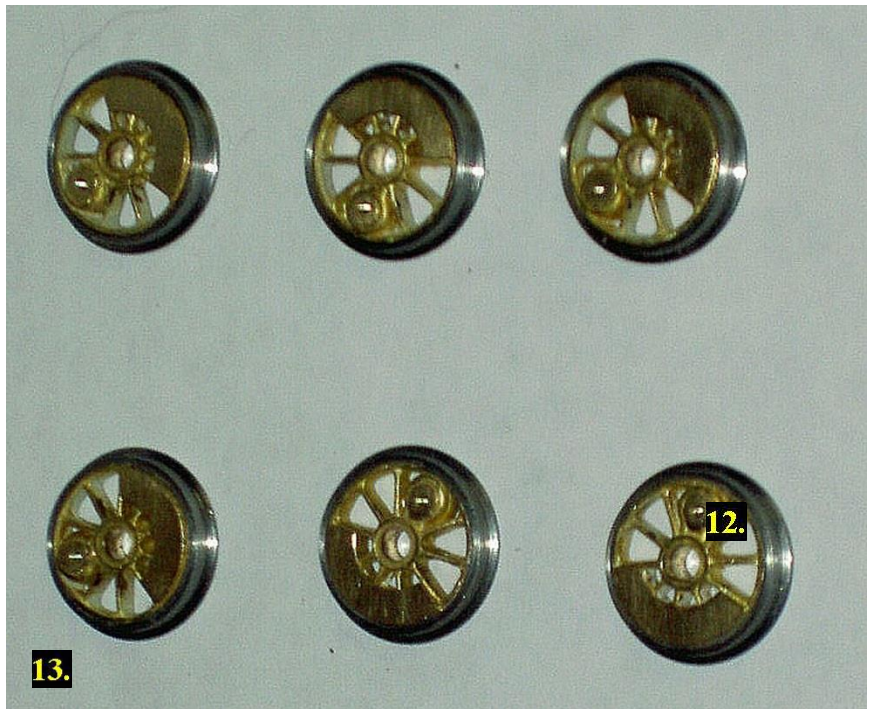
If you are making your own drivers or using castings such as the ones used from Precision Scale, you will have to drill out the center of the casting for the axle with a smaller bit and then bore it out to accept the axle. Make a faceplate for the lathe so that all of the drivers can be centered exactly the same way. Drilling that is inaccurate and not centered will mean that the wheel will not rotate in an even circle. No bobbing up and down is permitted (**Photo 13**).

Locating the position for the side rods is easily done once you know the stroke of the piston. Since the driver center has been bored and ready for the axle, now make a brass tool with one end that will go into the axle hole and with a shoulder that sits on the face of the driver with a radius going out from the center equal to $\frac{1}{2}$ the length of the piston stroke. It is then a simple matter of scribing a line on the driver and using a punch centered over the area for the side-rod and making a slight dimple for the drill bit. After drilling it out on a drill press with the proper bit for the bolt size you will use, you can tap the hole while making sure the tap goes squarely into the hole. The drill press, or a self-made tool, will be required to prevent the tap from cocking off to the side as it goes into the driver. Be aware that small deviations in angles can have huge consequences. The side-rod bolts must be perpendicular to the face of the driver.

When working on the drivers, the modeler must consider what kind of smooth surface to put in place for the side-rods to rub against. When the rods rotate against a threaded surface they will cause the bolt to back out. The modeler must create a smooth bearing surface for the side-rod journals. One could make a piece that goes into the driver itself and, when the retaining bolt is installed, it will bottom-out on the extended shoulder leaving a smooth cylindrical surface for the rods. This is the most difficult part. Another option would be to acquire bolts that are threaded where it goes into the tapped hole and smooth with no threading where the rods will sit. The last would be to make a smooth sleeve that goes between the bolt and the rod's journal box just long enough to keep the head of the bolt from tightening down on the journal itself.

Axles:

Making tires and wheels would be an article in and of itself, which will be left for another day. However, whether you make them or buy them, you still need to mount the wheels on the axles with gearing to drive the engine and, equally important, with accurately made bearings. The size of the axle is going to depend on the scale and size of your model. For my small, 19th century locomotives, I have always used $\frac{3}{16}$ " air hardening drill rod from MSC. If I were building a Big Boy, I would use something quite a bit larger. Before making a choice, check your selection of gearboxes and see what diameter shaft they will accept. Do not go to your local hardware or big-box store because their metal rods are not a top quality machine product.



We will continue our steam locomotive scratchbuilding with Part 2 in the next issue of The Local.

Model Railroad Engineer - Civil

By Ernie Little, MMR

Model Railroad Engineer- Civil is one of the Engineering and Operations category certificates in the National Model Railroader Association's Achievement Program (AP). An important thing for you to consider when looking at the requirements of this certificate is that you just might be able to complete another certificate at the same time. Thinking ahead and planning your next moves in the Achievement Program could save you a considerable amount of time and effort if you just stop for a minute and look at the requirements. There are several common elements among the Civil, Electrical, and Scenery categories. These can assist you with meeting the requirements of the other certificates while working toward the Civil AP certificate.

What do you have to do to achieve this AP certificate? The requirements are not as complicated as many people think as long as they do not read between the lines or get too deep into the weeds. Keep it simple, stay on the surface, and breathe while having some fun working on them. After all, that is what model railroading is supposed to be. There are five requirements that you have to meet for the Civil AP award.

Requirement No. 1 - Prepare one original scale drawing of a model railroad track plan, identifying overall size, scale, track elevations, curve radii, and turnout sizes.

You did not need to take mechanical drawing in high school or college, nor be an expert with a computer aided drawing (CAD) program. Simply make a drawing of your layout and show what it consists of. This could be a pencil sketch. It does not have to be an inked drawing. Use a piece of graph paper and just draw your layout to scale. Each square on the graph paper could represent a distance. When I did this, I used a piece of graph paper that had ¼" squares, a pencil, and a tape measure. The tape measure allowed me to transfer measurements from the layout onto the drawing.

- Identifying the overall size: Use your tape measure and see how long and wide your layout is, and write it down on the graph paper. That is all that you need to do for this one.
- Scale: Just write down on the graph paper the scale in which you are modeling (N, HO, O, or another scale). Now you have two things done.
- Track elevations: My layout is not level. It has a hill that I could measure from the floor to the track level and show the changes in level on the graph paper. I did not hire a surveyor to shoot the grade of my layout. I just wrote down the change in elevation and where it happened on the graph paper. The drawing below shows the elevation change on my layout with a picture of the area.

With that there are three things done for requirement No. 1.

I summarized the above for the AP judges in my submission.

"A scaled 1" = 1'- 0" track plan of my HO scale Norfolk Southern Connector has been prepared and has been submitted with this document. The overall physical size of the NSC is approximately 15' by 20' and the track is level except for a differential in elevation that takes place at Furnace Mountain where a 2% incline was engineered to allow sufficient clearance of an obstruction west of that location at Hot Springs. Figure 1 shows this incline which changes the distance from the floor to top of track elevation from 40 inches on the east side of Furnace Mountain to 42 inches on the west side of Furnace Mountain."

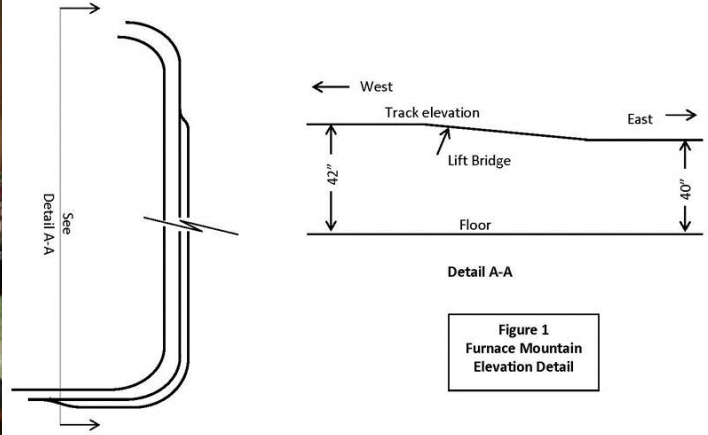


Figure 1
Furnace Mountain
Elevation Detail

Photo 1. Furnace Mountain Elevation

Figure 1. Furnace Mountain Elevation detail

In one paragraph, I provided all the information needed to meet these three requirements. Then I placed a check mark next to the items. Below, in **Figure 2**, is my layout drawing which was made on graph paper and then transferred to a larger size (24" x 36") to make it easier for the judges to see. I purchased the paper at an office supply store.

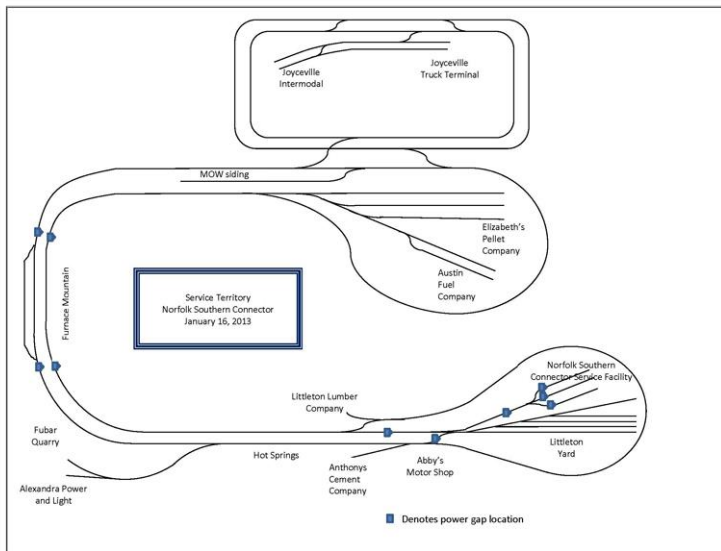


Figure 2. Service Area- Track plan

- Curve radii: What about those tricky curves. Are they difficult to draw? NO! In reality, you know what the radius of the curve is by whatever was printed on the package the curved sections came in. If you used flex track, you probably laid out the curve with a radius in mind. All you have to do is write it down next to the inside of the curve on the graph paper. Are you getting the idea of a theme here?
- Turnout sizes: If you purchased commercial switches, as I did, for your layout you will know if it was a No. 6, 8, or 10 and the like. Again, all you have to do is write it down next to the turnout on the graph paper.

I provided a summary for the judges in one paragraph.

“Curve radii on the layout are 18”, 22”, 24”, 28”, and 30” dependent upon location and are shown on the scaled drawing. The track turnouts are No. 4 made by Atlas with the following exceptions; one #No. 6, made by Atlas, one Shinohara 36/38 curved turnout, two wye turnouts made by Atlas, and one three-way turnout made by Atlas.”

Some things you need to provide on the plan are things about which you should have thought before you drove the first track spike.

- Terminal facilities for handling freight and/or passenger cars: You need to show the judges what your railroad traffic looks like in terms of what is on your cars and show where the freight and passenger facilities that are located. You do not actually have to build the facilities, just include them in your plan.

I provided the AP judges an exhibit (**Table 1** below) that showed the facilities on my layout so they would know what locations shipped or received various commodities, as well as passenger traffic.

Table 1 Freight and passenger terminal facilities		
Facility	Goods received	Goods provided
Joyceville Station	Passengers	Passengers
Littleton Depot	Passengers	Passengers
Joyceville	Intermodal	Intermodal
Elizabeth Pellet Company	Raw Plastic and wood	Plastic and wood pellets, finished plastic goods
Austin Fuel Company	Propane, gasoline, and diesel fuels, motor oils	Empty rail cars, fuels to local consumers
Littleton Lumber	Lumber and building materials	Empty rail cars, lumber and building materials to local consumers
Alexandra Power and Light	Coal	Empty rail cars and electricity to local community
Fubar Quarry	Empty rail cars	Rock, gravel, and similar building materials
Abby Motor Company	Electrical parts	Electrical Motors, generators, etc.
Anthony's Cement Company	Cement, gravel, sand	Concrete and similar goods
Bellas Freight Company	Freight goods	Empty cars and transferred freight goods
Joyceville Freight	Freight goods	Empty cars and transferred freight goods

- Show the terminal facilities for storage and service of motive power used on your layout: Here is how I did that for the judges. I provided the AP judges the following table to illustrate my motive storage and service facility.

Table 2 Motive Power and rail car repair and service facilities		
NSC Engine/Car Service Facility	Locomotives and rail cars in need of repairs or service	Repaired locomotives and rail cars
	Storage of locomotive power	



As you can see, you do not need a big turntable or a large roundhouse. A simple engine house with a fueling track will be sufficient.

Photo 2. Engine Facility

Here is how I showed the AP judges what my freight car facilities storage capacity on my layout.

Table 3 Storage Capacity of Yards and Spurs		Table 3 Storage Capacity of Yards and Spurs	
Spur or Yard	Storage (40' cars)	Spur or Yard	Storage (40' cars)
<u>Littleton Yard</u>		<u>Joyceville Yard</u>	
Track 1	5	Track 1	5
Track 2	3	Track 2	4
Track 3	3	Elizabeth Pellet	5
Track 4	3	Austin Fuel	
Track 5	2	Track 1	4
		Track 2	3
Anthony's Cement	3	<u>Joyceville Intermodal</u>	3
Littleton Lumber	2	Track 1	2
Fubar Quarry	3	Track 2	3
Passing Siding	13	Track 3	3
MOW siding	4	Track 4	



Photo 3. Littleton Yard

In **Photo 3**, Littleton Yard, one of the storage facilities on my layout, is shown on the left side. At the rear of the photo is Bella's Transfer, with the spur that serves the facility. This picture was part of my submission.

- You must have a passing siding. On my layout, I provided a passing siding on Furnace Mountain, which is the only location where trains can pass each other.

Photo 4. Passing siding

- Show at least four switching locations, not counting yards, interchanges, wyes, and reversing loops. These could be spurs that go off to service facilities on your layout.

On my layout, Littleton Lumber, Austin Fuel, Elizabeth's Pellet, and Bella's Transfer are spurs that service those industries.





Photo 5. Littleton Lumber

Photo 5 illustrates the spur line serving Littleton Lumber.

Again, remember that you do not have to build the facilities, just show that you had one planned.

Photo 6. Turning Crossover

- Show a provision for turning motive power (*except for switchbacks, trolley lines, etc.*)

On my layout, I have the ability to turn a locomotive using a track arrangement through my service and Littleton Yard spurs. Electrically, I have to change polarity by use of a switch, but it does change the direction of movement of the locomotive when going through the spurs.

- Show a provision for simultaneous operation of at least two mainline trains in either direction.

As I have a passing siding at Furnace Mountain, and, as my layout runs on DCC, I can run two trains in the same or opposing directions on my main line.

Ok, we have met all of the requirements for Requirement No. 1. We can move on to Requirement No. 2 and see what has to be done.

Requirement No. 2 - Construct and demonstrate the satisfactory operation of a completed section of the model railroad and track work described in Requirement No. 1.

Depending upon the scale of your railroad, there must be at least 25', 50', or 100' of track (refer to the NMRA Civil AP requirements) that you have constructed and can demonstrate satisfactory operation of the model railroad and track work described in Requirement No. 1 with appropriate ballast, drainage facilities, and roadbed profile, which may contain spurs, yards, etc.

All that you have to do is build a railroad with the appropriate amount of track, with a little bit of scenery for appearance with regards to the track work and ballasting. There are track work features that you must have on your layout. The good thing is that you only need to provide six of them and you can pick which of six to provide. These choices are:

- A passing siding (where one train can pass another)
- A railroad spur (where a train goes off the main to provide service to an area)
- A crossover (A crossover is a diagonal track connecting two parallel tracks.)
- A reversing Loop (where you can turn a train around.)



- A wye (another way you can turn a train around).
- A ladder (simple with a minimum of 3 tracks or a compound ladder).
- A turntable or a transfer table.
- Super Elevation (the track elevated on one side to allow trains to go through a curve and not overturn) or banking the track and roadbed on a curve.
- Simple Overhead Wire (A single overhead wire such as on a trolley system) or a compound overhead wire (catenary) - One wire which carries the power, with another wire above to support it (such as on high-speed electrical lines)
- Scale Track (a track with a scale for weighing cars.).
- Cog Railway Track
- Coal Dump Track (could also be for dumping something besides coal)
- Ash Pit, Service Pit Track
- Grade Elevation (any change in the slope of the track, like at the top or bottom of a hill that demonstrates your train can make the transition smoothly between grades).

On my layout, I provided 1) a passing siding, 2) several railroad spurs, 3) a crossover, 4) a reversing loop, 5) simple ladders, and 6) grade elevation change. The big item here is that the points for Construction technique and Conformity to the prototype are easy to achieve if you take your time and do things the right way. **Figure 3** shows the roadbed profile that I provided the AP judges in my submission.

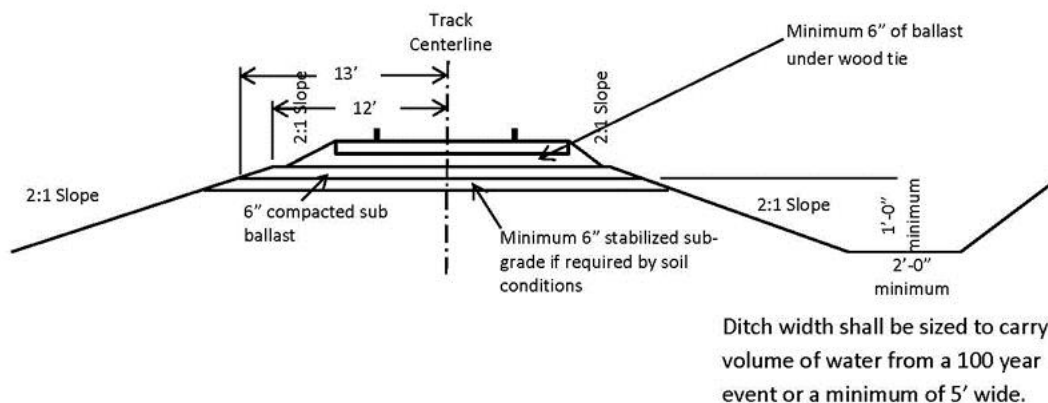


Figure 3. Railbed cross section

Requirement No. 3 - Construct for Merit Judging, scratch built scale models of any three of the following, and demonstrate their satisfactory operation.

This is probably the most challenging part of the Civil AP certificate requirements. You need to pick three of the following and scratchbuild them. The choices are:

- Turnout (straight, curved, or wye are turnouts) - Point or Stub.
- Crossover or a Double Crossover
- Single Slip Switch or Double Slip Switch
- Crossing
- Gauntlet Track or a Gauntlet Turnout
- Dual Gauge Turnout
- Gauge Separation Turnout (Narrow gauge splitting off from dual gauge).
- Double Junction Turnout (One set of parallel tracks diverges from another).
- Three-Way Turnout
- Spring Switch
- Operating Switch in Overhead Wire

Commercial frogs are not permitted to be used in any of these items. These models may be built and demonstrated as part of the layout or separately.

I chose to build a demonstration layout consisting of a 6' long by 16" wide wooden panel supported by a 1" x 4" wood structure with 2" x 2" legs 40" in length. This allowed me to build three No. 10 turnouts and one 90° crossing. Two of the turnouts were positioned to create a crossover. There are many ways to scratch build the required track components. I chose to construct them using Micro Engineering Code 83 non-weathered rail, pc board, wooden railroad ties, a Fast Tracks No. 10 turnout assembly fixture (part AF-HO-T-10-ME83), a 90° crossing assembly fixture (part AF-HO-X-90-ME83), stock aid, and point form tools. Long wooden railroad ties were scratch built from basswood, and add-on detail parts secured from Proto:87 stores. All of the scratch-built items were built after a review of videos of each step provided by a Fast Tracks DVD.



Photo 7. Scratch build turnout

Photo 8. Demonstration board with road bed after paint



Photo 8 shows the demonstration board after I had constructed the base, glued down N scale cork, and painted it a flat gray. I chose the N scale cork roadbed to provide a more in scale track profile as I felt the HO scale, which is what I model, seemed to be a little large in size.

Photo 9 shows the demonstration board after I had put the constructed crossing, turnout, and crossover on the roadbed. I used flex track for the track connecting the constructed items.

Photo 9. Track Laid

Requirement No. 4 - Earn a Merit Award (there are three pass/fail criteria) with the items from the selected items in section 3 above.

Nothing you can do here except do your best work and provide to the AP judges all the information that they need to judge your track work. In my case, I was successful in getting passing scores on my scratch- built crossover (2- #10 turnouts), #10 turnout and 90° crossing. A hint to you: use a long wheel base locomotive when you demonstrate the operation. Think about the possibility of the locomotive hitting a dead spot while traversing the track that you are demonstrating. Remember, you have to traverse the track in both directions during the demonstration.

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JUDGING FORM
May 2006**

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: Ernie Little NMRA #: 129108
Date Submitted: 1/23/15 Region: MEZ

It is hereby certified that the three scratchbuilt models of railroad track work built by the above named NMRA member, have been personally examined by two or more judges appointed by the Region AP Chair. That all track work operated satisfactorily, meets all applicable NMRA Standards, and that each of the three scratchbuilt items of track work has earned a minimum score of 87.5 points and has been awarded a Merit Award.

MERIT AWARD SCORING SCHEDULE Crossing

CONSTRUCTION	DESCRIPTION	POINTS	SCORE
CONSTRUCTION	Workmanship: The difficulty or complexity of what the modeler has attempted and how well the model was constructed.	0-40	32
DETAIL	Quality and Amount: How much detail has the modeler added or incorporated and how complex was the detailing job?	0-20	16
CONFORMITY	Prototype Practice: How well has the modeler reproduced the prototype?	0-30	12
FINISH & LETTERING	Appearance: The complexity, accuracy, or completeness of finish and lettering and the quality and skill of its application.	0-10	8
SCRATCHBUILDING	How much did the modeler build from scratch and how difficult was the scratchbuilding. Commercial frogs not allowed but commercial individual rail (not Flex-track), ties and splices are.	0-25	24
Total			92

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MERIT AWARD SCORING SCHEDULE Crossing

CONSTRUCTION	DESCRIPTION	POINTS	SCORE
CONSTRUCTION	Workmanship: The difficulty or complexity of what the modeler has attempted and how well the model was constructed.	0-40	32
DETAIL	Quality and Amount: How much detail has the modeler added or incorporated and how complex was the detailing job?	0-20	17
CONFORMITY	Prototype Practice: How well has the modeler reproduced the prototype?	0-30	12
FINISH & LETTERING	Appearance: The complexity, accuracy, or completeness of finish and lettering and the quality and skill of its application.	0-10	8
SCRATCHBUILDING	How much did the modeler build from scratch and how difficult was the scratchbuilding. Commercial frogs not allowed but commercial individual rail (not Flex-track), ties and splices are.	0-25	24
Total			93

PLEASE ATTACH THIS FORM TO A COMPLETED STATEMENT OF QUALIFICATIONS (SOQ) FORM.

Member's Name: Ernie Little NMRA #: 129108
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MERIT AWARD SCORING SCHEDULE Turnout

CONSTRUCTION	DESCRIPTION	POINTS	SCORE
CONSTRUCTION	Workmanship: The difficulty or complexity of what the modeler has attempted and how well the model was constructed.	0-40	32
DETAIL	Quality and Amount: How much detail has the modeler added or incorporated and how complex was the detailing job?	0-20	17
CONFORMITY	Prototype Practice: How well has the modeler reproduced the prototype?	0-30	12
FINISH & LETTERING	Appearance: The complexity, accuracy, or completeness of finish and lettering and the quality and skill of its application.	0-10	8
SCRATCHBUILDING	How much did the modeler build from scratch and how difficult was the scratchbuilding. Commercial frogs not allowed but commercial individual rail (not Flex-track), ties and splices are.	0-25	22
Total			91

JUDGES NAME	SIGNATURE	NMRA #
BRIAN SHERON	<i>Brian W. Sheron</i>	
MARTIN MCGUIRE	<i>Martin McGuire</i>	
MRT THOMPSON	<i>MRT Thompson</i>	

JUDGES NAME	SIGNATURE	NMRA #
BRIAN SHERON	<i>Brian W. Sheron</i>	
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MRT THOMPSON	<i>MRT Thompson</i>	

REGIONAL AP CHAIR: _____ REGION: _____ DATE: _____

REGIONAL AP CHAIR: _____ REGION: _____ DATE: _____

REGIONAL AP CHAIR: _____ REGION: _____ DATE: _____

Requirement No. 5 - Submit a Statement of Qualification which includes the Track Plan from Requirement No. 1, a Description of track work features, methods of construction, and identification of commercial components used in Requirement No. 3.

**ACHIEVEMENT PROGRAM
MODEL RAILROAD ENGINEER CIVIL
STATEMENT OF QUALIFICATIONS FORM
May 2006** page 1 of 2

Member's Name: Ernest Little NMRA #: 129108 Exp: 7/31/15
Street: 10162 WOODBURY DRIVE City: MANASSAS State/Prov: VA
ZIP/PC: 20109 Country: USA NMRA Region: MID EOSTBN
Date Submitted: 1/23/15 E-Mail: PRWFM9@AOL.COM Phone: 571-383-7316

To qualify for this certificate you must:

- One original scale drawing of a model railroad track plan identifying:
 - Overall Size
 - Scale
 - Track Elevations
 - Curve Radii
 - Facilities Turnout Sizes
 - Terminal
 - Motive Power Storage
 - Mainline Passing Siding
 - Four Switching Locations
 - Turning of Motive Power
 - Two Mainline Train Operation
- Construct and demonstrate the satisfactory operation of a completed section of the model railroad and track work described in Section 1. The section must contain at least 25 linear feet of track in Z, N, or TT scale, 50" in HO or S, 75" in O or 100" in G or #1, with appropriate ballast, drainage facilities and roadbed profile, and may contain spurs, yards, etc. Track work shall have examples of at least 6 of the following features:
 - Passing siding
 - Spur
 - Crossover
 - Reversing Loop
 - Wye
 - Simple Ladder
 - Compound Ladder
 - Turntable
 - Transfer Table
 - Super Elevation
 - Simple Overhead Wire
 - Compound Overhead Wire
 - Scale Track
 - Cog Railway Track
 - Coal Dump Track
 - Ash Pit
 - Service Pit Track
 - Grade Elevation
 - Other
- Construct for Merit Award Judging scratch built models of any three of the following.
 - Turnout (Point or Stub)
 - Crossover
 - Double Crossover
 - Single Slip Switch
 - Double Slip Switch
 - Crossing
 - Gauntlet Track
 - Gauntlet Turnout
 - Dual Gauge Turnout
 - Gauge Separation Turnout
 - Double Junction Turnout
 - Three-Way Turnout
 - Spring Switch or
 - Operating Switch in overhead wire

You already drew the track plan for Requirement No. 1, so all you have to do is include it with your submission. You will need to provide the AP judges a description of how you constructed the track, what track work features you provided, and how you constructed them, as well as a list of commercial and scratch-built components that you used to build the scratch-built items.

I provided text and pictures that permitted the judges to see how I constructed the turnouts and crossing, step-by-step. The track features that you will want to have in your submission are items such as a typical cross section of the track roadbed showing what would be found in a section of prototypical railroad track. Remember, Master Builder - Scenery is a separate AP certificate, but why not put scenery on your demonstration area so it is there when you go for that certificate. In my case, I placed scenery and details on the demonstration board and included such things as switch heaters, electrical cabinets, propane tanks, mile markers, and other items that would be seen



on a prototypical railroad. Photo 10 shows many of the details that I added, as well as the drainage grate in the ditch.

Photo 10. Drainage, and track details

I made my railroad ties from basswood, except for those copper-clad ties used in the construction of the crossover, turnout, and crossing. I also added tie plates, rail section connector plates, rivets, and other items that would be found on prototypical railroad track.



Photo 11. Turnout upside down showing tie plates

Photo 11 shows one of my crossovers upside down to show the tie plates. The ties and track were painted the appropriate colors, and a little weathering was added down the middle of the track to make it look like it was a used track. Something that I tried to keep in mind was that the more scratchbuilt items that I used the more points, I could be awarded. Providing a list of scratchbuilt items and what commercial products you used is important to the judging.

To conclude, I offer the following:

Take your time to decide how you are going to approach meeting the requirements of the AP certificate. I consulted with my Division AP Chair and a couple of my fellow model railroaders who were working on the same AP certificate at the time during my planning process. A lot of good advice was obtained and used in the construction phase that saved me time and frustration.

Be patient in the construction of the demonstration board. I had to slow down my speed of construction to allow me to focus on the quality of the work being performed. Basically, take your time and do it right with no shortcuts.

Try to scratch-build the parts for the demonstration board to attain a higher judging score.

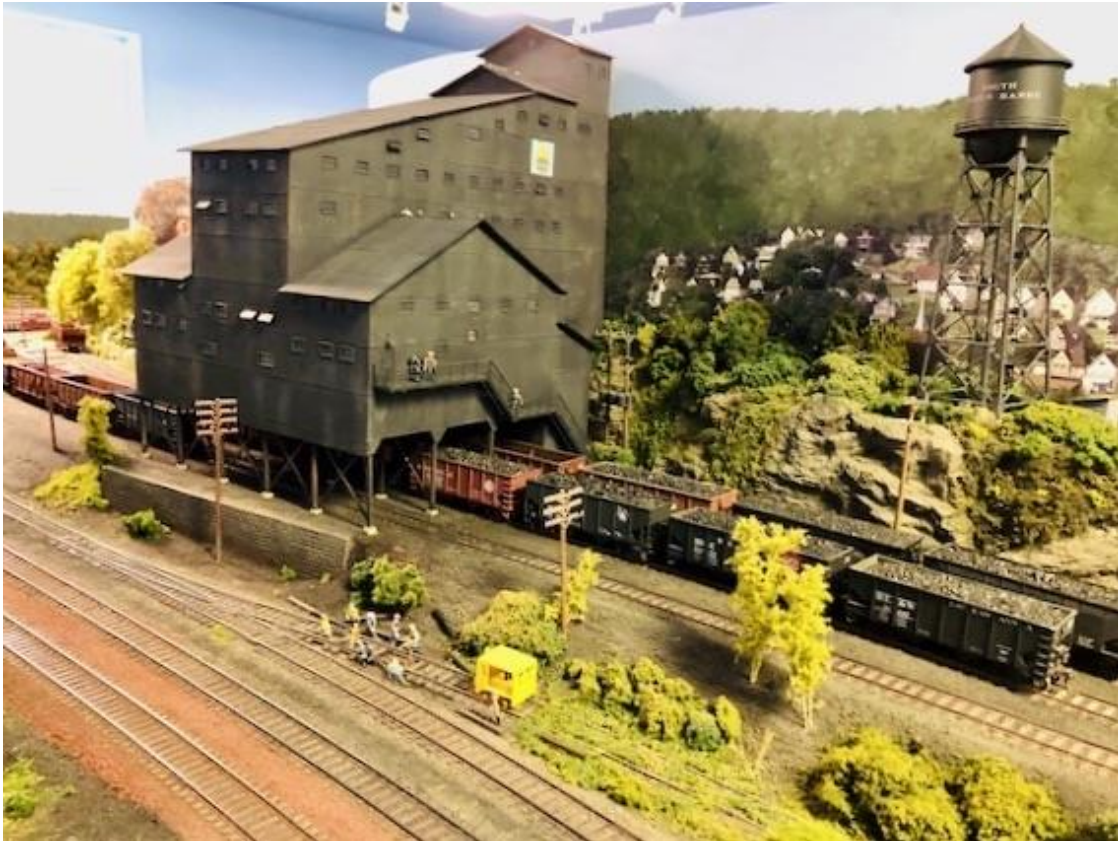
Provide the AP judges sufficient documentation of what you used, how you constructed it, and pictures of the final product. At the same time, do not overload the Judges with too much information. Just provide them what they need to see what you did and how you did it.

If you have questions about what a Model Railroad Engineer - Civil submission looks like, you can visit my website at <https://norfolksouthernconnectorrr.weebly.com> and click on the link for NMRA Achievement Program Participation. There you will see a link to a PDF file that contains my Civil AP submission.

Best of luck and enjoy your quest of the NMRA Model Railroad Engineer - Civil AP certificate.



And finally, **Just for the Fun of It...**



<https://sites.google.com/site/mylvrr/home>

These are photos from MMR Chuck Davis' fantastic Lehigh Valley RR, Wyoming Division – wonderful scenery and operates like a dream.

We're looking for a few good photos. Send them in to have them showcased on this page.