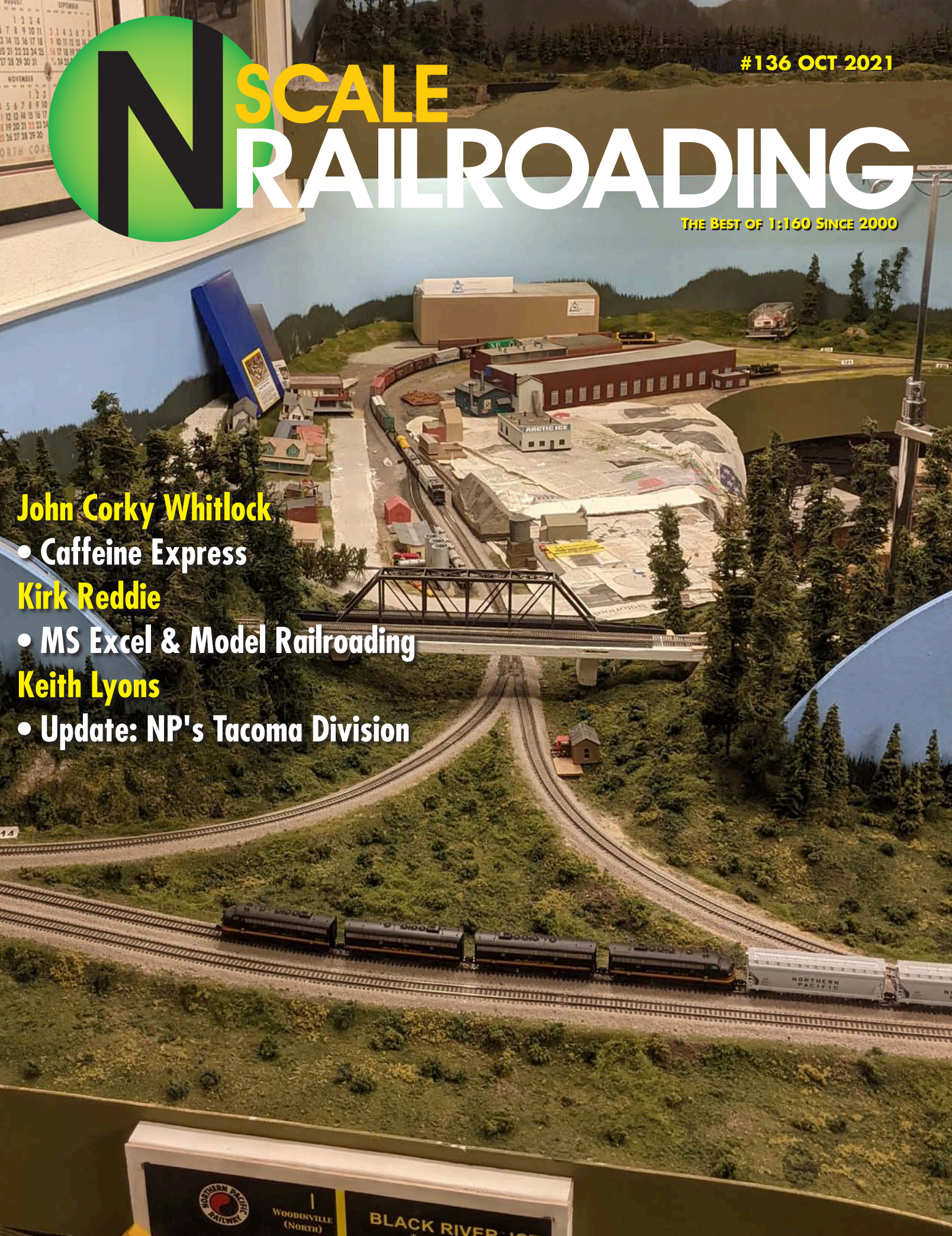
#136 OCT 2021

N SCALE RAILROADING

THE BEST OF 1:160 SINCE 2000



John Corky Whitlock
- Caffeine Express

Kirk Reddie
- MS Excel & Model Railroading

Keith Lyons
- Update: NP's Tacoma Division

N SCALE RAILROADING
WELCOME!

This month's cover features one of many great scenes, though not finished yet, on Keith Lyon's Northern Pacific's Tacoma Division. Up to a couple years ago the focus was on the upper deck and the NP's transcontinental route. The past year and a half has seen amazing progress on the lower level.

AD INDEX

Welcome to ***N Scale Railroading*** #136, the October, 2021 issue.

Page 04. **New Products.**

Page 06. **John Corky Whitlock** shares his Caffeine Express project. One can't have too many scenic vignettes for viewers to see and imagine themselves inhabiting the scene.

Page 10. **I** bought my first computer (Osborne 1) in 1982 and the first thing I worked on was learning how spreadsheets work by creating an inventory sheet in WordStar. Over the years I've also experimented with timetables, car cards, and even layout design using Excel. These can be very useful and fun tools.

Page 24. Like many of us, **Keith Lyons** suspended work socials for the past year and a half due to the zombie apocalypse. When we saw the progress he has made during this time, some of us wonder how much did we slow him down? How much will he finish by the time civilization restarts? In the mean time enjoy Keith's update and his thought process.

Page 41. **NCalendar** and **NHorizons.** ◗

N SCALE RAILROADING
OCT
2021
ISSUE 136

PUBLISHER & EDITOR
Kirk Reddie
nscalerailroadn@aol.com
Mr. Answering Machine
206•364•1295

ADVERTISING SALES MANAGER
(ADVERTISING ONLY)
Denny Hamilton
262•347•1068
nsrdennyads@aol.com

PREVENTOR OF GARBALANCHES
Elaine R. R.

SUBSCRIBER #136
Michael R. Pennie

***** Talent Emeritus *****
ISSUES 001-117
ART DIRECTOR
Bill Edgar

PHILOSOPHER KING OF HUE
Spencer Rossman

SLAYER OF UNINTENTIONAL
GRAMMATICAL ATROCITIES
Dennis Hartnett

SUBSCRIPTIONS:
N Scale Railroading is a free monthly digital periodical, but it is still copyrighted.
Back issues will still be available at nscalerailroadn.com

Contributing to NSR:
We welcome your contributions including articles and high resolution photos. For information email us at:
nscalerailroadn@aol.com

We assume no responsibility for the safe return of unsolicited materials. We assume unsolicited materials are intended for publishing by **N SCALE RAILROADING**, and that letters, questions, news releases, and club news are contributed gratis. For details, visit contributing at:
nscalerailroadn.com

"dial F7 for Freight"

N Scale

KATO
PRECISION RAILROAD MODELS

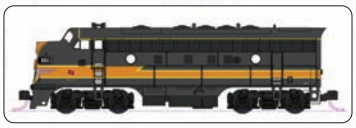
Kato's F-Units are some of the most reliable and best operating North American locomotives you can add to your layout - enjoy smooth DCC-friendly operation while operating these locomotives with brand new releases of Kato's F-units in classic freight schemes from the 1950's, including **Union Pacific**, **Southern Pacific**, **Baltimore & Ohio**, and **Milwaukee Road**! All A and B units are fully motorized for maximum performance!

UP and SP two-locomotive sets will be available in October, with B&O and Milwaukee Road two-locomotive sets coming in November and December. Of course, like all new releases, these engines are available in standard Analog (DC), DCC, and even DCC + Sound versions!

UNION PACIFIC
#1468 & #1468B

SOUTHERN PACIFIC
#6182 & #8082

BALTIMORE & OHIO
#4503 + #5493



MILWAUKEE ROAD
#88A + #88B

Looking for some rolling stock for your latest N scale Locomotives? Kato's N Scale Mixed Freight Train set includes 6 assorted freight cars that are suitable for almost any era of manifest freight train!

Item # 106-6275
N Mixed Freight Train Set - MSRP $90

Item #	Description	MSRP
#106-0426	N EMD F7A+B Freight 2-Locomotive Set - UP	**$175**
#106-0427	N EMD F7A+B Freight 2-Locomotive Set - SP	**$175**
#106-0428	N EMD F7A+B Freight 2-Locomotive Set - B&O	**$175**
#106-0429	N EMD F7A+B Freight 2-Locomotive Set - Milwaukee Road	**$175**

Versions Equipped with Digitrax DCC:

#106-0426-DCC	N EMD F7A+B Freight 2-Locomotive Set w/ DCC - UP	**$335**
#106-0427-DCC	N EMD F7A+B Freight 2-Locomotive Set w/ DCC - SP	**$335**
#106-0428-DCC	N EMD F7A+B Freight 2-Locomotive Set w/ DCC - B&O	**$335**
#106-0429-DCC	N EMD F7A+B Freight 2-Locomotive Set w/ DCC - MWR	**$335**

Versions Equipped with ESU LokSound DCC:

#106-0426-LS	N EMD F7A+B Freight 2-Locomotive Set w/ Sound - UP	**$575**
#106-0427-LS	N EMD F7A+B Freight 2-Locomotive Set w/ Sound - SP	**$575**
#106-0428-LS	N EMD F7A+B Freight 2-Locomotive Set w/ Sound- B&O	**$575**
#106-0429-LS	N EMD F7A+B Freight 2-Locomotive Set w/ Sound- MWR	**$575**

Kato U.S.A., Inc. 100 Remington Road Schaumburg, IL 60173 847-781-9500 www.katousa.com

N SCALE RAILROADING
NEW PRODUCTS

48' Cushion Coil Car
Chessie System/ C&O
306747 is
Atlas 50 005 710.

Greenville 100 ton 2-bay
hopper SP (Golden West
patchout) 466211 is
Atlas 50 005 7385

NACC Smoothsie insuloated
box Delaware and Hudson
28005 is
Atlas 50 005 143

THANKS

FOR SUPPORTING
THOSE WHO SUPPORT

N SCALE
RAILROADING

Atlas Master® N S-2 Locomotive

Lehigh & New England

Arriving Soon from ATLAS MODEL RAILROAD CO., INC.

Built by the American Locomotive Company (Alco) the low-hood S-2 was introduced in 1940 to replace Alco's earlier high-hood switchers. The 1000 horsepower S-2 was a turbocharged version of the S-1. There were 1,502 S-2s sold to North American Railroads. The versatility of the S-2s was evidenced by their service on mainline, shortline and industrial railroads. This Atlas offering is available in both Silver and Gold versions. Silver locos are Sound-Ready and Gold models are factory-equipped with ESU sound. No matter which you choose, you can be assured that "You're on the Right Track...with Atlas!®"

Canadian National

Chicago Great Western

Erie

Maine Central

Southern Pacific

ATLAS MODEL RAILROAD CO., INC.

Visit www.atlasrr.com today and sign up to become an Atlas Insider! We'll deliver the latest Atlas news directly to your email inbox!

ATLAS MODEL RAILROAD CO, INC. • 378 Florence Ave., Hillside, NJ 07205 • www.atlasrr.com

THE CAFFEINE EXPRESS

By John Corky Whitlock/ Images by Author

Looks like "The Caffeine Express" parked just outside of town today has a good fan base. Those in need of their morning "cuppa' Joe" are hanging out and enjoying their coffee.

I am a fan of vignettes such as that shown here. Small scenes are good model projects and don't take an inordinate amount of time or cash outlay for completion, and they add immeasurably to a layout.

The inspiration for the scene was this photo from my backup supply of photos. This particular "photo-file" comes from my collection titled food / beverage trucks.

FIRST TIME WITH PARAGON4 ROLLINGTHUNDER™

BROADWAY LIMITED Imports

USRA Mikados in N Scale

Expected October 2021. Preorder today.

PRR P5a Electrics in N Scale

Expected November 2021. Preorder today.

FACTORY DIRECT HOBBIES EST. 2006

FACTORYDIRECTHOBBIES.COM

We're your preorder for $0 down headquarters for all brands.

Photo 3 -Kinsmart bus / keychain. I found the school bus model on Ebay. It's a 1:150 scale bus in the form of a key chain from a company called Kinsmart. The keychain was very affordable, and as the shell of this vehicle is plastic it's easily modified. My previous food / beverage truck was metal and took a lot of time to modify.

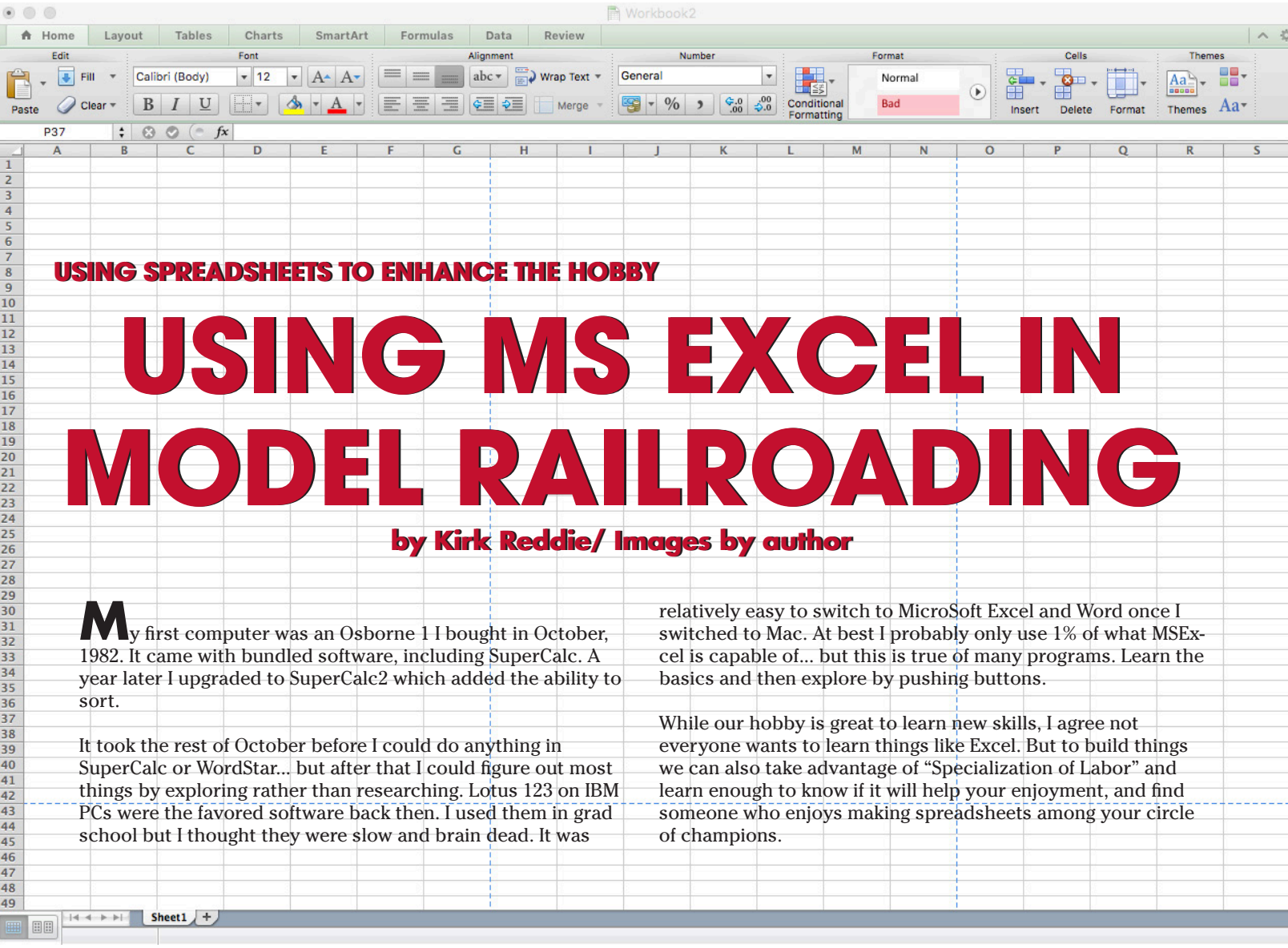
Photo 4 - Michaels acrylic paints

As a long time modeling fan of Floquil solvent hobby paints I found myself rather out in the woods with this model as Floquil is no longer manufactured and my hoarded Floquil paint supply is starting to dwindle.

I made a trip to the nearest Michaels and found a large supply of acrylic paints in a myriad of colors at very competitive prices. I'm not well-versed on the techniques for using acrylic paints so will need to do some research on how to best use these paints.

Photo 5 - As usual the success (or lack of) with the " caffeine express" seems to be in the details of the scene. I found myself scrounging through my detail parts box one more time for items that would be appropriate to the scene. Those items include the vehicles, patio furniture, figures, and the fence with the added signs. The menu signs and "feather-flags" were composed on my laptop followed by a trip to the copy shop for printing on their color copier.

Be sure to stop by the Caffeine Express tomorrow for your morning coffee. ◗



USING SPREADSHEETS TO ENHANCE THE HOBBY

USING MS EXCEL IN MODEL RAILROADING

by Kirk Reddie/ Images by author

My first computer was an Osborne 1 I bought in October, 1982. It came with bundled software, including SuperCalc. A year later I upgraded to SuperCalc2 which added the ability to sort.

It took the rest of October before I could do anything in SuperCalc or WordStar... but after that I could figure out most things by exploring rather than researching. Lotus 123 on IBM PCs were the favored software back then. I used them in grad school but I thought they were slow and brain dead. It was relatively easy to switch to MicroSoft Excel and Word once I switched to Mac. At best I probably only use 1% of what MSExcel is capable of... but this is true of many programs. Learn the basics and then explore by pushing buttons.

While our hobby is great to learn new skills, I agree not everyone wants to learn things like Excel. But to build things we can also take advantage of "Specialization of Labor" and learn enough to know if it will help your enjoyment, and find someone who enjoys making spreadsheets among your circle of champions.

BASICS

Spread sheets are large grids of cells organized in rows (left-right)(and columns (up - down). Excel's rows are numbered (1 to 1,048,576) , cells have letters (A to... 16,384 of them).
One navigates the grid by using the cursor keys or the mouse.

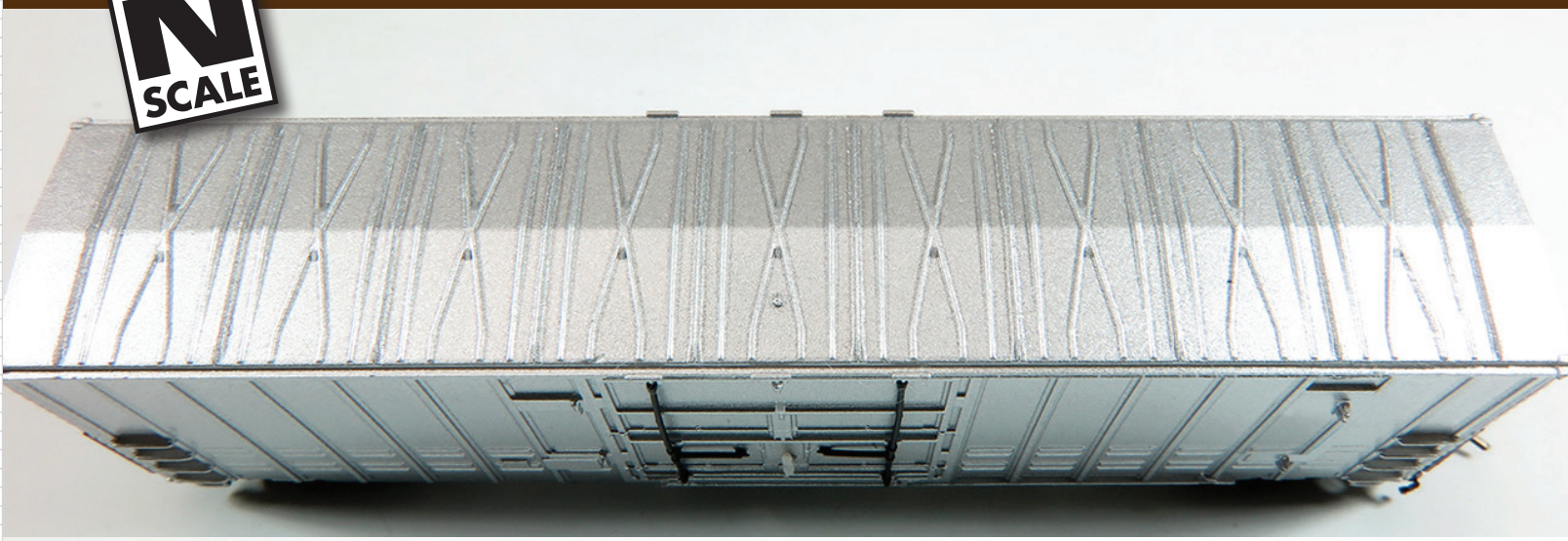
Each cell can have a number, a name, or a formula.

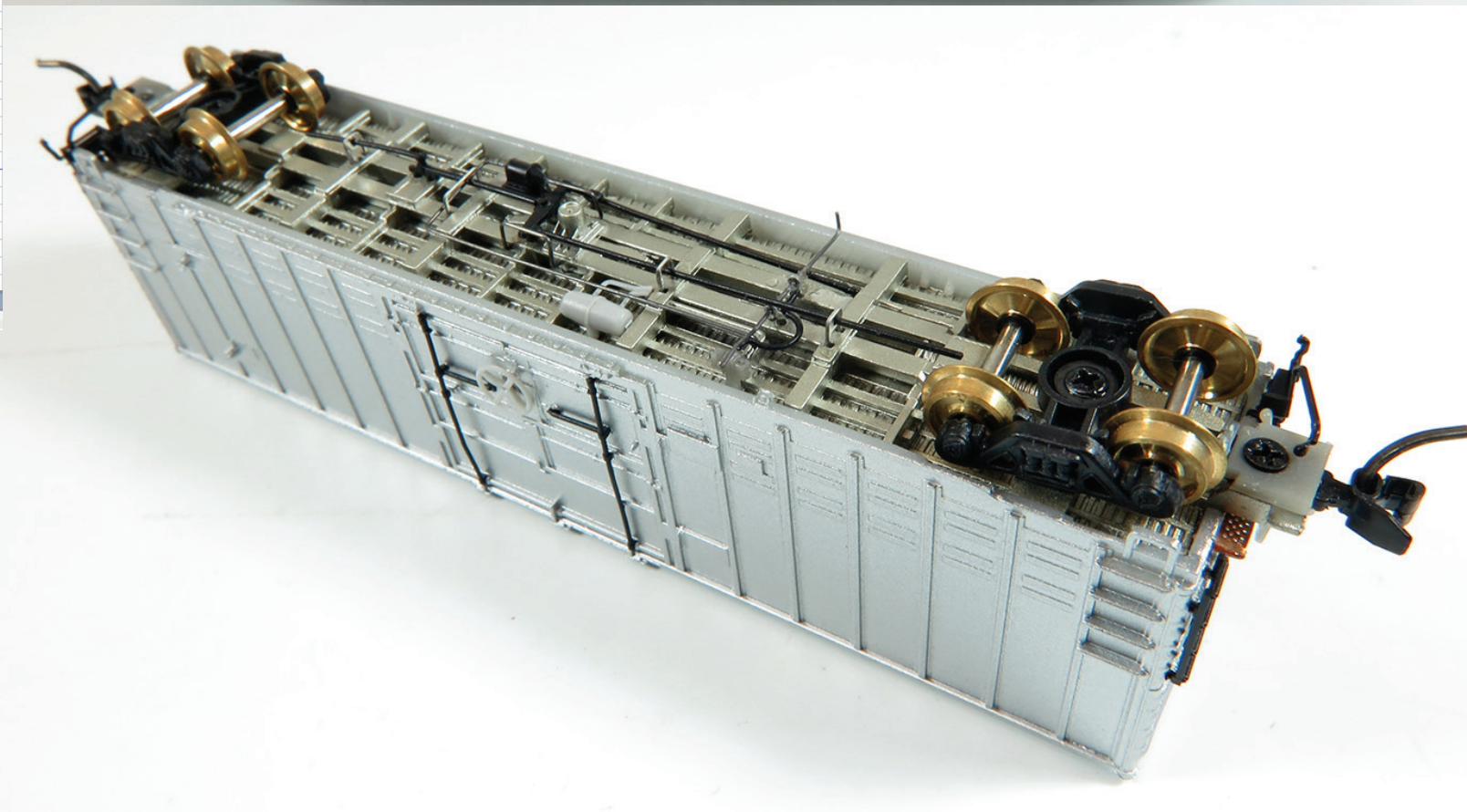
–Number. Go to a cell. Type a number. Hit enter. The cell has a value and the cursor dropped to the cell below it. If you have a column of numbers, you can rapidly 10-key in the numbers.

–Name. To label this column of numbers, enter a name in the cell above the first number. If the text is alpha or alphanumeric, just type it in. If you want a number to be text, type a " ' " in front of the number.

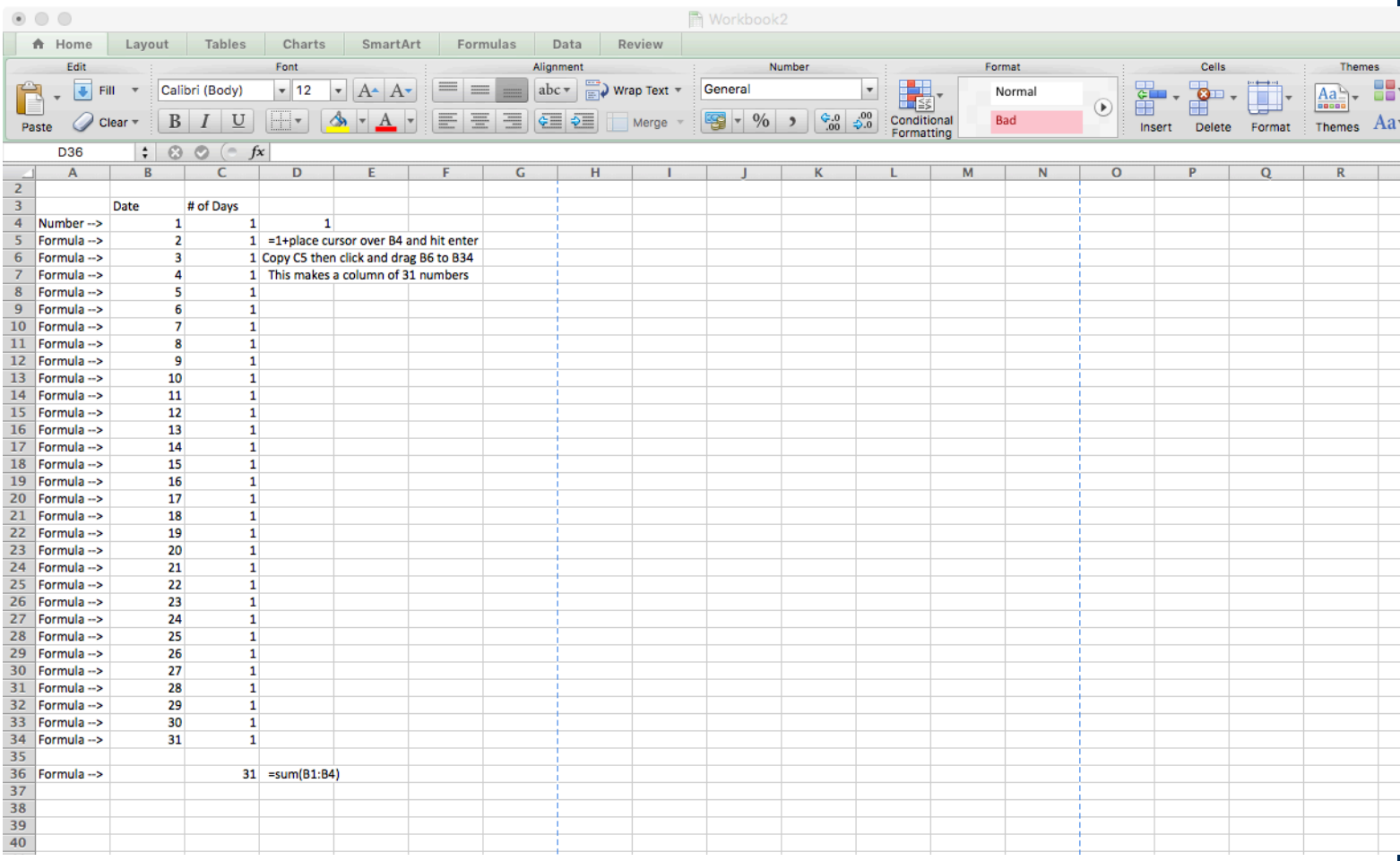
–Formula. Now comes the magic. Formulas start with an equal sign.
— You can enter " =5 " and " 5 " will show.
— You can put in " = " and then use the mouse to click on another cell, then hit return. The first cell now has the same value of whatever the second cell is.
— You can have a column of numbers you want to add together. Enter " = " and use the mouse to click on each of the cells, then click "Enter". The value of the cell is now the sum of all the cells you clicked on.
— You can change an add to a subtract in the input box just above the column values. This works but it is usually a better practice to have separate column for adds and subtracts, sum each one, and then take the difference.
— The best practice is usually to have the summary cell and sum with the auto-sum (Sigma symbol, found under the "formula" tab, second to the left). Click on Sigma and the active cell looks for a column or row to add up. It won't leap empty cells. Be sure to look at the formula to make sure it is logical. You can write the Sigma manually by typing " =sum(A1:A30) " in cell A31. This adds up all the numbers between A1 and A30.
— You can cut'n'paste cells to other cells.
— One can 10-key in the days of the month manually. An easier way is to type " 1 " on the first day. On the second day, type " =1+ " and use the cursor over the previous cell and hit enter. What you see on that cell is now " 2 ". So now put the cursor over " 2 ". Hit command C to copy, then drag the cursor over the cells over the cells below. Then hit command V to paste the formulas. So now you have a column that shows 1 to 31. But 2 to 31 are formulas. To convert them to numbers, drag the cursor over 2 to 31. Hit command C to copy, then go to the EDIT tab at the top of the screen, drop down to PASTE SPECIAL, then on the pull down menu click on VALUES. Hit OK. All

THE B-EST BOXCAR





CLICK HERE



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2																		
3		Date	# of Days															
4	Number -->	1	1	1														
5	Formula -->	2	1	=1+place cursor over B4 and hit enter														
6	Formula -->	3	1	Copy C5 then click and drag B6 to B34														
7	Formula -->	4	1	This makes a column of 31 numbers														
8	Formula -->	5	1															
9	Formula -->	6	1															
10	Formula -->	7	1															
11	Formula -->	8	1															
12	Formula -->	9	1															
13	Formula -->	10	1															
14	Formula -->	11	1															
15	Formula -->	12	1															
16	Formula -->	13	1															
17	Formula -->	14	1															
18	Formula -->	15	1															
19	Formula -->	16	1															
20	Formula -->	17	1															
21	Formula -->	18	1															
22	Formula -->	19	1															
23	Formula -->	20	1															
24	Formula -->	21	1															
25	Formula -->	22	1															
26	Formula -->	23	1															
27	Formula -->	24	1															
28	Formula -->	25	1															
29	Formula -->	26	1															
30	Formula -->	27	1															
31	Formula -->	28	1															
32	Formula -->	29	1															
33	Formula -->	30	1															
34	Formula -->	31	1															
35																		
36	Formula -->		31	=sum(B1:B4)														
37																		
38																		
39																		
40																		

the formulas that were highlighted are now numbers.
— If we are doing an inventory list of rolling stock, we probably will be adding new items and don't want to keep inserting cells between the data and summary cells. One can take advantage of the clever way Excel uses the summation tool by placing the summary cells at the top of list. Say you want to know the total historical value in column G and the estimated market value in column H. Let's have all the data below row 5. So on G5 type " =sum(G6:G10005)". This will sum 10,000 rolling stock historic values input below. To do the same for estimated market value, copy and paste G5 to G6 (place cursor on G5, hit command c, then move the cursor to H5, and hit command v). The value of G5 is still the same but H5's value is now " =sum(H6:H10005)". Once in awhile check to see if you need to update this once you get near 10,000 items.
— One can also use IF/THEN/ELSE logic in a cell (though I haven't found an excuse to use this on an inventory sheet).

SAVE FILE. Under top tab bar FILE and see. SAVE or SAVE AS. By this time one should save the file. I'm a big fan of using a file name and then add YEAR MONTH DAY, and update this every time you save it. This way if one makes a bad mistake, go to the previous saved file and update from there. It is probably faster and more accurate than trying to undo one's mistakes.

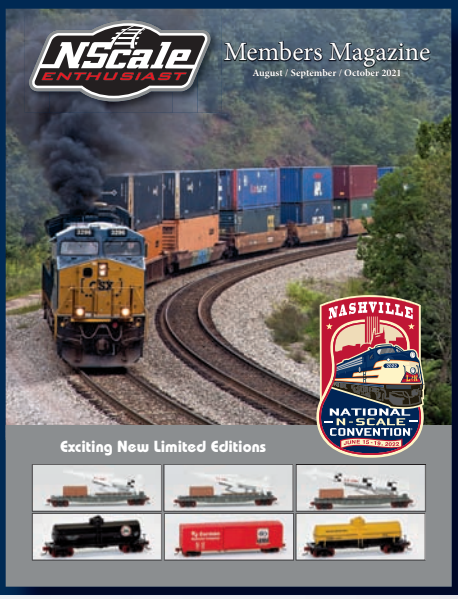
Let's Build a Model Railroad Inventory Sheet
I have a master inventory list called RUNNERS ALIVE YEAR MONTH DAY. This is for rolling stock I consider runners. This has 30+ years of additions and deletions.
–I now call the A column INITIALS but it is really a master sort field.
–My B column is RAILROAD so the name is spelled out. I can grab the line between the B and C column to expand or shrink the column if I need more room to print out the sheet.
—My C column is CLASS, a sort column. 1 is locomotive, 2 is passenger car, 3 is revenue freight car, and 4 is non-revenue.
— My D column is REPORTING #. At one time I had the fantasy that I would have unique numbers. The month MicroTrains and Atlas offered ice reefersi in CMStP&P/ URTX schemes killed that. To keep track of quantities I have eg. MILW 81104.01 to 81104.61 and if I end up using RFID tags, each will have a unique number. (Oh yes: I cut'n'pasted 60 of the 61 rows and just changed the RPTG# and HISTORICAL COST numbers.)
—My E column is TYPE, which is a sort column with more detail than column C. 3.1 is always a single door boxcar, 3.2 a double door boxcar. But I found there are so many variations, I just make sure I'm consistent within a railroad.
—My F column is CLASS, which so far is based on AAR codes. An single door boxcar is an XM, a double door boxcar is an XA. It sort of lines up with column D but would be a mess if one sorted by AAR codes. Brian Morgan uses GN based classification system that is probably more useful than the AAR's. Someday I plan to switch to a system like Brian's but I think I will differentiate ice reefers into fruit & vegetable or meat ice reefers. A beauty of Excel is that once one decides to make a change, sort by CLASS, type over (say) a 40' XM is a B2, a 50' XM is a B1, etc. Then copy and paste the rest of them. Very easy. If one is going to use this inventory list for computerized operations, these codes have to be consistent for all railroads.
—My G column is for length. This is car size, not coupler to coupler.
—My H column is description. Often this is whether a boxcar is steel, o/s braced, or single sheathed; and often what scheme the car is in.

Membership has its benefits!

If you are an N Scale Enthusiast, and every Ntrakker is-You should share your passion for your favorite scale by being a member of The N Scale Enthusiast!

Working to preserve the history of N Scale, and grow the scale along with our friends at Ntrak, we offer mega benefits to the membership:

- A very informative magazine 5 times a year!
- Manufacturers and Latest releases in every issue
- Member only Special Runs both prototype and fantasy
- Multi Medium Special Runs that are scratch-built on a grand scale
- Member listings in the Trovestar peer to peer marketplace
- Annual Membership car included at no extra charge
- National N Scale Convention annually
- Free Classified Ads- For Sale and Wanted listings
- Web Resources

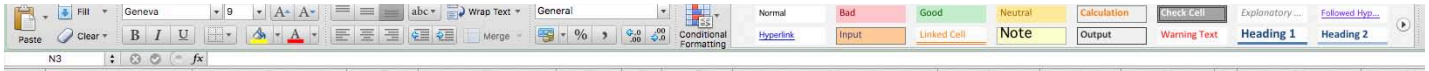


Join up for more N Scale Fun!

MICRO-TRAINS® LINE

The N Scale Enthusiast
P.O. Box 30489
Savannah, GA 31410

www.NScaleEnthusiast.com



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Initials	RR	Class	RPTG #	TYPE	CLASS	LENGTH	DESCRIPTION	COUPLER	HISTORICAL	MARKET	Blt	Blt By	
2	A									1,185.40	1,646.30			

	Initials	RR	Class	RPTG #	TYPE	CLASS	LENGTH	DESCRIPTION	COUPLER	HISTORICAL	MARKET	Blt	Blt By
2	A									1,185.40	1,646.30		
3	457/458 02A	Southern Pacific	2	6270	2.200		80	Horse Car 2 tone Gray	SEA-LAX Pool	0.00	48.95		WOT 1007
4	457/458 02B	Southern Pacific	2	6507	2.200		80	Horse Car Daylight	SEA-LAX Pool	0.00	48.95		WOT 1010
5	457/458 02C	Southern Pacific	2	7234	2.200		80	Horse Car Olive Green	SEA-LAX Pool	0.00	48.95		WOT 1002
6	457/458 03B	Southern Pacific	2	6236	2.200	Green	72	Express, Hvy Green	SEA-OAK Pool	0.00	29.95		MTL 147 00 070
7	457/458 04A	Union Pacific	2	630	2.200	alleng	80	Baggage, Hvy, 2t gray	SEA-OAK Pool	15.00	18.00		Riv/Rap
8	457/458 04B	Union Pacific	2	740	2.200	3 axle	72	Baggage, 2 Tone Gray	SEA-PDX Pool	30.80	34.90		MT 147 00 190
9	457/458 05	Union Pacific	2	58XX	2.971	Y&G	73	RPO/ BG (Yellow) with Harrima	SEA-PDX Pool	29.74	33.95		MT 148 00 060
10	457/458 06	Union Pacific	2	5402	2.300	COP	85	Coach (Streamliner Y&G)	SEA-PDX Pool	20.00	25.00		Kato 106-1102
11	457/458 07	Union Pacific	2	5421	2.300	Y&G	85	Coach (Streamliner Y&G)	SEA-PDX Pool	15.75	25.00		Kato 106-5012
12	457/458 08	Union Pacific	2	5430	2.300	COP	85	Coach (Streamliner Y&G)	SEA-PDX Pool	20.00	25.00		Kato 106-1001
13	457/458 09	Union Pacific	2	5433	2.300	COP	85	Coach (Streamliner Y&G)	SEA-PDX Pool	20.00	25.00		Kato 106-1101
14	457/458 10	Union Pacific	2	5444	2.300	COP	85	Coach (Streamliner Y&G)	SEA-PDX Pool	20.00	25.00		Kato 106-1002
15	457/458 11	Union Pacific	2	5447	2.300	Y&G	85	Coach (Streamliner Y&G)	SEA-PDX Pool	15.75	25.00		Kato 106-5012
16	457/458 12	Union Pacific	2	Sky View	2.976	TofT	85	Train of Tomorrow Diner	#457/458	25.00	50.00		Nowka/ Kato CZ
17	457/458 13	Union Pacific	2	Star Dust	2.975	TofT	85	Train of Tomorrow Coach	#457/458	25.00	50.00		Nowka/ Kato CZ
18	457/458 14	Union Pacific	2	997	2.972	Y&G	85	Parlor (Streamliner Y&G)	#457/458	25.00	25.00		Kato
19	457/458 15	Union Pacific	2	Dream Cloud	2.977	TofT	85	Train of Tomorrow Parlor	#457/458	25.00	50.00		Nowka/ Kato CZ
20	457/458 16	Union Pacific	2	Pacific Coast	2.520	Y&G	85	10-6 P-S Yellow (fake 12-4)	COP	25.00	25.00		RS-3001814
21	457/458 17	Union Pacific	2	Moon Glow	2.979	TofT	85	Train of Tomorrow Diner-Obs	#457/458	25.00	50.00		Nowka/ Kato CZ
22	CRI&P	Rock Island.	3.1	24064.7	3.1	XM	40	PS-1 (Route of Rockets)	MT	7.00	9.70		MT20336
23	Erie/URTX	Erie	3.32	27054.5	3.32	RS	36	Yellow Erie	MT	12.00	20.00		AT 41415
24	Milw	Milwaukee Road	1	40 AB	1.23	FT		MT FT Gray (40AB) 1941 OC	MT	198.45	228.00		MT 99200091
25	Milw	Milwaukee Road	1	40 CD	1.23	FT		MT FT Gray (40CD) 1941 OCT	MT	198.45	228.00		MT 99200091
26	Milw	Milwaukee Road	1	41 AB	1.23	FT		MT FT Gray (41AB) 1943 JUL	MT	198.45	228.00		MT 99200092
27	Milw	Milwaukee Road	1	41 CD	1.23	FT		MT FT Gray (41CD) 1943 JUL	MT	198.45	228.00		MT 99200092
28	Milw	Milwaukee Road	3.1	714305	3.1	XM	40	Steel (Round Roof)	MT	12.00	15.00		KGR Roco?
29	MILW	Milwaukee Road	4	340756	4	H		Hart Ballast CMStP&P	MT	23.56	25.95		Atl 34788-6
30	zzzzzzzzzz	END	END	END	END	END	END	END	END	END	END	END	END
31													

Inventory. A shortened example. Note the sum totals on J2 and K2. Below are my subcodes. I can sort by railroad, type of car, etc.

KGR Code	Locomotive
1.01	E8A
1.02	E8B
1.03	E7A
1.04	E7B
1.05	E6A
1.06	E6B
1.07	FP7A
1.08	FP7B
1.09	BL2
1.11	PA1
1.12	PB1
1.13	DL109(A)
1.14	DL110 (B)
1.15	Erie Built A
1.16	Erie Built B
1.21	F7A
1.211	F7B
1.22	F3A
1.221	F3B
1.23	FTABBA
1.24	FA-2
1.241	FB-2
1.25	FA-1
1.251	FB-1
1.26	Shark A
1.261	Shark B
1.27	FM C-Liner A
1.271	FM C-Liner B
1.31	GP9
1.32	GP7
1.321	GP7B
1.33	RS-3
1.34	RS-2
1.35	RS-1
1.36	RSC-2
1.37	RSD 4/5
1.41	SW-9

KGR Code		
1.42	NW-2	
1.43	S-2	
1.44	VO-1000	
1.45	H-12-44	
1.51	SD-9	
1.52	SD-7	
1.53	Trainmaster	
1.54	H-15-44	
1.55	BL2	
1.71	P42	
1.8	Steam	
1.81	2-8-2 Mikado	
1.9	Self Propelled Passenger	
2.01	Steam Generator Car	
2.1	RPO (Combine)	P:RPO
2.2	Baggage	P:BG
2.28	Baggage, Riv Hvy	P:BG
2.29	Baggage Dorm	
2.3	Coach	P:C
2.34	Commuter Coach, single	
2.35	Commuter Coach, Gallery	
2.36	Commuter Cab, Gallery	
2.38	Coach, Riv Hvy	P:C
2.39	Coach, Dome	P:C-Dome
2.4	Diner	P:Diner
2.42	Snack	P:Snack
2.43	Dome, Full	P:Dome L
2.44	Dome, Snack, Dorm	
2.48	Diner, Riv Hvy	P:Diner
2.5	Sleeper, Pullman	generic
2.51	Combercoach. 21 Roomette	
2.52	10-6 Sleeper	P:10-6
2.53	6-6-4 Sleeper	P:6-6-4
2.54	4-4-2 Sleeper	
2.55	CC GN sleeper	
2.56	6-5 (11 BR)	
2.57	12-Duplex 4-Double Bed (Pullma	

KGR Code		Modified AAR	Brian's GN/NP
2.58	10-1-2 (MTL)		
2.59	12-1, Riv Heavy	P:12-1	
2.6	Parlor	P:Parlor	
2.7	Observation	P:Obs	
2.77	Observation, Riv Hvy	P:Obs, Hv	
2.78	Observation, Dome	P:Dome C	
2.79	Business Car		
2.91	Express Box	BX	
2.92	Express Refrig	XR	
3.11	Boxcars, SD, Stl	XM	
3.12	Boxcars, SD, Wood	XM	
3.21	Boxcars, DD, Stl	XA	
3.22	Boxcars, DD, Wood	XA	
3.31	Refrigerator, Produce	RS	
3.32	Refrigerator, Meat	RM	
3.33	Milk Car	Milk	
3.41	Stock Car, steel	S	
3.42	Stock Car, wood	S	
3.51	Flat Car	F	
3.52	Flat, Depressed	FD	
3.55	Flat, Logging	FL	
3.68	Tank Car-- Chemical	T Ch	
3.69	Tank Car	T	
3.71	Gondola	G	
3.72	Gondola, Covered	CG	
3.73	Hopper (Open Top)	H	
3.74	lopper, Covered, Cemer	CH	
3.75	Hopper, Covered Grain	CG	
3.76	Ore Car	CG	
3.81	Helium Car		
3.82	Vinager Car		
3.99	Trailer	TR	
4.1	Caboose, Steel, Cupola	NE	
4.2	Caboose, Wood, Cupola	NE	
4.3	boose, Steel, Bay Wind	NE	
4.4	Track Cleaner Car		
4.5	Crane		
END	END	END	

BACHMANN®

DCC® SOUND VALUE ON BOARD

NEW

UNION PACIFIC® #2144
(without dynamic brakes;
Little Rock block lettering)
Item No. 66854

MODERN ERA GEEPS

Now with Econami™ Sound Value DCC

The GP38-2 was launched in 1972 as a successor to the standard-model GP38 and is today recognized as one of the most successful road switchers of the last half-century. Designed for lighter freight duties, the type is commonly used in yards, on secondary lines, and can even be found plying the mainline on local freight duties across North America. Now you can bring this iconic second generation diesel to your N scale railroad, available exclusively with *Soundtraxx Econami*™ Sound Value DCC. Factory set fo GP38-2 realism, the included diesel locomotive package comes with a choice of 5 prime movers, 16 air horns, 7 bell types, 2 air compressors, 3 coupling effects, plus a function-activated grade crossing sequence - all in 16-bit polyphonic sound, complementing the authentic detail and precision scale features of this model.

NEW

BNSF #2081 - H1 SCHEME
(with dynamic brakes)
Item No. 66851

NEW

CSX® #2503 - YN1 SCHEME
(with dynamic brakes)
Item No. 66852

Click to learn more

NEW

GMTX #2103
(with dynamic brakes)
Item No. 66853

N SCALE

Available Now
MSRP: $299.00 each

Features include:

- DCC sound-equipped with Econami™ Sound Value package
- dual-mode NMRA compliant decoder
- directional headlight with Rule 17 dimming
- precision, flywheel-equipped motor
- die-cast frame
- fine-scale handrails
- separately applied detail parts
- road-specific body styles
- *E-Z Mate*® Mark II couplers

Econami™

BACHMANN QUALITY SINCE 1833

Bachmann Industries, Inc. • 1400 East Erie Avenue • Philadelphia, PA 19124 USA • www.bachmanntrains.com

Click for more information.

— My I column is COUPLER. This used to be a very important column but now is mostly for Unimate or "T" shank cars.
—My J column is HISTORICAL. How much did I pay for the car?
—My K column is MARKET. What is the car worth at a swap meet? This column is not as important as it used to be.
—My L column is prototype built date. I gave up as this was very time consuming to do correctly.
—My M column is BUILT BY. Usually the manufacturer, sometimes by custom builder.

SET PRINT AREA. Drag the cursor to highlight the area you want to print, then go to the FILE tab on top, drop to PRINT AREA, the SET PRINT AREA.

Before you print, look at what the preview says. It might be too much, or you need to use the landscape format. You can reset the PRINT AREA, reduce the width of columns, or even reduce the page size in PRINTER SET UP.

Formatting.
Excel can do amazing things but we're keeping this simple. Formatting is along the tabs at the top of the computer (between Insert and Tools).
— The most important one is probably changing a column to currency format. I click and drag to highlight a column of numbers I want to format. Then go to the FORMAT tab and drop to CELLS. You can go to CURRENCY but I like to skip the " $ ". So I drop down too CUSTOM. I usually drop to " #,##0.00 ". This rounds the numbers to two decimals and lines to the right and the decimal points all line up. The " # " are blank unless there is a digit for it. This makes a column of numbers much easier to read.

Sorting.
Sorting makes spreadsheets even more powerful, but requires some thought in designing the columns logically. I always have a "sort" column on the far left. To sort, click'n'drag the area you want to sort, go to the DATA tab, drop to SORT, and pick the columns you want to sort by.

Southbound						1950 September, 1950		Northbound					
NP	UP	GN	NP	GN	UP			GN	GN	NP	UP	UP	NP
*405	401	459	407	403	457	Station	TLA	460	404	408	458	402	*406
12:15A	**11:30P**	**5:00P**	10:00A	8:30A	8:00A	Portland Union Station	PDX	**12:20P**	**1:45P**	**4:30P**	**9:15P**	6:45A	7:30A
12:42A	**11:57P**	**5:25P**	10:21A	8:55A	8:21A	Vancouver, WA	VAN	11:59A	**1:20P**	**4:00P**	**8:51P**	6:15A	7:00A
3:55A	3:10A	**6:57P**	11:53A	10:59A	9:53A	Centralia	CEN	10:22A	11:05A	**2:32P**	**7:05P**	2:53A	3:37A
6:05A	5:20A	**8:15P**	**1:05P**	**12:30P**	11:05A	Tacoma Union Station	TAC	9:12A	9:35A	**1:22P**	**5:42P**	12:40A	1;25A
...	6:45A	**...**	...	...	11:59A	Seattle Union Station	KSS	...	...	**...**	**4:45P**	**11:30P**	...
7:30A	...	**9:15P**	**2:00P**	**1:45P**	...	Seattle King Street Station	SUS	8:20A	8:30A	**12:30P**	...	...	12:15A

GN	GN			GN	GN					GN	GN	GN	GN
358	356			362	360	Station				355	357	361	359
8:00A	7:45A	**...**	**...**	**6:00P**	**1:30P**	Seattle King Street Station	KSS	**...**	**...**	**12:05P**	**4:25P**	**10:20P**	**9:55P**
9:10A	8:40A	**...**	**...**	**6:25P**	**2:25P**	Everett	EVR	**...**	**...**	11:02A	**3:30P**	**9:17P**	**8:30P**
10:25A	...	**...**	**...**	...	**...**	Burlington	BUR	**...**	**...**	...	**...**	**...**	**6:59P**
11:24A	10:12A	**...**	**...**	**8:30P**	**3:47P**	Bellingham	BEL	**...**	**...**	9:30A	**1:50P**	**7:46P**	**6:15P**
1:40P	11:40A	**...**	**...**	**9:55P**	**5:25P**	Vancouver, BC	VBC	**...**	**...**	8:10A	**12:30P**	**6:25P**	**4:10P**

Timetables. It worked out that I can represent the north-south Vancouver, BC to Portland, OR passenger trains. I had to drop most of the stations and annul 403/404 and 405/406. Official Guides and public timetables make it (in theory) possible to have good information about passenger trains. Freight trains are tougher to research. Using Excel to make public and employee timetables gives one the flexibility to add new information as it becomes available. (Note: 405/406 are M&E only.)

Let's Create Timetables.
I've seen really good pubic and employee timetables done with MSWord and Excel, but I have changed to Adobe InDesign for the cover. But Excel's strength is to do the actual tables. I base what I do on a prototype timetable and recommend building a template and complete one table before starting a second. Once one is correct, it is a lot easier to convert to other tables. One has to input the station names in the center column, all the times in each train's column, and somehow fit the train's name (the hardest part!). Once this is done, it is time for formatting.
Remember there is no 12:00 on railroad timetables. There are 11:59 and 12:01 in both AM and PM. I often add a P for PM to be reader friendly... but bold face all PM times. To find BOLDFACE go to the cello, then to the tabs above the grid (rather than the one at the top of the screen), go to the HOME tab, and see the " B " two rows down.
I don't know the best font, but it seems to me one usually wants tall skinny fonts (the opposite of ZEPHYR font). One can also change the font sizes to try to match the prototype timetable.

The timetables seem to vary over the years but those published nationally are rather stunning how much effort the put in to make them accurate and attractive.

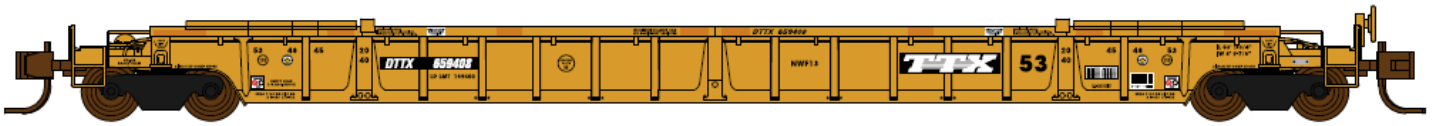
I would find an example that appeals to you and copy it. The main thing is to get the information input. I make a sort column to the right of each timetable so updated information can be 10-keyed at the bottom and then sorted (as opposed to constantly inserting rows). As one plays with Excel one can make it look more prototype. I still don't have the best font.

JACKSONVILLE TERMINAL COMPANY
Model Trains

NEW 17 Post NSC well cars -Coming Soon – Reserve Now…

Distributor/Dealer reservations for this 2nd production run is NOW OPEN. There are 4 single packs and a Two-pack. Single cars msrp $44.95 and 2-packs msrp $88.95

JTC # 772030- 17-Post 53’ well car – TTX Car number 650681 Yellow 8-stripes



JTC # 772021- 17-Post 53’ well car – CP Car number 527535 CP RAIL

JTC # 772025- 17-Post 53’ well car – CP Car number 527905 CP RAIL

JTC # 772018- 17-Post 53’ well car – TTX Car number 656481 Yellow 3-stripes

Artwork is ONLY for representation purposes. Car numbers will be as listed.

JTC # 772014 TWO PACK (not shown)

17-Post 53’ well car – TTX Car number 659479 Yellow 8-stripes

17-Post 53’ well car – TTX Car number 655118 Silver 3-stripes

Expected delivery Q4 2021

National Steel Car (NSC) is the largest manufacturer of rolling stock in Canada, based in Hamilton, Ontario.

MODEL FEATURES: Design and Engineered for modeler's activevuse;

- Metal detailed body for weight and tracking ability, loaded or empty.
- JTC has made the end grabs, foot-stirrups, and walkways out of etched stainless steel, with see thru grating. The SS will generally bend, instead of breaking like plastic. The SS will also hold up to general handling much better than plastic. The etched metal is painted to resemble a dull galvanized metal, as per prototype photos.
- JTC has designed this model to accept other brands of containers; We have test fit the following for fit: All JTC products of course; These 53' containers; Atlas, Deluxe, KATO, Micro-Trains, Scale Trains. Also 48 footers by; Deluxe, Micro-Trains, JTC.
- The Interior has 'PIN' location holes for proper placement JTC 20' for compatible alignment of larger JTC containers on top.
- The Design of the interior 'PIN' holes at 40' locations are oval shaped to accept a proper fit in the well, of the other brands.
- Engineered for the 17-post NSC versions to come with 100T trucks, and M-T couplers - body mounted at the Factory.
- Precise painting & decorating as per prototype photos.
- JTC suggested minimum radius is 18" for the length of car. On the Test layout, they constantly traversed 15" curves.

Timetable Coast Passenger 07/17/16

The Washington	The Columbian	The Olympian Hiawatha		The Milwaukee Road Coast Division Fifth Subdivision	Mileage	The Olympian Hiawatha	The Columbian	The Washington
6	18	16		June 1, 1950		15	17	5
8:00	**8:45**	**1:30**	TAC	**Tacoma**	38	11:45	9:05	.....
.....	.....	.....		*Milwaukee Road Station*		.....	.....	.....
.....	.....	.....		*Tideflat Yard*		.....	.....	.....
.....	.....	.....		Tacoma Jct	37	.....	.....	.....
.....	.....	.....		*Substation #28*		.....	.....	.....
.....	**9:12**	.....	AUB	**Auburn**	21	.....	8:28	.....
.....	**9:20**	.....	KEN	Kent	16	.....	8:20	.....
.....	.....	.....	BRJ	**Black River**	10	.....	.....	.....
.....	.....	.....				.....	.....	.....
.....	**10:00**	**2:30**	SUS	**Seattle**	0	10:45	7:50	.....
.....	**10:30**	**2:45**		*Union Station*	2189	10:30	7:30	.....
.....	.....	.....		*Stacy Street Yard*		.....	.....	.....
.....	.....	.....	ARG	Argo Jct	2185	.....	.....	.....
.....	.....	.....	-	*Airport Way*		.....	.....	.....
.....	.....	.....	BRJ	**Black River**	2179	.....	.....	.....
.....	**10:54**	**3:06**	REN	**Renton**	2177	9:53	6:45	.....
.....	.....	.....		*Cedar River*		.....	.....	.....
.....	**11:12**	**-**	MPV	**Maple Valley**	2167	.....	6:30	.....
.....	.....	.....	BAG	Bagley Jct	2152	.....	.....	.....
.....	**11:40**	.....	CFL	**Cedar Falls**	2150	.....	5:53	.....
.....	.....	.....		*Substation*		.....	.....	.....
.....	.....	.....		*(Everett Jct)*		.....	.....	.....
.....	.....	.....		*Christmas Creek Trestle*		.....	.....	.....
.....	.....	.....	RAG	Ragnar (Gravel Pit)	2146	.....	.....	.....
.....	.....	.....		*Change Creek Trestle*		.....	.....	.....
.....	.....	.....		*Hull Creek Trestle*		.....	.....	.....
.....	.....	.....		*Mine Creek Trestle*		.....	.....	.....
.....	.....	.....	GAR	Garcia	2141	.....	.....	.....
.....	.....	.....		*MacClelland's Butte*		.....	.....	.....
.....	.....	.....		Bandera	2136	.....	.....	.....
.....	.....	.....		*Hansen Creek Trestle*		.....	.....	.....
.....	.....	.....		*845' Snow Shed*		.....	.....	.....
.....	.....	.....		*Humpback Creek Fill*		.....	.....	.....
.....	12:25	.....	RDL	Rockdale	2131	.....	5:00	.....
.....	.....	.....		*Portal Creek*		.....	.....	.....
.....	.....	.....		*Snoqualmie Tunnel*		.....	.....	.....
.....	12:32	.....	HYK	Hyak	2128	.....	4:53	.....
.....	.....	.....		*Substation*		.....	.....	.....
.....	.....	.....		*Milwaukee Ski Bowl*		.....	.....	.....
.....	.....	.....		*Lake Keechulus*		.....	.....	.....
.....	.....	.....		*1251' Snowshed*		.....	.....	.....
.....	.....	.....		Keechelus	2123	.....	.....	.....
.....	1:15	**5:01**	CLE	**Cle Elum**	2099	7:31	3:58	.....
.....	.....	.....		*Substation*		.....	.....	.....
.....	2:08	.....	KTY	Kittitas	2067	.....	2:58	.....
.....	.....	.....	REN	Renslow	2062	.....	.....	.....
.....	.....	.....	BOY	Boylston	2057	.....	.....	.....
.....	.....	.....		*Johnson Creek Tunnel #45*		.....	.....	.....
.....	.....	.....		Doris	2044	.....	.....	.....
.....	.....	.....		*Substation*		.....	.....	.....
.....	.....	.....	BVJ	Beverly Jct		.....	.....	.....
.....	.....	.....		*Columbia River Bridge*		.....	.....	.....
.....	3:15	.....	BEV	Beverly	2038	.....	1:44	.....
.....	.....	.....	TAU	Taunton	2010	.....	.....	.....
				Substation				
.....	4:20	**7:20**	OTH	Othello	2000	5:00	12:55	.....
				Coast Div, Electrification				
.....	.....	.....	MAR	Marengo		.....	.....	.....
.....	.....	.....	SPK	Spokane Union Station		.....	.....	.....
.....	.....	.....	SPY	Spk-- Sprague Yard		.....	.....	.....
.....	.....	.....		Plummer Jct.		.....	.....	.....
.....	.....	.....	STM	St Maries		.....	.....	.....
.....	.....	.....	AVR	Avery, ID		.....	.....	.....
.....	.....	.....		*Substation*		.....	.....	.....

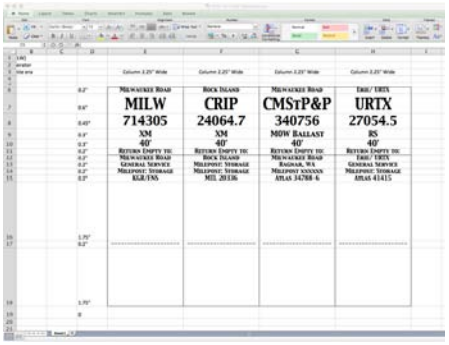
Timetables. Two examples of timetables. I won't be using fast clocks but part of the fun is knowing when the prototype ran. The branches below are freight only but this helps visitors familiarise with the prototype. I'll update when new info is found.

xxx	xxx		Everett Branch	Mileage	xxx	xxx
xx	xx		June 29, 1947		xx	xx
.....	.....	xxx	**Cedar Falls**	38	.....	.....
.....	.....		North Bend		.....	.....
.....	.....		Snoqualmie		.....	.....
.....	.....		Monroe	37	.....	.....
			via Great Northern Railroad			
.....	.....		Snohomish		.....	.....
.....	.....		**___ Jct**	21	.....	.....
.....	.....		**Everett**		.....	.....
			Milwaukee Road Station			
			via Great Northern Railroad			
.....	.....		Everett		.....	.....
.....	.....		__ Jct		.....	.....
.....	.....	via GN	Marysville		.....	.....
.....	.....	via GN	Burlington		.....	.....
.....	.....	via GN	Chuckanaut		.....	.....
.....	.....	via GN	Fredonia		.....	.....
.....	.....	via GN	Bellingham		.....	.....
			Bellingham Bay & British Columbia			
.....	.....	xxx	Bellingham		.....	.....
.....	.....		*Milwaukee Road Station*		.....	.....
.....	.....	xxx	xxx		.....	.....
.....	.....	xxx	xxx		.....	.....
.....	.....	xxx	xxx		.....	.....
.....	.....	xxx	Concrete		.....	.....
.....	.....	xxx	Sumas		.....	.....
xx	xx		June 29, 1947		xx	xx
.....	.....	xxx	**Cedar Falls**	38	.....	.....
.....	.....		Bagley Jct		.....	.....
.....	.....		Enumclaw		.....	.....
			Tacoma & Eastern			
xx	xx		June 29, 1947		xx	xx
.....	.....	xxx	**Tacoma**	38	.....	.....
.....	.....		*Milwaukee Road Station*		.....	.....
.....	.....		Tacoma Jct		.....	.....
.....	.....		Fredrickson		.....	.....
.....	.....		xxx		.....	.....
.....	.....		Morton		.....	.....
.....	.....				.....	.....
.....	.....		Fredrickson		.....	.....
.....	.....		Mayfield		.....	.....
.....	.....		Aberdeen		.....	.....
.....	.....				.....	.....
.....	.....		Maytown		.....	.....
.....	.....		Chehalis		.....	.....
			Hanford Branch			
xx	xx		June 29, 1947		xx	xx
.....	.....	xxx	**Beverly**	38	.....	.....
.....	.....		Beverly Jct		.....	.....
.....	.....		xxx		.....	.....
			Hanford			
			Mpses Lake Branch			
xx	xx		June 29, 1947		xx	xx
.....	.....	xxx	**Othello**	38	.....	.....
.....	.....		___ Jct		.....	.....
.....	.....		___ Jct		.....	.....
			Moses Lake			
			___ Jct			
			Marcellus			

Operations.
There are three major systems for operating: Computer ("Ship It" is a commercial system), Car Cards, and Car Tabs.

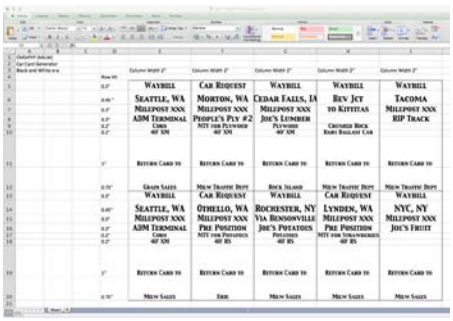
–Computer Generated Operations. One can manipulate an Excel inventory system to fake a computerized system but it is time consuming. Rather than using the power of a computer, it is kind of like using a copy machine, scissors, and scotch tape to make reports. If I wanted to computerize the operating system: Hopefully I could find a commercial system that would tell me a format in Excel that one can use to input all data that can be exported in a form to easily import into the commercial system. Excel is really good at ease of manipulating data and I think any good canned programs should take advantage of this. (These are my third favorite systems as searching for missing cars is too time consuming/ prototype for me.)

If one has a good Excel based inventory system, it should be easy to manipulate the data into a format any decent canned program can accept.



Milwaukee Road	Rock Island	Milwaukee Road	Erie/ URTX
MILW	**CRIP**	**CMStP&P**	**URTX**
714305	**24064.7**	**340756**	**27054.5**
XM	XM	MOW Ballast	RS
40'	40'	40'	40'
Return Empty to:	Return Empty to:	Return Empty to:	Return Empty to
Milwaukee Road	Rock Island	Milwaukee Road	Erie/ URTX
General Service	Milepost: Storage	Ragnar, WA	General Servic
Milepost: Storage	Milepost: Storage	Milepost xxxxxx	Milepost: Storac
KGR/FNS	MIL 20336	Atlas 34788-6	Atlas 41415

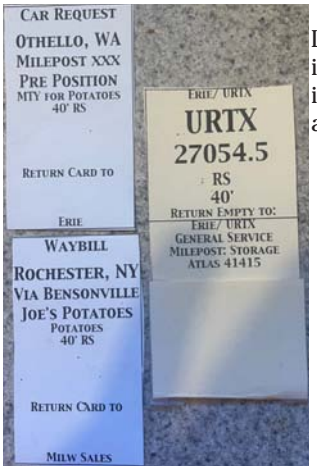
–Car Cards. This is probably the most popular operating system. There are good commercial systems and I've operated on railroads that had handwritten versions that work nicely. I played with making my own car cards using Excel and, assuming one has already has a computer, printer, and Excel: This is the best car card system. You can take the best of all systems and add your own. First make the car envelopes. Once the template is finalized, I find it very easy to input new information for new cards. Above left is the template I came up with. Blow up the screen to see the dimensions I came up with. Above center is what the printed version looks like. Above right is the page printed on part of a manila folder, cut out, folded, and taped. There is a pocket for the waybill that routes the car.
Modern layouts often have a color image of the car on the car card. I'm too cheap to buy color laser ink and in my era almost all rolling stock are 40' brown boxcars. It can be a nice shortcut. Reading reporting numbers can be tough, even in O scale.



Waybill	Car Request	Waybill	Waybill	Waybill
Seattle, WA	Morton, WA	Cedar Falls, IA	Bev Jct	Tacoma
Milepost xxx	Milepost xxx	Milepost xxx	to Kittitas	Milepost xxx
ADM Terminal	People's Ply #2	Joe's Lumber		RIP Track
Corn	MTY for Plywood	Plywood	Crushed Rock	
40' XM	40' XM	40' XM	Hart Ballast Car	
Return Card to	Return Card to	Return Card to	Return Card to	Return Card to
Grain Sales	Milw Traffic Dept	Rock Island	Milw Traffic Dept	Milw Traffic Dept
Waybill	**Car Request**	**Waybill**	**Car Request**	**Waybill**
Seattle, WA	Othello, WA	Rochester, NY	Lynden, WA	NYC, NY
Milepost xxx	Milepost xxx	Via Bensonville	Milepost xxx	Milepost xxx
ADM Terminal	Pre Position	Joe's Potatoes	Pre Position	Joe's Fruit
Corn	MTY for Potatoes	Potatoes	MTY for Strawberries	
40' XM	40' RS	40' RS	40' RS	
Return Card to	Return Card to	Return Card to	Return Card to	Return Card to
Milw Sales	Erie	Milw Sales	Milw Sales	Milw Sales

Waybills and Car Requests. Above left is the format I came up with. Most car card systems have a four position system where once a car reaches a destination, someone flips the card to the next destination. The idea is nobody will remember that 4 four sessions ago this car did the same thing. This is a matter of preference. I want to have a system where the super-car desk has requests for empties and finds the nearest appropriate empty. The first choice is a foreign car going home in the same direction as the load. So the car desk can load the pocket with (front to back) Car Request to get the car to the right industry track, then the car's waybill is on top once the Car Request is removed.

Midwest corn is sent to ADM in Seattle, where car is empty.



Left. An Erie/URTX reefer is sent to Othello, where it is loaded with potatoes and sent to Rochester.

After a Rock Island XM of corn is unloaded, it is sent to Morton, loaded with plywood, and sent to Cedar Falls, Iowa via St. Paul.

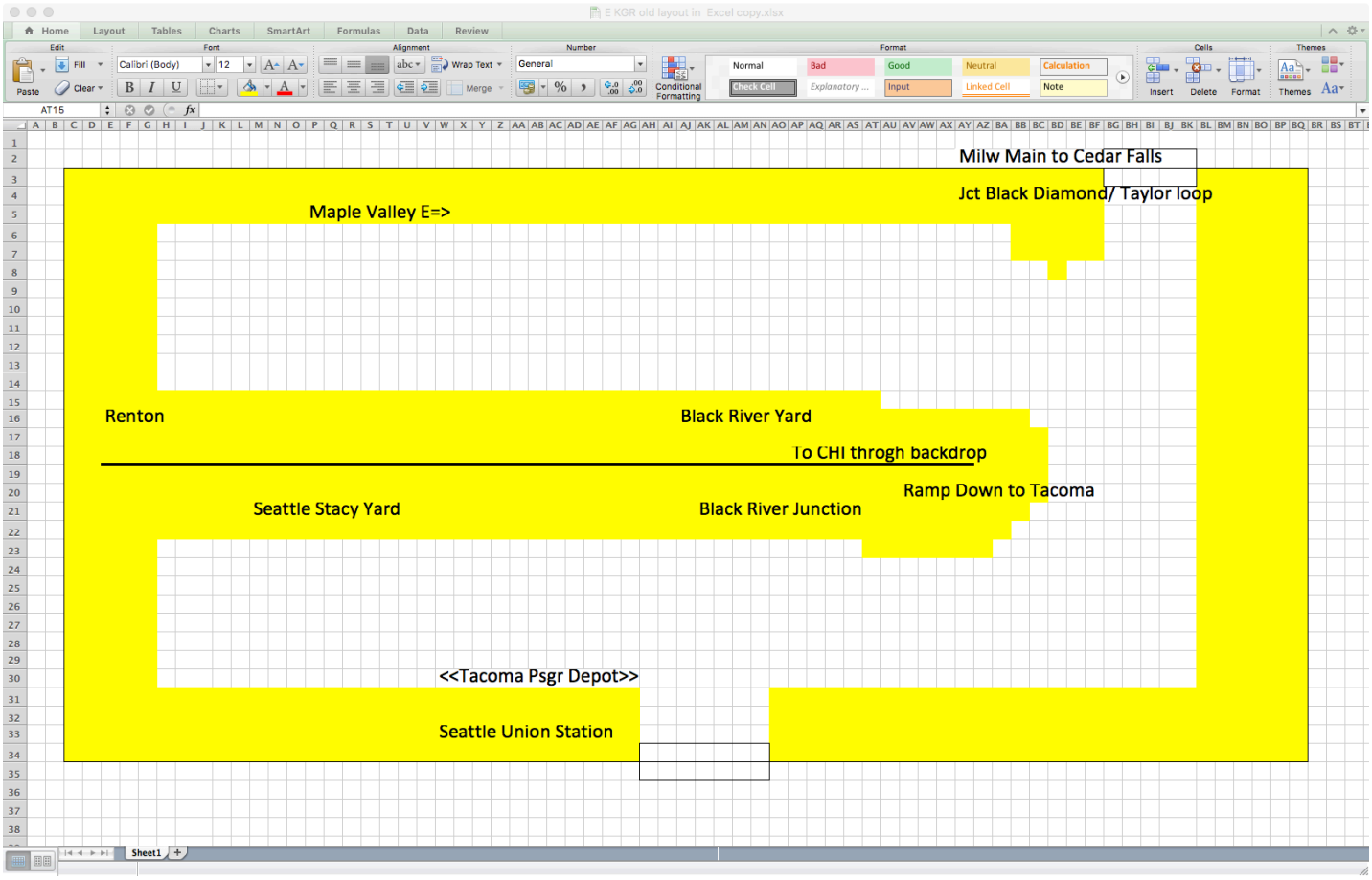
After ballasting the mainline, ballast car 340756 returns to Ragnar for its next load.

I have to admit it was to do a ~20 car test of car cards. It would be insane to install it all at once but car cards and car tabs can be installed one industry at a time. There would be a long set up time to pre-stage for an operating session but some of it can be pre staged multiple sessions at a time. If one has a large operating session planned in June, one can start prepping in April to make it potato harvest time in Othello, strawberry time in Lynden, fishing season in Bellingham, etc. It is easy to scale back to smaller crews. The killer for me is I want 32 car trains and the stations are still too close and there is no conductor's desk to organize the cards.

–Car Tabs. A lot of folks do not like to have routing devices on top of their rolling stock, but for larger layouts this offers a lot of shortcuts. One doesn't use Excel directly, but Excel makes this a lot easier to set up. All three systems need, like the prototype, unique numbers for every track. On many layouts we can use TLAs (Three Letter Acronyms) to get to town and the local panel can show the track numbers. They work well on airlines because usually there is one terminal per city. They work for Amtrak but there are more cities: Glendale, Glendive, Glendora, etc. And there were a lot more stations and railroads in the transition era. Even in the area I model there are multiple location with the same name. So numbers work better and are less vague than TLAs or alphanumerics.

I was inspired by semi-neighbor Burr Stewart's CLIC system (Car Location Inventory Control). Burr's system is so organized I thought he used prototype numbers but he told me he made them up based on the BN's prototype "SPINS" diagrams. My railroad has five railroads and I decided each railroad needs a unique color. Every industry on my Milwaukee Road will have an orange car tab with a four digit number. I decided pre planning is important so the track numbers are in order: One direction always has smaller numbers, the other direction will always have greater numbers.

Excel can help keep this organized. Remember the timetables we made. We can add a column for CLIC numbers. Start with the one end with either low or high numbers. For my Milwaukee Road, Aberdeen and Morton are the farthest west. So Aberdeen will be 998X and Morton 997X. This allows Aberdeen to have up to 20 industries and Morton 10. I'm not modeling any industries between there and Tacoma, so Tacoma will be 9930 - 9969. Auburn will be 992X. For my Union Pacific, I actually know the track numbers of Seattle's Union Station and will use those as an extreme and make the other numbers fit. So my goal is to have timetables that looks like a public timetable to give to each engineer that includes CLIC numbers, etc. to help orient them to the layout. Each railroad will have their own timetables.



Excel to help Designing a Layout. Above is an Excel version of my previous layout. it is probably best to use paper and pen for layouts this size and smaller. I have used some canned programs but I didn't like them. I finally discovered EazyDraw, which I heard was what MacDraw should have become. It is much easier than Adobe Illustrator (the professional vector based graphic program). But to design a large layout, the best method I know of is Excel. Excel is pixilated but one can move things around very quickly. This is necessary to do change bernchwork/ aisles and work the push-pull between scenes.

Layout Design.
For smaller layout, it is probably best to use paper and pen. I have used some canned programs but really didn't like them. I finally discovered EazyDraw, which is much easier than Adobe Illustrator. But to design a large layout, the best method I know of is Excel.

First: My parameters for a large layout include 48" minimum aisles and 24" maximum reach. In a sense I'm designing a 48" aisle with up to 24" benchwork on each side. I had thought about having 78" radius curves that dropped to ~22" radius and on the lower level this dropped to 12 3/8" for helices. (I do have some 10' cosmetic radius However I draw them straight and build to look organic.) So I make the cells square to resemble graph paper. I use the BORDER function to mark the boundaries of the layout.

So here we're focused on documentation rather than design. I usually draw prototype locations on 3x5 cards. The length of passing sidings is a huge factor. Eleven foot sidings allow 8' freight trains with power and caboose. I think of these towns as islands that are joined by mainlines. I suspect that most large layouts with good design have the same 4 to 7 towns of a medium layout. The larger the layout the more space between the towns.

With 11' passing sidings the towns are ~12' long. The strength of Excel is that you can make 2' x 12' towns and place them on the grid. Then consider the terrain and scenic features between the towns. With Excel's Cut'N'Paste it is relatively easy to move the benchwork around, change direction 90- or 180-degrees. One can move towns forward or backwards. I believe one should design square, even though this method looks pixilated. But when it comes time to build: Think organically. Move the benchwork like taffy. If one needs a wider aisle in front of a town, one can move the backdrop back a foot and remove a foot from the front so the is scene is still 24" deep. This is also helpful if one is planning on a multilevel layout... though what I did is design for a main level and then retro fit a lower level with some modifications to the main level. It is easy to add names on the benchwork as notes for towns but I only did this as reminders.

Once I was happy with the Excel plan I did draw it out in EazyDraw but doing the planning in Excel saved a huge amount of time.

				CMStP&P			EASTWARD	
		Telegraph	Milespost	**Lines Lines West**	Distance	**18**	**16**	**56**
Capacity in Cars		Calls	From	**No. 19**	From			
Sidings	Other		Chicago	June 29, 1947	Cle Elum			
	Tracks			**STATIONS**				
			1749.0	**-- EAST PORTAL --**				
				Substation 13				
			1750.0	**St. Paul Pass Tunnel**				
				8771'				
			1751.0	**-- ROLAND --**				
			1752.5	**Tunnel 21**				
				Dry Creek				
			1753.5	**Tunnel 22**				
				Moss Creek				
			1754.2	**Tunnel 23**				
				Small Creek #1				
			1754.3	**Tunnel 24**				
				Small Creek #2				
			1754.5	**Viaduct Small Creek**				
				410' 7 Span				
			1754.7	**Viaduct Barnes Creek**				
				410' 7 Span				
			1755.2	**Viaduct Kelly Creek**				
				850' 13 Span				
			1755.5	**-- ADAIR --**				
			1756.2	**Tunnel 25**				
				Loop Creek #1				
			1756.5	*East Fork St Joe River*				
			1756.8	**Tunnel 26**				
				Loops Creekt #2				
			1757.2	**Viaduct Turkey Creek**				
				494' 9 Span				
			1757.7	**Viaduct Russell Creek**				
				281' 5 Span				
			1758.4	**Viaduct Bear Creek**				
				466' 8 Span				
			1758.8	**Viaduct Clear Creek**				
				780' 13 Span				
			1759.0	**Tunnel 27**				
				Clear Creek #1				
			1759.2	**Tunnel 28**				
				Clear Creek #2				
			1760.0	**-- FALCON --**				
			1763.2	**Tunnel 29**				
				Deer Creek #1				
			1764.0	**Tunnel 30**				
				Deer Creek #2				
			1764.5	**Tunnel 31**				
				Glade Creek #1				
			1765.2	**Tunnel 32**				
				Clear Creek #2				
			1766.0	**Viaduct Morgan Creek**				
				236' 4 Span				
			1766.2	**Tunnel 33**				
				Kyle				
			1767.8	**Viaduct Stetson**				
				523' 9 Span				
			1773.0	**-- EAST AVERY --**				
				Substation 14				
			1774.0	**-- WEST AVERY --**				
			1818.0	**-- ST. MARIES --**				
			1824.2	**Tunnel 40**				
				Benewah				
			1824.6	**Trestle**				
				Lake Benewah				
			1837.5	**-- Plummer Junction --**				

Above right. Above is my Excel version of an employee timetable for the Adair Loop in the Rocky Mountain Division in Idaho. I wanted to get every tunnel (though all but two are ~3" long) and major bridge (with the right number of spans, though all spans are 40' long) between Avery, ID and East Portal, MT and in the correct order. Again I drew this straight on 2 1/2 peninsulas. Every trestle is an "innie". I pushed and pulled to get the "innies" to be across from areas that could be "outies". Once I had the tunnels and bridges pinned, I was able to curve a lot of the benchwork so the aisles look curved. Excel made the design and construction fun. A spreadsheet can be a very useful tool . ◗

MAKING LEMONADE DURING THE ZOMBIE APOCALYPSE BY UPDATING:

THE NORTHERN PACIFIC'S TACOMA DIVISION

by Keith Lyons/ Images by author

Most of my update is new construction on the NP's line from NP's Black River Junction through Renton and north along the east side of Lake Washington to Woodinville. Woodinville had an enhanced wye with lines running along the north and west shores of Lake Washington to Seattle; north to the Canadian border at Sumas; and south to Issaquah and eventually North Bend.

Auburn, WA is the center of freight operations. It also happened to be almost the geographic center of the layout. Here you can see the wall that includes the newly laid track on the hidden staging shelf in the upper part of the photo. The metal brackets will support the line that runs to Sumas on the Canadian border.

Most freight trains that ran through Renton would start or terminate the Auburn Yard,

We move left and see the roundhouse at Auburn. The Norther Pacific's North-South double track mainline between Seattle and Portland. The track on the right that is parallel to the Auburn Yard is dropping to enter a small helix that will enter to Tacoma and Portland. These tracks also connect with the main helix in the crew lounge.

The tracks heading to the right are heading to Seattle, which is also in the hidden staging railroad.

The tracks heading to the upper center go through Auburn proper and head towards St. Paul via the main helix in the crew lounge.

The upper level in the upper center is Palmer Junction where the transcontinental line reappears from the major helix.

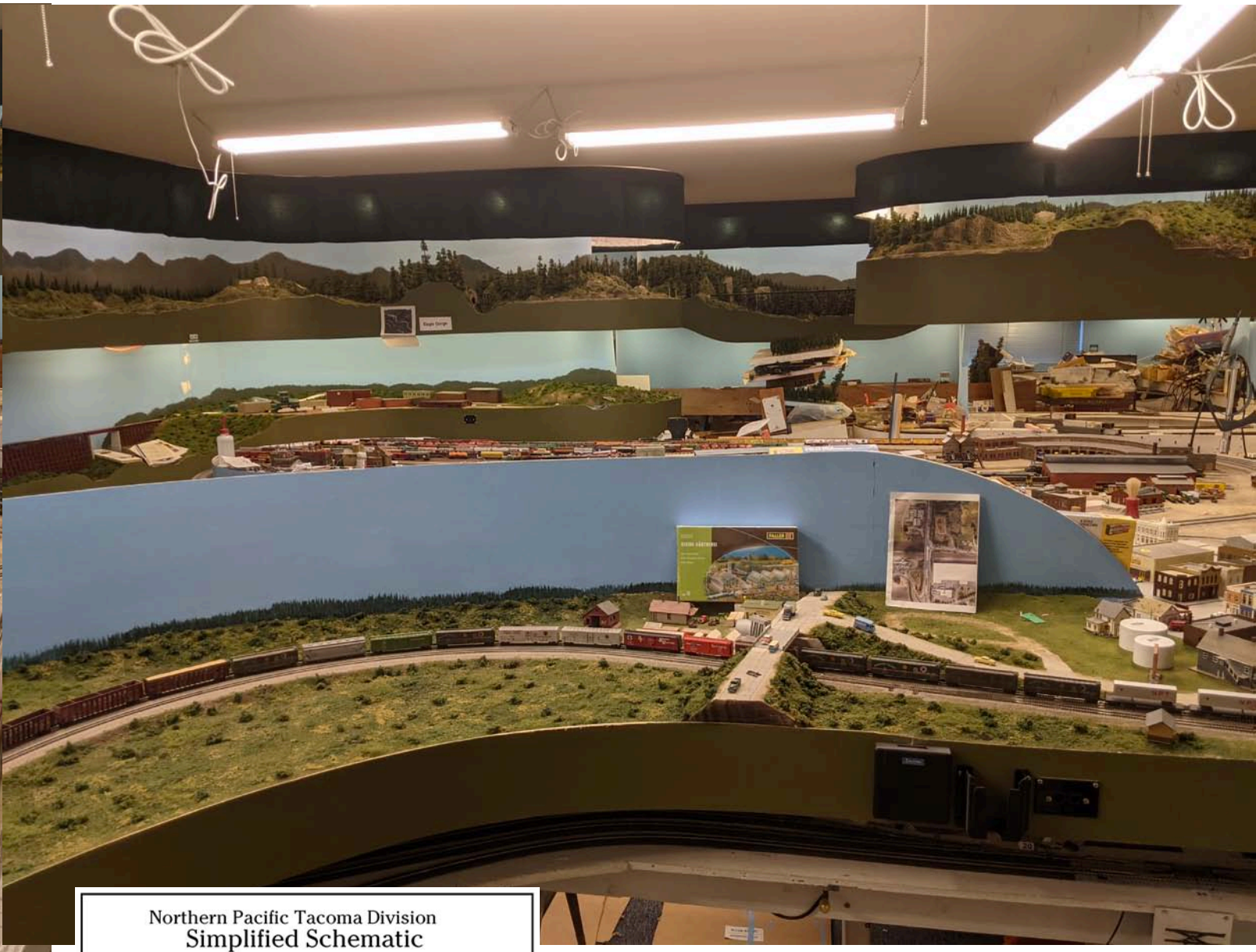
Southbound						1950 September, 1950		Northbound					
NP *405	UP 401	GN 459	NP 407	GN 403	UP 457	Station	TLA	GN 460	GN 404	NP 408	UP 458	UP 402	NP *406
12:15A	**11:30P**	**5:00P**	10:00A	8:30A	8:00A	Portland Union Station	PDX	**12:20P**	**1:45P**	**4:30P**	**9:15P**	6:45A	7:30A
12:42A	**11:57P**	**5:25P**	10:21A	8:55A	8:21A	Vancouver, WA	VAN	11:59A	**1:20P**	**4:00P**	**8:51P**	6:15A	7:00A
3:55A	3:10A	**6:57P**	11:53A	10:59A	9:53A	Centralia	CEN	10:22A	11:05A	**2:32P**	**7:05P**	2:53A	3:37A
6:05A	5:20A	**8:15P**	**1:05P**	**12:30P**	11:05A	Tacoma Union Station	TAC	9:12A	9:35A	**1:22P**	**5:42P**	12:40A	1;25A
...	6:45A	**...**	...	...	11:59A	Seattle Union Station	KSS	...	...	**...**	**4:45P**	**11:30P**	...
7:30A	...	**9:15P**	**2:00P**	**1:45P**	...	Seattle King Street Station	SUS	8:20A	8:30A	**12:30P**	...	...	12:15A

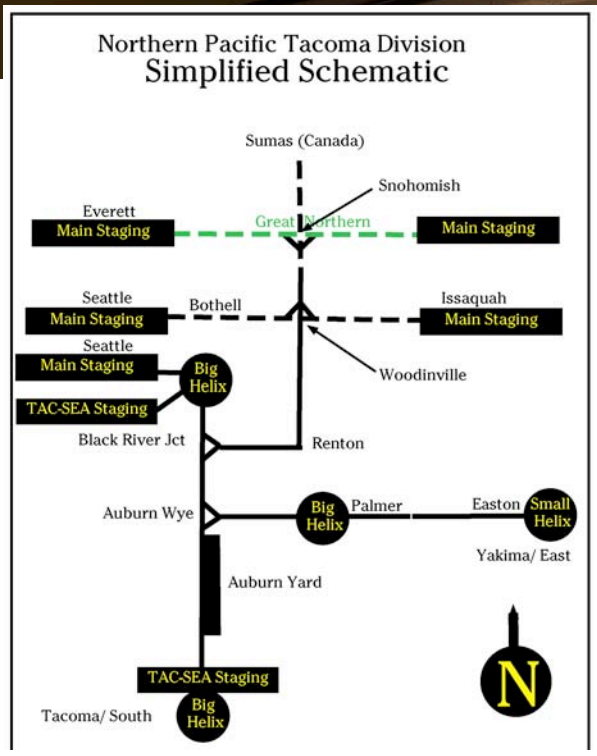
The freight trains that ran through Renton would start from the Auburn Yard (above, left of the roundhouse). The wye on the right leads to the transcontinental mainline to St. Paul. The track in the foreground is the Northern Pacific's double track mainline, left run north to Seattle and right is south to Portland.

The *North Coast Limited* and *Mainstreeter* transcons would use the tracks in the foreground. Passengers to and from Tacoma would catch NP chartered busses to the station in east Auburn just east of the wye.

Northern Pacific, Great Northern, and Union Pacific Seattle to Portland pool trains would not take the wye and continue and run parallel to the Auburn Yard on their way to Tacoma and Portland. NP 407/408 and UP 457/458 were longer than many transcontinental passenger trains.

My whiney Director of Passenger Services tells me all rerouted Milwaukee Road passenger trains between Seattle and Tacoma ran with consists running backward.





Above. As we move north we continue to view the NP's double track Seatte-Portland mainline. Below this is the hidden Tacoma tracks where trains are turned and stored.

This is also the view when one walks from the crew lounge into the layout room. Auburn and east is on the other side of the short backdrop,

Auburn south is on the other side of the aisle. On the upper right is Eagle Gorge on the St. Paul line. Below this is the new area of Bellevue.

On the upper right is the Stampede Pass Tunnel. Below Stampede Pass will be Snohomish and a junction with the GN.

Between Eagle Gorge and Stampede Pass, one can see part of the NP's Big Steel Bridge east of Lester near Kennedy. Below this will be the switching area in North Woodinville.

Left. A simple diagram of the NP's Tacoma Division. The mainline from Palmer east are on the upper deck.

ABOVE. The line from Auburn to Sumas leaves the mainline at the Northern Pacific's Black River Junction west of Renton.

I have recently put together a small newsletter chronicling some of my updates on my Northern Pacific Tacoma Division layout. A certain media Mogul convinced me to update my update and show it to everyone, so here we go.

I haven't had any group "work sessions" in over 18 months and I really miss them. I have been very fortunate to have had participation from a diverse cross section of modeler friends, ranging from beginner to expert. I have learned techniques and methods from every person as well as taught something to all as well. Some of which I hope they might find useful.

The work sessions are probably a misnomer as we end up conversing while we "work" and continue during the meal break. I love the ideas that spring up, with some that have been the basis of commercially available products.

Group work sessions aside I have made a huge amount of progress on what was the original basis of the layout. That being the Northern Pacific belt line that connected The Black River Junction area near Renton, WA north to Sumas, WA. Bench work and track are installed all the way through Maltby which is at the center of the far end of the room as you enter it. I have also placed track on the lower staging track shelf that runs around the entire room with less than 10' left to lay. I also have the sky board painted and installed all the way up to Snohomish.

All trackwork is operational but I haven't added the servo controllers for anything past Totem Lake yet. I will most likely get those added in the next few weeks. My intent is to have all of what I have done so far operational (with temporary control panels) by the Christmas break.

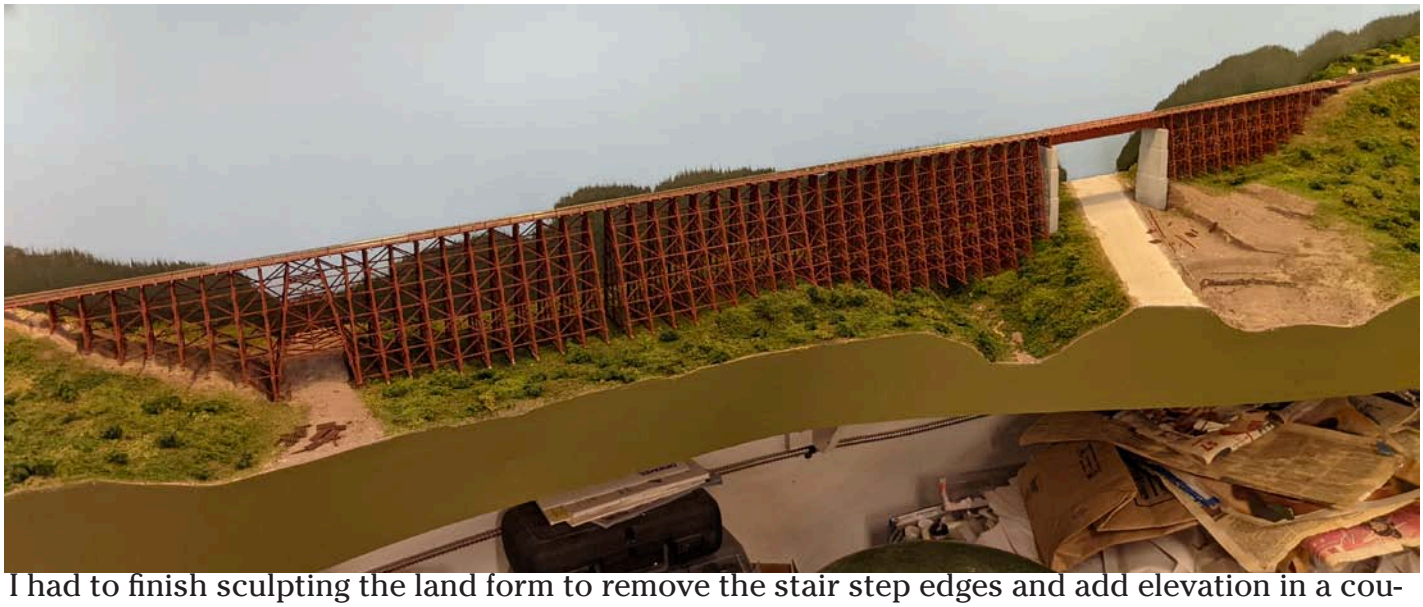
My added goal is to get the hidden staging shelf track completed around the room and into the "office" where it connects back into the train room as a big reverse loop. Getting that operational would mean being able to get some pretty cool operating sessions started and would mean about 90% of the trackwork would be done.

A view of Renton from the NP's Black River Junction WYE. I'm still laying out the buildings and roads. The elevated line cutting across the far end of the WYE is the East/West mainline that will be made to look like the Green River crossing just outside of East Auburn. I have a mock up of the bridge set next to the temporary plywood base. Renton has a depot on the right side and a fuel depot on the left. The upper deck is Palmer Junction.

Renton also has a large PacCar (Pacific Car & Foundry) facility and Boeing Aircraft. I may rename the latter Yoyodyne Propulsion Systems. PacCar built freight cars for many railroads around the country so I can have brand new looking cars being sent around the layout.

North of Renton bypasses Kennydale (Quendal) and the bridges over I-90 but I intend to put in a neighborhood just before the hillside. Lake Washington would be off to the left.

The Wilburton Trestle landform is a foam base built by Jake Shultz in an early issue of N-Scale magazine. Jake knew that I was going to build this scene and gave me the pieces. Bob Hundman then built the Trestle to scale for a series of articles and also gave the model pieces to me.



I had to finish sculpting the land form to remove the stair step edges and add elevation in a couple places, and I had to add a couple bents and replace a couple others on the trestle to match the actual number and look of those bents. I still need to finish the walkways, handrails, track guardrails, and coloring and weathering of the wood and concrete, and finish the road.

Bellevue had several customers including a very large distribution center for Safeway grocery stores, a Coca-Cola bottling and distribution center, lumber yard, a few miscellaneous businesses, and a Vernell's Buttermints plant. There are a lot of switching moves in this area.

Leaving Bellevue: There is a bit of green space that will become where I-405 will cross overhead (not in my era!). As it's the end of the peninsula it works to create space between scenes. I still need to put in a small wooden bridge as the mainline crosses a large creek.

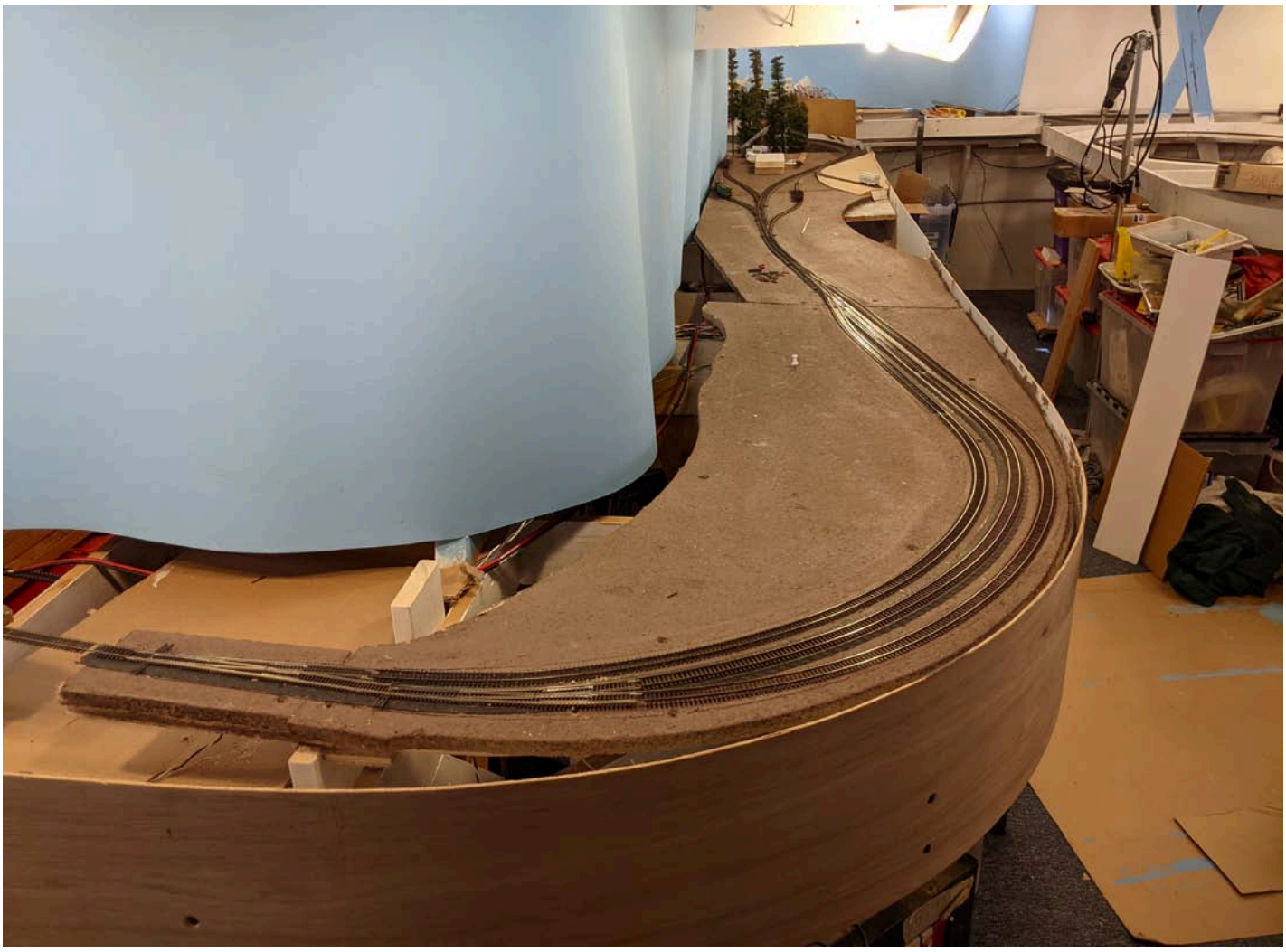
Kirkland is represented with a large Acme Millworks on the right side, and on the left is Quality Feed Mills and Globe Feed Mills. I added a siding here (which I don't believe existed) to help with model operations.

Just beyond Kirkland is an area known as Totem Lake. There was a metal fabrication business and I placed a spur but just realized I have it on the wrong side of the tracks. I will correct that before too long.

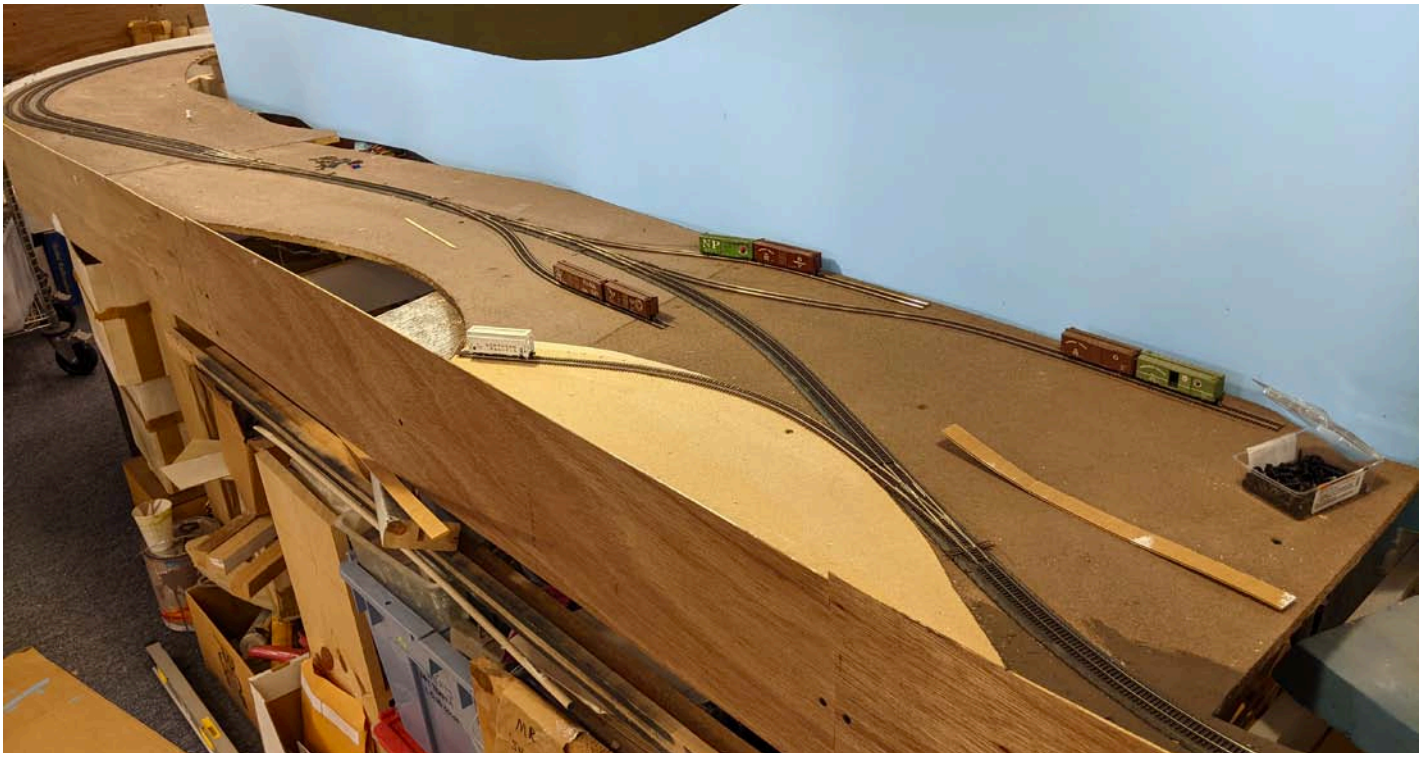
Woodinville was always an area I wanted to try to model and the space for it worked out nicely. It is where another peninsula starts so I had to deal with an odd sky board placement as well as a window I really didn't want to block. My solution was to wrap the sky board around the support legs of the level above and just leave a gap. This does mean that the feed mill switching will have to be split between both sides of that peninsula but hey, it was needed.

I was able to work in the whole Woodinville Wye and I will have all the bridges across the Sammamish Slough and the road underpass. I recently found the photos I had taken of the feed mill and found that it was called Ferndale South. I look forward to kitbashing many structures to make a close approximation of this interesting complex.

Below. The line on the bottom left is to Renton, lower center is to North Bend, upper is to Bothell and Seattle, and on the right goes to Snohomish, and on to Sumas on the Canadian border.



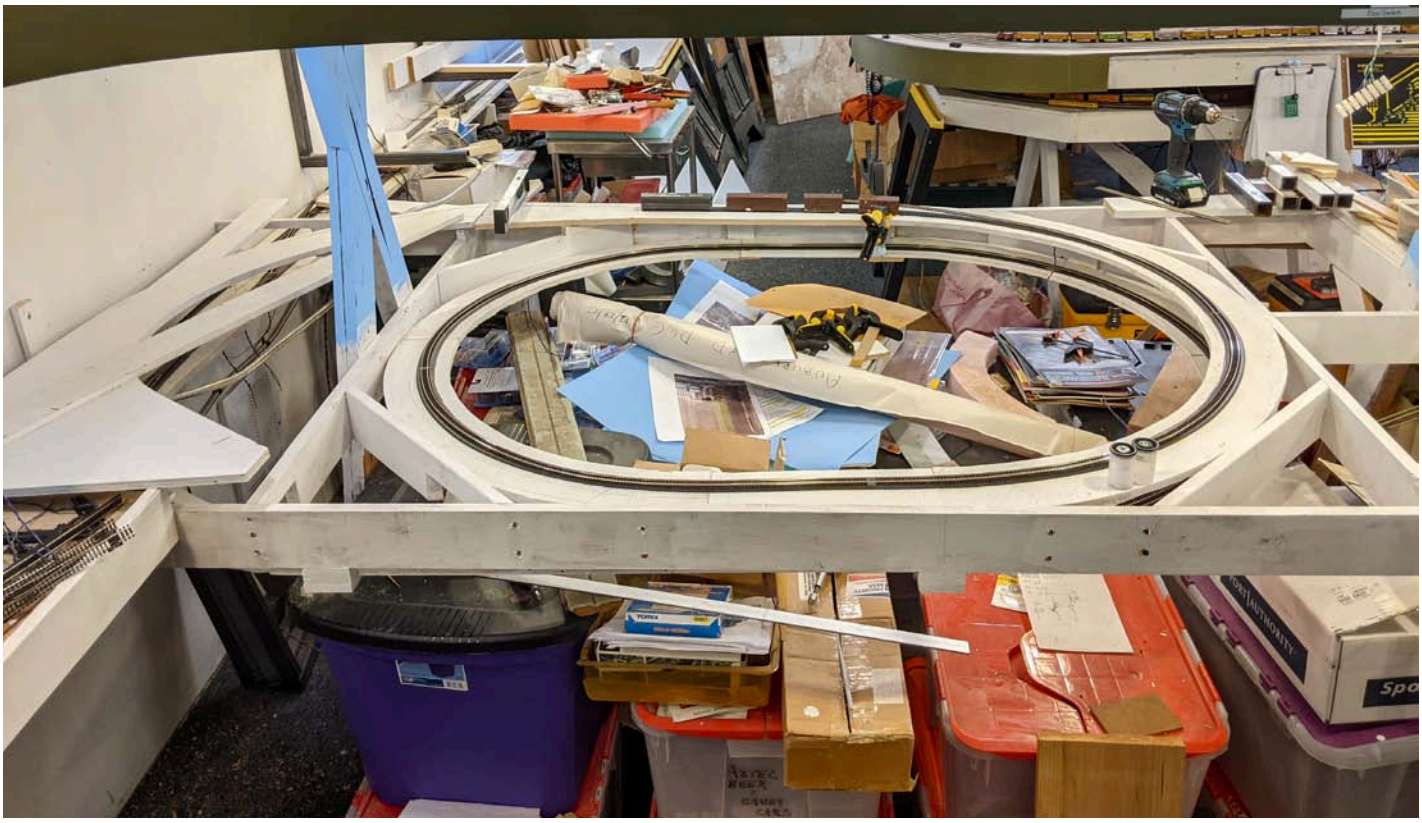
I was also able to work in the small “yard” in Woodinville, and space for a few of the businesses just north of the Wye.



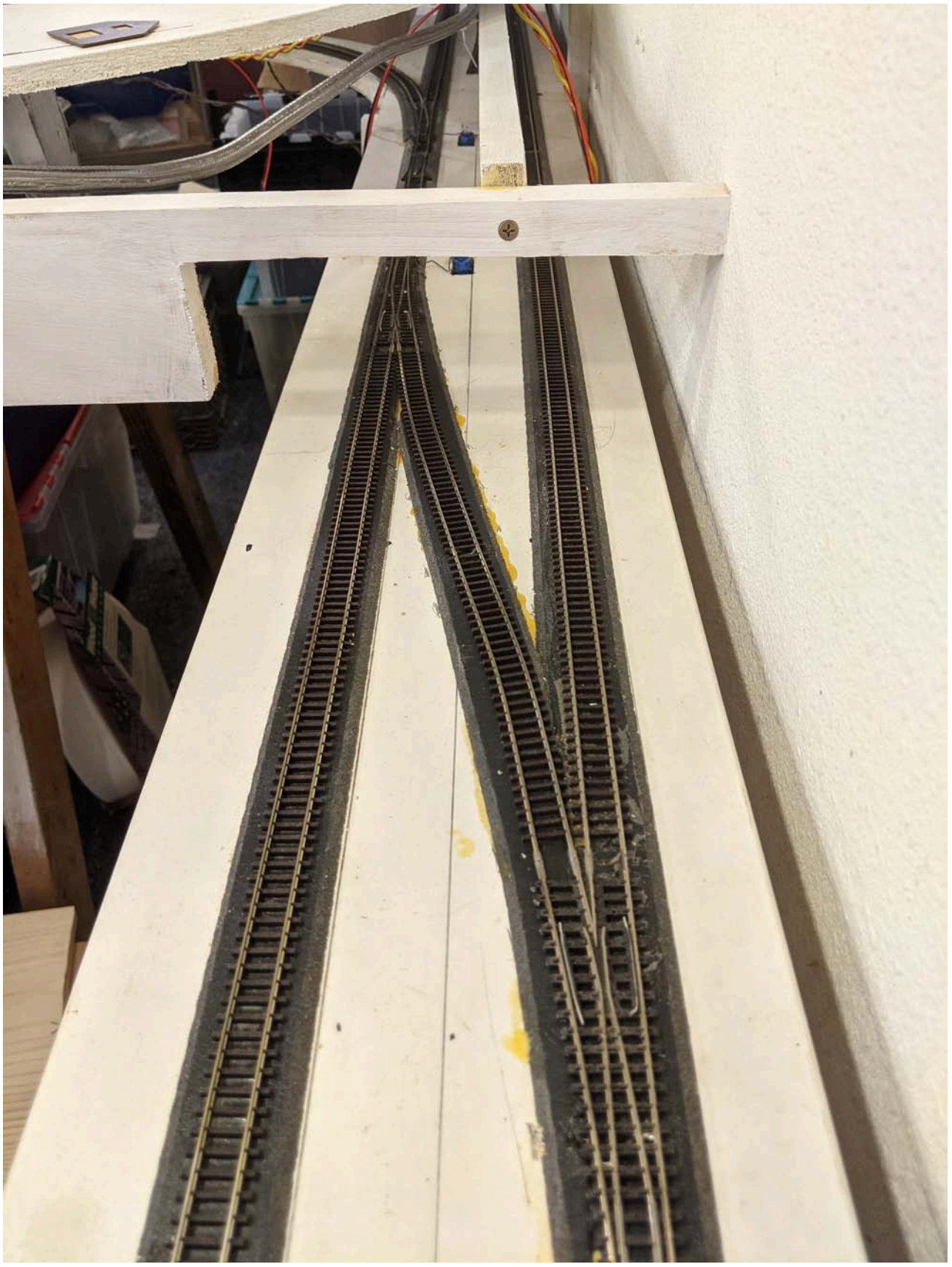
Just after the end of that peninsula is the siding at Maltby. There will be two spurs off of the siding, and at the north end of the siding will be Calvert Industries.

That's as far as I have gotten track laid on this line so far, but I do have track that will be partially hidden that represents the connection between Woodinville to Bothell, Kenmore, and eventually around Lake Washington to Keith (Sandpoint Naval Station), the University of Washington, Fremont, Ballard, and back to Interbay in Seattle.

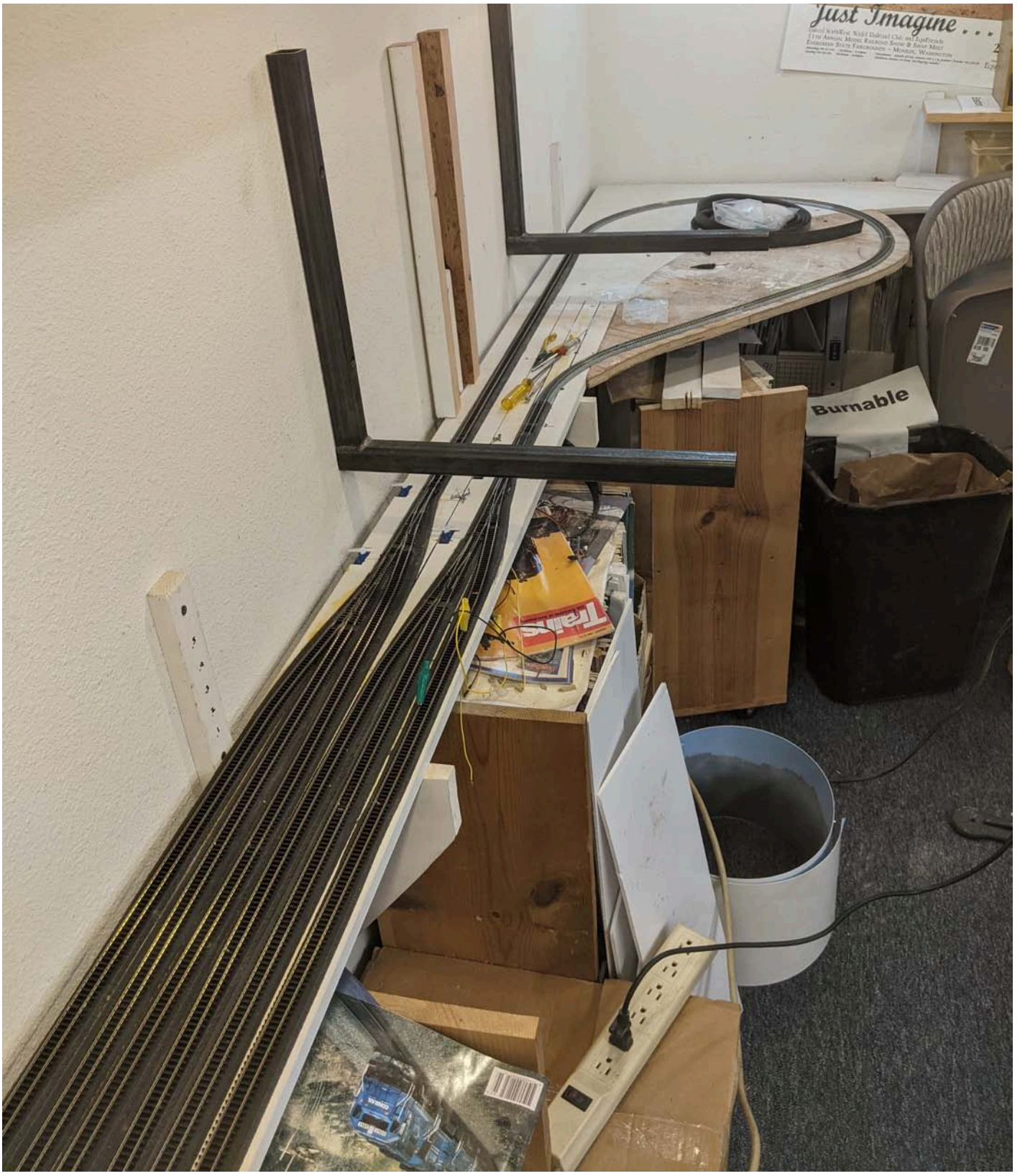
My version will connect to the hidden staging track shelf below. This will be done on a small helix that I just added which will be below what will become Snohomish.



This is the small loop which will connect the north leg of the Woodinville Wye to Ballard and Seattle via the lower level hidden staging shelf tracks.



The two lines on the Hidden shelf staging tracks are as a big loop. It can be thought of as right-hand running. I needed a crossover to get access to the Everett Junction just visible at the top of the track on the left. It goes up the small helix to join the main level layout, one line going to Woodinville as if from Interbay in Seattle, and the other at Snohomish Junction (the GN tracks).



My latest goal was to get the hidden staging shelf track completed around the room and into the "office" where it connects back into the train room as a big reverse loop. I laid the track and turnouts in the third set of hidden sidings (H3). I wanted to test the operation of the hidden shelf tracks along with the reverse loop junction crossover and what I call the Everett Junction. To do this I installed a temporary end loop out of Kato Unitrack and a sub roadbed support made of ¾" plywood. Stay tuned. ◗

TRAVEL GUIDE N EVENTS

2021 OCT 01-02 NC Fletcher. Autumn Rails
2021 All Scales Model Railroad Show.
SA 12 to 6PM, SU 10AM to 4PM.
WNC Agricultural Center, Expo Building, 785 Boylson Hwy, Gate 5.
www.fbe-nscale.org/autumn-rails/

2021 OCT 09-10 MO Kirkwood
30th Annual Greater St. Louis Metro Area Train Show
sponsored by the Mississippi Valley N Scalers
Kirkwood Community Center
111 S. Geyer Road
Admission $7, kids 12 and under are free

Operating layouts including MVNS NTRAK
Email: mvns@railfan.net
Website: **http://mvns.railfan.net**

2022 JUN ??-?? TN Nashville.
28th Annual National N Scale Convention

2023 JUN ??-?? NV Sparks/ Reno area.
29th Annual National N Scale Convention.

N HORIZONS

Kato USA.

November 2021 should see the DC Southern Pacific Lines GS-4 4449 in Daylight colors and 4443 in Postwar Black. December 2021 should see the above locomotives in two additional versions: With Preinstalled DCC and with Preinstalled ESU LokSound DCC.

January 2022 Union Pacific 8444 in Greyhound scheme! February 2022: Above with Preinstalled DCC and also Preinstalled ESU Loksound Sound DCC.

THANKS FOR SUPPORTING THOSE WHO SUPPORT N SCALE RAILROADING

SEE YOU NEXT ISSUE!