



Reminder to members: Please be sure your dues are up to date. 2018 dues were due Jan 1, 2018. If it has been longer than one year since you renewed, go to our website: [oregontrolley.com](http://oregontrolley.com) and download an application by clicking: *Become a Member*.

## In This Issue

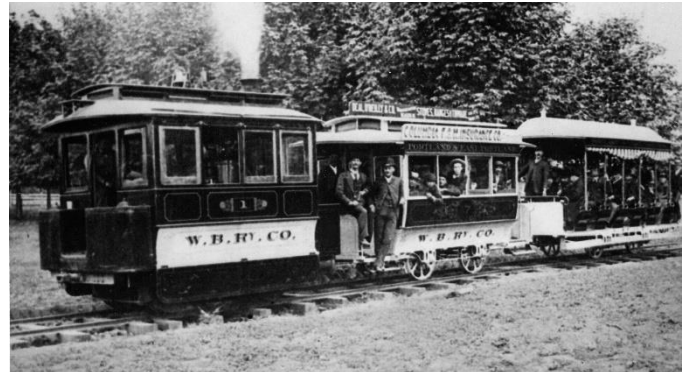
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## The Trolleys that Built Portland

By Richard Thompson

*This article is based upon the exhibit recently installed in Hopmere Station by Richard Thompson and Wayne Jones. For this writer, researching and mounting the new exhibit brought back memories from June 1980, when he helped put up the OERHS' first exhibit, "How the Trolley Changed America" at the old Trolley Park depot in Glenwood, OR. Several of the historic photographs used in the new display were recycled from that earlier exhibit. It is good to see them put to use again.*

Mass transit has shaped cities and towns since the 19th century. In Portland, as elsewhere, urban neighborhoods pre-dated the automobile era. Although distant suburbs may have resulted from America's love affair with the automobile, inner city residential areas owe their location, street alignment, and pattern of growth to the advent of the street railway. Current



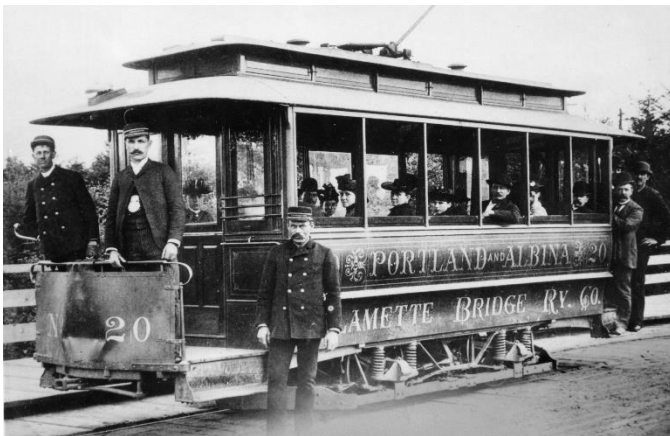
Portland's first venture away from animal-powered public transportation was Willamette Bridge Railway's steam dummy line to Mt. Tabor. Dummies featured engines hidden inside dummy streetcar bodies so as not frighten passing horses. No. 1 is seen pulling former horsecars in Sunnyside probably at the start of service in July 1888.

*All photos in this article from the collection of Richard Thompson.*

roadmaps still show vestiges of Portland's streetcar suburbs.

During the mid-1800s few Portlanders could afford to maintain a horse, so most walked to work over unimproved streets that were filled with mud most of the year. Since the working day was 10 to 12 hours long, walking consumed a lot of time. Meanwhile, as the city expanded, it became increasingly difficult for the growing population to remain in contact with the business district. Homes more than a couple of miles from town were out in the country.

Public transportation was sorely needed by the time the city's first horse-drawn streetcar appeared in 1872. Yet, in just as few years, horses were hard-pressed to keep up with the demand for longer routes and bigger streetcars. Mechanized public transit seemed to be the answer when steam "dummy" trains and cable cars were introduced with much fanfare in 1888 and 1890. However, the Age of Mass Transit for Portland really arrived with the introduction of electrically-powered streetcars in 1889. By 1903 the trolley had triumphed



The first electric streetcar in Oregon began operation on the Portland & Albina Line in November 1889. Willamette Bridge Railway ordered No. 20 from the Pullman Palace Car Company in Chicago. The dent in the dashboard was made by the kick of a horse, whose assistance was required when the rudimentary Sprague motor failed.

*Continued on page 3...*

# Oregon Electric Railway Historical Society

## Officers

President	Eugene Fabryka
Vice President	Charles Philpot
Secretary	Mark Kavanagh
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Carolyn Vernon	Bryan White
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## Other Positions

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Museum Director	Greg Bonn
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Webmaster	Mark Kavanagh

## Membership

If you have overlooked paying your dues for 2018 or did not realize that dues are based on a calendar year, this is your reminder that your dues are due. Memberships should be renewed on January 1st each year. New members joining after July 1st should renew on December 31st of the following year. The OERHS is a non-profit 501-C-3 corporation, the benefits of a donation should be discussed with your tax advisor.

Active	\$ 30	Sustaining	\$ 250
Family	\$ 40	Life	\$ 500
Contributing	\$ 50	Benefactor	\$1000
Supporting	\$100		

## Mission Statement

The mission of the Oregon Electric Railway Historical Society, Inc. Is to preserve the regional heritage of electric railway transportation as a living resource for the benefit of the present and future generations. To fulfil this mission the Society will promote:

- The study of electric railways, their physical equipment, properties and operations, devoting special attention to the electric railways of western Oregon.
- The procurement and preservation of historic electric railway equipment, materials and property.
- The display, interpretation and operation of surviving historic equipment, materials and properties.

By Laws, Article II, 9/14/93

## Official Notice

The Transfer is published quarterly as the official publication of the OERHS, a state and federally recognized not-for-profit institution and operator of the Oregon Electric Railway Museum at Brooks, Oregon and the Willamette Shore Trolley between Lake Oswego and Portland.

The views expressed herein are solely those of the individual writers identified and of the editor only, and may not necessarily represent the views or policies of the Society, its Board of Trustees, Officers or Members.

Articles, photos and letters for publication are always welcome. Please email to [transfer@oerhs.org](mailto:transfer@oerhs.org) or postal mail to the museum address following.

Please send any change of address, your dues and donations to Suzi Jones, Treasurer  
Oregon Electric Railway Historical Society  
3995 Brooklake Rd. NE  
Brooks, OR 97303  
Phone: 503.393.2424  
[www.oregontrolley.com](http://www.oregontrolley.com)

## Do you want to be a Volunteer?

Be a Motorman or Conductor, give tours, and restore trolleys and more great activities? Want to learn to operate a 105 year old trolley from Australia or even a locomotive? Volunteers are needed - no experience necessary - just a passion for trolleys! We can easily train you in any volunteer positions that may interest you. Please come out to the museum and lend a hand. For the weekday or Saturday projects, contact Greg Bonn at 971-344-0755. For motorman, conductor and station agent training at the museum, contact Ken Peters at [kennethipeters@msn.com](mailto:kennethipeters@msn.com) or 503-646-5034.

If you wish to volunteer for the Willamette Shore Trolley, call David Harold or Jan Zweerts at 503.697.7436.

## How we deliver The Transfer

The Transfer is delivered both electronically and by postal mail. With the electronic copy, you can see all the pictures in full high-resolution color, a big improvement over the black and white appearance in the printed version.

We have established a web site where you can view and download copies of The Transfer. We have set it up so it is also easy to print on your color or black & white printer if you prefer hard copy.

If you wish, we will send you notification when the next issue is available and a link to the web site where you can view the issue or download and print a copy. Please send an email to: [transfer@oerhs.org](mailto:transfer@oerhs.org) with your name (as shown on the OERHS membership list) and the email address you would like us to send the notification to. Of course, we will respect your privacy and we will only use your email address to send a single notification that a new The Transfer is ready and a link where you can get it. We will never send

promotional material or give or sell your email address to any other person or organization. You can see this issue and the previous issues by going to this website: [oregontrolley.com/transfer](http://oregontrolley.com/transfer).

We also mail black & white copies of the newsletter to all members of record. Not as exciting as the color version available at the web site but some members have stated that they prefer physical copies.

The electronic copy that you can get on the web site can be printed in full color (or black and white of course) on your printer at home if you prefer to read The Transfer the traditional way. We are also archiving back issues on the OERHS web site so in the future you will always be able to refer back to previous issues. We believe you will appreciate the higher quality pictures that this process will provide to all the interesting photos that accompany our articles.

*The Trolleys that built Portland, continued...*

No. 149 (originally 78) was an 1899 product of the Hand Manufacturing Company; whose factory was the first to build streetcars on the West Coast. The "California" style half-open body was created by splicing together two horsecars. It is seen at the Ankeny Car barn during the Portland Consolidated Railway years (1904-05).

over its horse, steam and cable competitors throughout the metropolitan area.

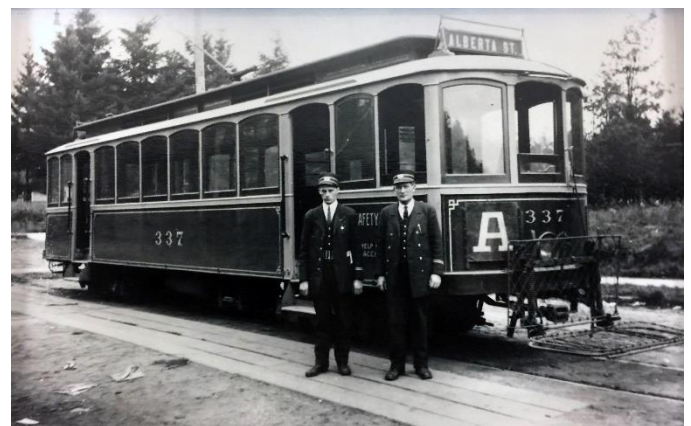
The new electric streetcars represented a pinnacle of 19th Century science and technology, whisking passengers quietly along, while providing a much smoother ride than afforded by horse and buggy. At last Portland had shed its pioneer image and the smartly uniformed motormen on trolley platforms were the envy of every schoolchild.

As Portland and its street railway system grew the expansion into open spaces beyond downtown was rapid. Neighborhoods were soon climbing up the Westside heights and, with the arrival of bridges, spreading across the Willamette River to the east. Since growth was restricted by the Tualatin Mountains to the west, the largest real estate developments, and the most streetcar lines, were built on the east side of the river. Housing tracts sprang up five miles, or more, from the city. When the nation's first interurban railway went into service between Portland and Oregon City in 1893 commuters came from 15 miles away!

By the turn of the 20th century urban planners considered public transportation a necessity as important as sewers or electricity. Until the advent of affordable automobiles, trolleys were the only easy means of getting around. The streetcar became an integral part of most neighborhoods and homeowners were delighted to have a line close to their property.

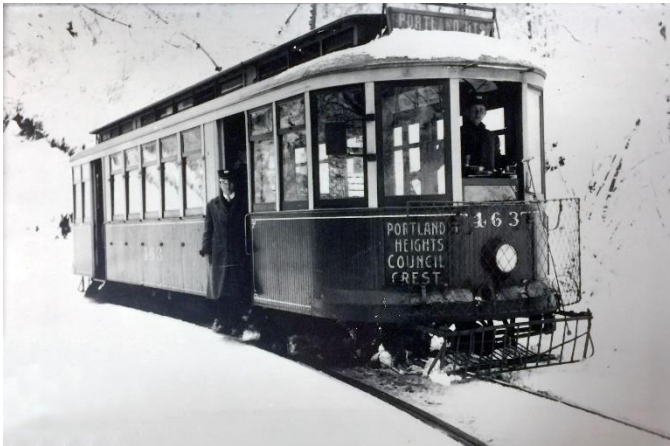


Classic streetcar details in this interior view of No. 78, include clerestory windows, a large metal fare register, advertising cards and standee straps. The "all weather" trolley featured longitudinal bench seating in the enclosed end, and spindle-backed cross bench seating on the open end. The floor was designed for easier cleaning, since dirt fell between the slats.

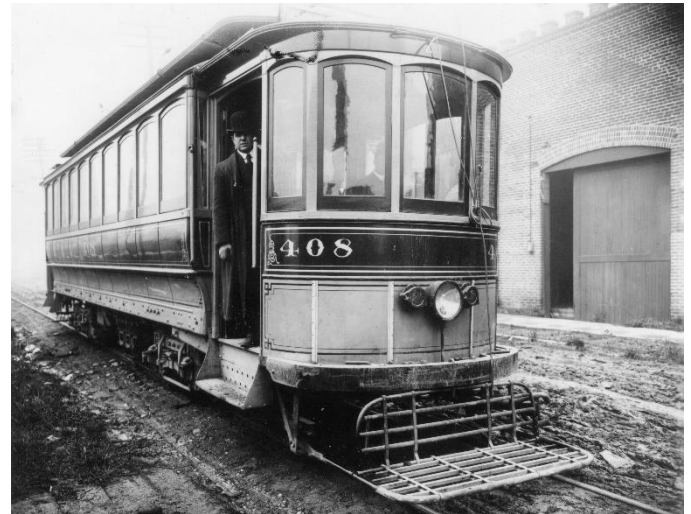


Until the 1910s, most Portland streetcars were built in shops at opposite ends of Northwest Twenty-Third Avenue. No. 337, seen at Northeast Thirtieth Avenue and Ainsworth Street, was a "Fuller Standard" built at the Washington Street Car barn in 1902. This type of large platform car was named for railway president Franklin Fuller.

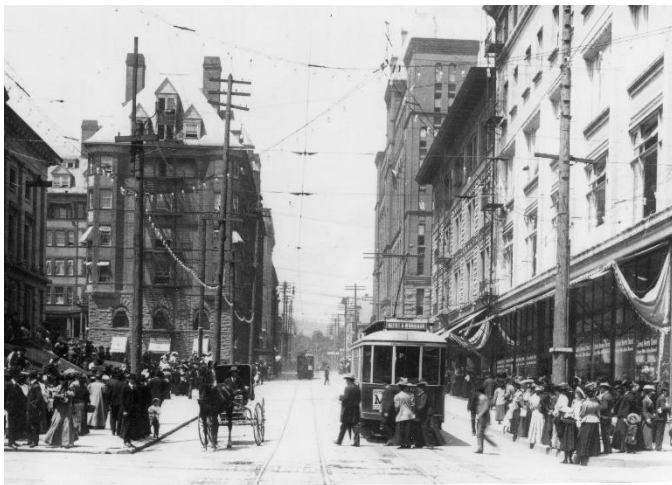




In 1902 the City & Suburban Railway began building a new type of streetcar to compete with Portland Railway's Fuller cars. The Canadian-inspired "Torontos" were three-compartment cars with side panels that could be removed during warm weather. This feature was obviously not needed in this scene of No. 463 on snowy Council Crest.



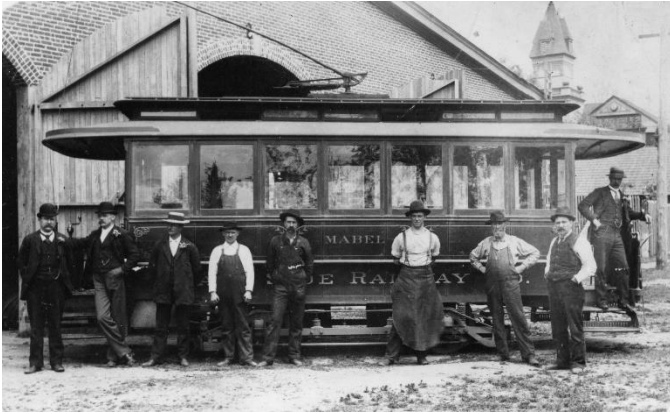
On June 28, 1906 Portland Railway, Oregon Water Power & Railway and Portland General Electric (an electric utility), merged to form the Portland Railway, Light & Power Company, consolidating all Portland street and interurban railways. By 1907, when No. 408 became part of PRL&P's first order from the American Car Company in St. Louis, national manufacturers were able to keep up with demand.



PRL&P "Toronto" series streetcar 456 is westbound on Southwest Morrison Street at Fifth Avenue on the Depot & Morrison Street line. Another trolley is approaching in the background between the Portland Hotel, on the left, and the Marquam Grand Opera House. This picture was taken in 1909, when Portland streetcar lines were growing rapidly.



The East Side Railway cars Bona and Kate are passing on Main Street in Oregon City, on the nation's first true interurban railway, which opened in 1893. The Bona was built in Portland by the Columbia Car and Tool Works in 1891. The older Kate was the product of a national car builder, probably the Indianapolis Car Company.



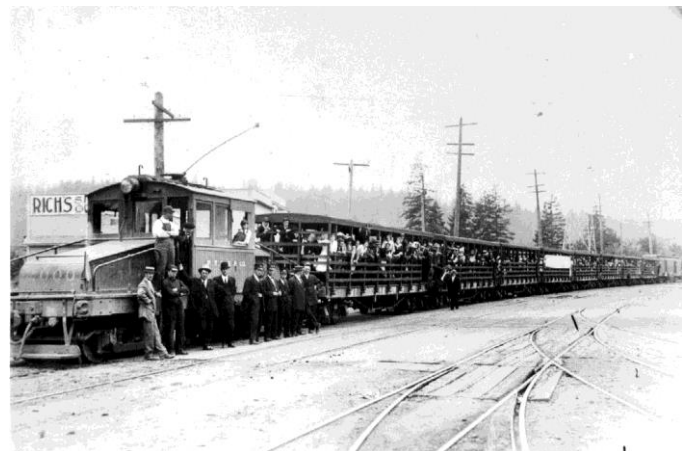
Mabel, seen at the Milwaukie carbarn around 1892, was a single-truck Pullman intended for the Hawthorne Avenue steam motor line. When electrification of that route was delayed Mabel was shifted to the Oregon City run. As interurbans evolved into larger cars, Mabel and Nora were spliced together to create No. 1045.



Electric railways did more than carry passengers. When the Portland City & Oregon took over the East Side Railway in 1901 they discovered a need for electric locomotives. To meet this demand, two boxcars were remodeled with operators' cabs and four-motored trucks. "Box motor" No. 103 is seen here configured as a mail and express car to avoid an ordinance prohibiting freight trains on main city streets.



Most Portland streetcars were narrow gauge, running on rails set 42" apart. Larger standard gauge rolling stock, requiring 56½" between rails, were usually stored in their own carbarns. In 1911 the pioneering Milwaukie Carbarn was replaced by a new standard gauge facility in Sellwood. Shop employees are seen here in the Sellwood Carbarn, posing between city streetcar No. 1074 and interurban No. 1048.



Electric locomotives were developed to haul freight and baggage. They did not resemble steam locomotives, since all that was needed to pull a freight train were motors, brakes, and a place for the motorman. A preferred design was known as a "steeplecab," because it featured sloping hoods for improved visibility. Steeplecab No. 2000, built for the PGE Line & Power Department, is waiting at Golf Junction around 1913. It is heading an excursion train with eight modified Mt. Hood Railway flatcars, and a baggage and express car.





On July 4, 1911, the Mt. Hood Railway & Power Company opened a 22-mile line from Northeast Portland to Bull Run. The railway operated with steam power at first. In 1914 successor PRL&P electrified several Mt. Hood cars, including Kuhlman-built classic No. 1126, seen here at the Sellwood Car Barn in 1933.



The Oregon Electric and Southern Pacific railroads built down the Willamette Valley during the nation's interurban-building frenzy. The 88-mile SP "Red Electric" route was completed to Corvallis on June 17, 1917. In addition to long-distance interurbans there were commuter trains, as evidenced by this Oswego Local. SP's Pullmans ran on 1500 volts DC, and sported pantographs and round end windows.



In this ca. 1910 picture three trains are meeting at Linnemann Station on PRL&P's own interurban lines. No. 1058 is working the Troutdale shuttle, No. 1050 heads an inbound Cazadero train, and No. 1067 is at the end of an outbound Cazadero train. Passengers are waiting to board a Cazadero train. The station was located at the junction of the Troutdale and Cazadero lines.



Railway companies developed amusement parks as a means of boosting ridership. In Portland such attractions included Council Crest Park, Jantzen Beach, and Oaks Park, as well as picnic grounds at Canemah and Cazadero. In 1915 PRL&P ordered 15 beautiful open cars for this trade, as seen in this view of picnickers boarding an excursion train on Southeast Water Street.

*The Trolleys that built Portland, continued...*

Ohio's Niles Car & Manufacturing Company built No. 57 in 1903, six years before PRL&P converted it into the parlor car *Portland*. It was sumptuously furnished with upholstered wicker chairs, art glass ceiling lights, velvet curtains, and carpeting. When not being used for company trips the car was available for charter. It is seen here at Bull Run with VIPs and spouses.



No. 4021 is boarding passengers at the interurban station on Southwest First Avenue and Washington Street. By 1953, when Portland Traction bought eight "Hollywood" cars from Los Angeles, railway companies everywhere were replacing aging trolleys with buses and secondhand streetcars could be picked up for scrap prices. These 30-year-old trolleys were the last ones bought for Portland.

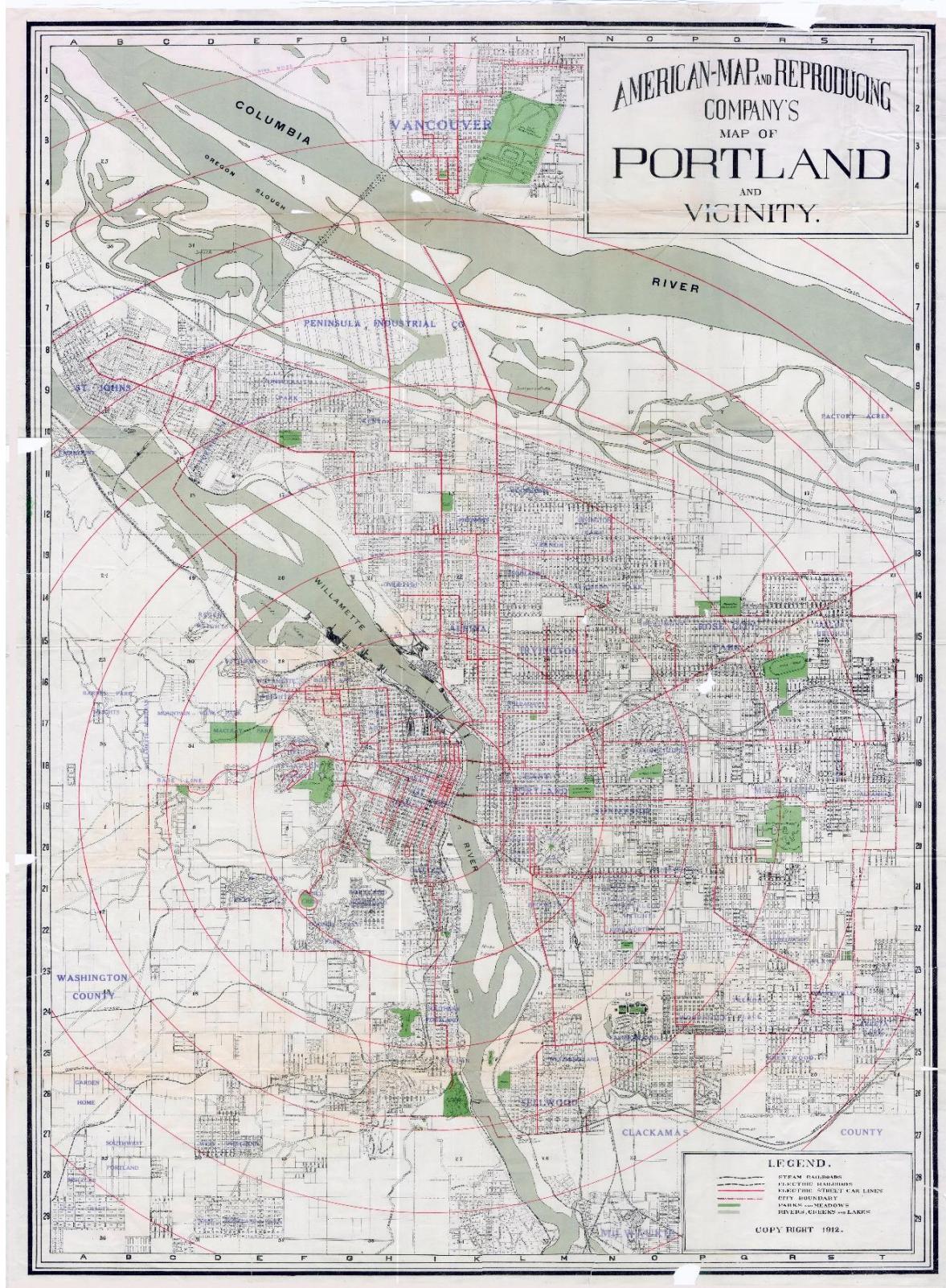


On June 5, 1953 a crowd gathered under drizzling Oak Grove skies to welcome the first two of eight all-steel "Hollywood" streetcars for Portland Traction Company. They watched while a city commissioner cut the ribbon stretched across the track between No. 4021 and a sister. The downpour cut attendance from anticipated thousands to about 500.



Installing exhibit at Hopmere Station April 25 2018





1912 Map of Portland & Vicinity. Electric streetcar lines are printed in red on this 1912 map of Portland and Vicinity. The 32 lines are evidence of Portland having become a streetcar city.





Pittmon's Car Line Diagram. This Car Line Map appeared yearly from 1915 to 1927 in "Pittmon's Portland Guide," with little or no change. It illustrates the Portland Railway, Light & Power Company streetcar lines during their peak years. The number of carlines reached a peak of 40 in 1920, falling to 36 in 1927 due to some lines being joined to others. The third-largest narrow-gauge street railway system in the United States reached peak ridership in 1915, when PRL&P had 583 streetcars, operating over 39 lines, with 347 miles of track (187 in the city).

## Updates to the Point of Sale System

*Bryan White*

This year, working in the depots will be simpler than ever.

The gift shop team has been working to ensure that all items will be in the Square system, and that they are easily scannable. Since we rolled out the Square Point of Sale at Hopmere and Willamette Shore Trolley last year, Square has updated their system so that the registers should work flawlessly. Now, you'll be able to scan almost everything.

We'll also be releasing training videos and making them available on the oregontrolley.com crew sites. If you ever need a reminder how to start up or shut down the system, or other common issues, these one-minute videos will walk you through the processes.

If, however, there is an issue that these videos don't address, I will also be available during the weekends to assist you, either with what you need to do, or to make changes in the system so that it works properly.

## Museum Director's Report for Winter 2017/18

*Greg Bonn*

### Track work:

Members and volunteers set forms and poured concrete for footings for track one which will eventually become the lead to the new car barn. After the pour was completed, the forms were moved to the depot for setup of the new track there.

180 feet of track were removed from the depot platform toward the crossing. The ballast and roadbed were removed and used as a base for the new volunteer parking lot on the east end of the depot.

Additional excavation was required to level to a depth that would result in a lower track at the passenger platform, eliminating the uphill walk to the cars. Forms were set, rebar placed and bolts were positioned for the first hundred feet of track. Soon after the concrete had set, the forms were removed and reset to complete the footings toward the existing track at the crossing. Additional forms were assembled for drainage structures and for a base for the wig-wag signal that will be located at the parade road crossing at the Brooks depot. These were filled the same day as the final pour completed on March 16th.

Backfilling and compacting was done on the new track footings on both track one and the platform track at the depot. Fabric and gravel was then placed over the fill to provide a level walking surface around the cars for passengers and crew. A new culvert under the car barn passenger platform has been installed. Gravel, salvaged from the top of the trenching was spread after the dirt fill was compacted. Catch basins and storm grates will be installed as the weather and water table allow.



### Library:

A fifteen drawer flat file cabinet, purchased from surplus, has been repaired and installed in the southeast corner of the library. Staff have begun moving blueprints, diagrams and other large flat print items to the drawers. The five existing file cabinets had to be moved three-quarters of an inch to allow enough space to fit the new cabinet. Since the file cabinets are now in their final position, staff have begun filling the drawers in them, too. Work continues to sift, sort and file boxes of paperwork and records from various collections of society records.

### Restoration:

Work continues on the snow sweeper with new frame members being fitted for installation. A traction company repair to one of the cross beams had allowed it to sag creating a fit issue. The repair has been removed to allow the beam to be straightened and re-repaired with some additional bracing underneath the beam. Repairs to 1067 are being made to the window sill on the west side of the car. The sill had been cut out to accommodate the installation of a toilet during the conversion to a beach cabin. Materials and parts have been removed from the car to expose the floor and to remove plywood from the missing sections to be assessed for restoration. Rotted beams under the bathroom area are also being exposed for assessment and restoration. New bolster springs have been installed in the 48, controllers have been repaired and serviced. It still needs work on lighting and trim. There is much work needing to be done to prepare for Steam Up. Members meet on Saturdays and Mondays, with an additional Friday thrown in now and then. Any and all help is extremely appreciated. We need volunteers to help complete the exterior painting of the depot. Mowing is a weekly job and usually takes a day to complete. Spraying the track and right of way and around the buildings and walkways must be done to control unwanted grass, weeds and blackberry vines. There are many other tasks in all areas of the museum, both large and small. Please come out and help.

## Willamette Shore Trolley Update

Dave Rowe

### Vintage Trolley wants to become Eco-Friendly



513 towing its generator.

Dave Rowe

The Willamette Shore Trolley has been powered by a diesel powered generator for years. The evolution of batteries has given Vintage Trolley an opportunity to look into the possibility of installing a compact battery to operate all day and charge during the night. EVDrive, Inc. is a Hillsboro company that specializes in electric vehicles. They powered one of the first electric-powered semi-trucks and the world speed record-holding electric Corvette. This company would be able to convert VT 514 from DC drive motors to AC motors. This conversion will allow for regenerative braking and extend the battery range. The projected cost is \$232,000.00. Vintage Trolley, Inc. is accepting donations for this project. So far \$60,000.00 has been received. Checks should be made out to Vintage Trolley, Inc. Battery Fund. Mailed to Vintage Trolley, Inc. C/O Sheils, Obletz Johnson 1140 SW 11th Avenue, Suite 500 Portland, OR 97205. Vintage Trolley Inc is a 501 ( c ) 3 and tax acknowledgement letters will be sent to donors



The crew during the repair of the broken rail and replacement of the permanent crossing.

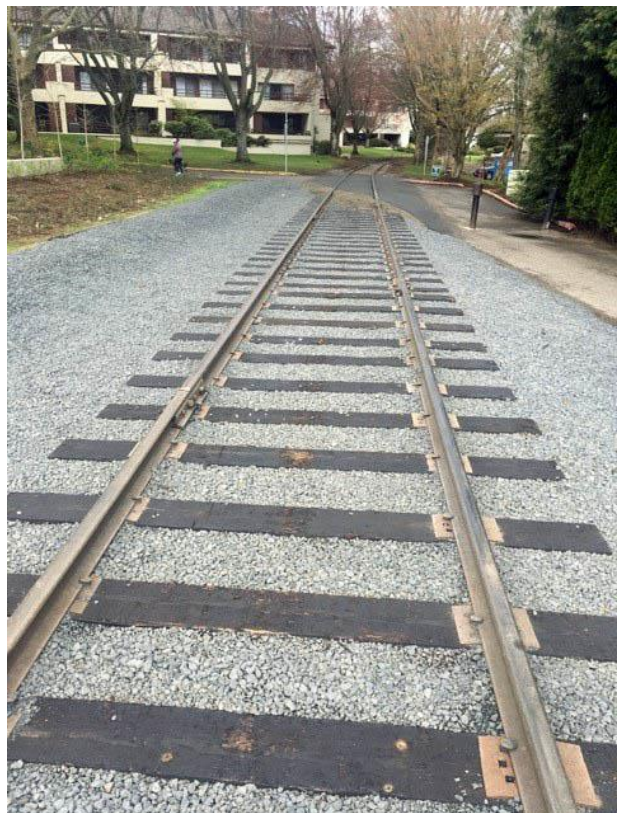
Dave Rowe





The WST Riverwood crossing is finally finished.

*Dave Rowe*



Boundary crossing completed

*Dave Rowe*

**DONATION REQUEST** (Tax deductible receipt will be mailed to you)

	<u>Items</u>	<u>Description</u>	<u>Amount</u>
<b>Endowment Fund</b>	Endowment Fund	<i>Helps create an endowment fund to support operations, staff (future) and general projects</i>	\$_____
<b>General Fund</b>	Unrestricted Funds	<i>Allows Board to allocate funds as needed (Utilities, phone, internet, insurance, etc.)</i>	\$_____
<b>Capital &amp; Restoration Projects</b>	Brussels Trams	<i>We only need \$23,000 more to complete our purchase of <b>all nine</b> Brussels trams!</i>	\$_____
	OE Rwy Loco #21	<i>Return Oregon Electric Railway Loco 21 to operation</i>	\$_____
	Carbarn #2	<i>Build the 2<sup>nd</sup> carbarn (will also be the temporary restoration shop)</i>	\$_____
	Interpretive Center (Hopmere Station)	<i>Finish the flooring, archives, displays, caretaker's quarters and exterior landscaping (sidewalks, platforms, etc.)</i>	\$_____
	Mainline Loop	<i>We need to complete the mainline loop so we can run multiple cars at a time and operate cars that are single-ended. Adding less than 2000 more feet will complete the loop. (~\$45k)</i>	\$_____
	Generator & Cart	<i>We now have the cart and generator but need some additional parts to complete it so we can have two car operations on WST.</i>	\$_____
	Car Restoration	<i>All our cars need love and care. Many are in dire need of restoration. Current projects underway are: 813 (Broadway car), 1159 (PCC), 1455 (snowsweeper) &amp; locos 254 &amp; 401</i>	\$_____ Car: _____
	Buy A Tie	<i>\$55 buys us a new fir tie to replace worn out ones (we need about 2000 of them so every single one is a great help)</i>	\$_____
	Buy Concrete	<i>~\$100/yd<sup>3</sup> for track, curbs, platforms, etc.</i>	\$_____
<b>Specific Items:</b>	Queen Size Bedding	<i>Queen size sheets &amp; pillow cases for the guest/caretakers quarters</i>	\$_____
(Donate items or \$ towards purchase)	Flat Files	<i>Flat file cabinets for maps, blueprints, oversize drawings, etc.</i>	\$_____
	Washer/Dryer	<i>Stackable washer &amp; dryer for the Interp. Ctr.</i>	\$_____
	Uniform Parts	<i>Hats, pants, vests &amp; jackets for volunteers</i>	\$_____
<b>Name Your Project</b>		<i>Do you have an idea you would like to see done? Tell us about it!</i>	\$_____
<b>TOTAL</b>			\$_____

To: OERHS, 3995 Brooklake Rd, Brooks, Oregon 97303

Name \_\_\_\_\_ Date \_\_\_\_\_ Cash \$ \_\_\_\_\_ Check \$ \_\_\_\_\_  
 Credit Card: \$ \_\_\_\_\_ Visa ☐ MasterCard ☐ American Express ☐ Discover ☐  
 Card # \_\_\_\_\_ Sec Code \_\_\_\_\_ Expires \_\_\_\_\_ Signature \_\_\_\_\_

**THANK YOU!**