The Trolleyville Times

June 2014

Custom Traxx will have a few New Orleans Stree

The Tucson Streetcar Project!

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Among the urban circulator streetcar lines now being built in U.S. cities and mostly patterned after Portland Streetcar in Oregon is a new line at Tucson, Arizona's second largest city, with a metro population of more than 992,000. For marketing purposes, it's branded as Tucson Sun Link. The service debut date tentatively is July 25, 2014, assuming the Federal Transit Administration clears operation even if braking and other tests of the United Streetcar LLC fleet, numbered 101-108, is incomplete.

Figure 1 - Car 106 at Station on Cushing Street West of Interstate 10.

By early May, Sun Link had taken delivery of seven of the eight streetcars it ordered from the Clackamas, Ore., subsidiary of Oregon Iron Works. Streetcar No. 105, delivered out of fleet number sequence because the factory has two production lines, arrived Friday, May 2, 2014. The eighth and final streetcar was delivered on Friday, May 23, 2014. Even though service has not begun, recent media reports say the, $196 million, 3.9-mile car line already has generated about $1 billion in public and private investment. The city took the track construction stage as an opportunity to upgrade underground utilities in the downtown area. Private sector investment is estimated at $800 million. including over 1,500 housing units and 50 restaurants, bars and cafes. Developers have been building housing for university students and other renters.

Figure 2 - Bi-directional Single Track on Warren Avenue Heading South to Underpass.

A new grocery store, the first in downtown in years, will be opened next to the streetcar line and could encourage downtown living by young urban professionals who don't want lengthy auto commutes. Construction of the mostly double track car line -- extending from the University of Arizona medical center to downtown and a redevelopment district west of Interstate 10 -- was financed with a $63 million federal TIGER economic stimulus grant, city funds, and proceeds from a Pima County 2006 sales tax referendum for transportation. The final three blocks of the car line to the university hospital are bidirectional single track protected by conventional European-style tramway light bar signals.

Figure 3 - Car 104 at Eastern Single Track Terminal Next to University Medical Center Complex.

The modern streetcar line uses part of the route of the former nonprofit Old Pueblo Trolley heritage streetcar line. Its single track through the North Fourth Avenue specialty shop and nightclub district and on University Boulevard was torn out and replaced with double track but in traffic lanes next to curbside parking, leaving wide "devil strip" space for island passenger platforms serving both tracks. Modern streetcar line construction began in April 2012 following the October 2011 suspension of Old Pueblo Trolley service. The Sun Link car line -- including a new purpose-built bridge over the Santa Cruz

River west of Interstate 10 -- was mostly complete by October 2013. The west end of the route ends in rectangular on-street unidirectional reversing loop but the eastern terminal is stub ended single track.

Figure 4 - Streetcar at western terminal in redevelopment district.

The original plan after leaving Second Street through the university main campus was to cross busy Speedway Boulevard, an east-west arterial, at grade but officials decided against digging up a buried water line under north-south Cherry Avenue. Instead, the route was moved slightly east to use Warren Street instead and reconfigured an existing pedestrian-bicycle underpass below Speedway to add a single track streetcar line to the university hospital complex.

Figure 5 - Eastbound Single Track on Broadway, Part of Track Pair with Westbound Congress Street with County Government Complex in Background.

Old Pueblo Trolley hopes to use its heritage cars over the new tracks in what might be closed door excursion service on weekends. The modern streetcar line will operate seven days a week with service from 7 a.m. until 2 a.m. Thursday through Saturday nights to match the state's bar closing time. Other nights service will end at midnight. There will be 10-minute headways during the weekday peak periods, requiring six streetcars and leaving two for maintenance rotation. Two mini

projects occurred in early May 2014. One construction glitch was an incorrect height for a station island platform at the south end of the Fourth Avenue retail district. The platform was too high to allow wheelchair ramps to deploy from streetcars so it was rebuilt at contractor expense.

Figure 6 - Rebuilt Streetcar Platform. First installation was to high to allow wheelchair ramp deployment from streetcars.

At the same time, a curbside platform was built next to a multilevel parking garage downtown to board university students who will rent new downtown apartment space and want to travel to campus. The city of Tucson ordered T-rail for their Sun Link Project, saying it complied with the "Buy America" regulation for federally-funded projects. Although girder rail recently was ordered for the Kansas City streetcar project from a European-owned steel mill at Steelton, Pa., near Harrisburg, apparently this rail was not available the time Tucson placed its order several years ago.

Installation of a TCS KAT decoder in a traction vehicle!

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With the clarification of the purpose and the reformatting of the Times, we thought this was as good a time as any to share with you some of the methods used by the Southern California Traction Club (SCTC) to install decoders in their traction vehicles. Make no mistake about it, we feel that the use of DCC is paramount to the complete enjoyment of the hobby. Most manufacturers are getting that message and you are now seeing DCC equipped engines in train sets.

A large portion of the vehicles used by the SCTC have Bowser traction power units due to their virtual indestructibility and the availability of spare parts from both Bowser and Custom Traxx. With that drive system, the place of choice for installation is usually over the trailing truck. The first obstacle can be the trolley pole pivot bushing. Since our "Keep Alive" decoder is rather large, it will have to be placed over this bushing so we do not want it protruding too far into the body. It was cut so that just enough was left to which to solder the lead wire. A red wire about two inches long was soldered to the bushing to be connected later to one of our 'pads.'

Custom Traxx and the SCTC like to use the KAT decoders as they eliminate the majority of the problems with bad contact on overhead wire due to dirt and other causes. It also acts as an electronic flywheel which we found useful in the last issue conversion of the Bachmann Brill with the Ken Kidder power truck, which had no flywheel. This one is a KAT22 which claims to have three to fifteen seconds of power stored within. TCS currently makes two lines of "Keep Alive™" decoders, the KAT series and the KAM series. For this discussion, they are identical. The major difference, size, can be seen on the TCS website.

They use small pieces of single sided printed circuit board affixed to the inside of the car body with ACC as junction point for wires. lease note two of them in Photo 1 at Location 1, four at Location 2 and six at Location 3.

[Note: Some of the injection molded and resin cast shells will have the manufacturers names and some other symbols cast in raised letters on the bottom of the roof. Remove these with an Exacto knife to get a better grip for the double-sided tape that you will be using to fasten the decoder to the underside of the roof.]

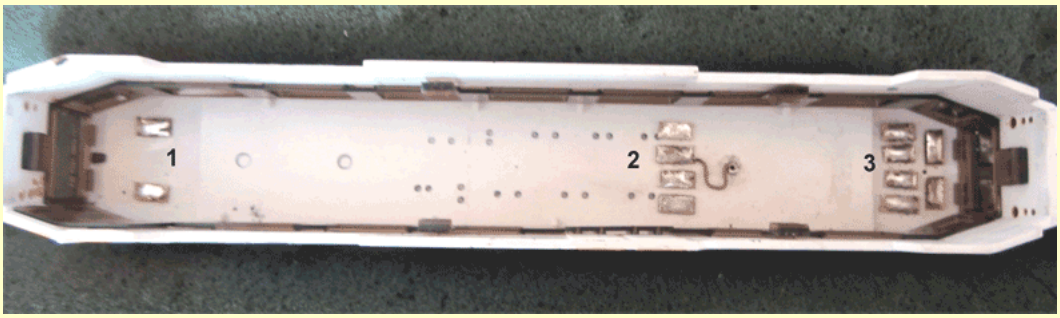

Photo 1 - Pad at position 1 for headlights, at position 2 for motor, power plus and power minus, at position 3 for rear lights.

There are normally two pads at location 1 for the headlights. At location 2, there are always four others, (from top to bottom, one for motor+ (orange wire), then one for overhead power (red wire), one for ground (black wire), and finally one for motor- (gray wire). Those pads are mounted very close to the location of the decoder to minimize wire inside the car. The motor+, track ground and motor- wires will be connected to the chassis using a Miniatronics three-pin connector. (Male plug installed on the chassis, female plug installed on the shell. Those four wires from the decoder are cut to just enough length, soldered to the pads as shown in the next photo. Please note that the decoder has not yet been permanently installed.

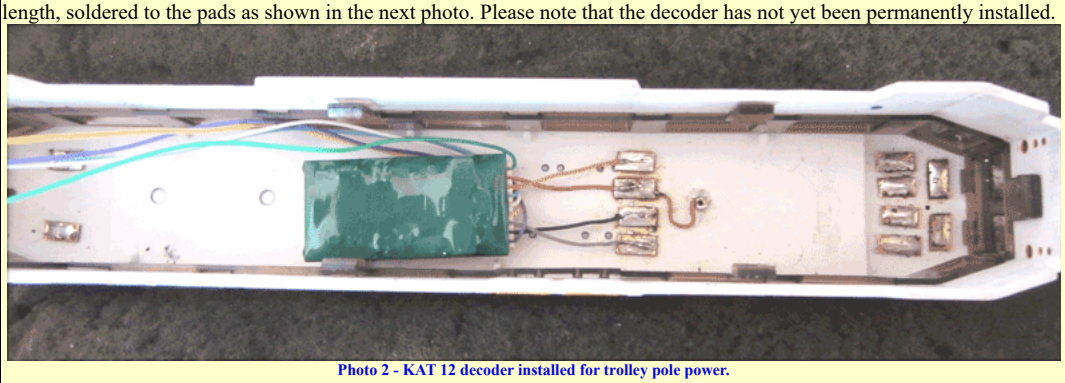

Photo 2 - KAT 12 decoder installed for trolley pole power.

The decoder is then installed with double sided adhesive tape. and the white wire for the front headlights, the yellow wire for the rear taillights and the blue wire (lighting common) are installed with the final installation looking as shown below:

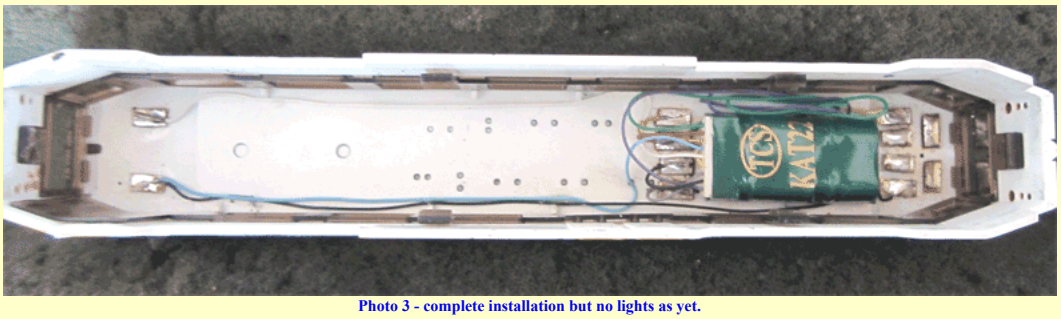

Photo 3 - complete installation but no lights as yet.

Sharp-eyed readers may have noticed many pads at location 3, the rear of the car. Normally only two are here for tail lights or combination tail/brake lights (i.e. Bowser San Francisco F-line PCC). This car is being used as an LRV test bed for future decoders as it has two separate taillights, two turn signals, two brake lights and back-up lights. Some day we hope to install all of these with LEDs. We may need four more pads in the front for the subway light, turn signals and the emergency beacon. But no lights, LEDs or bulbs have been installed at this time.

The first DecoderPro Run was made and yielded the results shown. Then CV8 was set equal to 11 to get the trolley automatic stop sequence. This being a single end car with brake lights, no changes would have to be made.

This last step is very important. When operating a KAT-equipped car, place the car on the track, place the pole on the wire, turn on the headlights and wait thirty seconds before operating. This allows the KAT to charge up and the light lets you now that the KAT is charging. When the car starts running, it will run though dirty overhead. The SCTC test layout is in a garage and the overhead gets dirty overnight. Using these KAT equipped cars allows immediate running on the overhead wire. If it is really dirty, the car will stop. then we clean the shoe and place the car on the track, put the pole on the wire and let it charge for another 30 seconds and begin the process all over again. Within five minutes, operation is usually flawless.

Train Control Systems has a Comprehensive Programming Guide and a List of Default CV values on their website. These two documents contain twenty-two pages of great information. There is also a list of CVs and what they control! This is great reference data! Other decoder firms such as Soundtraxx and ESU LokSound also have a wealth of knowledge on their websites. You are all encouraged to make use of this information. After all, it is free!

Southern California Traction Club appears at the Central Library in Downtown Los Angeles!

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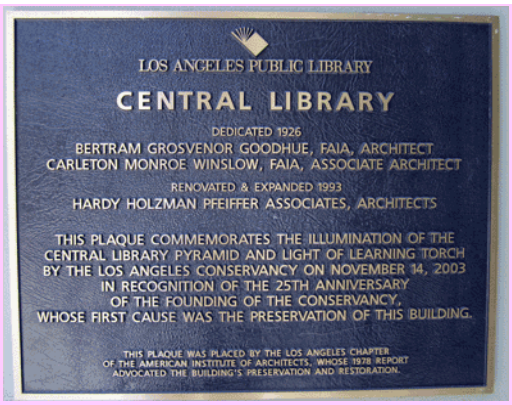
The Southern California Traction Club made its 108th public appearance at the historic Central Library Goodhue building, which was constructed in 1926 and is a downtown Los Angeles landmark.

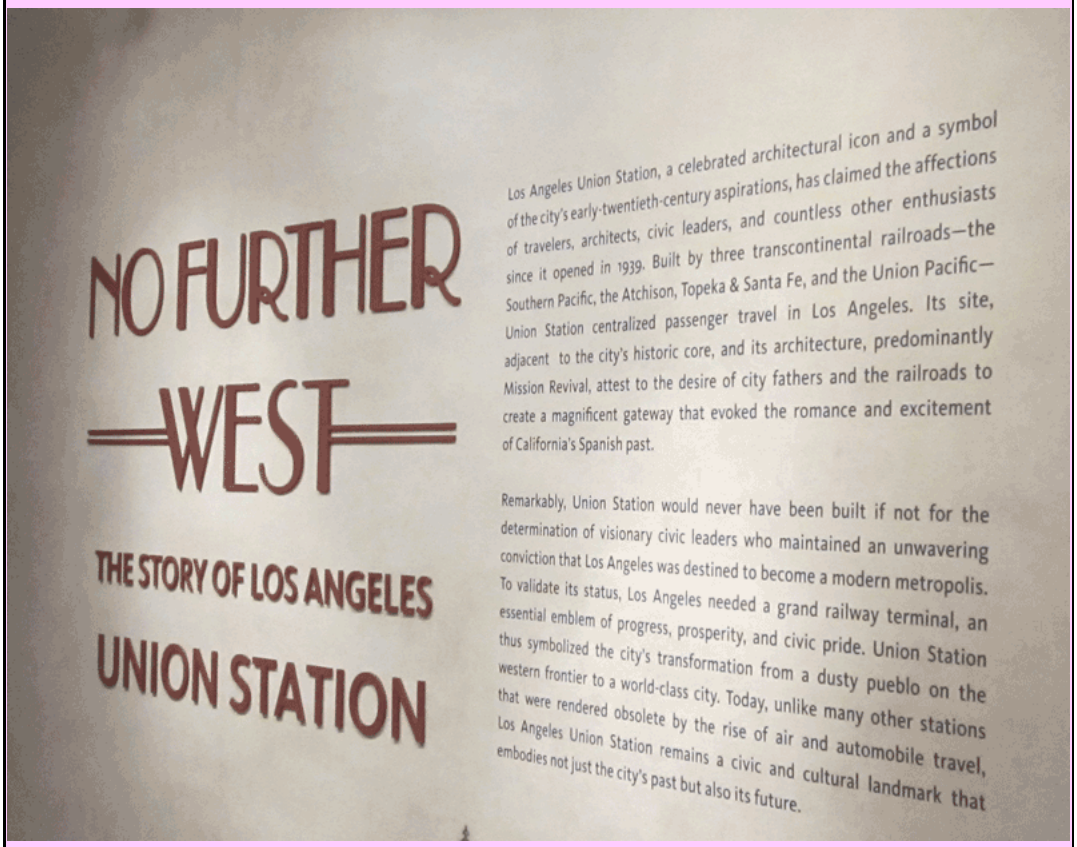


The Richard Riordan Central Library complex is the third largest public library in the United States in terms of book and periodical holdings. Originally named the Central Library, the building was first renamed in honor of the longtime president of the Board of Library Commissioners and President of the University of Southern California, Rufus B. von KleinSmid. The new wing of Central Library, completed in 1993, was named in honor of former mayor Tom Bradley. The complex (i.e., the original Goodhue building and the Bradley wing) was subsequently renamed in 2001 for former Los Angeles Mayor Richard Riordan, as the Richard Riordan Central Library.

Architect Bertram Grosvenor Goodhue designed the original Los Angeles Central Library with influences of ancient Egyptian and Mediterranean Revival architecture. The central tower is topped with a tiled mosaic pyramid with suns on the sides with a hand holding a torch representing the "Light of Learning" at the apex. Other elements include sphinxes, snakes, and celestial mosaics. It has sculptural elements by the preeminent American architectural sculptor Lee Lawrie, similar to the Nebraska State Capitol in Lincoln, Nebraska, also designed by Goodhue. The interior of the library is decorated with various figures, statues, chandeliers, and grilles, notably a four-part mural by illustrator Dean Cornwell depicting stages of the History of California which was completed around 1933. The building is a designated Los Angeles Historic-Cultural Monument, and is on the National Register of Historic Places.

The Central Library was extensively renovated and expanded in a Modernist/Beaux-Arts architecture from 1988 through 1993, including an enormous, eight-story atrium, dedicated to former Mayor Tom Bradley.The catalyst for the renovation was the devastating arson fire of April 29, 1986. Although the building was safely evacuated, its vintage construction precluded the ventilation of heat and smoke, and limited firefighter access. Some 400,000 volumes—20 percent of the library's holdings—were destroyed, with significant water and smoke damage done to the surviving works. A second fire on September 3 of the same year destroyed the contents of the music department reading room.

Pursuant to the SCTC desire to appear in more general public venues, the club appeared at the Central Library on Los Angeles on May 17-18, 2014. Due to space limitations, the club could only take their city streetcar line, which is totally operated by Digital Command Control (DCC). The Southern California Traction Club was the first club of a selected group of local Los Angeles clubs that appeared at the Los Angeles Central Library in support of their "No Further West - The Story of Los Angeles Union Station" celebration.



The Los Angeles Union Passenger Terminal was the last of the great railway passenger station as it was opened in 1939. As of the date of publication, groups slated to appear at the Central Library were:

June 1-2; Group 160 (N scale) *[See below]*;
June 7-8; San Luis Obispo Model Railroad Association;
June 14-15; Orange County Module Railroaders (HO scale);
June 21-22; Ntrak Express Model Railroad Club (N scale);
June 28-29; Antelope Valley N 'Scalers;
July 12-13; Ntrak Express Model Railroad Club (N scale);
July 19-20; Orange County N-gineers;
July 26-27; ZoCal (Z scale);

August 2-3; Pacific Coast Modular Club (HO scale);
August 9-10; Group 160 (N scale);

The club displayed nine modules in the Getty Gallery, all comprising the club's city Streetcar line display, along with several traction artifacts and the Custom Traxx display module. In addition, a video monitor played the clubs U-tube video and other videos produced by Dave Lyman, SCTC member, shown below standing in the center of the display.

The club display was in the Getty Gallery which is a room with large windows. However, these windows were covered with "blackout" drapes to protect the displays from damage due to ultraviolet rays. This combined with the lighting in the room gave the modules a look of early evening. The club display benefited from their many illuminated structures, many with detailed interiors, done over the years by George Jones and John McWhirter.

Bowser PCC cars, decorated in both Los Angeles MTS and San Francisco 1960's livery provided the base service while a pre-production model of Pittsburgh's often photographed Mod Desire, PCC car 1730 along with a model LRV with an advanced-capability sound decoder under development were displayed on the Custom Traxx demonstration module.

It seems that it was just a few years ago, that the naysayers were telling us that DCC could not be used reliably with (trolley pole) overhead wire due to the single contact point. We did notice at first that dirty wire can present different issues with DCC such as sudden reversing of cars. However, The "Keep Alive™" decoders from Train Control Systems (TCS) tips the scales in favor of the DCC environment. The club has found that using these "Keep Alive™" equipped cars almost totally eliminates the "stall" problem. Put the pole on the wire, turn on the headlight, wait 30 to 45 minutes for the "Keep Alive™" decoder to 'charge' completely and that's it. After a few trips on the layout, stop the car and clean the trolley shoe/wheel contact, place the pole on the wire again, let the decoder 'charge' again and that will be all for the rest of the operating session.

On Friday, May 23rd, Group 160, an N-scale layout, moved into the same space vacated by the SCTC on Sunday May 18. By Saturday, May 24th, their display appeared as follows:

Orange Empire Railway Museum Thomas F. Grose Archival Facility Finally Under Construction!

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In what can be called a major achievement, the long delayed project of the Thomas F. Grose Archival facility finally entered the construction phase early May 2014. The Orange Empire Railway Museum has been the recipient of countless collections of photos, artifacts, models and other pieces of railroadiana for years. Most of the precious items were stored inn air conditioned facilities above the machine shop at the Museum. Lately an explosion has occurred with the Pentrex Collection obtained in August 2013. The Archive facility concept began over seven years ago with a Project Manager and a design. The first design was rejected for many reasons and a second design was developed which too was rejected. A third design was a found to be over budget. Is was at this time, in spring 2012, that Dick Staley, then Vice-President, Administration & Security, developed a plan to build a facility using modular construction and to combine the facility with a Harvey Girls Museum. He sold this idea to both Fred Nicas, former member of the Board of Directors and knowledgeable in construction and George Huckaby, then OERM President/CEO and they both accepted the plan. As had become customary at OERM, this new idea was received by some, despised by others. However, it was originally thought that the project in this form would have easier passage though the local approval process. This also did not prove true for reasons that no one seems to be able to ascertain. For over 18 months it seems that one obstacle was overcome only to have another one show up.

The construction permit was finally obtained in April 2014 and construction started. Work started on May 5, 2014 after a major Truck Show at the museum and by May 7, this was the site:

Contractors worked through the May 10-11 weekend by by May 12th, the site looked as follows:

The building is expected to be completed later this year and will look as shown in the next photo:

At press time, we have learned that the foundation was complete and the forms had been removed. We will be following the progress in the next few months!

Bowser Paint Samples Arrive for Evaluation!

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On May 13, a small box appeared at the offices of Custom Traxx containing the paint samples of the next group of PCC cars coming from Bowser. These are to be checked for accuracy before the production run starts. On May 27, the first ESU Lok Sound equipped Bower PCC arrived for testing. It looks good and sounds even better! All the the cars shown and discussed below will be available with ESU Lok Sound.

Some product improvements will be seen with these cars. The seat next to the front door has been removed. This will allow negotiation of even smaller radius curves than previous models. The Overhead/Track [ANT/TRK] power switch has been relocated to the bottom of the floor, eliminating the need to remove the body shell to make this change.

Shown above are Philadelphia (SEPTA) 2730 in the Phase 2 Paint scheme but with the one-of-a-kind scheme with the gray window area; Pittsburgh (PAT) 1730 Mod Desire; Los Angeles Transit Line 3137 (This car along with car 3146 and 3156 were the only three all-electric PCC cars never painted in the final LAMTA paint scheme); and Philadelphia (SEPTA) 2095 also in the Phase 2 paint scheme. Also coming both not shown are reruns of models of San Francisco Municipal Railway 1050 (Muni 1950 scheme), San Francisco Municipal Railway 1061 (Pacific Electric Railway Scheme), and Toronto Transportation Commission 4317 and 4399. All of these cars will be available in DCC-ready and ESU DCC/Sound versions. The Pittsburgh car was mated to a DCC-sound-equipped Bowser chassis and operated at the Central Library in downtown Los Angeles over the May 17-18, 2014 weekend.

Custom Traxx is working with TCS for a non-sound decoder for the next run of PCC cars. These cars along with the New Orleans cars, will use a 21 pin plug for DCC decoders.