



The Northwest

ELECTRIC RAILWAY REVIEW

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Council Crest Car No. 503, seen in early 1987 at the Willamette Shore Ry. terminus near the Ross Island Bridge, was later replaced by No. 48 (due to sagging platforms). OERHS volunteers for this test run, are (left to right) Rod Cox, Mike Parker and Greg Bonn. The "PORTLAND UNION STATION" window sign reflects hopes for an extended line. (Chuck Hayden photo)

WATERFRONT TROLLEY EXTENSION CONSIDERED

By Roy Bonn

Preliminary engineering studies have begun regarding extension of the Willamette Shore Railway from under the Ross Island Bridge to Union Station. Two routes are being examined.

The first would extend the line north from its present terminus, utilizing one lane of the ramp to Harbor Drive. The track would follow the old Harbor Drive until reaching Waterfront Park, where it would run along the walkway until crossing S. W. Front Avenue to access Union Station.

The second route would be similar to the first up to the point where S. W. Columbia Street intersects with Front Avenue. At that point the trolley line would cross over to reach S. W. Front Avenue, where it would then turn north to tie into the present Max light rail tracks. Since engineering studies have just begun, it will be a considerable time before a final route is selected, and even longer before construction would start on any proposed line.

CARBARN REPAIRS

By Greg Bonn

Early this spring restoration crews will have started work on repairs to the front of the car barn. As the car barn is a

historic building, repairs will conform as closely as possible to the original design. Scaffolding will be erected and the tower truck will be utilized to ease the workload. Persons with building construction experience are urged to help with this project. Work will be scheduled on week ends, weather permitting. Call Greg Bonn at 642-5097 if you can help.

NEW NAME FOR NEWSLETTER

By Roy Bonn

We hope that you like the new name selected for the OERHS bulletin. It encompasses a broader spectrum to cover news and items of interest that we plan to publish in the future. We always need news items, historical reviews and other items of public interest to publish. Please submit to the Editor or to the President of the Society.

DON HUBER HALL

By Bill LeRoy

EAs most of you members know, we lost our good friend Don Huber this past year. He was responsible for the construction of the building between the power house and the storage building. This hall was, and is, to be used for model trolley and railroad layouts. Don started this club and I would like to see it continue. There is room in this building for all gauges. There is also enough room for some of the memorabilia that cannot be put in the main museum. It has been suggested that modular layouts could be constructed so that the model train and trolley lines could be portable.

If you are interested in this type of a club please write or telephone: Bill LeRoy, 479 N. Deerland Drive, Otis, Oregon 97368. Phone: 503-994-3294 Your suggestions will be appreciated. Other members, as well as myself, think the name Don Huber Hall is self-explanatory as he was a friend to all and gave his best to this museum.

COSTS OF REPAIRING WILLAMETTE SHORE LINE LESS THAN PROJECTED

By John Furey
(from *The Oregonian*, Jan. 25, 1990)

The cost of the rehabilitating a railroad line to accommodate a trolley between Portland and Lake Oswego will be about \$130,000, according to an engineering study conducted by a Portland firm. Another \$640,000 may be needed to improve 13 public rail crossings on the six-mile stretch of track, according to the study, which also estimates the annual maintenance costs for 20 years at \$35,000.

The study, conducted by ETS Pacific Inc. of Portland, was submitted Friday to Paul Haines, Lake Oswego public works director. Haines said Wednesday that the figures still are preliminary and will be reviewed by a group of technical advisers before a formal presentation is made to the Lake Oswego City Council on February 6. However, Haines added, the costs are less than some officials had projected and it has not been determined whether the improvements to rail crossings are necessary.

"The track is generally in better condition than a lot of people had been speculating," Haines said. He added, "The numbers, if they hold up, seem to be more achievable" than a previous study had shown.

The City Council had approved \$20,000 for the study after two previous estimates, conducted in 1988, varied widely in costs. A study commissioned by Portland had suggested it would cost \$2.2 million initially and \$100,000 a year to prepare and maintain the line for 20 years of interim trolley service. And a study by two retired Southern Pacific

employees estimated initial capital costs as just \$10,600.

Haines said both 1988 studies were accurate, but the Portland study anticipates a higher level of service and the other study would rely on volunteer labor. About a third of the rehabilitation costs relate to drainage problems, Haines said. Other major work needed, according to the study, includes removal of switches, replacing cross ties and cleaning ballast.

Haines said the study anticipates that the trolley will be maintained at a federally required level allowing for trolleys operating up to 15 mph. The study examined the costs of maintaining a trolley line for one, five and 20 years. A consortium of local governments bought the line's right of way from Southern Pacific in October 1988 for \$1.9 million. In a separate pact between the railroad company and Lake Oswego, Southern Pacific had agreed to build for \$400,000 an extension of the track into downtown Lake Oswego.

The trolley initially is expected to run along the Willamette River between downtown Lake Oswego and the Marquam Bridge, the same route used during a successful four-month trial in late 1987. A citizens group, the Willamette Shore Railway Task Force, which is headed by Lake Oswego businessman Paul Graham, currently is working to get a trolley service on line this summer.

LAKE OSWEGO TRACK REALIGNMENT PROPOSAL

An alternative track alignment has been developed by Tri-Met Engineer Gerald Fox. This proposal would allow SP to retain their main-line track intact. The trolley line would parallel the SP from present end of track to a point where the switch for the yard track is located. A crossover would be installed and the WS Ry. would use the easternmost yard track which would be extended south to the depot. The present track and switch to the depot would be removed. The main difference in these two proposals is in the location of the crossover. There is a possibility that a track could be constructed

from the depot eastward, paralleling the street, and joining the old cement company spur. A single car carbarn could be constructed on this line to house the trolley. Any construction of this spur would require an easement from PGE as they own a portion of this property.

ANNUAL BANQUET REPORT

By Dick Thompson

The 1990 Annual Banquet was held January 13th at the Portland Elks Lodge. It was attended by 67 OERHS members and guests. Guest speaker, Jerry Henderson, gave a talk about the accomplishments and future plans of the Yakima heritage trolley system and he invited OERHS operators to come to Yakima as guests.

OFFICERS FOR 1990:

President, Greg Bonn; Vice President, George Inness; Secretary, Manuel Macias; and Treasurer, John Nagy. Greg was re-elected to a three year term as trustee, and Tom Shelnutt was elected as a new trustee. Please support your Society and help 1990 be a successful year.

DUES REMINDER

This is a friendly reminder that if you have not paid your dues for 1990 please do so today. All dues are on a calendar basis. The Society has an exciting year planned and you will not want to miss out on the activities. We are looking at the planned startup of the trolley line to Lake Oswego which is truly exciting. Also, newly acquired rolling stock will be moved to the property this year. Don't miss out. Send in your 1990 dues check today!

MOUNT RAINIER RAIL LINE DONATED

(from *The Oregonian*, Feb. 15, 1990)

TACOMA - A proposal to run tourist trains between downtown Tacoma and Mount Rainier and Mount St. Helens has gotten a

boost with the donation of 58 miles of rail by the Weyerhaeuser Co. The tracks, owned by Weyerhaeuser's Chehalis Western Railroad subsidiary, run from Elbe to Graham. The company also has offered to extend the city operating rights to 16 more miles of track from Graham into the city. The rail line, once used to haul logs, no longer is needed, said Chuck Cereghino, a Weyerhaeuser spokesman.

"It's a wonderful opportunity for us to develop our tourism base," said Mayor Karen Vialle. The Elbe-to-Graham segment connects the tracks leased from Chehalis by the Mount Rainier Scenic Railroad which runs steam powered locomotive excursion and dinner trains between Elbe and Mineral and Morton



Pittsburgh Railways was one of the first systems to order the PCC car. No. 1065, seen here on the McKeesport Line in 1959, arrived as part of a 100-car order in 1937 (F. W. Schneider photo from William Middleton's book "The Time of the Trolley").

RESULTS OF OPERATION OF P.C.C. CARS IN PITTSBURGH

By T. Fitzgerald

General Manager, Pittsburgh Railways Co.

From time to time we will publish articles that we feel are of historical interest. This article is of considerable interest as it parallels the results that are occurring now when new equipment replaces the old. This reprint of minutes of the September 22, 1937 American Transit Association Proceedings is courtesy of former OERHS President Walt Mason. - Roy Bonn, Editor

Mr. President and Gentlemen: our situation in this industry at the present time reminds me of the slogan or song during the War, "Ashes to ashes and dust to dust; if the Germans don't get you the T.B. must." In this situation the unions, the financial pirates, the municipal authorities, the public service commissions and all other forms of activity make our future very problematical.

When a thing like the P.C.C. car happens, as it happened to us in Pittsburgh, we found kind of a new lease on life and we forgot about other things. I want to tell you that car has put an entirely new spirit in our crowd. Personally, I have put on 15 pounds since this car showed up in Pittsburgh and I think

the rest of the gang feel the same way. Now, let us get down to details.

The Pittsburgh Railways Company has 101 P.C.C. cars in operation and has on order an additional 100 cars, delivery of which will commence this month. The performance of the cars, their reception by the employees and the approval given them by the public has exceeded our expectations.

We had led the people of Pittsburgh to believe that the new street car, which was in process of development, would be an amazing improvement over street cars they were familiar with and the P.C.C. car did not let us down. We spent a considerable sum in advertising and in promoting interest in the car, but I believe this money would have been entirely wasted had not the car itself proven to be the "Natural" it is.

In August, 1936, we received a sample P.C.C. car which we had ordered for the purpose of demonstrating and advertising to the Pittsburgh public the advantages of the new vehicle. We had this car delivered sometime prior to delivery of our first order of 100 cars. We operated the sample car in free

demonstration service until December, and in that period it carried 25,000 passengers, an additional 35,000 walked through it, and at one time or another it was operated on practically every part of our system.

In the latter part of January, deliveries commenced on our order of 100 cars and we inaugurated service on the first route on February 4th. Deliveries continued with fair regularity, so that we were able on May 26th to inaugurate service on the last route included in the plan of distribution of the cars.

At the outset we had to decide whether to fully equip a route with the new cars or to equip the base service and use higher-speed cars of the older type to augment the service for the peak haul. For the benefit of those who may not be familiar with the higher-speed car, I will explain that commencing in 1929, we embarked on a program of increasing the speed of our service, accomplished by rewinding motors. The motors were changed from three-turn to two-turn, so as to increase their power output, and by so doing, increased the free running speed of the cars so that they are

capable of about 40 miles per hour, or about equal to the maximum speed of the P.C.C. car. When the cars were converted to higher speed, we also increase the braking efficiency and did other work designed to make the car in general conform with its higher speed characteristics. In the program of conversion, we changed 402 cars to the higher-speed type. We could therefore mix higher-speed cars and P.C.C. cars in the same schedule without fear of disrupting the schedule or destroying the efficiency of the new car. That does not mean the new car hasn't got better speed characteristics than the older type of higher-speed car. It has and ultimately we expect to get the maximum amount of efficiency out of the higher-speed P.C.C. cars.

The Pittsburgh district presents, as many of you know, a unique mass transit problem. The rugged topography of the district has resulted in a dispersion of population, which has in turn necessitated a larger number of routes to serve that population than is the case in any city of comparable size. The Pittsburgh metropolitan area has developed in a circular fashion with traffic converging on the downtown district through a limited number of traffic arteries. We have 53 routes entering the business district. Our base schedules on the routes entering the business district last spring required 311 cars plus spares, while our peak schedules required 647 cars. Taking the system as a whole, we have 80 routes with base car requirements of 378 cars and peak requirements of 759 cars.

If the new cars had been applied so as to fully equip a route or a throat, we would have been unable to equip so many routes and we would have had a large number of cars used only on the peaks and idle from 12 to 14 hours per day. In other words, if you equip an entire line you are going to have the cars that you have, standing idle in the middle of the day. By applying the new cars to base schedules, we were able to so equip ten routes, and have kept the cars in service practically all the time except for inspection and repair. Furthermore, the base hours represent the period when noise reduction is most beneficial and when the greatest opportunity for stimulation of patronage at a

profit exists. To secure as great benefit as possible from the noise reduction qualities of the new cars, we have taken such as are available and placed them in service on night car or owl routes - some of which routes do not have new car service during the day.

At the middle of September, we had a total of about 2,450,000 miles of operation on the 101 cars, and the highest mileage on any one car was about 33,000 miles. Our method of application results in securing about 1000 miles of service per week on the car, or 50,000 to 52,000 miles a year.

We have had less mechanical and electrical trouble with the cars than with any new car we have had on the property. Our mechanical department had made such a thorough study of the demonstrator that when the order of 100 came in they were well equipped to cope with such difficulties as arose.

The Pittsburgh district presents some variety of operating conditions, in the narrowness of streets and the severity of its grades. Two routes on which the new cars have been operated are, however, fairly level, one having infrequent stops and the other frequent stops. Four of the routes are in some of our best traffic-producing territory, have frequent stops and heavy traffic conditions to contend with. Four of the routes are in rugged territory, having infrequent stops.

Evidence of how the cars are standing up in service is furnished by the weekly mileage of 1000 miles which they are averaging. At ten miles per hour, that means they are averaging better than 14 hours of service per day, exclusive of time standing as spares and time required for routine inspection and cleaning.

The mechanical and electrical difficulties which we have encountered are chiefly those traceable to new designs, which could only be brought out by actual service. We have had some miscellaneous troubles, all of which either have been or will be cured by redesigning to correct the difficulties. Sometime after the cars were operated, the trucks began to rattle, particularly over special work. The source of this noise was found to be the bearings of the brake shoe

hangers on the brake beam. These bearings were redesigned to introduce rubber to take the shocks and the cars are better after the change than they were when new.

We have had no failures of resilient wheels except those which were damaged because the hand brakes had not been fully released. They heated up and burned out the rubber. That is no fault of the design of the wheel or of the manufacturer. We have had little or no trouble with motor generator sets. The wear on rail brake shoes has been very slight. We feel we are getting good wearing properties out of our rail brake shoes, largely because our technicians have made the dynamic brake properly do its job. We are obtaining from four to five time the mileage on wheel brake shoes and they cost a little more than twice the cost of regular brake shoes. We have had two derailments in 2,450,000 miles of operation, both due to mud on the tracks, carried there by severe storms. We have had one split switch, caused by an object in the switch. I personally feel that these cars are going to hold the rails longer not only in the sense of avoiding derailment and split switches due to the resilient wheel, but also in the sense of demonstrating the value of rails in transit service and re-establishing the prestige of that type of service.

We have not made any changes in schedule speeds on the routes where the cars were installed, largely because the schedules were designed for and operated by the higher-speed cars which I have mentioned. The higher-speed schedules are, however, about 15% better than is obtainable with the standard slow speed cars.

Power consumption on the P.C.C. cars is by test about the same as that on the higher-speed car, and it is 25% greater than on a standard slow speed car. We will save considerable heat however, with the P.C.C. car, over the conventional car. We use electrical space heaters on the old cars, and the new cars of course use the heat dissipated by the control apparatus to heat the cars. We are not in a position to estimate the effect of this until we go through a winter with the new cars.

The cars we have are of the foot-control type. Although we had experimented with foot control, it is the first time we have had a considerable number of cars of that type in operation. In qualifying trainmen on the new cars, we found that on the average about four hours of practice is all that is needed. The reaction of trainmen to the car has been universally good. They like them because of their smooth performance characteristics, the adequacy of the brakes, and the resultant ease of schedule maintenance, and because lost time can be recovered so much more easily with the new car. The only difficulty in operation so far encountered is glare in the windshield at night, particularly on wet nights. This is due to the bright interior; and we have mitigated this difficulty by various methods, such as, dimming the cab lights, cutting off floor reflection, and blacking the windshield frames.

Of course, the true measure of the new car rests in the effect upon revenues and the effect on costs. We have seen enough of the car to lead us to believe that the costs will certainly not be higher than with the conventional car and, undoubtedly it will produce an economy in track maintenance, power costs, and in costs peculiar to the car itself.

So far, the public response to the vehicle has been splendid. We have received so many communications from patrons, who have been pleased with the improved service, from civic and municipal groups congratulating the Company on the new vehicle. We are constantly receiving inquiries as to when the cars will be installed on other routes in the system, which is another evidence of their popularity. In fact, that is one of the greatest troubles we have, the demand for these new cars on lines where the old cars are still operating. That is a very difficult situation to meet. Some of my best friends are abusing me no end on account of the fact I don't order the new cars over on their lines. The noise reduction qualities of the new cars have accentuated complaints of noise from the older cars. I have for a number of years held the opinion that much of the lack of prestige of street cars was traceable to the noise attending their operation. The items of superiority of the new cars over the

older cars most frequently mentioned are its quiet operation and its smooth performance. I don't believe we can place too much emphasis on noise reduction in connection with our services and, as an industry we should keep alert to methods by which our equipment may make less contribution to the noise generated in the city streets.

I will now turn briefly to the patronage results on the routes where we have installed the new cars. I am sorry that we cannot speak more definitely about the increase patronage they have attracted. The picture on three of the routes on which the new cars have been installed has been confused by the fact that we made fare concessions at about the time the new car service was inaugurated. On certain of the routes, territory is served which is also served by other routes which do not have the new equipment, so that it is possible that some patrons may use either route. In the studies which have been made, we have endeavored to adjust as nearly as we can for this factor of competition of the new cars with the older cars. On the new routes on which the new cars have been installed and where a fare concession also was made, there has been no reduction of revenue- on the contrary, the route earnings have shown an increase. The fare reduction which was made was of substantial proportion.

It should be remembered that thus far where the new cars were installed, we previously operated higher-speed cars, which in themselves had a tonic effect upon revenues. The new cars of course have provided a much improved performance and appearance, and to that we must ascribe the added traffic obtained. A property which has not speeded up its service will, in my opinion, secure the advantage of traffic stimulation from the greater speed of the P.C.C. car. We began our program of conversion of cars to higher speed at the start of the depression and we continued the program during the depression. We found that the routes which were equipped with the higher-speed car held their patronage better than other routes-an advantage, of course, which the recent installation of P.C.C. cars does not add in the making of comparisons.

The revenue results of installation of new cars on the Fifth Avenue routes and the Mt. Lebanon route offer about the only possibility of any comparison of increased patronage. The Mt. Lebanon route serves a territory which, to some extent, is also served by the Dormont route. Any increase in patronage on the Mt. Lebanon route must also take account of any possible loss by Dormont. As a base to which any change in traffic could be related, we selected the trend of revenues on the remainder of the urban system. This base is also open to question, due to the difference between the character of the system as a whole and the character of the population served by the Mt. Lebanon route. The Mt. Lebanon territory is generally made up of white collar workers whereas the system presents a mixture of white collar workers and industrial workers, with probably industrial workers predominating.

Comparing the patronage trend on Mt. Lebanon with the urban system trend, with adjustment made for the effect on the Dormont route, we found that in March Mt. Lebanon was 11% better and July 2% better, the latter being due to the fact that vacations are taken by a larger proportion of Mt. Lebanon patrons than on the system as a whole. The improvement in the base hours of service on Mt. Lebanon appear from other checks we have made to have been greater than on the all day service because it should be borne in mind that the improvement shown has been developed, using 8 new cars on a base schedule with a peak schedule requiring 19 cars.

As stated the installation of the new cars commenced on February 4th. On February 6th the rate schedule of the Pittsburgh Motor Coach Company was reduced from \$.25 cash, 9 tickets for \$2.00, to \$.15 cash, 8 tickets for \$1.00, and 20 tickets for \$2.00. The routes on which the rate change took place had been originally designed to furnish a service supplemental to the rail service and in most instances they occupied the same streets or closely paralleled rail service. It can be readily appreciated that with such a sharp reduction in fare, traffic on the buses was stimulated. The Mt. Lebanon route has been up against this bus competition since it was equipped with the new cars and it has shown



NEW T-SHIRTS: Gift Shop Manager John Nagy has t-shirts featuring Broadway car 813 available in both adult and children's sizes. The design features four-color printing on high quality t-shirts. Prices are \$12.00 for adult sizes, and \$10.00 for children's sizes. Two dollars from the sale of each shirt will go into the dedicated Car Restoration Fund. Please contact John to purchase a t-shirt.

the revenue improvement I have mentioned despite this unfavorable influence.

The Fifth Avenue routes comprise four lines which occupy a common throat for a distance of two and a half miles from the downtown business district, at which point they commence to diverge into separate territories. In each instance these Fifth Avenue lines serve territory covered by other routes but we have made no effort to determine the extent of competition between them. All of the Fifth Avenue lines are exposed to the bus competition I have just referred to, which in this case became effective before the service with the P.C.C. cars was inaugurated. The four Fifth Avenue routes were installed with new cars between February 17th and March 24th. In April, the first full month of operation, the routes showed a little over 10% better than the

urban system trend. Although these routes are to some extent similar to Mt. Lebanon in regard to type of population served, they do offer greater diversification and to a degree represent an average system condition. In July these four routes were showing 5% better than the system trend.

When consideration is given to the elements which affect the comparisons, such as bus competition, previous higher speed schedule service and installation in the spring when traffic normally is on the decline, I feel that we have had a very favorable patronage response to the new car.

In connection with that I was looking over the route earning for August the other day and you could take the route earnings and increases over last year and you could pick out the lines on which the P.C.C. car was

operated and the lines on which it was not operated, and you would find that the showing for August would be the best that we have had so far.

In conclusion I would like to assure you that our experience with the mechanical and electrical performance of the P.C.C. cars is such that no fear need be entertained on that score. The cars have the performance to attract and hold patronage and in my opinion they are an adequate answer to the charge of obsolescence of street railways. Continued improvement in the vehicle, which is inevitable, will, I believe, result in complete rehabilitation of the prestige of the street car as the most efficient and economical carrier where traffic demands heavy enough to justify that vehicle are encountered.

BULLET TRAIN PROPOSED

From *The Oregonian*, February 15, 1990

OLYMPIA - Development hungry eastern Washington residents joined their growth-weary Puget Sound counterparts to boost a dream; a 320 mph bullet train linking Seattle and an international airport at Moses Lake, a distance of 177 miles. The Senate Trans. Comm. heard more than 2 hours of testimony in favor of what has become perhaps this sessions most idealistic proposal.

Backers said the idea, which they tout as a cure for both eastern Washington's stagnant economy and Puget Sound's runaway growth, could be just a few years away.

NOTE TO READERS

Copies of the original Jan.-Feb. 1990 OERHS bulletin have not been found. This **replica edition** was compiled in 2013 from text fragments located in the archive kept by former editor Dick Thompson. Pictures have been added.

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