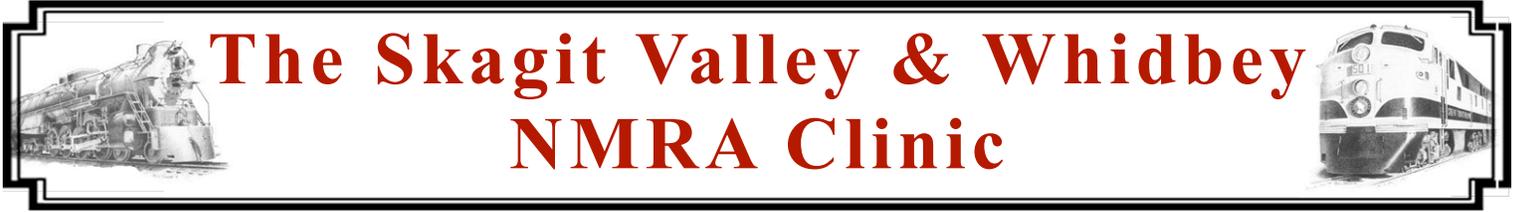


The 4th Division of the Pacific Northwest Region of the
National Model Railroad Association Presents



Wednesday, March 13, 2013

Location: Summer Hill meeting room in Oak Harbor

Time: 7:00 PM

Track Construction Methods in the Real World by John White

The advent and acceptance by some railroads of the concrete tie in the mid 1970s required all wood ties to be removed and therefore a completely new approach to track renewal and even new construction [See **Background Notes** on page 9]. The old methods of single tie insertion or panelization were too slow which ultimately resulted in the development of the P811 Track Train and it's derivatives.



John's presentation is partially steam driven i.e. cardboard slides, followed by three short DVDs. The slides demonstrate some of the earlier methods for installing wood ties and their adaptation to concrete. It becomes quickly apparent that the railroads had to find faster methods to install ties so that the cost per tie installed is minimized.

First attempts with gantries were too slow, and so the P811 was imported from Europe and became the de facto standard machine for CN, and later BNSF, UP and Amtrak.



As the speed of installation increased so did the capital investment. The P811 cost about \$8 million and the special tie cars another \$4 to \$6 million depending on quantity and distance of installation from the manufacturing plant.

The impact of the P811 allowed CN to increase their annual concrete tie installations from 300,000 per year up to 375,000. Later BN issued two contracts, both at the higher rate achieved by CN. UP achieved higher annual quantities because they had a longer weather window.

The logistics of agreeing to a daily construction window to operate the P811 on a busy single track main line were immense as at least two consecutive sidings were required to store the track train, the loaded tie cars and a work train when the railroad was turned back to running revenue producing trains at the end of each 6 to 8 hour work window.

Co-operation between Engineering and Operations was critical.



*Please feel free to ask John any questions that you
may have.*

The Skagit Valley & Whidbey NMRA Clinic						
Model Railroad Calendar for March 2013						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
						Olympia Model Railroad Layout Tour
3	4	5	6	7	8	9
10	11	12	13	14	15	16
			Clinic at Summer Hill @ 7:00			Whatcom Skagit Model Railroad Club Open House
17	18	19	20	21	22	23
Burnaby BC Western Rails						
24	25	26	27	28		

Further information about February events:

Pacific Model Loggers Congress at Camp 18 in Elsie Oregon is happening on March 2nd.

<http://www.pacificmodelloggerscongress.com/>

Something to plan towards for logging interested modelers. Also they have a good variety of logging model contest categories that is fun to build something for. At the very least it is a good excuse to drive out to the WA/OR coast during the off season, avoiding the crowds and traffic.

The BSME have changed their name to more accurately reflect their location in Alger. They are now the Whatcom Skagit Model Railroad Club and have regular Open Houses. The next several are on March 16, April 13 and May 11. Times are 11:00 to 4:00PM. They can be reached at www.whatcomskagitmrc.org/ on the internet or by email at info@whatcomskagitmrc.org

For our Northern readers: Western Rails 2013. Burnaby, B. C. Displays and models of all kinds - Operating model layouts, collectables, photos, time tables, keys, and much more. Cameron Recreation Center, 9523 Cameron St. (behind Lougheed Town Centre) 9 am to 4 pm. Admittance: (cash only): Senior (60+) and Youth (6-15) \$3.00 Adult (16-59) \$5.00 Child (under 6) Free Info:- westernrails@wcra.org

CLINIC IDEAS NEEDED

Please help make the 2013/2014 clinic season the best ever! We have some terrific volunteer speakers that we hope you will enjoy, but we really need ideas about what you want to see for clinics. Whether it is a skill building “make n’ take” or a topic that we haven’t presented before, model or prototype, please send me an email at: fishnutztoo@frontier.com or call me at (360) 679-6819 or my cell phone at (360) 550-7410. I promise to present every idea that is given to me. Thanks for your help!

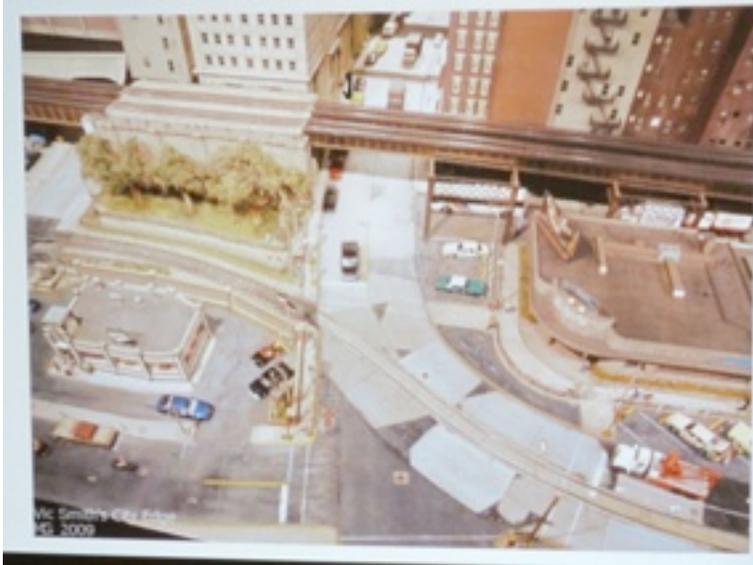
Susan Gonzales Clinic Organizer

Also, please print out, fill out and send in (or bring to March Clinic) the questionnaire that is on pgs 11/12 to this Newsletter. Send to: Rich Blake
917 Misty Trail Place
Oak Harbor, WA 98277

Last Month's Clinic:

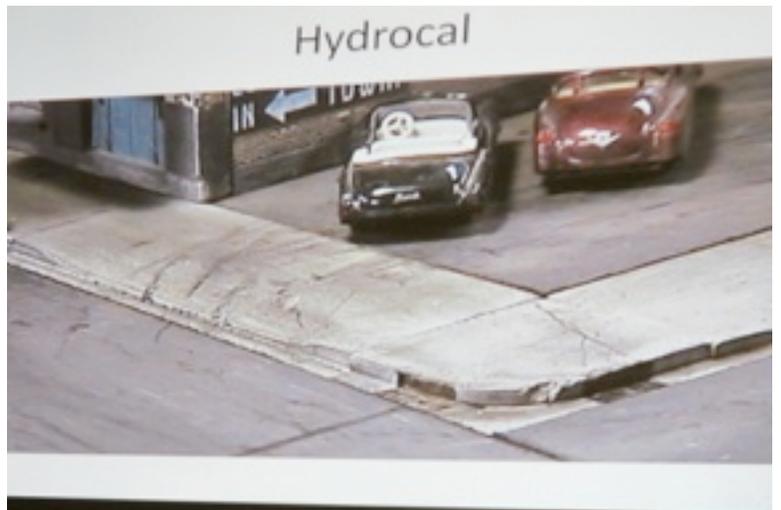


Al Carter presented a fascinating clinic on the topic of making roads for a layout. He does seem to have an inordinate fascination with both asphalt and concrete road surfaces, probably something from his ill spent youth. However, he did indicate via both pictures and actual samples, the making of realistic roadways. Especially interesting



was the use of numerous brick material as a kind of underlayment for asphalt and concrete surfaces - with the brick showing through in places. A great way to model older roads in the industrial area of cities or even back alleys! Al showed a product for making roads that does not shrink called Red Devil OneTime Lightweight Spackling. This material can be spread between two styrene strips to create a roadbed - just use several thin layers if you need to have a deep layer.

Al also showed many samples of cracks in road surfaces and explained how to make them look realistic on the layout. The use of the Micron brand pens will work for making the cracks on prepared roadways. And, he explained that asphalt is NOT black, but



weathers to a shade of gray. Stripping for the roadways are done with colored pencils rather than tape or paint. Some of the pictures are © Perry Lambert. Photos by Al Frasc.

The Miscellaneous Information Page

Remember: The S V & W NMRA Group has its own Yahoo! Online Group!

As mentioned at the last couple clinics concerning social media information sharing, Rich Blake has created a Yahoo Groups page for our use. It is the Skagit Valley & Whidbey Model Railroading group or sv_and_w. The links below will take you directly to the group. In order to post you must have a Yahoo! account which is simple to set up. One of the moderators will also have to accept you as a member. This is a private group that is not open to the public, it is designed for club use only. We can post any questions or information for each other on this group as well as photos and files. If you have railroading stuff to sell then this could be a medium for advertising as well. For real-time information it is hard to beat and all messages are archived and searchable. The cost? Free!

The Link: http://groups.yahoo.com/group/sv_and_w (note those underscores)

To get ahold of the list moderator i.e. Rich Blake: sv_and_w-owner@yahoogroups.com

At last check at the end of February, we are up to 21 members of the group, so consider joining today!!

10th Annual Olympia Model Railroad Layout Tour

From Scott Buckley in Olympia: "Be sure to mark your calendars for Saturday, **March 2nd**, as this is the date of the 10th Annual Olympia Model Railroad Layout Tour. There will be at least eight layouts on the tour. Various scale and gauge combinations will be represented, including N, HO, On30 and 3/8n20. Some of the layouts have been featured in national publications, and some have been on national convention tours. Most of the layouts are in various stages of construction, which will give visitors an opportunity to see each builder's construction methods. As with previous years, a few of the layouts will be open early, while a few will stay open later;

which will give visitors the opportunity to see as many layouts as possible.

"We hope that you will take the opportunity to visit our layouts. As I say every year, there aren't many chances to see these many layouts at one time without spending the money to attend a convention. Additional information will be provided in late January. In the meantime, please contact me if you have any questions. sbuckley54@comcast.net" You MUST contact Scott for layout descriptions, hours of operation, layout addresses, and a map. Please include your full name and the city in which you live.

Read the *Grab Iron*, our Division's online Newsletter

Fourth Division, Pacific Northwest Region, NMRA website: <http://www.4dprn.org/index.htm>

Anyone can access this page and all sub-topics (except Members Only, which is primarily just BOD meeting minutes, etc). Of particular interest is the Timetable: <http://www.4dprn.org/Timetable.htm> and the Grab Iron: <http://www.4dprn.org/Grab-Iron.htm>. You can subscribe to the Grab Iron by sending in an e-mail and you will receive a reply allowing you to choose which categories to subscribe to: http://4dprn.org/grabiron/?page_id=118 - easiest: just to subscribe to all. Best of all, it's free!

Tool Of The Month/Show-

Stop the presses! Just in - Rich Thom announces the publication of a short article in the April *Model Railroader* Magazine which should be in your mailboxes soon! Check page 60 for how to "Extend the Reach of a Switch Motor." If you don't subscribe, reserve your copy at your local newsstand now!

With a source for your tool. Likewise, feel free to bring a recent project to 'show off' to the group!!

The Frontier Building Supply Discount Card



If you are a member of the NMRA - isn't everybody?? - then you qualify for the unique

Frontier Building Supply discount card to use in Anacortes, Freeland, Friday Harbor, Oak Harbor and Sedro Woolley. Just send an email to me at afrasch@whidbey.com or Rich Blake at slugsasher@oakharbor.net with your name and NMRA number and I will print and laminate the card free of charge! It may be used for layout stuff or you can build an entire house! ***If not a NMRA member see page 8 for information on why and how to join.***

Pre-Clinic Dinner Get-Together: Pizza +!

We will again be getting together at the San Remo Mediterranean Grill in Oak Harbor [421 NE Midway Blvd] at about 5:15.

A New Feature: Train Videos of the Month

Each month I would like to list a few YouTube or other Train related video finds - so if you have some contributions, please let me know and I will list them here!

For you Narrow Minded folk - that's Narrow Gauge of course!! - here are a few to take a look at from that Rich Blake found:

1. It is a small narrow gauge logging operation in Hungary. Has some great critters, disconnected trucks, link and pin, truck to rail, rough and tumble track work and some very professionally done camera and sound work. Well worth viewing:

<http://youtu.be/qe7QmNBvqIQ>

2. Here you will see some narrow gauge track laying operations including concrete ties. Especially interesting is the opening sequence getting the locos started. Never saw anybody kick start a loco before, now I have...

<http://youtu.be/QFWGBDFOYuc>

3. This one shows some extreme hard working people servicing some coal mining operations in Taiwan. Good for kids to watch to appreciate their after school job at 7-11. Regardless, the narrow gauge operations are stunning with foot operated single swing track turnouts (replicate that in modeling!), rotary dump devices and go-kart powered locomotive. Real working railroad in extreme conditions. <http://youtu.be/du-n0E3i648>

4. You want realism on your HO model railroad, watch this video of **OPERATING GLAD HANDS**, this is cool!!

http://www.youtube.com/watch?feature=player_embedded&v=xZ9Yo5Kf7Po

That's all for this month, don't forget to send links to others that you wish to share.



The Swap Table is now a permanent feature of the Clinic!!

If you have anything to sell/trade/give away just bring it to the Summer Hill meeting room before the Clinic. Please make sure that any price is clearly labeled and the owner's name is shown. Sell all that stuff you don't need and buy some more stuff you don't need!!



In the same vein, from Jack Tingstad: **For Sale** Nice collection of HO scale stuff: beginners cars (freight and passenger), engines, scenic materials, bridges, controllers (some DCC), 6 X 12 board with track, much more.

Contact Doug Kelly in Coupeville 678-9083 email: d.kelly@co.island.wa.us

If you have any information, good websites, things for sale of a model railroad nature or whatever, send me a note and I will add it to this page in the future editions as space permits.

Local Layout Progress: The Monroe Show Edition

February 2nd and 3rd was the annual Model Railroad Show at the Monroe Fairgrounds. Many Skagit Valley & Whidbey NMRA Group members made the pilgrimage to Monroe to exhibit, sell or just wander. Alan Murray and Rich Blake's *Pacific Northwest On30 Modular Group* was exhibiting right in the middle of the main building. There were crowds around the layout every time I wandered by! Also, Bill Harper had his switching puzzle available for kids - young and old - in the small building, in the corner, almost in Siberia. And, Jack Tingstad had two tables right in the middle of the medium sized building for selling, which he did very successfully. If you didn't make it to Monroe yourself, some pictures are included herein.



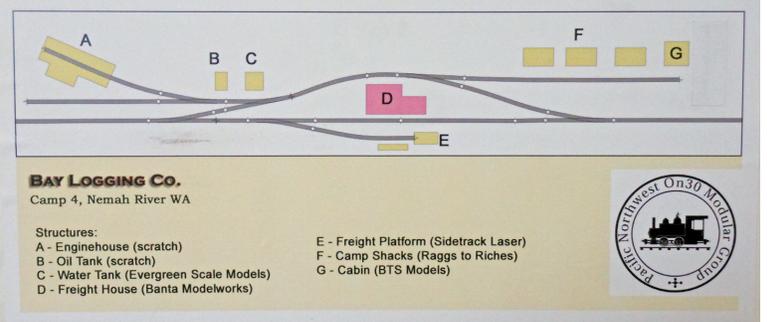
Rich Blake's On30 Module



Rich Blake and his On30 Module



Alan Murray's On30 Module



Jack Tingstad and a couple of his flunkies



Bill Harper

All pictures by Dick Haines

Prototype Stuff

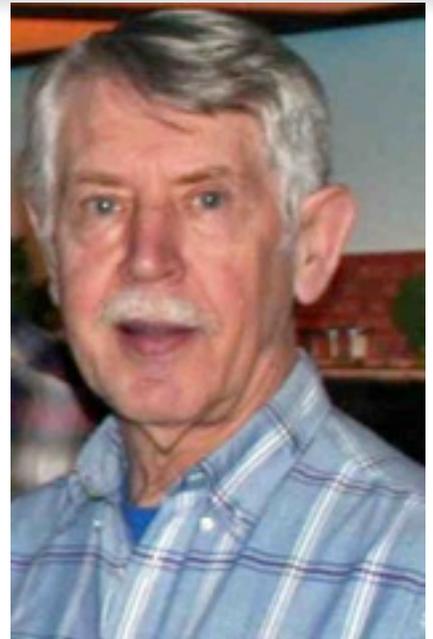
From the 4th Division's Grab Iron:

Rich Blake / Photo by Al Frasch

Gordon Garnhart

After 8+ years of faithful service, Gordon Garnhart, our Skagit Valley and Whidbey Club NMRA Liaison, has handed over the reins to former 4D Superintendent Al Carter.

Gordon has provided monthly clinic reports for the Grab Iron and worked with the Division Treasurer to secure funding for our meetings. His efforts are directly responsible for growing our club from just a few members to now more than 35! We also enjoy a fantastic monthly meeting venue in Oak Harbor at the Summerhill Activities Center due to Gordon's efforts. Gordon also, on his own initiative, provides our club with a monthly personal presentation on current local and national publications and newspapers on railroad and modeling-related subjects. His articles are always a source of interest to club members. Gordon's contributions and service to the club and the NMRA are greatly appreciated.



THE GREAT NORTHERN AND CASCADE RAILWAY

The Town of Skykomish is developing the Town Center Project. A large portion of this project includes the building of a 7 1/2 in. gauge Live Steam Railroad and related facilities. This project is funded as part of the settlement of the damages to the Town sustained by the huge oil spill which took place during the Steam Era of the Great Northern Railroad.

The railroad has been named: The **Great Northern and Cascade Railway**. The railroad has permission to use the now-familiar logo of the Great Northern Railroad, the "billygoat-on-a-rock" circular emblem. The GN&C will offer free train rides to the public as well as a railroad education program. Opening day for the operation of the GN&C will be the first Saturday in May! The railroad will operate weekends during the summer. By opening day the last 400 feet of track to complete the first figure "8" loop of track will be completed, and will be over 2000 feet in length. When completed, the railroad will have over one mile of track, and have facilities to store member's equipment which may be used at any time by them.

The GN&C has already purchased one locomotive (2-8-0) and ten riding cars. Others have already volunteered to provide other locomotives and rolling stock to fill out operational requirements.

In order to operate this railroad, a volunteer organization must be formed. One of the names suggested for this organization is "The Cascade Live Steamers" (CLS). Members of this organization will be in operational control of all of the aspects of the railroad. This will include the operation of the trains, building of additional track, turntable, and steam-up areas, construction of railroad equipment storage and support buildings, crowd management. All of the above construction will be financed from existing funds or donations received from operations.

No experience in any aspect of Live Steam Railroading is required. In the first year, the only "dues" required will be the amount necessary for each member to purchase NMRA liability insurance for all members, and should be in the neighborhood of \$40.

If you are interested, please email BillZingheimatzing@olympus.net or call and leave a message at (360) 437-2754 so that you can be notified of the time and place of an organizational meeting planned in the near future.



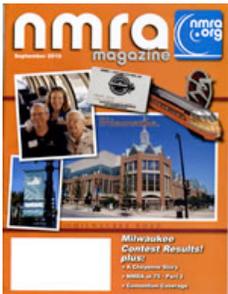
If you are not already a member, please consider joining the NMRA

What is the NMRA? The NMRA is the National Model Railroad Association, Inc. It is a non-profit educational association whose purpose is both to promote the hobby of model railroading, and to help set standards within the industry. But the NMRA is far more personal than that. The NMRA is people - people across the globe, people in your area, and people just down the street who love model railroading and want to help others get that same enjoyment out of the hobby. Members at all levels of the NMRA are eager to share their knowledge and friendship.

Division There are over 150 NMRA Divisions - groups of NMRA members in local communities. Most hold regular meetings featuring interesting and informative presentations on subjects ranging from "how-to" clinics to prototype railroad slide presentations. Many also have a regular newsletter for members.

Regions There are 17 NMRA Regions across the globe and each Region is made up of many Divisions. Regions usually hold annual or semi-annual conventions which can include presentations and clinics, as well as tours to model layouts, prototype tours, and even banquets and swap meets. All Regions have a member newsletter.

National Every summer the NMRA National Convention brings together its members for a week of clinics, contests, layout tours, prototype excursions, the "National Train Show"[®], and dozens of other exciting activities. Every year it's held in a different city, so it makes an ideal family vacation.



Being a member of the NMRA entitles you to a multitude of services, all geared toward expanding your enjoyment of the hobby. Every month our large, four-color magazine, *NMRA Magazine*, will update you on NMRA activities on a Divisional, Regional, and National level. It also includes informative modeling or prototype articles.

When the NMRA was founded in 1935, model railroading was in its infancy, without standards that ensured interchangeability. The NMRA was the organization that set those Standards and Recommended Practices which still guide manufacturers and consumers alike. In fact, the NMRA recently set the manufacturing standards that continue to guarantee the compatibility of different brands of DCC equipment.



The Kalmbach Memorial Library just may be the largest railroad reference and research center in the world, containing over 100,000 prototype photos, 6,000 books, and more than 50,000 modeling, prototype and historical society magazines. Every day it answers dozens of members' questions about everything from model to prototype railroading. NMRA members can get answers to questions; printouts of the periodical database; videotapes and tape/slide clinics, and discounts on research services, photo reproductions, surplus books and magazines

The NMRA's Achievement Program, or "AP," is designed to help modelers improve their skills and get more enjoyment out of their hobby. In addition, it gives recognition to those members who have displayed a high degree of skill or service to the hobby. The Achievement Program helps give you the skills that let you build a model railroad you can be proud of.

So, Why join the NMRA?

- Kalmbach Memorial Library - perhaps one of the finest resources available to anyone interested in railroads or model railroads... members get special discounts and first crack at special releases.
- Fellowship of other modelers
- The Achievement Program - there's no better way to improve your modeling
- Regional and National conventions
- Access to Master Model Railroaders - they come from all over the world to the National convention. MMRs attend most Regional and Divisional functions, too! (MMR list by Number, by Region.)
- Monthly *NMRA Magazine*
- Insurance coverage for club layouts, meets and shows
- NMRA Standards & Recommended Practices
- Heritage & Living Legends Collector Cars
- Participation in photo, slide and model contests with fellow members
- Pike Registry -- Register your model railroad name
- 100% NMRA Club - The extra benefits of having all of your rail club members also members in the NMRA

When you're an NMRA member, you're automatically a member of your Region and Division without paying additional dues.

Click on any of the underlined items to go to the NMRA page for more information on that topic!

Go to www.NMRA.org on the internet for membership forms!

Track Construction Methods in the Real World

Background Information

The North American Standard for wood tie track requires approximately 3,100 to 3,250 ties per mile. When it was time for the tie renewal gang to replace aging ties the Engineer and/or the Roadmaster would decree that 500 or even 1000 ties per mile be replaced. This was a time consuming, laborious and costly process, ie one in six to one in three ties- one by one.

Concrete ties had been tested by several North American Railroads in the 1960s and had generally failed due a failure of the fastening system rather than the prestressed tie itself. Not unnaturally concrete ties were considered to have failed and were dismissed by Railroad Engineers.

Some railroads tried interspersing concrete ties with wood ties by changing every third wood tie for concrete using the traditional method to insert ties one at a time. Because of the changed modulus of the track the concrete ties at approximately 60 inch. centers picked up most of the load and failed by cracking. Concrete ties continued to get a bad press.!



The change from 40 ton box cars to unit trains of 100 ton hoppers carrying coal, sulphur, potash etc. prompted Canadian National to do extensive testing on concrete ties in the late 1960s resulting in their definitive test in 1972 when they built a 4 mile shoe fly adjacent to their mainline 27 miles West of Jasper, Alberta. The Rail to Tie Fastening was the Pandrol Elastic Type.

After three years of testing CN had no derailments on the test track which included 6 and 8 degree reverse curves on a moderate gradient. The CN Mountain Region in particular was bedeviled with derailments on their wood tie

track, usually at night in the middle of winter in a remote location when it was freezing or snowing.. The Regional Chief Engineer had two questions to the caller "How Many and Where?".

The three main causes of derailments were plate cutting, spike kill in the tie due to rail change out, and spike shear at the tie plate interface. All of which made it difficult to hold gauge on curved track.

Based on the proven success of the 4 mile test track, in 1975 CN issued a contract for 1.5 million ties to be made in a new plant at the rate of 300,000 per year and installed on track carrying a minimum of 20 MGT per year, on 4 degree curves and above and not more than a mile of tangent track between curves.

The advent of this concrete tie contract in North America in the early 1970s had a profound affect on the process of track renewal or even the laying of new track. The change over to concrete tie track required that all ties be changed out leaving no wood ties in the track.

And, yes, there is a HO model of the P811 available. The kit is made in Italy by Lineamodel as #Art.LM 1811M and is motorized. Cost is 'only' €420 or about \$550.



Skagit Valley & Whidbey NMRA Clinic Schedule 2012/2013

Notes: All regular meetings are held at the Summer Hill Community in Oak Harbor from September through June on the dates shown starting at 7:00pm or as otherwise announced.

NMRA Membership is encouraged

See www.nmra.org

DATE	SUBJECT
Aug 8 th	Annual Potluck BBQ at John Marshall's
Sept 19 th	Logging and Live Steam by Eric Erickson
Oct 10 th	Mini Clinics
Nov 14 th	The Tabooma County Railway: Choosing a Private Roadname— Developing a Plausible History by Al Carter
Dec 5 th	Annulled
Jan 9 th	Locomotive Tune-ups (both steam and diesel) by John Mann and Tom Hawkins
Feb 13 th	Streets & Highways, Including Street Trackage by Al Carter
Mar 13th	Track Construction Methods in the Real World by John White
Apr 10 th	DCC Sound Systems Hands-On Test Track by Bill Harper/John Mann
May 8 th	Backdrop Clinic by Al Carter and Jack Tingstad
Jun 12 th	Open House at Dick Haines

Volunteers or Press Ganged

NMRA Liaison and Reportage	Al Carter
Keeper of the Purse [aka the Bucket]	Iver Johnson
Layout Design Aficionado	Tom Hawkins
The DCC & Audio Visual Main Mann	John Mann
Newsletters and Announcement Flyers	Al Frasch
Refreshments	Phil Gonzales
Keeper of the Rolls[aka the Membership Roster]	Jon Wilbert
Clean-up Artists	- open -
The Tin Can Gaffers	Curt and Iver Johnson
Competition Shepherd	- open -
Program Organizer	Susan Gonzales
Clinic Chair	Rich Blake

Skagit Valley and Whidbey NMRA Clinic Survey

Please help us enhance your clinic experience through indicating your interests and views.

NAME (Optional) _____

Mail to Rich Blake, hand it to him at the next Clinic or email your thoughts to Rich Blake or Susan Gonzales.

Your Modeling Skill: Beginner Intermediate Advanced

Your Primary Scale: HO N 2 rail O 3 rail O Z S Armchair

Other/NG _____

Your Interests: STEAM DIESEL TRACTION INDUSTRIAL LOGGING MINING

NARROW GAUGE OPERATIONS OTHER _____

What clinic topics would you like to see more of?

- Basic: How do I get started? Era and Prototype Themes Ready 2 Run
- Benchwork Construction: Permanent Modular Micro Layouts
- Scenery: Basic Advanced Backdrops Foliage/Trees
 Rocks/Cliffs Water Tunnels Topography
- Electrical: Basic Wiring DC/Blocks Layout DCC Lighting
 Lighting Animation Advanced DCC Loco Sound/DCC
- Track Work: Snap Track Flex Track Hand Laid Turnout Control
 Turnout Construction Layout Planning
- Painting: Basic paints Decals and Lettering Airbrushing
 Weathering Advanced
- Modeling: Basic Metal/Resin Kit Bashing
- Scratch Building: Wood Styrene Metal
- NMRA Achievement Program clinics designed especially to aid in award recognition:
 Golden Spike Master Model Railroader Categories
- Prototype Related Topics:
 Steam Diesel Traction Class 1
 Short Lines Narrow Gauge International Industrial
 Logging Mining Operations
 Other: _____

General Interest Presentations or Excursions

Please rank the following with "1" being your highest priority and "10" being your least priority:

- ___ Model Railroad Layout presentations – Members or Guests
- ___ Open house visits and tours of member or guest layouts
- ___ Attend operating sessions
- ___ Prototype tours (if we can arrange them)
- ___ Prototype video or slide shows (mainline/class 1)
- ___ Prototype historical operations slide shows or videos (logging/mining/industrial)
- ___ Museum visit or tour
- ___ Hands on "make and take" clinics
- ___ Mini Clinics (several short topics in one meeting)
- ___ Don't mess with anything, I like the clinics as they are

Other Model Railroading Related Topics

Mark the ones you are interested in or provide comment below

- Computerized model railroading Virtual Railroading/Simulators
- JMRI Decoder Pro Panel Pro Signaling CAD Layout/Model design
- Researching the Prototype – Methods and Tools
- Photography: Prototype Models Layout
- Multi media methods: Making Decals Paper Structures Plaster Structures
- Scaling Prototype Plans
- Track and layout planning
- Model RR Operations Methods
- Dispatching
- Soldering/Electrical methods
- Product Reviews
- Other Topics: _____

Other Miscellaneous Comments:
