

OREGON ELECTRIC RAILWAY WESTSIDE CORRIDOR
(Burlington Northern Railroad Westside Corridor)
between Watson Avenue and 185th Avenue
Beaverton
Washington County
Oregon

HAER No. OR-59

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Western Region
Department of the Interior
San Francisco, California 94107

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Location: Between Watson Avenue and 185th Avenue
Beaverton, Washington County, Oregon
U. S. G. S. 7.5 minute Beaverton and Linnton, Oregon
quadrangles
Universal Transverse Mercator Coordinates:
Eastern terminus: N5037100E515200
Western terminus: N5040100E510500

Date of Construction: 1908

Present Owner: Burlington Northern Railroad
777 Main Street
Ft. Worth, Texas 76102

Present Occupant: Burlington Northern Railroad

Present Use: Rail freight transportation

Significance: The Oregon Electric Railway was important to the initial
growth of Beaverton as a suburb of Portland.

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The Lewis and Clark Centennial Exposition and World Fair in 1905 gave Portland a sharp spur into the Twentieth Century. With an expanding metropolitan population and a downtown building boom, Portlanders joined the national interest in building interurban electric rail lines. Boasting "No soot and no cinders," in contrast to the regular coal-fired steam trains, electric interurban rail lines were built in many parts of the United States around the turn of the Twentieth Century to serve the transportation needs of a rapidly growing population living in rapidly expanding metropolitan areas. During this period, the population of the United States is estimated to have been increasing by a million and a third people per year—largely from European immigration (Hilton and Due 1960:7). Most of these new Americans settled in cities which were swelling against the constraints of the old transportation network. This network, based on pedestrian and horse-drawn locomotion, limited the horizontal spread of cities to the distance such transportation could carry people to and from their work each day. Steam rail lines were increasingly efficient for long-distance travel, but were less useful for local transportation, especially passenger service. The bulging cities were limited also by the technology of building vertically. While the earliest skyscrapers with elevators were coming into use during this period, most buildings still were only as tall as it was practical for people to walk up—especially buildings offering affordable rental housing to the growing population. The electric interurbans offered a viable means by which people could live on the outskirts of the cities, yet commute to and from their daily work in the urban core. This "Dinner-Pail Brigade" was the ticket-buying mainstay for the interurban lines. Not only did the interurbans

solve (at least temporarily) the problem of how to move a growing population from one place to another; it also extended the long-standing American dream of owning a home and living in a rural area or small town. The suburbs in which most of us live today are the descendants of country real estate developments begun as a result of the electric interurban railways across the United States. The interurbans focused on passenger service, but also carried mail and light freight, further strengthening the connections between the hinterland and the urban core.

The earliest known American electric interurban line (as distinguished from electric streetcar or trolley lines) began operation in Ohio late in 1889. Interurban electrics are distinguishable both from city streetcars and from railroads by four characteristics:

- o electric power;
- o emphasis on passenger service;
- o use of equipment heavier and faster than streetcars;
- o and operation on streets in the city, but alongside highways or on private rights-of-way in the country (Hilton and Due 1960:9).

One of the first major interurbans in the nation (The East Side Railway) was opened from Portland to Oregon City in 1893. Eventually Oregon boasted of 432 miles of interurban trackage—second only to California (1295 miles) among states west of the Rockies, but far below record-holding Ohio which had 2,798 miles of interurban track (Hilton and Due 1960). Nationwide, electric interurbans developed during a general period of agricultural prosperity between about 1897 and WWI. A burst of building activity from 1901 to 1904 ended as a result of

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the Panic of 1903 and a second boom from 1905 to 1908 ended following the Panic of 1907. By 1912 the nation's electric interurban network was basically in place. A decline set in slowly with the end of WWI in 1918 and the first glimmerings of the automobile/paved highway future.

Never very profitable and perhaps having more in common with public utilities than with other types of private enterprise, the electric interurban lines could not compete in an era of rapidly expanding highway networks, cheap gasoline and ever more readily available automobiles. The hard economic times of the Great Depression in the 1930s simply put the final nail in the electric interurban's coffin. By 1960 virtually all trace of the nation's electric interurban railway network was gone. In that year, authors George Hilton and John Due noted that "fully 85 per cent of the peak interurban mileage is evidenced only by abandoned rights-of-way, decaying wayside structures, and terminals long since diverted to other uses" (1960:3).

The Oregon Electric Railway is an excellent example of a line built during the late boom years of electric interurban construction which exists now only in fragments, historical records and memories. The Oregon Electric was financed mainly by Eastern capital raised by W. S. Barstow and Company serving the interests of railroad empire builder James J. Hill. The corporation began with \$2.5 million in 1906 under direction of Portlanders Thomas Scott Brooke, Henry L. Corbett and Robert W. Lewis. The Oregon Electric opened its main line from Portland to Salem late in 1907. By 1908 the corporation's capital had increased to \$10 million (Gaston 1911:304). A branch opened from the main North-South line west to Forest Grove about a year later, the first car reaching the Washington County seat of Hillsboro on September 15, 1908. This new line allowed a commuter

to travel from Hillsboro to Portland in just over an hour--a vast improvement over road travel at this period. By 1910 the Oregon Electric boasted 69 miles of track "built to railroad standards with private right-of-way throughout and provided with the best high-speed interurban equipment of the period" (Hilton and Due 1960:396). Operation of the Oregon Electric Railway was turned over to the Spokane, Portland and Seattle Railway in 1910. The S. P. & S. was a regional railroad jointly owned by the Northern Pacific and the Great Northern, both parts of James J. Hill's railroad empire. The Oregon Electric was a part of Hill's battle plan to compete with Harriman's Southern Pacific and Union Pacific empires. Hill expanded the Oregon Electric south to Eugene and bought United Railways which ran through the northern part of Washington County. Harriman retaliated by running electric interurban cars on his Southern Pacific tracks through the Willamette Valley, competing head to head with the Oregon Electric. The competition was wearing on both railroads, but provided a growing commuter population with good service.

The Pullman Green cars of the Oregon Electric were familiar sights along the rights of way through the Willamette and Tualatin Valleys for more than a quarter century. By 1932, however, the Forest Grove line was down to two runs per day and passenger service on the line ended entirely in 1933. In 1945 the line was dieselized and dedicated to hauling S. P. & S. freight. Today the right of way of the old Oregon Electric is still used by the Burlington Northern Railroad, a descendant of James Hill's railroad empire.

The Forest Grove Branch of the Oregon Electric ran for 21 miles through the relatively flat Tualatin Valley, from its connection with the main Oregon Electric Portland-Salem-Eugene line at Garden Home, westward through Beaverton

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and Hillsboro to its terminus in Forest Grove. About three and a half miles of this right of way between Watson Avenue in Beaverton west to 185th Avenue will soon become part of the Tri-Met Westside Light Rail system, bringing electric interurban rail service back to Washington County after a hiatus of more than half a century. The line has long been de-electrified and no trace remains of catenaries, junction boxes or powerhouses. The roadbed has been maintained commensurate with its continuing use as a single track freight route by the Burlington Northern Railroad.

A small wooden trestle bridge over Cedar Mill Creek, on the main Oregon Electric line (see photos #OR-59-14, 15, 16, 17) is a timber trestle 30 feet in length and 12 feet in height, constructed of three timber capped six-pile bents supporting a timber beam bridge. The bents have bent or sway bracing and horizontal braces connect the outside piles of each bent with its neighbor. The bridge has a ballasted floor with separated stringers covered with planks. The abutments are bank bents with straight, plank dump boards. There are no refuges on this short trestle. A railing, a later addition, is made of steel angle-iron uprights with steel pipe rails (two on each side of the bridge) attached with U-bolts. The bottom of the uprights are bolted to the sides of the outside bridge beams. The bridge is single track width.

A second trestle bridge over Cedar Mill Creek is nearby on a spur which was built only a few years ago to serve nearby industries (see photograph OR-59-13). This is a timber trestle 20 feet in length and 12 feet in height, constructed of two timber capped six-pile bents supporting a timber beam bridge. The bents have bent or sway bracing and diagonal braces connect the outside piles of both bents. The bridge floor is open and unballasted with separated

stringers. The abutments are bank bents with straight, plank dump boards. There are no refuges on this short trestle and a railing exists only on the northeast side. The railing is supported by angle-iron uprights bolted at the bottom to the outside timber beam. Diagonal angle-iron braces connect the two uprights at either end of the bridge. Two strands of steel cable U-bolted to the uprights make up the railing itself. The bridge is single track width.

A larger timber trestle crosses Willow Creek. It is approximately 200 feet in length and 25 feet in height, constructed of seventeen timber capped six-pile bents supporting a timber beam bridge. The bents each have two sets of bent or sway bracing and two sets of diagonal bracing connect the outside piles of each bent with its neighbors. The bridge floor is open and unballasted with separated stringers. The abutments are bank bents with straight plank dump boards. There is a single refuge on the north side of the trestle about half way across. It has a timber railing and no fire barrel is present. The bridge itself has no railing.

Historical photograph collections were examined at the Oregon Historical Society and the Washington County Historical Society. At OHS, while many views of the Oregon Electric were found both in the indexed and unindexed collections, none shows the railway in the project area. However, OHS Photo Album #277, an undated photograph album compiled by the Spokane, Portland and Seattle Railway after their formal acquisition of the Oregon Electric in 1910, contains several general views of the project area, though none shows a close view of track, bridges or other railroad features. These photos, numbered in the album as "photo #s 209 - 214" and identified as "Gifford #s 3492, 3514, 3508, 3495, 3496, 3493 and 3500" clearly show the rural environment through which the Oregon Electric

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passed in Washington County. The photograph collection at the Washington County Museum contains no views of the Oregon Electric in the project area, though views of other portions of the Oregon Electric line are present.

With construction of Tri-Met's new Light Rail System along part of the old Oregon Electric Railway right of way, history seems to be coming full circle. Writing in 1960, authors George Hilton and John Due said that "the building of the interurbans...must be looked upon from the vantage point of history as unfortunate...." However, the Muse of history is never stationary. Writing from the perspective of an additional three decades, it seems that it may be the building of an automobile infrastructure and culture that may be unfortunate and that electric interurbans in the updated livery and with the updated technology of the Twenty-First Century may yet return to the fore, carrying commuters from the outlying suburbs into the urban core in just the same way as did their ancestors more than two generations ago.

Culp, Edwin D.

1972 Stations West. The Caxton Press, Ltd., Caldwell, Idaho.

1987 Early Oregon Days. The Caxton Press, Ltd., Caldwell, Idaho.

Davies, Owen

1960 Street Cars and Interurbans of Yesterday. Owen Davies Publishing, Chicago.

Hilton, George W. and John F. Due

1960 The Electric Interurban Railways in America. Stanford University Press, Stanford, California.

Mills, Randall V.

1943a "Early Electric Interurbans in Oregon, Part 1." Oregon Historical Quarterly, XLIV/1:82-104. Oregon Historical Society, Portland.

1943b "Early Electric Interurbans in Oregon, Part 2." Oregon Historical Quarterly, XLIV/4:386-410. Oregon Historical Society, Portland.

1945 "Recent History of Oregon's Electric Interurbans." Oregon Historical Quarterly, XLVI/1:112-139. Oregon Historical Society, Portland.

1950 Railroads Down the Valleys. Pacific Books, Palo Alto, California.

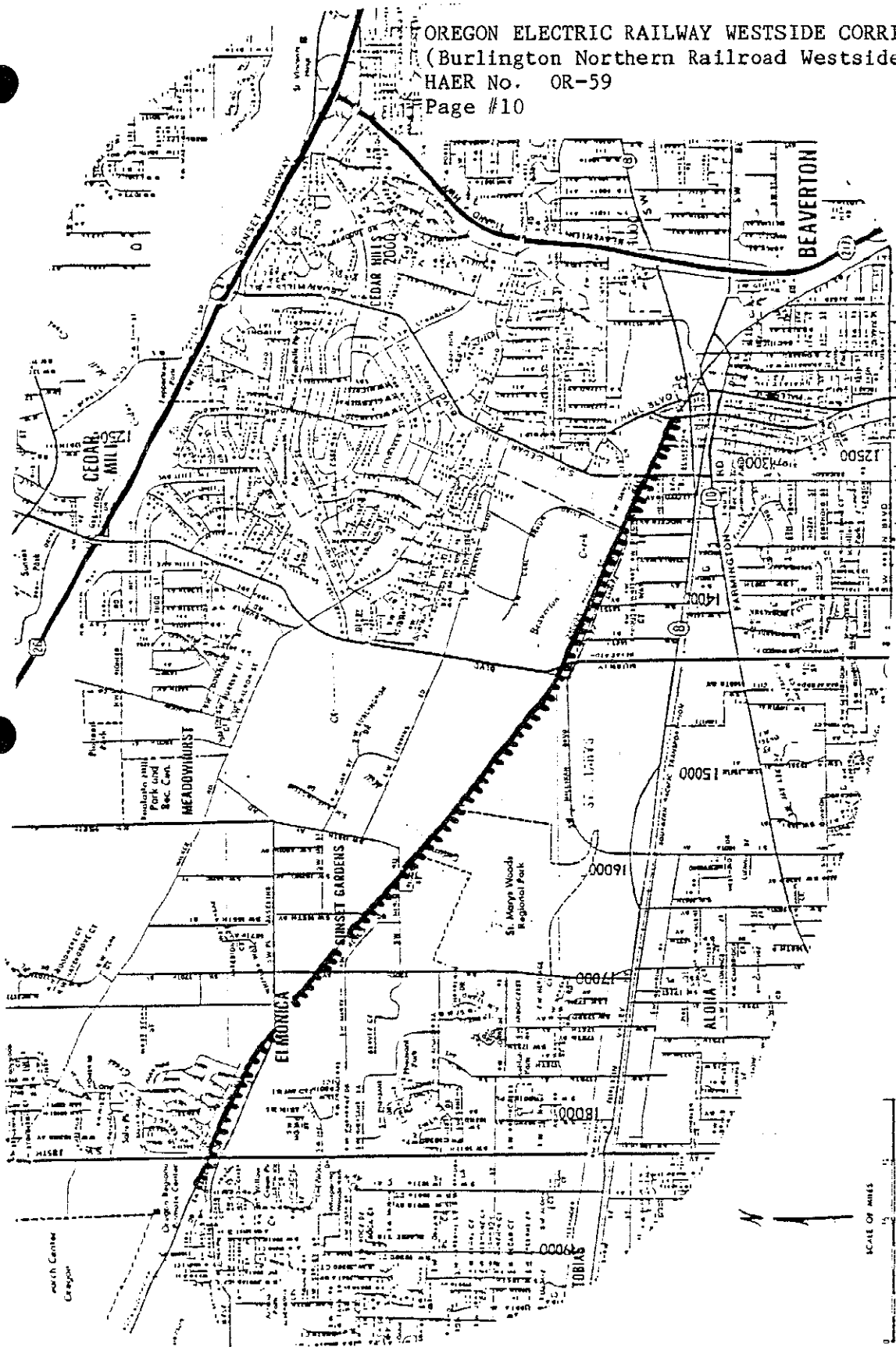
Oregon Electric Railway

1910 Right of Way Maps for Forest Grove Branch. Map on file, Oregon Historical Society, Portland.

Spokane, Portland and Seattle Railway

nd Photograph Album # 277. Album on file, Oregon Historical Society, Portland.

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PORTION OF OREGON ELECTRIC RAILWAY (NOW BURLINGTON
 NORTHERN) RIGHT OF WAY TO BE IMPACTED BY TRI-MET
 WESTSIDE LIGHT RAIL PROJECT

SCALE OF MILES
 0 1 2
 ONE INCH EQUALS APPROXIMATELY TWO MILES

- Primary Through Routes
- Secondary Through Routes
- One-way Streets
- Proposed Streets
- Interstate Numbers
- U.S. Highway Numbers
- State Highway Numbers
- 1500 House Numbers

FREWAYS & INTERCHANGES

- Freeway/Interchange
- Freeway/Interchange
- Freeway/Interchange

Oregon Electric Railway

- Oregon Electric Railway