



Second Quarter 2018
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Switching on the CB&Q in 1966
San Jose Branch Update
CNJ Newark Terminal in N
Ideas from Museum Dioramas
Board Election; KC 2018 Plans



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The LDSIG's goal is to act as a forum for the members' exchange of information and ideas, and to develop improved ways for hobbyists to learn the art and science of model railroad layout design.

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Ken Ford

P.O. Box 1247

Sugar Grove, IL 60554

kjf.ldsig@gmail.com

LAYOUT DESIGN Journal

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Switching the CB&Q in Aurora, IL

Spare-room HO Switching Challenge previews home layout

by Don Winn

My primary modelling interest is the Chicago, Burlington and Quincy (CB&Q) railroad in and around Aurora, Illinois. The CB&Q was born in Aurora, and as it happens, so was I. My father was working as an electrician in the Burlington's Aurora shop complex when I was very young, but was laid off as the industry declined in the '50s. I model 1966, a time when the Burlington was still holding fast to its great lineup of Zephyrs. Just over 100 passenger trains (commuter and intercity, including Great Northern and Northern Pacific) went through Aurora each day. Add to that the dozens of through-freights and locals that were not in the timetable.

The city of Aurora had encouraged the development of the railroad, and by the late 1800s, "the Q", as it was known, was the city's largest employer. A large shop complex was built downtown near the original station, with two roundhouses, car shops, and warehouses, foundry, and other support structures. Trains heading west out of Chicago diverge in Aurora, with one mainline heading west to Galesburg and Denver, and the other going north to

Savanna and St. Paul. Aurora is also the west anchor of the famous "Triple Track" speedway to Chicago, which is still incredibly busy to this day as part of Metra and BNSF.

Distilling Aurora

The annotated map (page 5) shows the branch lines and primary rail operation areas that were in Aurora. In my future home layout, I have hoped to model as many of these areas as I can. I realized that this design challenge provides a good opportunity for me to try modeling a portion of my layout plans.

Then I started thinking that what would really make this a true challenge for me would be to compress my entire future basement layout empire into this room. That would include the Eola yard, the Alley Job, Montgomery, and the West Batavia branch.

Fitting it all into this bedroom seemed ridiculous at first. I wasn't sure how this was going to turn out, but I decided to give it a go. After all, this is a "challenge", and it's only a theoretical exercise. For this layout focused on freight switching, we can eliminate the passenger station and the coach yards, and also the shop area downtown.

The Elgin, Joliet and Eastern (EJ&E) had an interchange at the east end of Eola (today it's the Canadian National interchanging with Burlington Northern Santa Fe), and back in the '60s the EJ&E still had a branch that came into the southeast corner of town and ran alongside the West Batavia branch where it terminated at their former West Aurora station site. Dropping the EJ&E helps to simplify the layout.

Opting for the Alley Job

That still leaves dozens of industries to switch; the challenge then is to continue to narrow down the modeled area. The first idea that came to mind was to model the Alley Job, the name given to operations down the middle of (appro-



Marty Bernard worked the tower in Montgomery near Aurora, IL. This photo was taken from the second floor in 1964. A mixed freight is on the double mainline headed towards Galesburg with Lyon Metal on the right and the Sheep Yards (with elevator) on the left. Photo courtesy Marty Bernard.

WP in San Jose Progress Report

Compact N scale switching layout from LDJ-58 is underway
by Michael Hardwick

Michael Hardwick's fascinating article in LDJ-58 described the Western Pacific's former trackage in San Jose and his process in developing a track plan to capture much of the prototype essence in a small space. He's back with a progress report – and the photos are inspiring! – BH

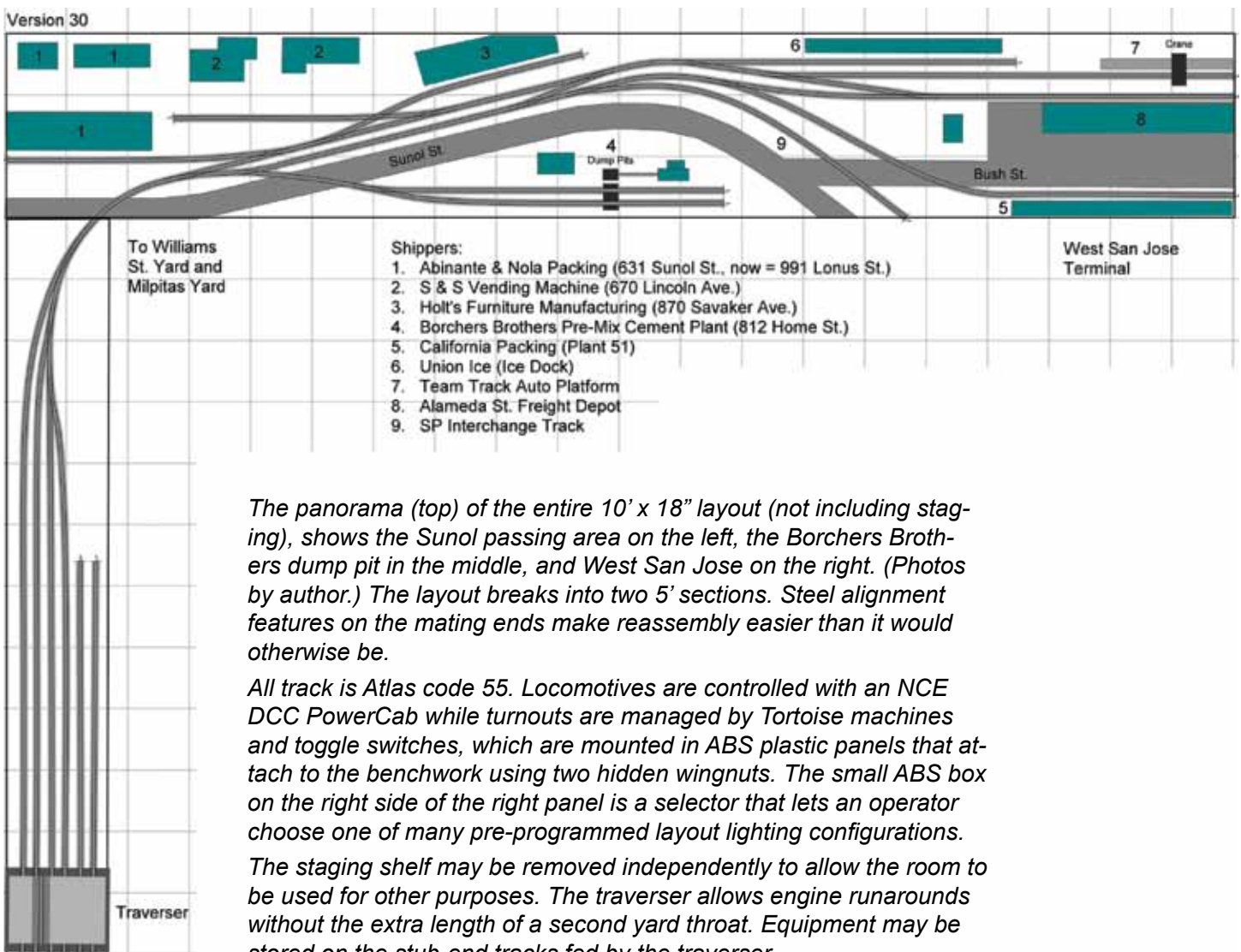
WP San Jose Sunol Siding Area
N scale, 1½' X 10' plus staging
shelf and aisle

6 inch grid

Branch main 15" min. radius

Staging 12" min. radius

Atlas C55 #5 min. turnout



tracks and the beginning of the station throat. As per the prototype, a small engine facility provides water, sand, an ash pit, and fire cleaning. There is no turntable as the CNJ did the best it could not to turn locomotives, which helped with commuter schedules.

In fact, many of the steam locomotives used on the line were tank locomotives with symmetrical wheel arrangements (2-6-2T or 4-6-4T) and boiler-tube pilots on both ends of the locomotive to further facilitate this style of operation. Diesels, by nature, would not need to be turned. My final design for Broad Street fit on a shelf about 7 feet long and less than 2 feet wide in N scale (see photo lower right and track plan pages 20-21).

Skip a station for variety

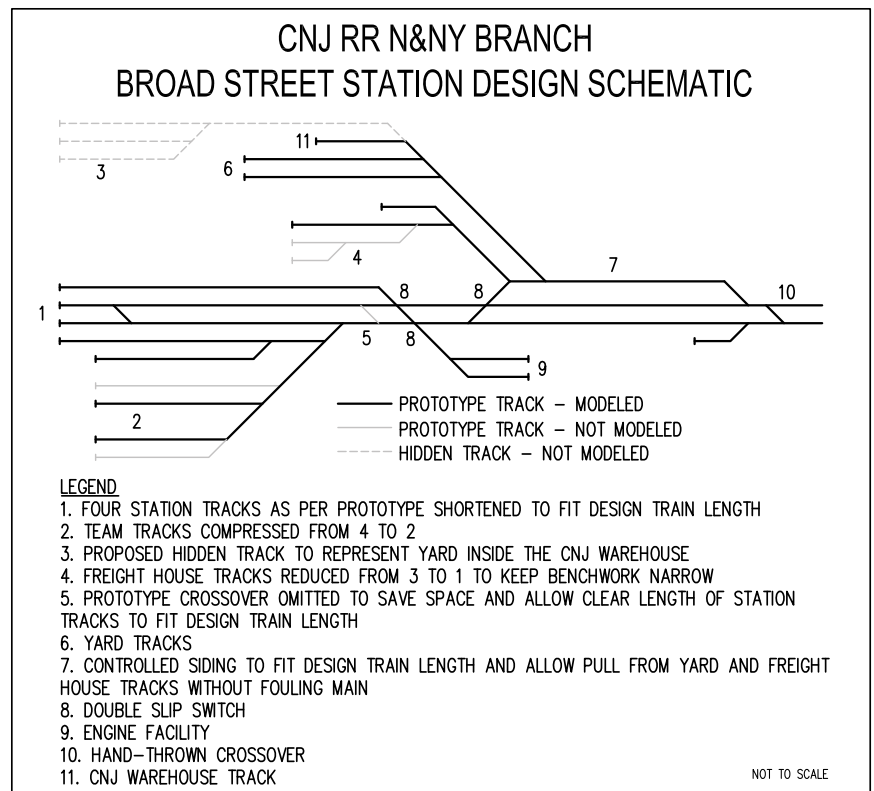
East Ferry Street was selected because of the beautiful, lacy truss bridge that carried the tracks over city streets below on a skewed angle (see photo and map page 22). I wanted to have at least one other passenger stop on the layout before trains went into staging in order to let the railroad visually “stretch out” a bit, offer context for Broad Street, and afford opportunities for other things to happen before trains went off-line. As noted earlier, I left out the intervening Ferry Street LDE because it had a similar scene with a skewed bridge and it seemed wasteful to use up my limited space with two scenes of the same type right next to each other.

Compromise at the coal company

Also at East Ferry Street, the plan calls for the Lehigh and Wilkes-Barre Coal Company as part of the LDE. This last element would also create additional operational opportunities that would involve other car types, coal hoppers in this case. This is also a way to model a large industry that was elevated on trestlework, a signature of this particular line in its heyday. It also served as a trailing-point industry to switch on the westbound track prior to the yard limits at Broad Street.

Like most of the industries along this part of the line, the coal company was arranged to allow trailing-point switching in the normal direction of travel. There was not room on the visible part of the layout for this industry, so I ended up placing the lead to it on the visible portion of the layout and allowing the service

(main text continues on page 22)



This schematic diagram shows how I modified the prototype Broad Street Station plan to fit my space. In general, the station tracks were shortened to fit the design train length, width was reduced by eliminating multiple tracks where single tracks served the purpose (team tracks and freight house), and eliminating the hidden track for the CNJ warehouse. This hidden track would have been difficult to build and operate. The interior warehouse tracks were abandoned in favor of a single exterior track fairly early in the history of this facility. The model version is 70% to 75% the size of the prototype. – JJ



Broad Street terminal and team tracks. This picture would have been taken in approximately 1918 – the station looks to be newly completed with some bits of construction still in progress. Note the cemetery beyond the station and express building – things are tight in the city! Photo courtesy of Newark Public Library.

Learning from Museum Masters

Model railroading techniques from museum dioramas

by Nicholas Kalis

Model railroad planners can benefit from a study of miniature (and 1:1) dioramas. In my case, a recent visit to Chicago's Field Museum and viewing its three dioramas depicting various agricultural efforts gave me food for thought about modeling terrain and backdrops in layouts.

Many of the ideas I explore below have been mentioned before by model railroading authors. What museum dioramas demonstrate is all of these modeling ideas presented simultaneously.

Consider the first of the three Field's dioramas. The *New Guinea Diorama* (Photo 1) (which I guessed to be about 1:48 judging by the figures) demonstrates:

- The benefits of excellent lighting
- A curved backdrop
- Wings (as they are called by Iain Rice) to hide the end of the vertical right and left ends of the backdrop
- An informative angled fascia
- A valance to hide the lighting and the end of the sky
- Vegetation to hide where the horizontal surface meets the backdrop
- Figures engaged in purposeful action
- The passage of time implied by the modeled construction underway
- Horizon fairly low on the backdrop



Photo 1. This diorama from The Field Museum demonstrates a number of interesting and informative points, as Nick notes above. However, even the pros sometimes have trouble with shadows being cast on backdrops. Nick Kalis photo.

The *Brazilian Coffee Plantation Diorama* (Photo 2, page 31), first displayed in 1935, also offers model railroaders many instructive lessons. Note how it utilizes:

- Perspective
- Wings, fascia and valance
- The modeled 3-D land rises up to meet the backdrop
- Great deal of detail applied to the roof of the dominant structure (going so far as to include men at work)

- Coffee trees getting progressively smaller as they reach the horizon
- Irregular line where the horizontal surface blends with the backdrop

John R. Millar, builder of the diorama and Department of Botany staffer, even planted model coffee trees on the backdrop for a few inches to confuse the viewer from realizing where one surface ends and the other begins. The background was painted by Field Museum Staff Artist Charles A. Corwin.



Layout Design Special Interest Group, Inc.
LDSIG Member Services
P.O. Box 1247
Sugar Grove, IL 60554

LDSIG Activities at Kansas City 2018

Another exciting week of LDSIG activities is scheduled for the NMRA Kansas City Convention August 5-12, 2018. LDSIG activities are available to all attendees. Full information, updates, and changes available on the LDSIG website at: www.ldsig.org/kansascity2018

The SIG Room (Century B on the Ballroom floor) will be open throughout the Convention. Please stop in early to check-in and receive an update on the week's events. Volunteers needed to answer questions and register new members – sign up for a shift or two with local coordinator Kevin Leyerle; email: kkev@ldsig.org. Bring your 2-D and 3-D mock-ups and plans for display in the SIG Room throughout the week.

SIG Meet and Greet (Sunday 7-10 PM SIG Room)
Meet fellow SIG members to share ideas and updates. All are welcome.

Layout Design Boot Camp (Monday 8 AM)
4-hour design super clinic led by LDJ Editor Byron Henderson and former LDSIG President Seth Neumann.

SIG Clinic Track (Monday through Friday)
Layout Design and Ops-focused series in the clinic rooms.

Layout Design Help Sessions (Mon. through Fri., exc. Wed.)
Members of the LDSIG will be offering free half-hour help sessions in the SIG Room. Help-provider volunteers needed (sidebar at right).

Wednesday LDSIG Annual Business Meeting and Self-Guided Layout Tour
Important 8 AM meeting in the SIG Room (LDSIG members)

followed by self-drive tour. Tour information distributed after meeting. Currently more than twenty layouts expected, so you'll need to plan your visit carefully! Details on LDSIG Convention web page. \$40 tour registration includes handsome commemorative LDSIG polo shirt.

Friday Night SIG Dinner (time TBA)

The annual evening get-together is planned for Friday at a location just a short trolley ride from the hotel. The speaker will be Kansas City's Jeff Needham talking about his research into Leavenworth, KS for the new ATSF railroad he's planning. \$55 per person.

Sign-up for the Wednesday Tour is available under the "Other Extra Fare Items" webpage of the KC Convention site. Check the SIG Convention web page for updates and information on the Friday Dinner sign-up.

Thanks to Kevin Leyerle, Bob Hanmer, and Bruce Morden for lining up another great week! And start making plans now for Salt Lake City, UT; July 7-13, 2019. [LDJ](#)



Volunteer Design Consultants Needed

We need several experienced LDSIG member volunteers to provide half-hour layout design help sessions during the Convention. This offers a service to the hobby and promotes the SIG. Each volunteer will be asked to commit two or more hours when they can commit to being available for help sessions. It's very important that we have volunteers and hours confirmed before the Convention begins. To volunteer, or for questions, contact LDJ Editor Byron Henderson (page 2), who is coordinating help sessions.