



June 2017

it rail / modern streetcar revolution!! - Shortly modelers will be able to acquire both the HO and N scale S70 Ul

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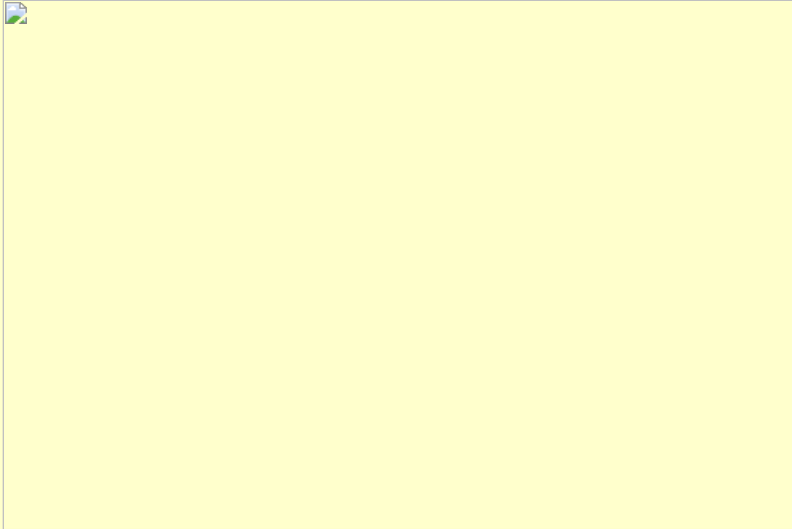
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CURRENT EVENTS.....

Urban Rail Happenings!

KANSAS CITY, MO: The Kansas City Star reported that the Kansas City Streetcar logged rider number 2,000,000 on May 5, one day before the system's first anniversary. The system's leaders originally expected to reach 1,000,000 rides by the first anniversary.



Car 803 heading northbound from Union Station to Downtown!

During 2016, the streetcar had a daily average ridership of 5,860, Kansas City Streetcar Authority (KCSA) officials said in a press release. The agency was forced to expand Sunday hours to meet ridership demands. In addition, KCSA officials plan to purchase two additional vehicles to keep up with the growing number of passengers. Rides on the Kansas City Streetcar now are free; the streetcar district's property and sales tax revenues cover operating expenses, according to the Star.

LOS ANGELES, CA: The Los Angeles County Metropolitan Transportation Authority (Metro) issued a request for proposals on April 26th to study the feasibility of building a new transit line through the Sepulveda Pass.



The Sepulveda Pass, between West Los Angeles and the San Fernando Valley, in the Los Angeles area, One of the "most intractable choke points in the entire Los Angeles region!" .

The agency is seeking a consultant to identify and evaluate a range of high-capacity transit concepts, including light rail, subway and bus rapid transit. The line would serve the 11-mile corridor connecting Metro's Orange Line bus route in the San Fernando Valley with the future extension of the Purple Line subway. The new route also would connect with the Metro Expo Line on L.A.'s Westside, Metro officials said in a press release. "The Sepulveda Pass remains one of the most intractable choke points in the entire L.A. region, impacting hundreds of thousands of motorists on a daily basis," said John Fasana, a Metro board member. "That's why we are laser-focused on finding a transit solution that will finally give Angelenos a choice to avoid this freeway's rush-hour gridlock."

The feasibility study is expected to take about 14 months to complete. The project has an "ultimate delivery date" of 2033, according to the agency. The Sepulveda Pass project would receive \$1 billion through Metro's 2008 Measure R sales tax and another \$6.8 billion through the recently passed Measure M sales tax and other funding sources.

Meanwhile, seven new KinkiSharyo P3010 LRVs, 1061, 1062, 1063, 1064, 1067, 1068 and 1071 were moved to the Blue Line Facility, Division 11 for service on the Blue line and on May 1st, three of the new KinkiSharyo P3010 cars, 1067, 1068 and 1071, started service as train 109 on the Blue Line (Los Angeles to Long Beach), Los Angeles' first LRV line that opened almost 27 years ago in 1990.



KinkiSharyo 1071-1067 and 1068 heading toward Long Beach. 1062 and 1063 caught in the Division 11 yard!

The Blue line is the third line to see these new cars, following the Gold and Expo Lines. By Wednesday, another three car set of P3010s, 1061, 1063 and 1062 became the second 3pak on the Blue line. The Blue Line normally runs 18 to 19 trains at one time.

MIAMI-ORLANDO, FL: - All Aboard Florida officials are currently preparing to launch the only privately owned, higher-speed intercity passenger-rail service in the United States between West Palm Beach and Fort Lauderdale in July, and between Fort Lauderdale and Miami in late August. Eventually, the express railroad — operating up to 110 mph — will transport travelers from Miami all the way to Orlando in about three hours. It will Brightline, as it has been named, will make life easier for South Florida residents, commuters and tourists when they want to travel between the cities. Trip times from Miami to Fort Lauderdale will be about 30 minutes; from West Miami to West Palm Beach, about 60 minutes. By car, those trips on Interstate 95 can take hours longer, especially at peak drive times.



BrightBlue, one of the Five Brightline Train Sets!

As of the end of April, All Aboard Florida had received two completed trainsets, named **BrightBlue** and **BrightPink**, from rolling-stock supplier Siemens' manufacturing plant in Sacramento, California. As of mid-March, static testing and commissioning had already begun on **BrightBlue** and they had begun hiring, training and certifying middle managers.

As for Brightline's rolling stock, Chief Operating Officer Patrick Goddard anticipates the remaining three trainsets will arrive in Florida from Sacramento by the middle of May. In fact, the next two of Brightline's new trainsets departed the Siemens' rolling stock plant in Sacramento, California during the first week of May.



BrightOrange (left) and BrightGreen (right) leaving Sacramento in mid-May!

Dubbed **BrightGreen** and **BrightOrange**, the new units are en route to Brightline's 12-acre railroad operations facility in West Palm Beach, Florida. They follow the arrival of the two other trains, BrightBlue and BrightPink. The new trains were expected to arrive at the facility by the middle of May. The fifth and final trainset, **BrightRed**, is being completed at Siemens and expected to ship in the middle of this month, Brightline officials said in a press release. The trains feature automatic level boarding platforms and aisles that exceed Americans with Disabilities Act requirements, as well as complimentary Wi-Fi and outlets to charge personal devices.

In late July, Brightline will open its introductory express service between West Palm Beach and Fort Lauderdale. Service to Miami will be added in late August, with a grand opening and official launch of the full service in September. "Our Florida team looks forward to welcoming **BrightGreen** and **BrightOrange** to their new home as we continue with preparations to launch our service this summer," said Brightline Chief Executive Officer Dave Howard.

Siemens is building coaches to offer two levels of amenities: One coach will be designated "select" for riders interested in a first-class service with roomier seats, dining and beverage options that are included in the ticket price. The other cars will be designated for "smart" service, which provides more seats, offers space for bike storage, and features food and beverages at an additional cost. Both coach styles will have large windows that provide views from every seat; free Wi-Fi with power outlets; seats designed to recline without invading other passengers' space; and restrooms with "touchless" technology. At Brightline's request, Siemens also redesigned its model of the train air conditioning system by moving A/C units and ducts from underneath passenger seats, as is the case on Siemens' European trains, to outside and on top of the cars. The trains are built to be extended to up to nine or 10 coaches, as Brightline expands its service over longer distances. Dining and deli cars are expected to be added in time for the Miami-to-Orlando service launch.

For now, the Brightline venture calls for running the passenger train on the Florida East Coast Railway (FECR) corridor between Miami and Orlando. Brightline's targeted base of riders will be tourists hoping to visit key destinations in Orlando and Miami, as well as leisure, commuter and business travelers seeking an alternative to driving on I-95.

NASHVILLE, TN: - In late April, Nashville Mayor Megan Barry announced plans to work with the area's Metropolitan Council and other partners of the Tennessee city to develop a transit plan that would include a new light-rail system.



Nashville Mayor Megan Barry!

In her "state of the metro address," Barry laid out her intention to establish light-rail service on the Gallatin Pike corridor, where there is a high number of transit riders. The corridor also has potential for transit-oriented development, according to a press release issued by Barry's office. To fund the project, Barry plans to advance a plan to develop a transit referendum for Nashville voters to consider. "We cannot wait another year to start the process of building our first light rail," Barry said. "We will be a 21st-century, transit-oriented city, and we are not going to look back 10 years from now and say we failed when we had to succeed." The mayor wants to pursue light-rail lines along five corridors in the region, including the Gallatin Pike. Barry's plan follows passage of the IMPROVE Act, which allows Nashville and other municipalities to pursue tax referendums to fund transit projects, The Tennessean reported. Tennessee Governor Bill Haslam signed the bill into law on April 27th.

SAN FRANCISCO, CA: - The Times reported earlier that San Francisco Municipal Railway (Muni) had negotiated a contact with Brookville Equipment Corporation to rehabilitate 16 of the 17 PCC cars that opened the now famous F-line in September 1995. This group included 13 single-end ex-Philadelphia PCC cars built in 1947 and 1948 and three double-end PCC cars originally built in 1948 for the Muni. The Philadelphia cars, now holding Muni numbers 1050 to 1063 (except 1054 which was wrecked) and the three Muni cars, 1007, 1010 and 1015 were all refurbished in the early 1990s by Morrison Knudson prior to entering service on the F-line. After 27 years of service they were due for some attention.

Car 1056, painted for Kansas City Public Service, had a cracked bolster and was sent first and is back in service. Car 1051, painted for Muni 1960s, was the second car sent and is also currently back in service. The eighth of the cars to go to Brookville was 1050, painted in the original 1950s Muni "Wings" scheme was sent to Brookville on the same truck that brought car 1060, painted in 1938 Philadelphia livery, back to San Francisco. Car 1060, the third car to be rehabilitated originally wore the colors of Newark, NJ but was repainted into the current paint scheme replacing 1054, which is the one car wrecked by Muni.

There are five former Philadelphia PCC cars at Brookville at the current time, 1059 (Boston Elevated Railway), 1062 (Louisville Railways), 1063 (Baltimore), 1055 (Philadelphia 1955) along with 1050. As we reported earlier, 1059, 1062, 1063 and 1050 will all return with minor or major appearance changes. See the January 2017 issue of the Times for more details on the changes. The bottom line is that the colors of former PCC operators in Pittsburgh, Pennsylvania and Saint Louis, Missouri will be added to the fleet.

What is a new development is that the Inside Track, the official newsletter of the Market Street Railway, Volume XXXIII Number 3 recently reported that the San Francisco Municipal Transportation Agency (SFMTA), the parent organization of Muni was proposed that Muni acquire two ex-Red Arrow (Suburban Philadelphia) St Louis 1949 era vehicles. The two cars are currently unrestored at the Branford Electric Museum in Connecticut. These two cars, originally numbered 18 and 21 would be renumbered 1012 and 1013, replacing two Muni double end PCC cars that unfortunately were scrapped many years ago.



Philadelphia Suburban Trans'n Co (Red Arrow Lines) St. Louis 1949-built #18 in original dress - 1953!



Philadelphia Suburban Trans'n Co (Red Arrow Lines) St. Louis 1949-built #21 in December 1958.

The bodies of these cars are very similar to the Muni's 1006-1015 class of double end cars except that the bodies were altered to allow for the larger wheels and MCB type trucks that were used on these light interurban cars. The rear doors were much smaller similar to the 25 ex-Dallas PCC cars that eventually finished out their service lives in Boston. There are some contractual issues to be worked out in the substitution of these two cars for two of the double end cars currently under contract but that will be left to the attorneys to work out.

SEATTLE, WA: - Sound Transit's board approved a \$131 million order for 30 additional light-rail vehicles from Siemens Industry Inc. on April 27, 2017. The contract amendment enables Sound Transit to exercise an option to procure additional low-floor light-rail vehicles under an order placed last year.



Current Sound Transit KinkiSharyo LRV two car train (Two of 62 such units)!

The units will support the opening of the Link light-rail extension to Federal Way and downtown Redmond, Washington in 2024, agency officials said in a press release. "With population and job growth booming across much of the Puget Sound region, we're acting now to bolster our light-rail fleet so we can better serve the public and an expanding transit system," said Sound Transit Chair Dave Somers. "Also, by buying now, Sound Transit can save money in the long term." The first vehicles from the original order are slated for delivery in mid-2019, with subsequent units arriving on a staggered schedule of two to three vehicles per month through 2024's first quarter. As originally planned, 40 vehicles will be delivered and tested in time for the Northgate Link extension opening in 2021.



Interior (C unit) of new Sound Transit Siemens S70 vehicles!

To be manufactured in the Siemens' Sacramento, California facility, the new units will feature several improvements in on-board systems and passenger amenities, including larger windows, extra standing room in the center aisle, four bicycle hooks and more space under seats to stow luggage.

Sound Transit needs to triple the size of its current fleet as it adds 94 miles of voter-approved light-rail extensions over the next two decades, agency officials said. By 2041, the agency expects to operate more than 116 miles of light-rail lines. At the same time, Sound Transit unveiled a plan to meet the expedited timelines for projects funded by the Sound Transit 3 sales tax measure. The agency will start the projects sooner and collaborate with cities, stakeholders and private citizens "earlier and more intensively," agency officials said. In addition, Sound Transit will focus on identifying preferred routes and station locations earlier, streamlining the number of alternatives studied, acquiring real estate sooner and developing early permitting plans with partner agencies.

Sound Transit and Siemens subsequently signed a contract for 30 additional light-rail cars. The order expands on a September 2016 contract for 122 light-rail units. The additional order includes a \$2.5 million agreement for Siemens to provide additional spare parts as needed. The new vehicles include a more spacious interior, extra space for luggage, hooks to store up to four bicycles per unit and an LED lighting system, Siemens officials said in a press release. The company will build the new units at its manufacturing hub in Sacramento, California. "These additional vehicles will ensure that we will be ready in 2024 to launch service on the first two light-rail extensions just adopted by Puget Sound voters in November," said Sound Transit Chief Executive Officer Peter Rogoff, referring to the agency's light-rail extensions to Federal Way and downtown Redmond, Washington.

"The greatest potential for improvements falls in the planning, environmental and permitting phases of projects," Sound Transit officials said. Internally, the agency will focus on integrating work functions across departments to eliminate department hand-offs between project phases. Additionally, Sound Transit will co-locate staff for each project in the same work space to increase efficiency.

Sound Transit also held an open house Wednesday in Redmond in mid-May to share details on the Downtown Redmond Link light-rail extension. Conceptual design plans will be discussed for the extension's two stations, the preliminary engineering process and the project's overall timeline. The Downtown Redmond extension initially was planned to be built as part of the \$3.7 billion East Link extension. However, Sound Transit suspended the Redmond project due to declining tax revenue during the 2007-2009 recession, agency officials said in a press release. Sound Transit's board in February 2016 restored funding for the project's preliminary engineering. Also in 2016, voters approved the remaining funding needed to design and build the Redmond project, which extends the light-rail line 3.7 miles from the future Redmond Technology Center Station. The Downtown Redmond extension is slated to open in 2024.

TEMPE, AZ: Valley Metro plans to break ground on the Tempe Streetcar in June 2017 according to the agency. This announcement followed news that Valley Metro will receive \$50 million from the U.S. Department of Transportation's Capital Investment Grants program, which was included in the fiscal-year 2017 federal spending bill signed by President Donald Trump on May 5th.

The proposed route is as shown in the map below:



The federal funding marks a "significant step for the project," Valley Metro Rail Chair Mark Mitchell said in a press release. "Tempe Streetcar is a valuable investment for our community and the region as it serves future rider demand, spurs revitalization and boosts job growth," Mitchell said. The 3-mile streetcar line is expected to cost \$186 million and will be funded by local and federal grant dollars.



In 2011, KinkiSharyo offered a demonstration model of their "ameriTRAM" vehicle, to allow members of the Phoenix-Tempe area public to provide feedback on the vehicle. The vehicle was also shown in Charlotte, N.C.; Dallas, TX; Austin, TX; and Kansas City, MO. Potential suppliers for the streetcars themselves include Alstom, Bombardier, CAF USA, KinkiSharyo, Siemens or TIG/m. Depending on the final design of the system, as well as availability of funding, vehicles for this line may operate on a combination of battery power, overhead catenary wires or on-board fuel system.

Ameritram with DART KinkiSharyo SLRV #223, a three section, 123' 8" long vehicle!

Urban Commuter / Light Rail / Modern Streetcar News!

by Edward Havens

There is a possibility that streetcars could return to Dayton, the west-central city that is only one of five trackless trolley [Rubber tired buses that gain power from dual overhead wires] operators in the United States. The other

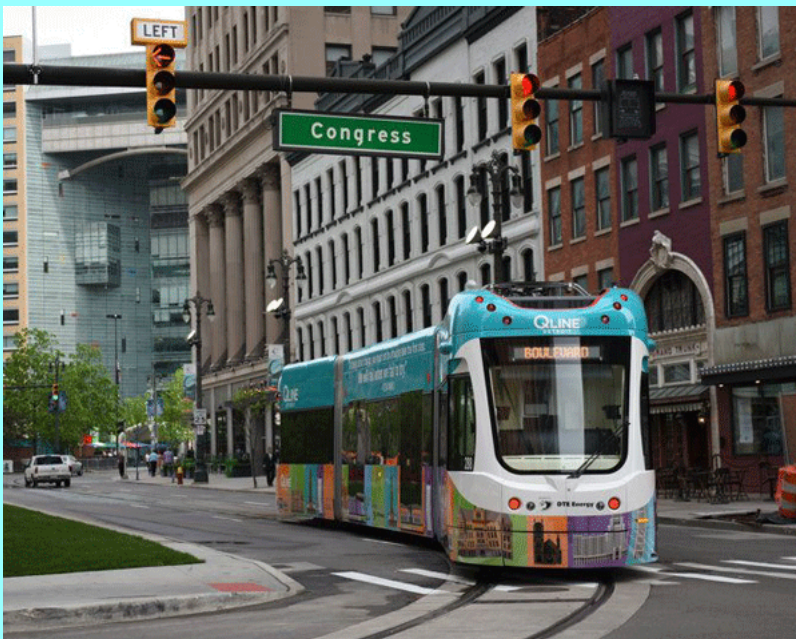
four operators are Boston, Philadelphia, San Francisco and Seattle. These unique buses have also been called electric trolley buses (ETB) and trackless trolleys over the years.



Dayton City Railway Cincinnati Curve Sider car 672 changing ends!

Dayton abandoned urban rail transit in November 1947 when the Drexel extension of the Third Street line, a short side of the road operation, finally was terminated. Mark Donaghy, chief executive of the regional transit agency, says Dayton already has trolley bus wires so the cost of opening a streetcar service would be less. Initially, the city might experiment with rubber-tired, self-propelled faux trolleys as an urban circulator.

The introductory modern streetcar rides on the Detroit Woodward Avenue line May 12 were fraught with problems including cars bunching up and delays at recharging stations since the Brookville Equipment "Liberty" model cars must operate most the route with battery, off-wire propulsion.



QLine 288 on one of the wire-free portions of the line!

Detroit television station WXYZ did not mention the various issues when it posted a story May 19 noting that the operator, M-1 Rail, decided to extend free ride from one week to more than a month through June 2017. Matt Cullen, M-1 Rail chief executive, said the extended no-fare period is a way to build "sustainable ridership." Starting July 1, a three-hour pass will cost \$1.50 and an all-day pass \$3. Hours of operation: Monday-Thursday: 6 a.m. to 11 p.m. Friday: 6 a.m. to 12 a.m. Saturday: 8 a.m. to 12:00 a.m. Sunday: 8 a.m. to 8 p.m.

Full streetcar service has returned to the New Orleans St. Charles streetcar line following demolition of monuments along the route in the Big Easy that commemorated the Confederacy, Gen. Robert E. Lee, and the heritage of Southern slavery of African Americans.



u27395647 www.fotosearch.com
 NORTA Car 951 at Lee Circle!

The mayor said it was a necessary step because New Orleans attracts tourists from throughout the world. Mayor Mitch Landrieu said the month-long monument removal process will be followed by new designs including a Stars and Stripes American flag at the spot where the Jefferson Davis monument stood, television station KVUE reported May 20.

Cloud Computing won the 2017 Preakness Stakes horse racing event at Baltimore's Pimlico track May 20 but the Baltimore Sun newspaper reported that transit riders to the annual spectacular were denied light rail service to stations closest to the track.



Baltimore Two-Car Light Rail Vehicle Train!

The denial of service was due to downed trees and electric utility poles along the LRT route. Mount Washington, Cold Spring and Woodberry LRT stations were closed with shuttle bus service provided by Maryland Transit Administration to the horse track. The bad weather denied MTA light rail a chance to shine for the nationally-televised race.

Kansas City's modern C.A.F.-built streetcars were packed May 6 when the 2.2-mile car line from River Market downtown south to Union Station celebrated its first anniversary.



KC Streetcar 804 at Union station on May 6, 2017!

The car line recorded more than two million riders even before its first year concluded. City Manager Troy Schulte said the car line is credited with \$2 billion in economic development in the western Missouri city. Mayor Sly James says he talks with mayors of cities elsewhere and they now know Kansas City is "on the map." Kansas City is considering two streetcar extensions; north to the riverfront and south to the University of Missouri-Kansas City campus.

In early May, Orange County Transportation Authority in Southern California south of Los Angeles hailed a congressional agreement that will provide \$50 million in federal funding for the 4.1-mile, \$298 million Santa Ana to Garden Grove modern streetcar line. According to the Orange County Register, the authority hopes federal money eventually will cover \$148 million of the project's total costs. The car line will run from the passenger train station through downtown to Garden Grove partially using former Pacific Electric "Red Car:" right of way. However, in an editorial May 10, the Register called streetcars "needlessly expensive" and said that while buses are not a panacea, they provide route flexibility that "streetcars do not."



Artists Concept of Santa Ana Streetcar!

Portland Streetcar was able to resume service downtown in Oregon's biggest city during the third week of May following completion of track renewal on 11th Avenue, as reported by Progressive Railroading reported on May 18. The Morrison-Yamhill project on behalf of Portland Tri Met light rail began April 30. The replaced track had been in use for streetcar travel for more than three decades. Wooden cross ties were replaced with more durable material.

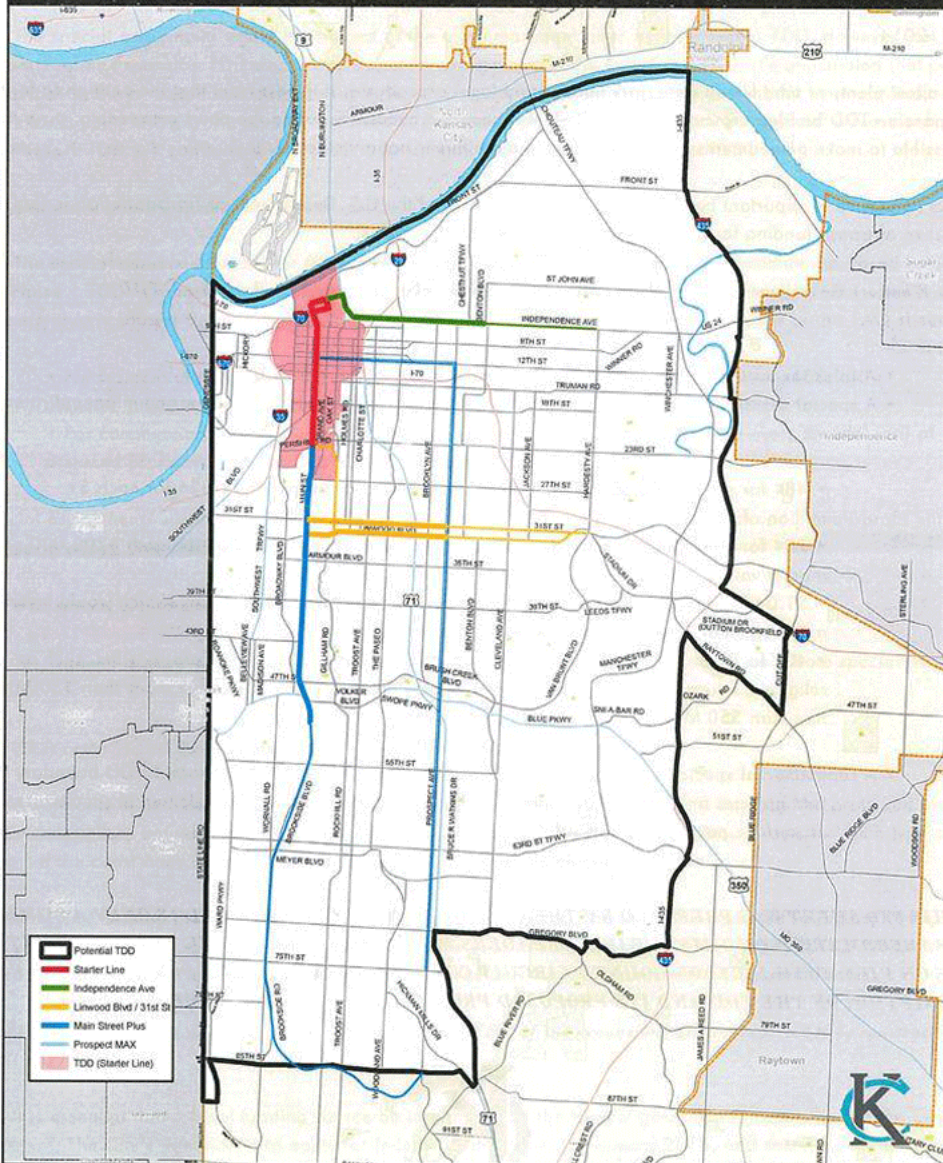


Tri Met Trackwork Activity!

Milwaukee television station WTMJ reported on May 18 that another milestone has been reached for the first track laying construction on the city's downtown modern streetcar line, which will use Brookville Equipment "Liberty" model dual-mode cars (battery and pantograph). Crews finished pouring concrete around the first T-rails with rubber booting installed on St. Paul Avenue. Construction manager Carolyn Gellings said work is on schedule but cautioned that springtime weather can present challenges to track installation crews.

HDR Inc. will head a consulting team to plan for an extension of Kansas City's modern streetcar line south from Union Station to the University of Missouri-K.C. campus, the "progressive railroading" site reported May 18.

Potential TDD Boundary - January 2014



This map depicts the proposed streetcar expansion lines. Potential ending points have not yet been determined.

Kansas City Streetcar Authority authorized the study. The team will consider track alignment, station sites and cost estimates. HNTB Corp. and six other firms are included in the study partnership including an historical research company. The Streetcar Authority also is studying a northward extension from River Market downtown to Riverfront Park. downtown at Broadway!



One of the current four KC Streetcars!

Churches along the route of the proposed modern streetcar extension from Kansas City Union Station south to the University of Missouri-K.C. campus are unwilling to pay a special tax assessment to fund the project, KSHB-TV reported May 14. St. Paul's Episcopal Church, for example, would be forced to pay \$12,000, meaning it would have to curtail its charity food programs for the needy. The election is by mail-in ballot with voting between June 30 and August 1. Kansas City Regional Transit Alliance, the advocacy group pushing the streetcar

extension, says the assessment is legal, according to its spokesman David Johnson. He says there is widespread public support for the extension.



KC Streetcar 801 at one of the stops!

After eight months of public service, the Cincinnati modern streetcar line from downtown to Over-the-Rhine historic district has topped half a million rides, WCPO television reported May 17. Ridership had slumped during the winter season. Two high ridership months followed the start-up last September but there have been problems with scheduling and downtown traffic blocking streetcars along with ticketing confusion and real-time arrival displays that malfunctioned. Regional transit authority spokeswoman Brandy Jones expects warmer weather will spur riding.



Cincinnati CAF car 1175 !

Another Splendid National Trolley Meet!

This National Trolley Meet, sponsored by the East Penn Traction Club, was different. First, it was held in Allentown, PA at the Allentown Fairgrounds for the first time. We have attended these meets at many locations over the years, including the former George Washington Motor Lodge in King of Prussia, PA; at Villanova University, in New Brunswick, NJ; at the Armory in Northeast Philadelphia; and more recently at the Philadelphia Convention Center.

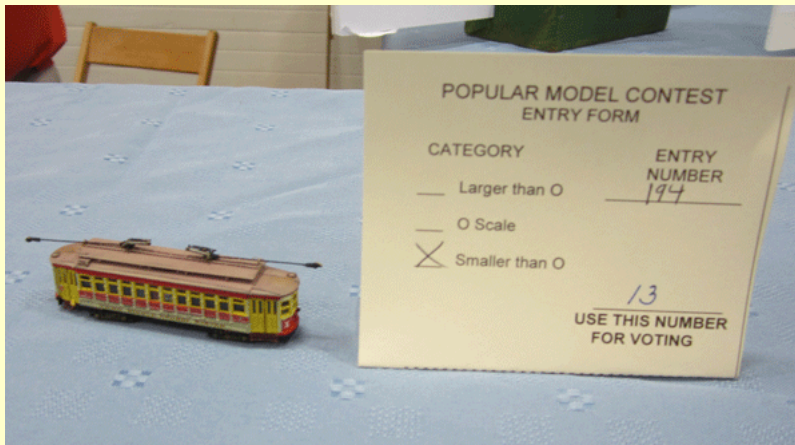


Outside of the hall!



Inside the hall!

The normal N, HO and O scale layouts that have characterized this show for many years, were on display at this show and there are many photos on the internet of those fine operating layouts. In this article, we are showing some of the splendid models that were entered in the model judging contest.



Very well detailed N scale model of a New York City Third Avenue Railway Convertible Streetcar!



"Another piece of junk headed for the Illinois Railway Museum" - HO scale!



This splendid O scale model has been around for some time. The doors open and close revealing a full interior .



Nice O scale model of one of Baltimore's thirty-eight 8100 series articulated semi-convertibles! (All scrapped by 1948!)



N scale urban traction layout using mostly Kato "Plug and Play" components!



John Wright with his N scale layout. His models and a portion of his layout were featured in our July 2016 issue!

A major announcement was made at the meet concerning the N and HO scale S70 models. As of this time, no major manufacturer has stepped up to mass produce a model of modern US prototype light rail vehicle or modern streetcar so the team of Volkmar Meier (Interurban Traction Models) and George Huckaby (Custom Traxx) have decided to place the models on Shapeways for those modelers who want these models today to get them. The HO scale models are designed for Bowser power and those items plus decals can be obtained from Custom Traxx. The N scale models use Tomytec power and we are still trying to get a consistent source for these drives. Decals for the N scale model are also available from Custom Traxx. Custom Traxx will have a powering kit using Bowser components, SKU #12703. It is intended that instructions for the use of the shells will be provided on Shapeways. But they will be also provided in the Trolleyville Schoolhouse.

Custom Traxx also has made decals for the Los Angeles Metropolitan Transportation Authority PCC 3002, the "Crying Trolley". They were introduced at this show and are available in both HO and N scales since PCC shells in both scales are now available from Shapeways.

Just prior to the meet, Custom Traxx acquired a collection of almost 100 Bowser powered and "souvenir" HO scale PCC cars. These cars, some of which are long out of stock at dealers, were available at the meet and will be available at reduced prices at the Great Train Show at the Fairplex in Pomona, CA on July 8-9, 2017. For more information about specific road names and prices, [contact Custom Traxx](#). For the record, Custom Traxx has most if not all of the parts for the Bowser HO Traction mechanism, so if you need a particular part (i.e. 1291-Trailing Truck Axle Center) you might want to contact them.

Los Angeles Metro Tunnel Mining Another Subway!

by A. J. Staley

No one can say that Los Angeles METRO, also known as LAMETRO, has been sitting on their hands. They have been very busy above ground and below. Including working to promote more bicycle riding, putting in new and safer bike lanes, working on bus routes, meetings, laying track and tunneling subways. Yes, you read right, more subways.

Last month we told you about the retirement of Harriett the Tunnel Boring Machine that tunneled between the Expo Line and the connection to the Los Angeles Airport LAX. Previously you read about the about the Purple line which will be tunneled under Beverly Hills.

There is also the Regional Connector that will link the Blue, Expo and Gold Lines in Downtown Los Angeles. The Project will allow Metro to use the connector to create two long light rail lines. One will travel from Santa Monica to East Los Angeles, and the other from and Azusa to Long Beach by subway. It will allow riders to travel through downtown L.A., and greatly reduce their need to transfer. They will no longer need travel into Union Station to make the transfers from one line to another.

The project is scheduled for completion in 2021. With a cost \$1.75 billion, and will be 1.9 miles long. It will run from Little Tokyo, North to Bunker Hill and West to 7th and Flower Streets. It will also share five stations in Downtown Los Angeles, namely Pico, 7th/Metro, 2nd/Hope, 2nd/Broadway and 1st Central.

LAMETRO is ten weeks in into the project and 60 feet beneath the streets of downtown Los Angeles, the "miners" have clawed through nearly 2,500 feet of earth. They have been operating the Tunnel Boring Machine night and day.

On a very cool Thursday in May, about 5:00 AM, as the moon was starting to wane, the miners gather for their shift morning briefing. The day before they had been unable to dig. Gas, most likely Methane, had been detected in the tunnel, and they had to wait for state inspectors to give the okay. The news was good – all was clear, but for safety the monitoring would continue. They were cautioned to be careful.

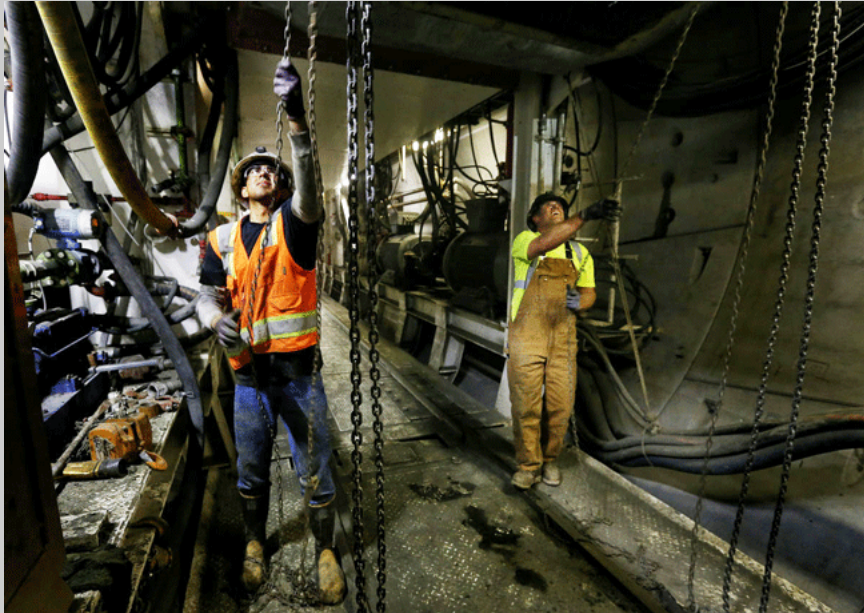
With hard hats and fluorescent vests reflecting the glare of the light towers, and coolers in hand they walked down seven flights of stairs into a large open pit, which was shored up by wooden timbers and crowded with vats of grout, portable trailers and man lifts. As they descended into the mouth of the tunnel, the moon, clouds and the city disappeared as they entered.

The miners, traipsing single file along a plank walkway, descend a gentle grade into the tunnel for nearly half a mile before reaching their destination. After about a 5-minute walk they reach the 400 foot-long, 1,000-ton earth chewing beast known as the Tunnel boring machine. The miners begin to spread out to perform their individual tasks.

Inside the operator's cab, a small air-conditioned box near the front of the machine the operator faces a wall of monitors, one featuring video feeds of the conveyor belts, others relaying with rising and falling numbers the machine's progress. The operator's hands are reflexively poised over rows of switches, dials, toggles and buttons lit red or green. He picks up the phone and says: "OK, we're good to go."

He looks more like a computer technician than a miner, and the numbers on the control begin to rise, Seventy-feet ahead, far out of sight, the machine's cutting head has begun to rotate. Hydraulic jacks push the cutting head forward and exert a steady pressure against the earth. The head grinds through the earth at two rotations a minute, shaving and clawing at a dense wall of clay and silt compressed over millennia. Every minute it advances three inches.

Auger screws churn the excavated soil, softened by a foamy mixture of air, conditioner and water to a Play-Doh like substance known as 'muck', and conveyor belts transport it back to the pit and an armada of dump trucks bound for Irwindale.

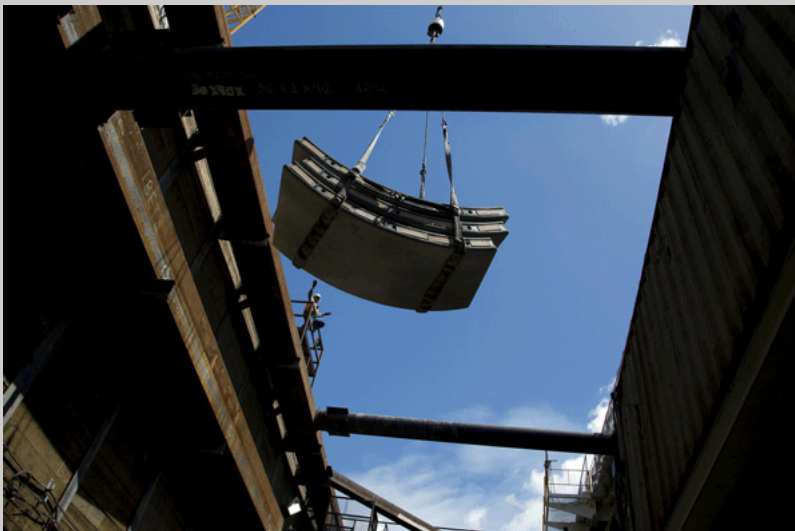


Inside the tunnel boring machine, the engineer and machine's operator lower the cheese grater, a screen that helps break down the clumps of 'muck' as it transitions from the screw augers to the conveyor belts!

The high-pitch whirl of the cutting head echoes inside the tunneling machine along with the drone of the conveyor belts, motors driving the hydraulics, the hammering of the grease pumps and the occasional air-horn blast from an arriving locomotive that runs through the tunnel ferrying supplies and equipment.

After about 20 minutes, the operator pushes a button on the console labeled "Ringbuilding" and his crew of "moles" sometimes called "sandhogs" takes over.

Six prefabricated segments, up to 8,000 pounds each, have been hauled into the tunnel by a locomotive by an erector. A circular crane moves like the hands of a clock, positions the segments and a keystone around the circumference of the tunnel.



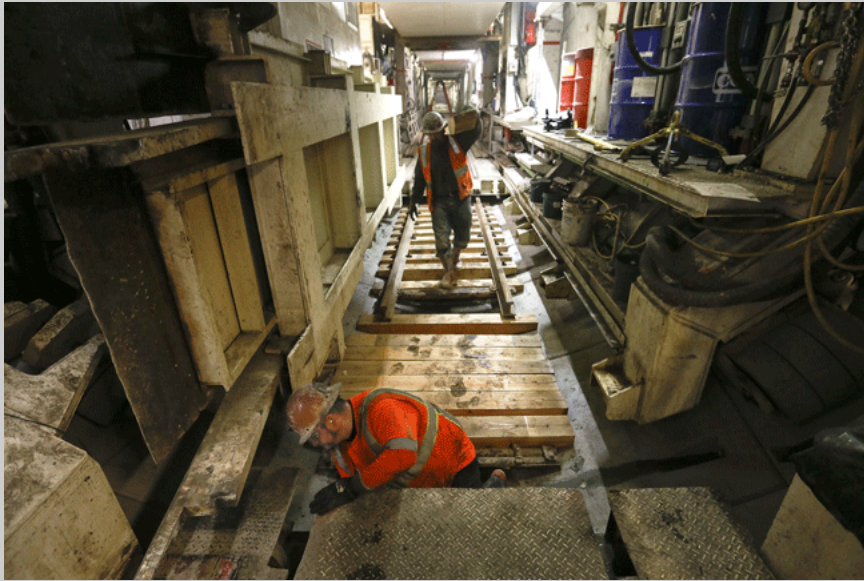
Crane operator lowers concrete segments onto a small locomotive that will carry them to the tunnel boring machine. These segments form the interior of the tunnel.

"Retract," shouts a ring builder, and a joystick is joggled on the remote hanging off the chest of one of the workers, bringing a segment into alignment.

Moving gracefully, each step orchestrated by habit, the miners scramble over and under the erector, leveraging themselves against a network of ladders, catwalks, angle irons and tread plates. Impact guns slam segment bolts into the adjoining segments, and after 20 minutes, they are done.

The process starts over and the Tunnel Boring Machine begins to move again for another 20 minutes.

So it goes for each 10-hour shift, this back and forth between mining and ring building. Some miners extend water lines, electrical conduits, ventilation ducts and tracks for the locomotive. Another oversees a continuous injection of grout between the rings and the tunnel boring machine.



The crew is a tight knit group, and there are no women currently on this shift. They can see themselves doing little else for a living. They like being left alone to do their job. They like the variety of challenges, the on the spot repairs. They like the community and camaraderie.



These miners sometimes have to get into tight spaces while working inside the tunnel boring machine.

Construction workers will lay almost a mile of that tunnel through a methodical excavation of Flower Street, building the subway and the rebuilding the Street. The rest, however, is being dug the hard way.

This is tunnel mining!

World's Greatest Hobby on Tour Announces 2018 Schedule!

Monroeville, PA • January 6 & 7, 2018 – Monroeville Convention Center, Monroeville, PA!

The Pittsburgh, PA area is the 26th largest market in the United States!

Over 30,000 attended the last WGH on Tour show in Monroeville!

Charlotte, NC • January 13 & 14, 2018 – The Park Expo & Conference Center, Charlotte, NC!

The Charlotte, NC area is the 22nd largest market in the United States!

This is the first time for the WGH on Tour show in Charlotte!

Houston, TX • February 3 & 4, 2018 – NRG Park Arena, Houston, TX!

The Houston, TX area is the 6th largest market in the United States!
This is the third time for the WGHonTour show in Houston!

Edison, NJ • March 10 & 11, 2018 – New Jersey Expo Center, Edison, NJ!

The New York City, NY area is the largest market in the United States!
This is the fourth time for the WGHonTour show in Edison!

The World's Greatest Hobby on Tour showcases the hobby of model railroading. Sponsored by the Hobby Manufacturer's Association - Model Railroad Division and by the World's Greatest Hobby Program, the show is intended to introduce the general public to model railroading in an entertaining, lively and family-friendly atmosphere. The hobby of model railroading has a unique ability to bring the family together in activities that teach many skills. Model railroad skills span from carpentry to artistry, from electrical engineering to historical research. Model railroading in our opinion is truly the World's Greatest Hobby.

Since the shows began in December of 2004, over 1,500,000 people have attended! For most of these people, it was their first experience with model railroading. These shows broaden the exposure model railroading receives among the general public. The four to five shows we run each year are all amongst the highest attended shows each year in the industry and are uniquely positioned to focus on attracting new customers.



Here is a wild thought for those of you who say that you really want to keep this hobby going (*and actually mean it...*). If you know someone that you think would like to be a future member of this hobby, take them to this show, if you live in these areas. There are also Great Train shows scheduled this year in **Belleville, IL; Collinsville, IL; Fort Wayne, IN; Grayslake, IL; Kansas City, MO; Pleasanton, CA; Pomona, CA; Puyallup, WA** and **Shakopee, MN**.

Better yet, if you live in some of these areas with these new light rail or streetcar lines (i.e. **Cincinnati, OH; Dallas, TX; Kansas City, MO; Los Angeles, CA - Expo or Gold Lines; Seattle, WA; Tucson, AZ***; and **Washington, DC**, make an outing and take them on these lines. The reaction may be just similar to the 1920's reaction to a new Peter Witt, the 1940's reaction to a brand new PCC or even the flyover of a B-2 bomber. Some of the show areas listed earlier have existing or new light rail lines operating.

Don't forget the Greenberg Shows at the Monroeville Convention Center in **Monroeville, PA** (July 22-23 & November 11-12), the Maryland State Fairgrounds in **Timonium, MD** (August 5-6), the New Jersey Expo Center in **Edison, NJ**, and the Dulles Expo Center in **Chantilly, VA**

** highly recommended for vacationing and streetcar riding*

MODELING NEWS.....

Harvey Simons' Own F-line!

Harvey Simon of Charlotte, North Carolina has been working on his version of San Francisco's F-line. In our March 2017 issue, we showed you one of his kit-built streetcars, a model of one of San Francisco's ex-Milam cars, car 1811. This month we are showing you a little more of the same small detail packed layout.

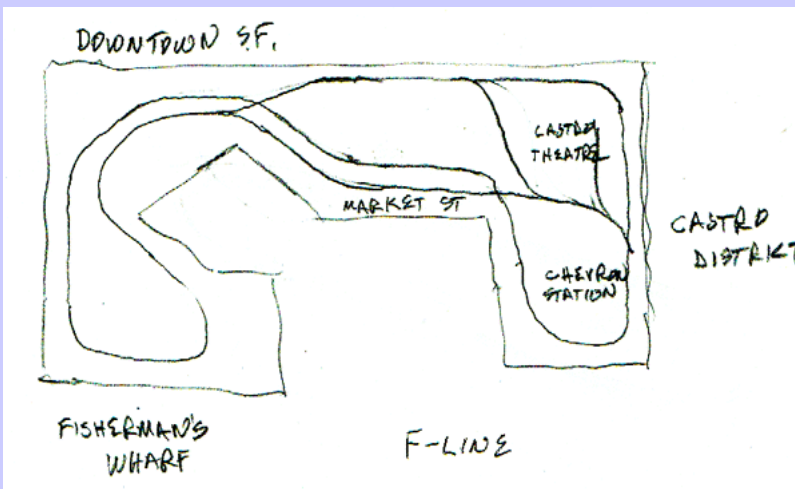


Since the previous photo was taken, Harvey has added another model of an actual San Francisco structure shown in the next photo:



Harvey told us that if you Google Buena Vista Realty on Noe Street in San Francisco you should see the prototype structure. It is shown adjacent to Bank of the West--the brown building with the orange windows.

We asked to see a lot more of this nice layout! Just before we went to press, Harvey provided a sketch of the track plan:



Harvey's layout exemplifies a great marriage between the 'make' and the 'buy' facets of the current model railroading hobby. While it is obvious that he has scratch built or modified many kits for his structures, and built, painted, lettered and powered a kit for his San Francisco Milan Streetcar, there are Ready-To-Run motor vehicles and streetcars such as the New Orleans 952, Muni (Boston) 1059 and Muni (Brooklyn) 1053 on the layout.

The Quest for Mass Produced Models of Modern LRV/Streetcars!

As most of you know, Custom Traxx along with the Southern California Traction Club (SCTC) has been attempting to persuade the major model railroad manufacturers to develop and produce some of the excellent urban rail vehicles that have come on the U.S. scene since 1981. Volkmar Meier and his company, Interurban Traction Models, obtained sufficient information to develop detailed 3D drawings of the Siemens S70 Ultrashort Light Rail Vehicle and the United Streetcar 100/200 and a few others. Details were supplied by San Diego Metropolitan Transit System (SDMTS) through Custom Traxx.

The Siemens S70 Ultrashort is a three section twelve wheel, 70% low floor vehicle currently used in San Diego and Salt Lake City with streetcar versions in Atlanta and Salt Lake City. The United Streetcar 100/200 is a three section, eight wheel partially low floor vehicle used in Portland, Tucson and Washington D.C. Similar cars have been built by Skoda, Brookville and CAF.

Because Volkmar lives in Paris and Berlin, he teamed with Custom Traxx (George Huckaby) after the East Penn Traction Club Meet in May 2015 to assist him in getting some data on the S70 from SDMTS. SDMTS was very hospitable and allowed us to photograph, measure and view operations of the vehicles. such data was given to Volkmar and by July 2015, the first of the HO scale models of the S70 was ready. It was assembled in France, powered by two Halling Drives with the body and chassis made using a new process called 3D Printing.

This model, painted as SDMTS 4001, was tested and found to be satisfactory but slightly noisy. So efforts were made to modify the second unit to use the Bowser 125100 drive. This drive had been in production since 1999 and had evolved to be a rugged quite power unit with parts readily available. So Volkmar made the modifications plus corrected some errors in the first unit and by the fall of 2015 the second HO scale unit, SDMTS 4012 arrived at Custom Traxx for testing. This car was operated in trains with the 4001 to test coupler swing and the ability of the cars to run in trains on the curves typical of model railroad "traction" layouts and they passed. The Bowser unit was notably quieter. The third HO unit, SDMTS 4053 arrived later equipped with two Bowser HO traction drives. A fourth HO unit, SDMTS 4034 equipped with a single Bowser traction mechanism provided the ability to test three car trains.

Testing on a layout in Calabasas, CA concluded that a single Bowser 125100 drive with proper weight distribution would handle most layouts so the idea of two Bowser units was shelved. By the way all testing was done on the modules of the Southern California Traction Club or their clubhouse test track equipped with 6", 9" and 12" radius curves. Many views of this testing has been shown on social media.



HO scale model San Diego Trolley U2 along side SDMTS S70 4012, the second 3D Printed Unit!

The team then decided to show these units to model railroad manufacturers. They talked to Athearn, Bowser, Kato, and Rapido. They even visited Athearn in Long Beach, CA and Bowser in Montoursville, PA and demonstrated the models. The SCTC even demonstrated the models at the Worlds' Greatest Hobby on Tour Show in Pomona to the Kato folks. While they all showed some interest and said "...that's nice...", there was universal agreement among these folks that there was no proven market in the US for these models. The slow disappearance of the model train hobby shop, upon which the marketing of the hobby had been based for many years, has made estimating a market for a new model very difficult if not impossible.

Another issue is the fact that the U.S. model railroad manufacturers have for the longest time predicted that the U.S. model railroad hobby was slowly dying. This justified not investing in the future and not trying to advertise to the younger generation. They continued to produce models mostly for the older "social-security-recipient" crowd that is leaving this life in increasing numbers each year. Many hobby firms have gone, while others have consolidated or diversified. Some of these manufacturers have no connection with those under 40, college students or the same demographics that started model trains 50 years ago. They have no idea about the current acceptance of public transit in the younger (under 50) generations and immigrants from countries where the automobile is NOT king. The demise of this hobby in the United States may turn out to be their self-fulfilling prophesy.

Whether you want to accept this or not, our hobby is in the end of a "make-to-buy" shift similar to many industries in the United States. Years ago, you obtained a wood and paper kit from your local hobby shop. You spent hours assembling it, painting it, lettering it and making it run. Then the wood/paper kits were replaced by plastic kits. some of them were pretty intricate. But they still took time and time was becoming less and less available. I can still remember when Athearn starting placing numbers on the ends of freight cars. When China entered the picture with lower labor rates, the complete ready-to-run cars came along.

At the same time, miniaturization had moved the hobby from standard gauge, through O, S and HO scales to N and now Z scales. The size of these smaller scales makes the level of detailing so prevalent in the larger scales practically impossible. But this same size allows longer more prototypical trains. So it should not surprise anyone, that the team has developed an N scale model of the Siemens S70. Four of these models were available at the recent National Trolley Show for the public view. The next photo is a two-car train operating on a city N scale layout equipped with Kato Unitram track.



N scale SDMTS S70 models 4001 and 4012 in operation!

Last month we attended the East Penn Traction Club Meet, which seemed to be called the National Trolley Meet if you believe the signs on the Allentown building. We learned that one major manufacturer is assembling data to obtain bids on an HO scale and possibly an N scale light rail vehicle model and another supplier has announced an HO scale version of the streetcar S70 as used in Atlanta. The latter supplier intimated that they had been approached by a customer to make this vehicle and if this is accurate, this is a very good sign.

Our quest with the U.S. model railroad manufacturers may be starting to get some results. We have a binder full of modeler input sheets who saw our San Diego MTS HO scale models at Arnie's Model Trains (Westminster, CA) on more than one occasion since the beginning of 2016. We have a great deal of emails again just from the San Diego area. The reaction to these cars is greater than any model that we have ever displayed. But up to this point, that has not been good enough for at least those major U.S. model train manufacturers, with whom we have discussed the project. A smaller manufacturer indicated at the recent National Trolley Show that they will be making a modern vehicle but we will see what happens there.

The good news is that it has been decided to place these models on Shapeways and allow those modelers who want them to get them, then paint, letter and power them. So look for these models in June or July at that location. There will be instructions on how to assemble, paint and power them in our Trolleyville Schoolhouse. Who knows, in a couple of years, there just might be mass produced models of today's modern urban electric railway vehicles.