



October 2016

Welcome to Trolleyville!!!! - Work is continuing on the development of bot

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## CURRENT EVENTS .....

# Trolleyville Visits the Siemens Florin, CA Facility!

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Siemens Corporation is a U. S. Subsidiary of Siemens AG, a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. Siemens in the USA reported revenue of \$22.4 billion in 2015 of which \$5.5 million was in exports and employs over 50,000 people throughout all 50 states and Puerto Rico. They are currently providing rail vehicles, locomotives, components and systems to more than 25 agencies in such cities as Washington, D.C., New York City, Boston, Chicago, Seattle, Miami, Orlando, Philadelphia, Denver, Baltimore, Salt Lake City, Minneapolis, Houston, Portland, Sacramento, San Diego, Saint Louis and Charlotte. They have transportation hubs in Sacramento, CA; Louisville, KY; Marion, KY and Pittsburgh, PA.



Florin Facility Front (photo by G. Huckaby)

They entered the United States Light Rail Vehicle (LRV) market with 14 U2 vehicles sold to San Diego in 1980 for the "Tijuana Trolley". San Diego ended up with 71 of these vehicles in five orders (*November 1980 [14]; November 1982 [10]; January 1986 [6]; November 1988 [20] and July 1989 [21]*). The next Siemens vehicles were the 52 SD-100 LRVs that arrived in October 1993. Eleven S70 LRVs arrived in October 2004 and were fine vehicles except that their almost 91 ft length caused three-car trains to be more than the length of some of the short city blocks downtown. Thus was born the S70 Ultrashort LRV which is essentially the streetcar version of the S70 that is only 80 feet long. San Diego would buy 65 of these. They would arrive in 2013 and 2014 and enable the retirement of the U2s in January 2015, some of which had seen 35 years of faithful service. The S70s would also allow low-floor boarding and this speeds everyone's ride. So the San Diego Trolley is and always has been a 100% Siemens operation.

Siemens manufactured the San Diego S70s and many other currently vehicles at their Florin, CA facility, which is just south of Sacramento, CA. Siemens entered the North American Light Rail Vehicle (LRV) market in 1978 with 37 U2 vehicles for the city of Edmonton, Alberta. Thirty years later Edmonton returned to Siemens for 57 SD160 vehicles. Seattle, Washington

has just ordered 122 new Siemens Light Rail Vehicles, presumably S70s and San Diego is in process of adding to their S70 fleet of 76 vehicles as this issue goes to press.

Arrangements for this visit started last January. Schedules had to be coordinated. Finally, Tuesday, August 30th worked for all in question. Trolleyville was hosted by Robin Arthur Stimson, Vice-President, Business Development, Mobility Division and Gina Mattern, Senior Marketing Specialist, Mobility Division. The plant has many visitors. On August 29th, Mayor Ed Lee of San Francisco, Supervisor London Breed, Assemblyman David Chiu along with both San Francisco Municipal Transportation Authority (SFMTA) and Siemens officials toured the same facility to inspect San Francisco Municipal Railway's new vehicles. These vehicles will replace the Breda cars which replaced the Boeing Cars. Who knows, San Francisco may finally get a car that they like this time.



*Robin Stimson and Gina Mattern  
(photo by G. Huckaby)*

The Mobility Division has a rather large footprint in the area. The facility that we visited is in Florin, CA, employs about 1,000 people and includes a recent 125,000 square foot expansion. An additional 60,000 square foot expansion was opened last February in an area known for a long time as McClellan Air Force Base, but now called McClellan Park, home to over 200 industrial and office tenants.



*Aerial View of Siemens' Florin Facility (photo courtesy of Siemens Publicity)*

The first item on our tour were the S200 High Floor Light Rail Vehicles being fabricated for the City of Calgary Alberta. The S200 succeeds the SD100, SD160, SD400 and SD460 as the preferred Siemens High-Floor LRV for North America and is currently manufactured with the Siemens Low-Floor S70 LRV. 63 have been ordered for Calgary and another [215 for San Francisco](#). The San Francisco order will be the largest Siemens order in the United States to date. The first car is scheduled to be in San Francisco late this year or early 2017. We will be trying to get more information on this car as it is a candidate for a future modeling project.



Calgary S200 at Florin. (Photo by G. Huckaby)



San Francisco S200 in work at Florin (Photo by Jerold Chin)

We did not see any [S70](#) or [ACS \(Amtrak Cities Sprinter\) 64](#) vehicles on the floor during our visit but there were a lot of interesting items.

The first was an SC-44 "Charger" Diesel Locomotive for Cal Trans. This engine and 60 others have been ordered on a combined contract coordinated by the Illinois Department of Transportation (IDOT) to furnish locomotives for California, Illinois, Michigan, Missouri and Washington. Eight more are going to Maryland (Maryland Area Regional Commuter or MARC) and Brightline has purchased ten for new service between Miami Central (a mixed use railroad station development under construction in Miami) and Orlando International Airport Intermodal Terminal. The units will be used in pairs with five passenger cars between them. We did see those cars being built while we toured the facility.



**The Cab end of the "Charger Locomotive" (Photo by G. Huckaby)**



**Another view of the "Charger" locomotive. (Photo by G. Huckaby)**

The "Charger" diesel-electric loco is intended for passenger train service. The primary traction drive is a 4,400 horsepower-rated diesel engine with 16 cylinders and a cubic capacity of 95 liters. They will be compliant with the Federal Railroad's EPA Tier IV regulation required to be in place by 2015. The engine is shown below:



**Cummins 4,400 hp diesel engine (Photo by G. Huckaby)**

One interesting piece of equipment, shown in the next photograph, is call the "Schuerle". This 32 wheeled vehicle is operated by remote control and can move any of the vehicles being manufactured or refurbished at the plant.



**The "Schuerle" (photo by G. Huckaby)**

## **Latest Modern Streetcar / Light Rail Vehicle News!**

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*by Edward Havens*

"Open for business." That's how WVXU public radio described the Sept. 9 debut of public service on the 3.6-mile, \$148 million Cincinnati modern streetcar line. There was a flurry of confetti outside the Music Hall as the Cincinnati Bell Connector, the branding for the corporate sponsor, began giving passengers a long-awaited ride. Former Mayor Mark Mallory, a streetcar supporter, said the city was building for the future and his successor, Mayor John Cranley, who based his election campaign on streetcar opposition, said he and his wife were taking a ride because now it's time to make the car line a success. WVXU reported several hundred people attended the opening including some from out of town from such places as Baltimore and Indianapolis. Businesses agreed to underwrite free rides during the three-day opening weekend. Effective Monday, Sept. 12, passengers were required to pay \$1 for two hours of riding, or \$2 for an all-day pass. Only four of the five C.A.F. streetcars were available for opening day; one was sidelined for repairs stemming from a motor vehicle accident during the earlier streetcar testing phase without any passengers aboard.



WLWT television posted a story about special deals that were offered on the opening weekend of Cincinnati Bell Connector, the marketing name purchased by the internet and wireless provider, to advertise its service. Retailers along the route offered discounts with up to 25 percent off regular prices. Included were 10 percent off at Findlay Market in Over-the-Rhine and free admission to Contemporary Arts Center. Meanwhile, Cincinnati Business Courier reported that Councilman Kevin Flynn wants to provide dedicated lanes to Uptown and the university area and run a faux rubber-tired "trolley" as a preview for eventual street railway service to the area. "If you do it right, you could have it running at fraction of the cost, get it running so people get used to the connectivity, have them get rid of their cars and then as money becomes available for capital, put rails into the ground."



Cincinnati Enquirer marked the opening of the streetcar line by publishing an op-ed guest column by John Schneider, a streetcar advocate who led the fight for construction of the car line. He and his fellow streetcar supporters kept hopes alive even when the likelihood of building the starter line seemed the bleakest. Schneider said the streetcar will redraw mental maps of downtown, providing access to sports, cultural and restaurant venues. He said if the city acts with purpose, tracks could reach the University of Cincinnati main campus to the north of the Over-the-Rhine historic zone within six years. "As steel rails reveal the richness and authenticity of our city, most Cincinnatians will forget why we fought about it."



Some of the first riders are shown in our last two photographs. Included in the first photo are three City Councilmen!



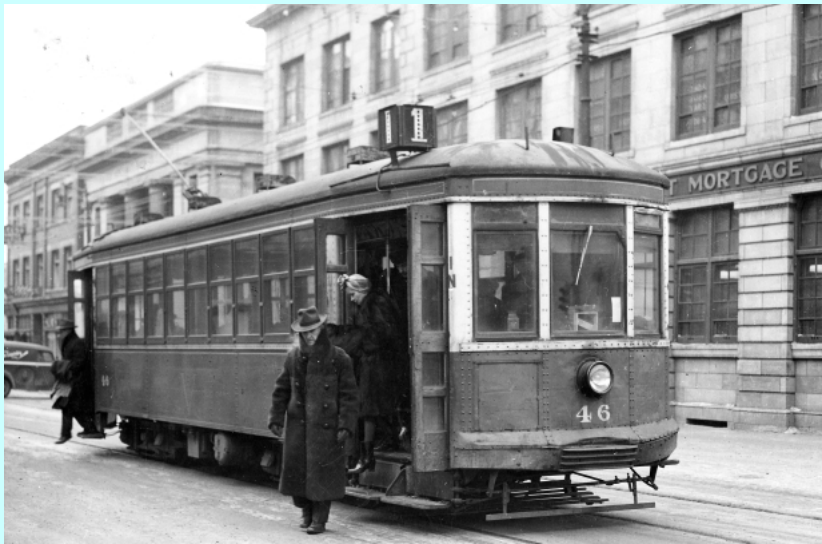
Earl Clark, 93, is shown in the final photo with one of the cars in the background. He rode the last Cincinnati streetcars in April 1951.



*[Ed: Of course, the weekend of celebration in Cincinnati could not proceed without the interference of some local "sludge". On Saturday, September 10, all streetcars had to be evacuated for about one hour due to a bomb threat that turned out to be a hoax. After the bomb sniffing dogs were brought in to examine all of the cars and buses substituted, service was eventually resumed. There were other such incidents within the previous days during the Cincinnati Zoo, Mason High School, and Colerain High School.]*

Despite that one-hour shutdown, over the three-day opening weekend 50,646 passenger trips were logged with 18,414 trips on the first day, Friday, September 9. The city owns and funds the streetcar but it is operated by Transdev. Transdev, formerly Veolia Transdev, is a French-based international private transport operator with operations in 19 countries.

Regina, the capital city of Saskatchewan Province in central Canada, had a street railway system from 1911 to 1950. They were forced to abandon the street railway one year after a disastrous car house fire destroyed much of the rolling stock on January 23, 1949. Seventeen trolley coaches, 9 buses, 5 steel streetcars and 9 wooden streetcars were destroyed. Car 43, similar to the one shown below, was the very last car. One car body has been found and preserved and will be restored, the "post leader dot com" site reported Sept. 10. However, the restoration will take place at Edmonton, Alberta Province, by the Edmonton Radial Railway Society which operates trolley museum trackage and a separate line across Edmonton's historic high bridge. The car body, transported by flatbed truck to Edmonton, is sitting on shop trucks and when restoration is completed will operate at Fort Edmonton Park.



In Australia, a koala left stranded between a highway and the proposed northern extension of Gold Coast light rail is endangered and may not survive unless it is relocated, Gold Coast Bulletin reported Sept. 9. The koala is living in a small stand of melaleuca trees and has no chance of long term survival at that site but the government is unwilling to relocate the animal, conservationists say. The LRT extension will link the starter rail line at the seaside resort along the Pacific Ocean with a nearby passenger railway at Parkwood.





Phoenix, Arizona's state capital and largest city, will host a grand opening ceremony Oct. 7 for the first Valley Metro light rail extension within city limits, The Arizona Republic newspaper reported Sept. 8. The extension in northwest Phoenix will run from the present terminal opposite Christown shopping mall northward to Dunlap Avenue. The \$327 million extension on North 19th Avenue is expected to give an economic revitalization boost to neighborhoods along the new tracks.



Hampton Roads Business Journal reports that results of a Hampton Roads Transit engineering and capital costs study for a light rail extension eastward to Town Center shopping plaza in neighboring Virginia Beach now is 30 percent complete. According to a story posted by the "pilot online" site Sept. 9, the results of the study will be presented to Virginia Beach City Council Oct. 3. The seaside resort city will hold a non-binding referendum in November on whether to extend the 7.4-mile Norfolk starter into the seaside resort community. The latest consulting study work completes the environmental assessment needed to advance the LRT project.



A ceremony was held Sept. 11 on the 15th anniversary of the terrorist attacks on New York's World Trade Center twin towers to mark the display of a Port Authority Trans Hudson [PATH] rapid transit car that was under the office towers when hijacked jetliners crashed into them. The PATH car extricated from the rubble now is displayed at Shoreline Trolley Museum, East Haven, Connecticut, the "new haven register" site reported Sept. 4.



The student newspaper at Washington University in St. Louis reported Sept. 8 that the Delmar Loop heritage streetcar line at the inner ring suburb of University City is due to open to public service in April 2017. Rail line construction work is expected to wrap up in November in advance of the holiday shopping season. The line is stub ended at both terminals. Rolling stock will include three former Seattle waterfront line ex-Melbourne "W" class trams and two ex-Portland TriMet Brill replica semi convertibles leased for service for 10 years. All streetcars will be equipped with pantographs.



The Times reported in a previous issue that Philadelphia's Southeastern Pennsylvania Transportation Authority (SEPTA) had pulled all 120 Silverliner V cars from service on July 1 after agency workers discovered fatigue cracks in the equalizer beams on 115 of the units. These cracks were due to welding defects between the suspension beam holding the car body and the trucks. The equalizer beams are part of the rail-car suspension system and distribute the vehicle's weight to the axles. The agency began returning the repaired cars to service on August 31 and was scheduled to return 10 cars each week to

service. But on September 10, Philadelphia Magazine reported that SEPTA pulled all 18 of the recently repaired Silverliner V electric multiple unit coaches from service after a new defect was found. These cars were either in service or ready to return to service according to SEPTA officials. The recently repaired cars had a clearance issue between the redesigned and original parts but a fix was to be made. If enough of the 120 cars are returned by early October, regular Regional Rail service will be restored. Because one-third of its fleet was sidelined, SEPTA leased locomotives and coaches from Amtrak, NJ Transit and Baltimore-based Maryland Area Regional Commuter train service and operated reduced service with some stops being skipped. A shuttle bus service was launched as a stopgap measure. But the agency also stated that the manufacturer will make a minor design modification to the foot that supports the new equalizer beam at both ends. The cars that receive the modification were expected to be available for service late in the week of September 12-18, 2016.



Silverliner V Single Unit 701



Silverliner Married Pair 801-802

According to Wikipedia, Hyundai Rotem is a South Korean company that manufactures railway rolling stock, defense products and plant equipment. It is part of the Hyundai Motor Group. Its name was changed to the current one from Rotem on December 2007 to reflect its parent company. The company was originally founded in 1999 as Korea Rolling Stock Corporation (KOROS), the result of merger between then three major rolling stock divisions of Hanjin Heavy Industries, Daewoo Heavy Industries and Hyundai Precision & Industries. The company subsequently changed its name to Railroading Technology System, or Rotem, on 1 January 2002. It adopted its current name in December 2007 to reflect its current owner. Hyundai Rotem currently employs 3,800 and exports to 29 countries worldwide.

*Note: SEPTA entered into a contract with Hyundai Rotem for 120 Silverliner V cars in 2006 with delivery initially scheduled for 2010. There were 38 single units (701-738) and 41 pairs of married cars (801-882). They are called Silverliner V as they are the fifth-generation of single level Electric Multiple Units (EMU) used in the area. Cars 735, 736 and 871-872 were specifically equipped for the Wilmington/Newark Line and are owned by the state of Delaware, and Cars 821-822 are reserved for use on the Warminster Line. They were completely ADA-compliant and met all FRA safety requirements. Although the first car arrived in February 2010 and the remaining were due by the end of 2011. They were built in South Korea and final assembly performed in South Philadelphia. However, as has become almost routine with many vehicle fabricators, the manufacturer was late in deliveries. Similar cars were ordered and have been in use in Denver, Colorado since April 2016.*



Silverliner 701 with train!

Washington, D.C., launched its first Sunday service Sept. 18 on the H Street-Benning Road modern streetcar line and officials hoped the change would lead to greater ridership, The Washington Post reported. Previously, Sundays had been reserved for maintenance along the two-mile car line which has a western terminal just north of Union Station. There are no current plans to charge fares but free rides are costly. "Just six months in, the District is spending more for each passenger it carries than do many other streetcar projects. It incurs \$9 in operating expenses per rider, compared with \$2 in Kansas City, Mo., \$3 in Portland, Ore., \$4 in Tucson and \$8 in Atlanta, according to a Washington Post analysis of federal data and city figures." There are plans to extend the Washington, D.C., line east to the Metrorail Benning Road station and westward to upscale Georgetown.



Washington DC United Streetcar 203!

Crain's Detroit Business reports that Brookville Equipment Corp. of Pennsylvania delivered the first "Liberty" model dual-mode streetcar to Detroit M-1 Rail, branded for marketing as Q Line, on Sept. 13. This will allow testing on the 3.3-mile Woodward Avenue line from downtown to midtown. Construction is to wrap up in November before Thanksgiving and the start of the holiday shopping season. If all required regulatory safety checks can be completed, public service will begin in April 2017.



Detroit's Brookville "Liberty" Streetcar at Brookville (left) and in Detroit (right)!

The unit, shown above, would arrive nearly **two months ahead of initial projections**, M-1 Rail officials said in a press release. "Receiving the first QLINE streetcar at this time will provide M-1 RAIL a greater opportunity to help Detroiters acclimate to the idea of sharing the road with a streetcar, and give us additional time for driver training," said M-1 Rail Chief of Operations Paul Childs. The three-piece QLINE streetcars are each 66 feet long and will carry an average of 125 passengers per car. The units will share the road with automobile and truck drivers and can travel at speeds up to 35 mph. The cars also will feature Wi-Fi access for passengers, vertical bike racks and heating and cooling systems.



On the other side of the country, KUOW public radio reported on September 27th that Seattle-based Sound Transit opened its newest light rail extension, shown above, on September 24th to serve SeaTac City at Angle Lake Station, south of the former terminal at SeaTac International Airport. The story that noted the debut featured both a party and a protest. Sound Transit spent \$53,000 on the party with Alaska Airlines subsidizing \$25,000 of the cost. Residents of a nearby mobile home park staged a protest, claiming light rail will bring gentrification that will price them out of their homes. The Angle Lake Station is on an elevated alignment.



Von Dullen Streetcar 2005 on Canal Street!

WDSU television in New Orleans reported Sept. 27 that service on the new Rampart-St. Claude streetcar branch was due to open Sunday, October 3rd. The Advocate reported that trial runs were underway in September with construction barriers gone, new street lamps up and the roadway paved. Red Von Dullen replica Perley Thomas cars, like 2005 shown above, with Americans with Disabilities Act (ADA) compliance will operate the line. This is the second branch added since the Loyola Avenue streetcar line to Union Passenger Terminal.



TECO replica Birney Safety Car #428.

Tampa Bay Times reports that there was light rider ship Monday, September 26th, for the first day of morning service by the TECO heritage streetcar line to service commuters heading to downtown, the waterfront and a connecting ferry boat, and Ybor City. Streetcar service now starts at 7 a.m. It's a six-month pilot project. By 9:30 a.m. on the first day, one Gomaco-built double truck replica Birney had run empty for 2-1/2 hours but another had a few passengers.



Port Authority of Allegheny County reopened its Red Line "T" light rail system track through Beechview Sept. 25 following six months of reconstruction of deteriorated street trackage as shown above. The \$8.4 million project rebuilt three-quarters

of a mile of track. The Pittsburgh Post-Gazette reported that during the closure, shuttle buses were deployed.

## **More Evidence that "Streetcar" is no longer a "Dirty Word" in the United States!**

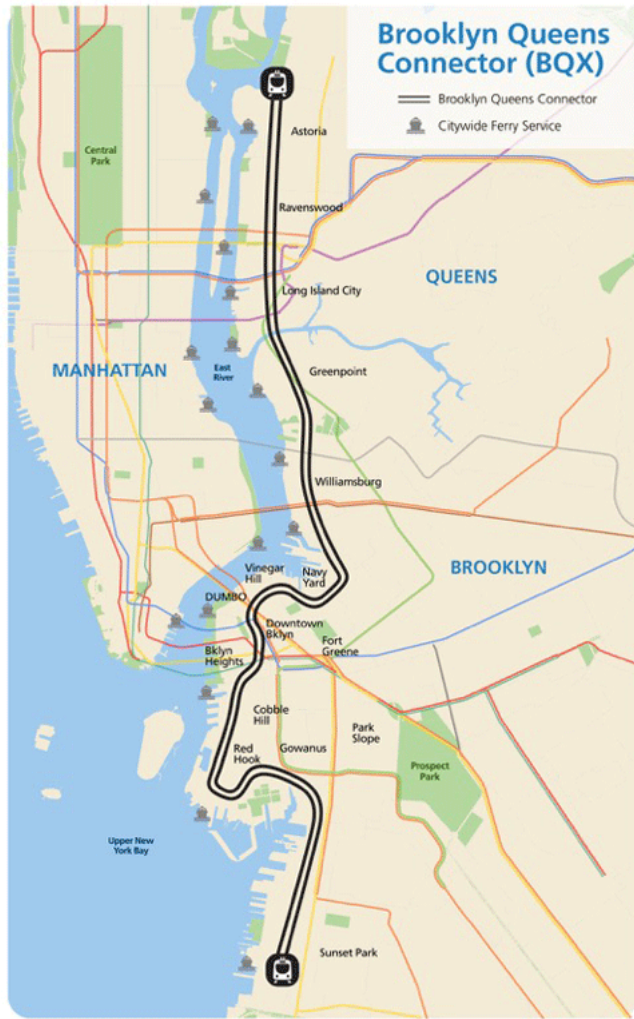
**\*\*\***

Progressive Railroading (PR) reported on September 9, 2016 that a majority of residents living along New York City's proposed Brooklyn-Queens Connector (BQX) streetcar corridor are in support of the project. PR was citing the results of a recent survey. In a telephone survey of 701 voters living along the route, 74% supported the project. The survey results show that residents in those boroughs "overwhelmingly believe that BQX is a much needed solution" for providing access to good-paying jobs.



*Artists rendering of BQX streetcar passing Industry City [From Friends of the BQX]*

Public Relations firm Global Strategy Group conducted the survey on behalf of the Friends of the BQX advocacy group. The BQX Connector would serve 50,000 riders each day, according to the Friends of the BQX. BQX is proposed to run 16 miles along the East river in Brooklyn and Queens. See map of proposed route below:



Ya-Ting Liu, Executive Director of the Friends of the BQX was quoted as follows: "...These findings echo what we're hearing loud and clear in communities throughout the corridor - that New York's 100-year-old Manhattan-centric transit system does not meet their needs and there must be a better way to get around..."



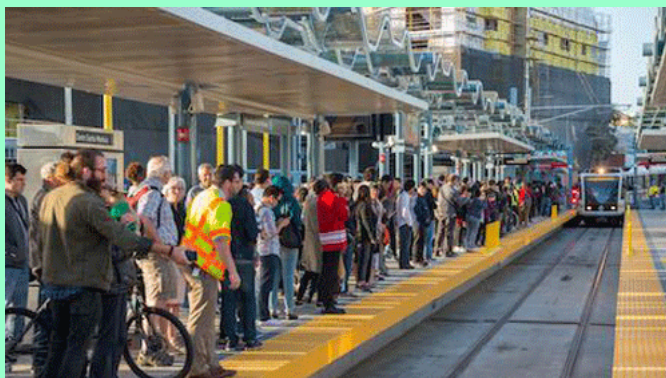
Rendering of a BQX streetcar in the rain in downtown Brooklyn [From Friends of the BQX]

BQX was proposed by Mayor Bill de Blasio announced a plan to build the \$2.5 billion streetcar line running from Astoria in Queens to Sunset Park in Brooklyn. This is a marked departure from Fiorello H. La Guardia (12-11-1882 to 9-20-1947) who served as mayor of the same city from 1934 to 1945. He pronounced streetcars to be "...as dead as sailing ships..." There is even a plan to extend the streetcar to La Guardia Airport. Fiorello may be rolling over...

## Other Urban Rail Related News!

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In our September issue, we presented evidence that more residents of the car capital of the world, Los Angeles, were switching to the light rail for their transit needs. Progressive Railroading reported on September 16, that 70% of the passengers using the new Expo Line extension to Santa Monica were new riders.



4th Street Station on Santa Monica on Opening Day, May 20, 2016

Of these new riders, 44% using to drive their own cars and 23% used a bus. It was also revealed that 50% of those interviewed walked, rode a bicycle or skated to the stations. If this information is accurate, one can deduce that the remaining 50% are being dropped off at the stations, parking at the lots available at three of the seven new stations or using Metro, Santa Monica or Culver City buses to get to the stations (*...which is the way it is supposed to work!*). Since May 20, when rail passenger service became available from Los Angeles to Santa Monica for the first time since 1953, overall rider ship on the line has grown to nearly 45,000 average weekday boardings. These results were from a survey conducted by the Metro itself by interviewing 1000 riders in June 2016 at the seven new stations just opened a few weeks previously. These seven stations are all in the 6.6 mile extension from Culver City to Santa Monica.

The National Football League (NFL) Los Angeles Rams played their first season football game at the Los Angeles Memorial Coliseum since 1979 when there was not one inch of urban rail transit in the Los Angeles area. Over 91,000 fans went to that game and the Metro states that over 21,000 fans rode the Expo and Silver Lines for their transportation to and from the event.



Fans riding one of the new P3010 trains to the Coliseum on 9-11-16!

Unfortunately, the game victory was not sealed until the last few minutes.





Post-game crowd at the Expo/Vermont Station - 9-11-16!

This meant that a crunch of people left the stadium at the same time. It took almost 85 minutes to get most of the crowds on trains after the game which I think was excellent for light rail line limited to three-car trains and no sidings within miles to store extra trippers. Metro had planned ahead with trains on the Expo Line **every 6 minutes** all day Sunday, parking lots were full at both the LaCienega and Culver City Stations.

*[Ed: While most of the Expo riders seem to appreciate the benefit of the new Expo service, there still exists that group of "crybabies" that continue to demonstrate that they do not know anything close about which they are talking. Statements about 12-car trains and faster service and grade separation are fine but do any of these motor-mouths know what trouble Metro had to go through to build the line as it exists. Remember anything done in this country is always a compromise and compromise is usually successful when no one is completely satisfied. Yes, we know that large events such as football games, rock concerts, baseball games, etc are best served by multi-car subway trains or commuter type trains but look how long it took to build the Expo line and that was only possible due to a land-grant railroad line being still available. A subway to Santa Monica has been overdue for over 50 years and is still in the fighting. Metro, despite its perceived incompetence, has done the best that it could under these circumstances, in our opinion. ]*

Los Angeles is not finished by any means! On Thursday, September 22nd, The Los Angeles County Metropolitan Transportation Authority (Metro) Board approved contracts to proceed with environmental work and community outreach for the proposed West Santa Ana Branch rail line which would connect LA's Union Station to Artesia, CA. The project would use 8 miles of abandoned railroad corridor, currently owned by Metro, between Artesia and Paramount, CA. The route would continue 12 miles north from Paramount to Union station via local streets and private right-of-way. During this environmental clearance phase, various alignments and routes would be studied between Union Station and Artesia and the final route will be subject to Board approval.

San Francisco is in the news also. Thirteen of the original fourteen\* ex-Philadelphia PCC cars that opened the F-line twenty-one years ago are now in the process of getting their fourth rebuild since they were originally constructed in 1947-1948. Car 1056, originally PTC car 2113, is shown below at Muni Metro East on August 26, 2016. This car, the first of these cars to be sent to Brookville Equipment Company in Pennsylvania, had just returned when this photo was taken:



Muni PCC 1056, ex Philadelphia 2113, less numbers and heralds on August 26, 2016 at San Francisco ! [Photo by Rick Laubscher]

Car 1056 began life as one of 110 PCC cars built for the Philadelphia Transportation Company under orders placed in July 1946 and delivered in August-September 1948. they were assigned numbers 2091 through 2200. Mostly confined to the routes that operated from North Philadelphia's Luzerne Car House, it would initially see service on routes 6, 47, 50, 53, 56 and 60. Eventually the car went to Callow hill Car house in West Philadelphia when it would see service on two heavy crosstown lines, routes 15 (Girard Avenue) and Route 43 (Spring Garden Street). At that time the car appeared as shown below left:



Car 2113 at delivery in 1948 in the original green & cream paint with silver gray roof and maroon belt rail!



Car 2113 after the first so-called SEPTA rebuild (mostly cosmetic) in the early 1970s shown at the Knorr Loop on route 50 in Northeast Philadelphia in what would be nicknamed the "Gulf Oil" paint scheme!

All of the PCC cars were practically "run into the ground" by both PTC in the 1960s and by SEPTA into the 1970s until an actual major rebuild was finally accomplished in the 1980s. This rebuild was applied to 112 of the original 210 all-electric PCC cars. After SEPTA abandoned PCC service in 1992, it was from these 112 cars, that Muni selected 14 for the F-line. After this rebuild the cars got the SEPTA red/white/blue scheme shown at right. Car 2113 is shown at Luzerne Street and Old York Road heading for service on Route 6.



*\*The fourteenth car, Car 1054, originally PTC 2121, was scrapped after being severely damaged by an inattentive LRV operator on San Jose Avenue during routine testing in 2003.*



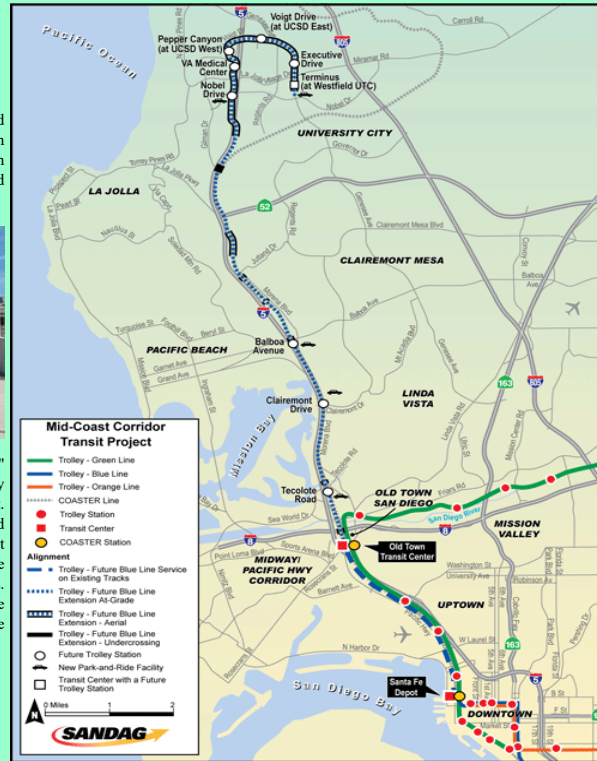
Muni 1056 with numbers and KCPS heralds in 1996 at 17th and Noe in San Francisco!  
 ("Center-fold" type photo in the June 1996 issue of Passenger Train Journal!)

Car 1056 is a relatively low mileage car. It had been in a 2001 accident up at Pier 39 and after being repaired was sidelined when a crack was found in one of its bolsters. This fourth rebuild added a number of items to the cars including a speedometer and cameras along with other items detailed in the 2016 No.3 issue of the "Inside Track", the official newsletter of the Market Street Railway. For a view of page 3 of that publication, [click here!](#) Incidentally, car 1055, ex PTC 2122, left for Brookville on the same truck that brought 1056.

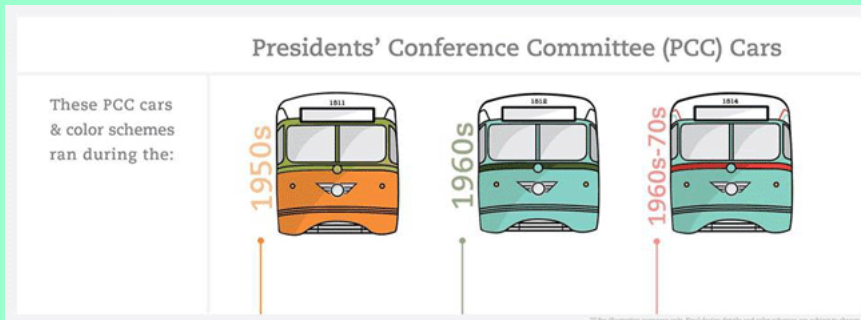
Elsewhere in California, Progressive Railroading reported on September 14 that the Federal Transit Administration (FTA) is ready to announce a \$1 billion grant to the San Diego Association of Governments (SANDAG) to build the Mid-Coast Trolley Extension (See project map at left).



The full funding grant agreement is the "last critical step" before beginning construction of the area's newest trolley line, SANDAG officials said in an emailed announcement. The new line will extend service from San Diego's Old Town community to the University City area. The largest public transit project in the region's history, the 11-mile Mid-Coast Trolley Extension will include nine stations. The project is estimated to cost \$2.1 billion, with the regional "Trans Net" half-cent sales tax covering half the cost and the federal government picking up the remainder.



Moving eastward, El Paso, Texas continues to make progress on restoring streetcars to their city. Twenty ex-San Diego PCC cars ran from El Paso into Ciudad Juarez from 1950 to 1973, when the system was abandoned. Some of the cars sat in a lot since. One car is in Baltimore masquerading as a Baltimore streetcar at the Baltimore Trolley Museum. The cars wore three different schemes during their lifetime as we are reminded on the El Paso streetcar facebook site.



This city seems to be serious about this. Their logo, shown above, suggests that the cars will be air-conditioned and use pantographs for current pickup. This means that these originally-built-1938 vehicles, now closing in on 80 years of age are going to get some serious rebuilding at Brookville. Meanwhile, track work being installed at Kansas and Father Rahm is shown in the final photograph. Note the girder rail being used !



Back in Philadelphia, Pennsylvania, on September 28, Progressive Railroading reported that the Southeastern Pennsylvania Transportation Authority (SEPTA) is finally allowing riders to use credit or debit cards to buy tickets for the Market-Frankford Subway-Elevated and the Broad Street Subway lines. Riders can buy "Quick Trip" tickets at 18 stations along those two lines. These disposable tickets feature a magnetic strip and are swiped at SEPTA's new "Key" turnstiles, shown at right.

The Quick Trip tickets are valid for one-way travel from the location that they were purchased.

Naturally, this followed a pilot Key Fare program in June when the agency started a "test program" with 10,000 riders. This is an expansion of that program.

All riders will eventually be able to use SEPTA Key branded cards or other contactless payment devices to purchase fares throughout the system as is currently the case in San Francisco, Los Angeles and other cities.



# O scale Arrowhead Water Tank Cars!

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*by James Harper*

Some time ago, I contacted Custom Traxx to see if I could get any assistance in an O scale project. I was aware that Custom Traxx at one time produced an HO scale decal set for the Arrowhead three-section water tank car and I wondered if they could give me some help on a similar O scale project. They produced just what I needed to get the project moving. When I was completed with the project, I sent these photos to them and they insisted that they share them with the Trolleyville readers.

These cars were built for Leon Fairbanks, the owner of Red Caboose Models, who produced an O Scale GP-9, some O scale car kits and later HO and N scale cars. He later sold the dies to Intermountain and others. We have been friends since 1980 when I was working for Cal-Hobby for a couple of years after moving to Reno. When he was growing up in the Los Angeles area he actually worked at the Arrowhead Springs Hotel and he saw the water cars being filled for the trip to the bottling plant. He twisted my arm and I finally agreed to do the train for him. I couldn't find a lot of information on the cars so had to wing-it with colors and lettering but think I got it pretty close to what the actual cars were like. Reader feel free to comment on that if you have any information of which I was unaware. Thanks again to Custom Traxx for helping me with this project. The data provided allowed me to create some 1/4" scale decals.

You can see my layout on UTube at "toymantelevision jim harper's SP". You can also visit my web site at [redcliffsmminiatures.com](http://redcliffsmminiatures.com) for my P48 track parts and various switch stands.

The first model is what I believe is the original car used to transfer the water. It is sitting on a piece of O gauge track since mine is Proto48, the correct gauge of 4' 8 1/2" for 1/4" scale.



The next model is a smaller tank car, 10,000 gal., probably first of the next generation cars.



The third model is of a larger tank car, probably 12,000 gallons on a Pacific Electric 3400 series flat car.



The fourth model is the same sized tank car with a probable later paint scheme.



Quite ordinary 10,000 gallon tank cars were used up to end of operation. I could not find any photographs showing actual lettering so I "winged-it", as shown below, using PE tank car numbers found in SP books.



These are the seven cars built for Leon.



# A P3010\* Model for Trolleyville - Part 2!

(\*Los Angeles' Newest Light Rail Vehicle!)

\*\*\*

by John McWhirter

When Darrell Clarke of the Southern California Traction Club (SCTC) displayed his scratch built HO scale model of a Los Angeles Metro KinkiSharyo P3010 to the Club a few weeks ago, we were all very impressed. Here was a case where a rail advocate was frustrated by the lack of models of current equipment, and found a way to build his own to fill this void in the hobby. Several other members quickly decided to take advantage of his pioneering work and a plan was put in place to build additional bodies and mate these up with metal floors leftover from other projects.

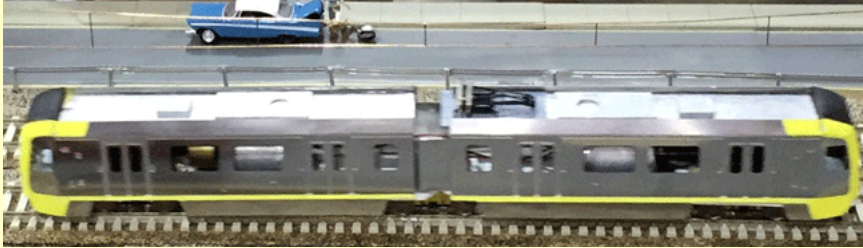


Figure 1 - First P3010 Model by Darrell Clarke on the Southern California Traction Club's modules in July 2016!

Darrell had built the main body for his P3010 from stainless steel sheet. He used a 2D drawing program to draw the bodies from plans posted by KinkiSharyo and then found an online company to electro-chemical-cut stainless steel sheet to form the bodies. Each car consisted of four sides. However, he used styrene for the floor. This material was lighter than the metal normally used with for Bowser drives so one motor would not enable the unit to make the grades currently on his layout so he used two. On the other hand, other club members had significant levels of experience using one power truck with the aluminum and pewter floors made by Bowser for other electric railway models such as the Boeing Light Rail Vehicle, that they wanted to see how they would work.

After examining an assortment of possible candidates from the Custom Traxx inventory we settled upon 10 floors that were CNC machined from aluminum for Bowser drives, originally intended for what turned out to be a rather crude HO scale model of the 1980s Philadelphia Single-End Kawasaki LRV. It had close to the correct wheelbase as long as the center truck was turned 180 degrees and the center kingpin mount moved to the last hole to the left of the floor. With a little modification, two of these floors could be made to work on an articulated stainless steel P3010 body.

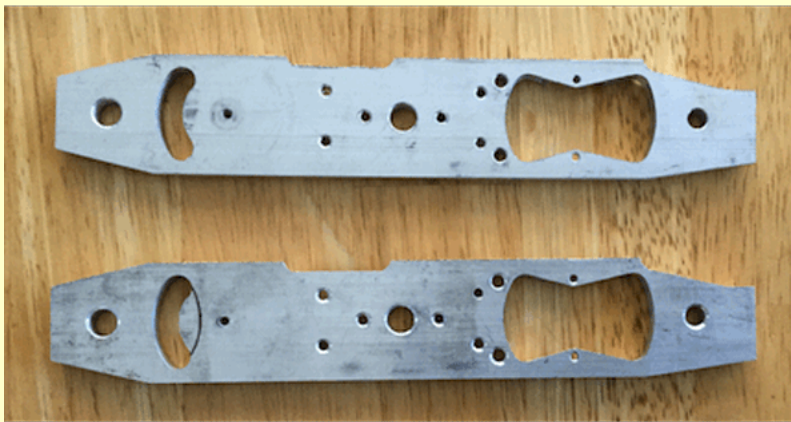


Figure 2 - Aluminum Floors Used for this Project!

In Figure 2 above, the top floor is in its original manufactured configuration. The bottom floor is marked to indicate the amount of material to remove to allow for movement of the center truck. As shown in figure 3 below, I used a small milling machine to make the modification.



Figure 3 - Reaming out the opening for the center truck power pickups.

The edges of the floors were sanded to reduce the width to 1 1/8 inches.



Figure 4 - Measuring width with caliper.

New holes were drilled for the center pivot.



Figure 5 - Drilling hole for center pivot.

After excess material was removed, the pivot ends were machined to 1/2 thickness to allow for the overlap.



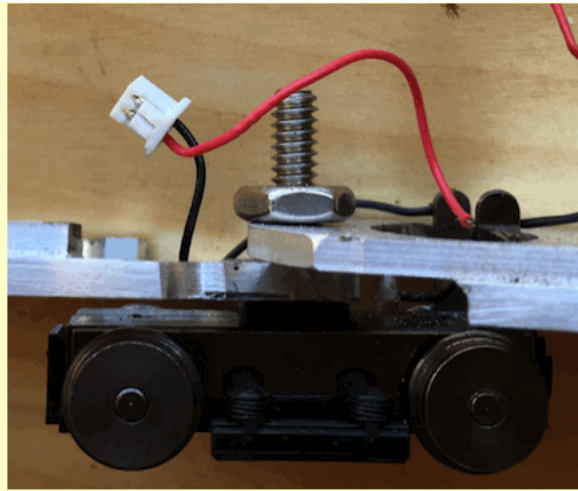


Figure 6 - Overlap at articulation joint

The finished articulated floor ready to be wired and have the body installed. Figure 7 shows the single motor version.



Figure 7 - Single Power Truck Version of P3010 Chassis.

I also created a double motor version using a Bowser power truck at each end similar to the prototype, which is shown completely wired for operation in figure 8. For a closer view of the articulation section, [click here](#).

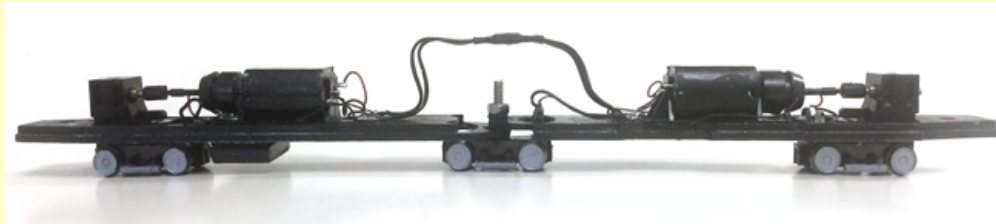


Figure 8 - Dual Power Truck Version of P3010 Chassis.

When discussing the use of two drives in one model such as an LRV, we must share our experience with the Custom Traxx 125147 chassis and floor for the AHM/IHC/Mehano HO scale models of the Boeing Light Rail Vehicle. The prototype vehicles ran for some time in the 1970s and 1980s in both Boston and San Francisco. If one drive is noisy, two drives tend to be more than twice as noisy for whatever reason. We experienced this first with the first test 125147 chassis that we powered with two stock Bowser traction drives (125100) with 26 " wheels and later with our sole S70 powered by two Halling drives.

When Lee English created the 1999 Bowser drive, for the most part that was a dramatic improvement over the old truck mounted motor drive that both BOWser and its predecessor Pennsylvania Scale Models had used in the four HO scale metal-bodied trolleys for decades. It was smoother and quieter than its predecessor but not as smooth and quiet as some of the sophisticated drives coming from Japan and Germany at the time. But it was still a drastic improvement. One of the main drawbacks was the lack of a flywheel. This occurred because the dual shaft motors that were planning to be released with the new traction mechanisms became unavailable. So the drive was issued without a flywheel. The universal used, while it allowed maximum turning radius for trolleys tending to be noisy, especially on sharper curves, We will for the purposes of this discussion call the stock Bowser traction drive **Bowser 99.0 HO traction drive** and it is shown in Figure 9 below:

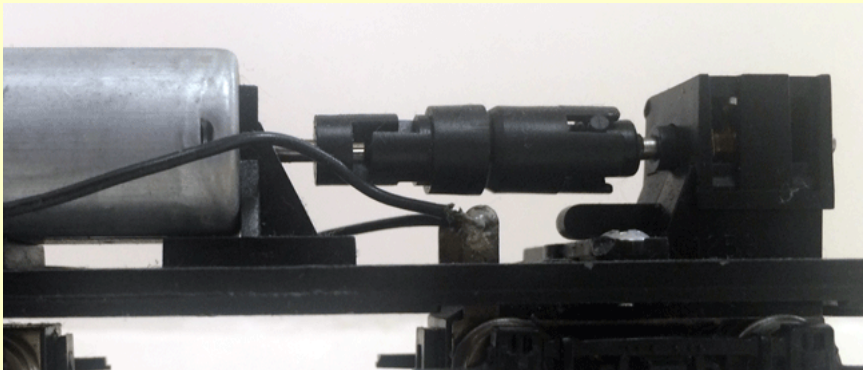


Figure 9 - Original Stock Bowser (99.0) Traction Drive on Bowser Brill Suburban Zamac Floor

When this drive was shown to Joe D'Elia of Proto Power West during a Great American Train Show in the San Diego area, he asked for one on Saturday and returned Sunday morning with what we now will call the Bowser 99.1 drive. He added his #20021 cone shaped flywheel and his drive line between the flywheel and the motor. He also had some instructions that required some changes to one of the motor mounts. These units appeared to be quieter and smoother than the 99.0 version and occasionally some of them could match the smoothness and quietness of any other drive coming from any other place. The **Bowser 99.1 HO traction drive** is shown in Figure 10 below:

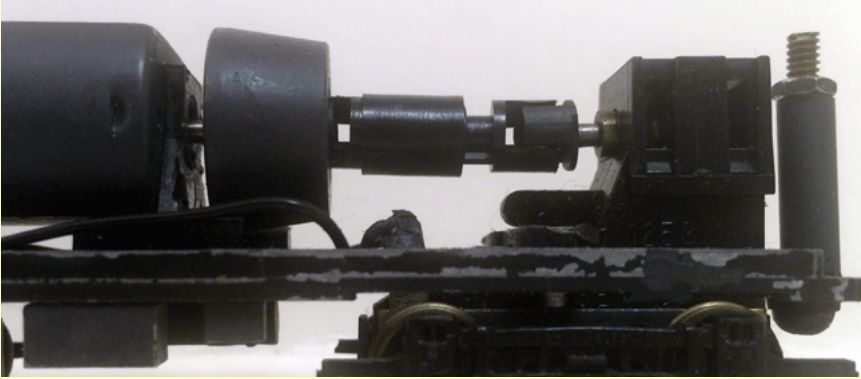


Figure 10 - Bowser 99.1 traction drive on Bowser Brill Suburban Zamac floor

But when Bowser went offshore for the F-Line PCC cars in 2009, the manufacturer added some twists of his own, including dynamically balanced motor/flywheel combinations and a smaller drive line with a hexagon shaped universal joint which was even quieter than the 99.1 version. This we called the **Bowser 99.2 HO traction drive** and it is shown in Figure 11 below. Two of these were used for our dual powered P3010 chassis as shown in Figure 8.

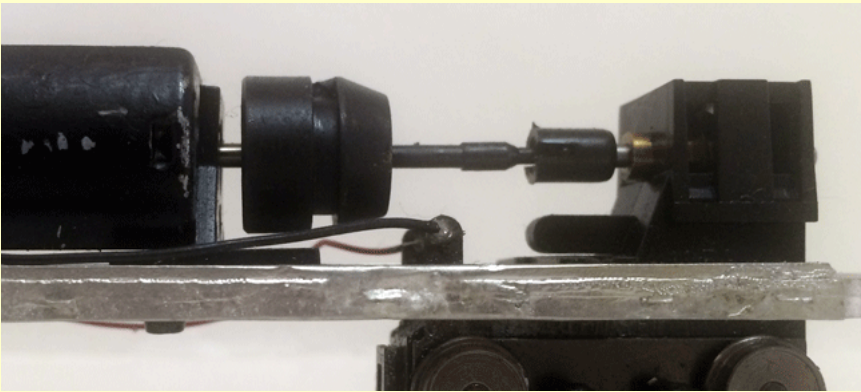


Figure 11 - Bowser 99.2 drive on Bowser 125147 Boeing LRV Pewter Chassis

Unfortunately, this version of the Bowser traction drive is currently only available in the RTR PCC and New Orleans cars so it is not available to anyone unless they "scrap" one of those cars. Custom Traxx has accumulated a few cars over the years from the various testing programs so they have some such drives. Accordingly two of them are installed in this dual motored chassis. This unit runs very smoothly and relatively quiet. We will see how that is when it is placed inside a stainless steel shell.

There remains a lot of work to finish these models. Testing started at the Great Train Show in Pomona, CA, July 30-31, 2016 and will continue until a suitable final product is achieved. Some photos of the first unit during testing at the show are next:



Figure 12 - P3010 Unit 1 on the SCTC Modules during the Great American Train Show, Pomona, CA, July 30-31, 2016

After painting, creation and application of decals, windows, lights, digital controls, maybe even sound, we believe that we will really have something. Then we will go to Division 14 of the Metro in Santa Monica and display them since the majority of the P3010 cars are currently working the Expo Line.

During this month, the club members got together to start fabricating the second and third P3010 models so stay tuned for updates.

**Note:** For those of you frustrated with the lack of modern electric rail transit models, there is a chance to help push the situation in the right direction. Kato USA has shown some interest in making a right-hand version of their N scale Unitram

available. They are asking for your ideas on what type of electric rail transit vehicle in which you are interested. Trolleyville urges you to go to the following location and take their survey. It can't hurt!

<http://katousa.com/webpoll.html>

## Pacific Electric Car 1240!

\*\*\*

by Richard Allman

Pacific Electric car 1240 has entered operation on Main Line Transit.



The prototype was one of the Long Beach "Twelves", purchased by Pacific Electric (PE) in 1921 from Pullman for the Long Beach line, the heaviest line on the PE's Southern division. The car was one of 20 Long Beach "Twelves" (series 1222-1241) which in turn were part of a series of cars that collectively were considered the finest cars ever operated by PE. PE also simultaneously purchased 12 trailers (series 1242-1251) of similar design. Eventually four of these trailers, 1242, 1243, 1244 and 1245, would be motorized in 1946/1947. They all lasted until 1951 except for 1231 and 1235 that were involved in a head on collision in 1946.

The 1200 series cars, or "Twelves", also included 22 cars (series 1200-1221) purchased for the long San Bernardino line on the Eastern Division in 1915 from Pressed Steel Car Co (*The same company that built the first 135 Market Street Elevated Cars*). These were somewhat faster than the Long Beach 1200's and also had lavatories, as required by California law for routes with more than one hour running time.

The fourth group of 1200 cars with different ends had "owl eye" windows at the ends, similar to the Pennsylvania Railroad and Long Island Railroad MP-54 cars. That group was built by Pullman in 1913 for the Southern Pacific lines in Oregon. They were acquired by Pacific Electric in 1929 when the Oregon lines were abandoned and became cars 1252-1263. So in total, there were 64 cars in the 1200 class, four different series built over 8 years by Pullman and Pressed Steel. Despite some differences, they were all compatible for train operation, important for the era of heavy rider ship on the routes served by the 1200's.

In the post World War Two years, the Long Beach line was equipped with the Blimp series of cars each of which had 80 seats in comparison to the 1200's that sat 64. Hollywood cars also provided local service on the Long Beach line and the Bellflower branch in the post-war years. The 1200's were transferred to the Northern Division where they operated on the Pasadena Short Line until its conversion to bus operation in 1950 and the Baldwin Avenue cutback of the San Bernardino line until its abandonment in 1951. The Pasadena Short Line, which was the destination I chose, has been resurrected as the Gold Line (light rail) between Los Angeles Union Station and Pasadena. Recently as part of the ongoing light rail renaissance, the Gold line was extended east to Azusa. So much of the Pacific Electric has returned to service with more to come, notable gaps being the former heavy lines to Glendale and Burbank to the north and the San Fernando Valley to the northwest.

My model was imported in brass by the Ed Suydam, who imported outstandingly accurate models of many classic western traction operations, especially Pacific Electric. The model I acquired was at Maurer's Auction in February, 2014. I also acquired a Hollywood car and a 950 series car, shown in the next view:



The sale included literally hundreds of HO scale trolley models and thousands of other train models that an individual had purchased and squirreled away until his death 40 years later! The models were never painted and never operated. The original drive was a belt-driven drive, the HO industry standard at the time. Sometimes we get lucky and can use the original drive but after testing it, it was too inconsistent for my kind of operation so I looked for a replacement. Dave and Lynda Rygmyr of North West Short Line produce an outstanding drive that was a perfect fit for this car-and this car only due to its uniquely large wheelbase and 36 inch wheels. The drive is called the Stanton drive, is very fairly priced, and straightforward to install via a brace on the floor which is totally concealed. It is a smooth runner and easily climbs the 4% grades on my layout and the 7-8% grades on Bob Dietrich's layout.



I got the drive from Brian Weisman of Jason's Brass Poles, an excellent dealer in model traction supplies. Somehow, one of the wires was disrupted and I sent it back to Dave at Northwest Short Line and he promptly repaired it and returned it, an exemplar of outstanding customer service. The painting was a challenge though I am pleased with how it turned out. The problem was that in all likelihood, I underestimated the preparation required to prepare a 40+ year old brass model for painting. I soaked it in household vinegar and cleaned in with brass polish and then a final rinse in dish detergent then dried with a hair dryer. This has worked in the past with other brass models but this one proved stubborn. There might have been some form of lacquer that I was unable to remove. Sometimes brass models are sandblasted in preparation for painting but I do not have access to that. The primer went on OK and the paint as well. But when one of the decals was incorrectly applied and I tried to remove it, paint and primer pulled off which necessitated repainting of an entire side of the car. It was my fault for placing the decal-the orange stripe below the belt rail in the wrong location and it made for more masking for me, spraying for Bob Dietrich, and decal consumption. Fortunately I had extra decals! The pole with the kit had insufficient spring tension so we wedged a track brad under the springs which corrected that problem but I need to make something less intrusive-appearing. I have looked for shorter springs but no luck. I hate to change trolley poles since the Suydam poles are close to prototypically correct and presently they are tracking well on my overhead. The trolley poles require new contact shoes for overhead operation but that was an easy ½ hour task. The car still needs the light installed-Bob gave me an LED to install but we need to mess with a bit more. The model is accurate except a few tiny omissions which we corrected. The prototype has black jumper outlets for the removable headlight which were not present on the model but were easily fabricated with small pieces of styrene. The prototype also had marker lights above the anti-climbers which we made from styrene rod. The couplers should be a bit larger, but exact replicas of the automatic couplers are not available. The automatic couplers with air, power and car linkage included were an innovation with the 1200 series.

Time for the credits:

To Ed Suydam for importing these outstanding models;

To Micro-Scale, who has very complete decal sets with striping available for almost every car series and era of Pacific Electric;

To George Huckaby of Custom Traxx, who supplied the accurate destination signs. This seems like a small detail until you need them;

To Dave and Lynda Rygmyr of Northwest Short Line for the Stanton drive which is perfect for this model;

To Brian Weisman, who stocked the drive that I obtained;

To Allen Copeland, whose two Morning Sun color books about Pacific Electric were essential;

To my friend Bob Dietrich who is always there to help and to steady my hand when car building projects become horror shows-it happens, especially when I misapply decals! I do the masking and color selection, Bob does the spray painting-and in this case, repainting.

As for upcoming projects, next I have a pre-war air-electric PCC that I got for a song at a recent show. I love the air-electrics. It is rather professionally painted as a Vancouver British Columbia Electric Railway car and looks good so it is getting powered. After that, either the Lehigh Valley car 706 pre-war chair car, the Chicago Odd 17 car that resembled Philadelphia Hog Island cars or the Atlantic City Brilliner. The latter will be a poignant project, coming soon after the death of Paul Mayer of Chicago who manufactured the complex decals needed to finish that car. Also there is real progress on the Franklin Park module and it should be operational in the coming weeks although the building on the corner of Humboldt Avenue and Seaver Street promises to be quite a task. Recently I completed a Hagerstown and Frederick Combine car but failed to prepare a narrative. It is coming!

As always, I welcome feedback.

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