

PACIFIC ELECTRIC
MONROVIA-GLENDORA LINE

Although built after the Alhambra and Pasadena Short Lines, the Monrovia Line was the actual physical backbone of the Northern District (excepting those lines which diverged at or before Valley Junction). It was built well, for before Huntington favored the old right-of-way of the San Gabriel Valley Rapid Transit, the Monrovia Line was the leading contender for the distinction of being the Los Angeles end of the through line to San Bernardino and possible objectives beyond.

Of the PE lines which turned north at Valley Junction, the Monrovia Line was the most "interurbanish" of them all; not only was it the longest of these lines, but it enjoyed opportunities for longer stretches of fast running.

The line had at least two unusual features which gained it wide publicity: the old and the new Santa Anita Racetracks were erected on the old Baldwin Ranch near Arcadia and PE Monrovia trains were joined by special trains which carried thousands to see the ponies run; and then there was the Great Bridge over the San Gabriel River, just west of Azusa, which will receive due attention subsequently.

ROUTE From 6th & Main Station, LA, the line followed the Terminal District to Valley Junction, 3.31 miles. There it followed a double track line to Indian Village, 4.62 miles, (all mileage is from 6th & Main), where a four-track system began, continuing through Sierra Vista, 7.6 miles, where the Alhambra Line and the Sierra Vista Line diverged, through Oneonta Park, 8.45 miles, where the Pasadena Short Line turned north, and ending at El Molino, 9.98 miles. At this point the Oak Knoll Line turned north. From El Molino the line continued as a double track line to San Marino, 11.33 miles, where the Sierra Madre Line joined, then on to Arcadia, 16.28 miles, Monrovia, 17.89 miles, Azusa, 23.27 miles, and Glendora, 26.07 miles. In later years a single track only was used between Shamrock Ave. in Monrovia and East Duarte. After 1938 single track only was used from the west end of Great Bridge over the San Gabriel River to Azusa Substation. Beyond Pasadena Ave., Azusa, and the end of the line at Glendora the line was always single track.

This line was on private way from Mission Road, LA, to Glendora, although short stretches of street running were encountered in Arcadia, Monrovia and Azusa. From a point just north of Indian Village to Arcadia the line was in a center strip between the twin boulevards of Huntington Drive.

HISTORY A double track standard gauge electric railway was built in 1902 from LA to Alhambra-San Gabriel. In November 1902 this line was continued from Alhambra Junction (Sierra Vista) to Oneonta Park. In 1903 it was further extended as a double track line to Huntington Drive, Arcadia, and as a single track line from that point to Santa Anita Ave., Arcadia; from that point it became a double track line again, continuing to the station in Monrovia at Myrtle Ave. The first through train from LA to Monrovia operated on March 1, 1903, making the 17½ miles in 53 minutes with a 50¢ round trip charged.

Construction further eastward was delayed somewhat. The first car reached Azusa in mid November 1907, and Glendora was reached the following month. To cross the San Gabriel River (between Rivas and Azusa) Huntington had to construct the Great Bridge, an engineering marvel of its day.

In 1917 PE contemplated extending the line from Glendora to Lone Hill where it would connect with the LA-San Bernardino Line; after all rights-of-way had been obtained, PE was refused permission to build the line by the State Railroad Commission on the grounds it would unjustly compete with the Santa Fe.

Prior to World War II PE and the Railroad Commission looked with favor upon the idea of abandoning rail passenger service east of Monrovia, due to extremely light patronage between Monrovia and Glendora. The upsurge of war traffic saved the line for the duration, but from 1946 onward, an almost continuous decline in the number of passengers handled per month set in. PE applied to abandon the M-G Line rail passenger service, permission was given, and the last car rolled out of LA at 12:40 AM September 30, 1951. It was an SC-ERA special, car 5078.

OPERATION As of 1949, PE operated 40 trains to Monrovia, of which 24 continued to Glendora; 28 trains left Monrovia for LA, of which 24 originated at Glendora and 14 at Monrovia (these figures apply to daily except Saturdays and Sundays schedules). This furnished Monrovia with 30' service and Glendora with 60' service during the

base period; during the AM rush Monrovia got 15' service, Glendora, 30'; the PM peak saw Monrovia get 10-20' headway, Glendora, 30'; at night all trains operated through to Glendora on a 40-70' headway. Running times for these four periods to Monrovia were 57', 54', 60', and 48', with Glendora runs needing 20' more. 18 cars were required in the two peaks, with 5 needed in the base period and 4 at night; 16 1100s and 2 1200s were assigned to the run. Average speed fluctuated from 17.9 mph in the evening rush to 23.3 mph at night. These cars were stored at Macy Street in LA, at Shamrock Ave. in Monrovia, and at Glendora.

Automatic block signals governed trains from Aliso St. Viaduct, LA, to Oneonta Park. On single track, the Shamrock Ave.-E. Duarte segment was governed by two single-light circuit blocks with light circuit switches located at Shamrock Ave., Day & Night Spur, and East Duarte; the single track from west end of Great Bridge and Azusa Substation and between Pasadena Ave., Azusa, and Glendora was controlled by absolute-permissive automatic block signals.

The Shamrock Ave.-East Duarte portion of the line was originally double track, but in 1941 the inbound track between these points was removed from service and that portion of it in the Shamrock area was used for car storage. Midway through this stretch of single track was the Day & Night Spur, so named because it served the factory of the Day & Night Water Heater Co.; trains made numerous meets at this spur, with the inbound train using the spur to clear, being careful not to operate beyond the trolley wire which extended only for 150 feet in spur.

The spur track leading from the outbound mainline track east of Huntington Drive, Arcadia, to the Day & Night Water Heater plant in Monrovia, 2.6 miles, was formerly a portion of the SP Duarte Branch Line and was purchased by PE in 1942; this spur was not electrified and was used for freight only.

Trains cutting off trailer cars at Shamrock Ave., after securing possession of the light circuit, pulled on to single track before the trailer was cut off. The crew on the trailer car immediately pulled through the crossover on to the inbound track. If a delay occurred in trailers' clearing the main track, protection had to be made.

The normal position of switches at Valley Jct., Sierra Vista and San Marino was for the Monrovia-Glendora Line.

Yard limits were defined by yard limit signs at the following stations: Valley Jct., Sierra Vista, San Marino and Arcadia.

At Indian Village, a block signal was in use at a point approximately 500 feet in advance of the switch to the outbound local track; this was an absolute signal and the block signal preceding this signal was an operating distant signal.

Protection was not required while taking crossover at East Duarte; the motormen on inbound trains were required to operate under control during the last 300 feet before reaching the crossover at East Duarte.

The M-G Line used the inside tracks of the four-track system between Indian Village and El Molino, running "limited" between these points.

EQUIPMENT The old PE 300 Class (800 Class) opened the Monrovia Line, and continued to serve the Line for 21 years. In 1924 the 1100s took over, running until 1951 when they were replaced by the 732-759 Class with some 5050s running also as two-man cars. In the years of their tenure, the 1100s were aided by 1300s, 1200s and after 1945 by cars of the 4600 Class; the latter (as 400s) took over Sunday and holiday service in 1948-49; the M-G Line was the only Northern District line on which PE operated its 400s.

SANTA ANITA SERVICE The original Santa Anita Racetrack was located on the opposite side of the M-G Line in Arcadia from where the present track is located; PE had a spur into the old track's grounds and carried passengers to and from the old track in special trains. With the outlawing of horse racing in California in 1908 the old racetrack closed forever, although PE made money during World War I hauling soldiers to the balloon school operated on the site by the U.S. Army. This spur track was removed in 1913-19 and 1928.

When horse racing was again legal, the new Santa Anita Racetrack was constructed, close to PE's M-G Line. A spur track was built into the grounds for horse cars, but patrons of PE had a fairly long walk from the new Santa Anita Station to the grandstand. From its opening

day (Christmas, 1934) Santa Anita furnished PE with a sizable passenger traffic; special trains were operated as needed, with all classes of interurban cars being used--indeed, the venerable 456-465 saw their last service as Santa Anita racetrack trains. The race specials were stored on sidings northerly of Huntington Drive, Arcadia, and on one of the two main tracks if necessary. About 100,000 passengers were carried during the average meet, the trip from 6th & Main Station requiring 35 minutes and selling for 50¢ per round trip. Three and four car trains were employed, making a happy sight as they bowled along beside hopelessly jumbled automotive traffic, creeping bumper-to-bumper along Huntington Drive.

FREIGHT OPERATION The M-G Line was the second most important freight line on the Northern District, being exceeded only by the San Bernardino Line. It ranked ninth on the entire PE system. The movement of freight on the M-G Line consisted mainly of perishables which were interchanged with connecting roads at LA.

Due to the Monrovia ordinance prohibiting the operation of freight trains through that city between the hours of 7:00 AM and 7:00 PM, the daily (except Sundays) freight train ran at night, leaving Glendora at 11:00 PM, collecting freight on the Glendora, Sierra Madre, and Alhambra Lines, hauling it to the State St. Yard, and then handling outbound loads for these same lines--finally tying up at Glendora at 7:00 AM.

Most freight hauled was bridged to and from LA with very little originating on the line and destined for points on the line.

Daily express and mail service was furnished except Sundays. The combination car left 6th & Main Station at 11:00 AM and returned at 3:50 PM.

PE retained its freight business on this line after that portion of trackage between Arcadia and LA was abandoned and torn up; a new connection between the M-G Line and the San Bernardino Line was constructed between Crushton and Rivas, 2.82 miles, at a cost of \$436,000. First train over this connection ran on September 17, 1951, hauled by diesel 1327. Thereafter the M-G Line became known as PE's Azusa Branch and was operated on a switching service basis, using Crushton Yard as its headquarters.

PE handled an average of 100 carloads of race horses during each Santa Anita season. These were usually set out on the racetrack siding within one hour after having been received. Box motors were frequently used to haul the horse cars. Ten horse cars could be handled at one time at the loading dock. After the abandonment of passenger service (September 30, 1951) and the subsequent removal of the tracks past Santa Anita, a new horse unloading facility was constructed 200 feet north of Huntington Drive, Arcadia; this marks the westernmost extent of the Azusa Branch.

<u>TRAFFIC TREND</u>	1913	1,078,247	Passengers
	1918	865,992	"
	1923	990,729	"
	1933	561,396	"
Best year	1945	2,730,816	"
	1948	2,137,432	"

TRACK Trackage used by the M-G Line between Oneonta Park and Glendora is listed by weight of rail and year laid:

<u>Section</u>	<u>Weight</u>	<u>Year</u>
Oneonta-El Molino Main Track	90	1945
" " Local "	60-70*	1910*
El Molino-Holly Ave.	60	1903
Holly Ave.-ATSF Crossing	60	1903
ATSF-2nd Ave. Arcadia	75	1925
2nd Ave.-Mayflower Ave. Monrovia	60-70*	1904
Mayflower-Monrovia Station	75	1926
Monrovia Station-Shamrock Ave.	70	1907
Shamrock-Angelino Ave. Azusa	70	1907
Angelino-Pasadena Ave. Azusa	75	1923
Pasadena Ave.-Minnesota Ave.	70	1907
* Outbound local track	60	1910
Inbound " " Oneonta-Wilson Ave.	70	1910
* Outbound, 2nd Ave.-Mayflower	60	1904
Inbound " " "	70	1904

At Santa Anita Station, 550 feet of 90 lb. rail was laid in 1945 and tracks paved in.

Most of the above listed trackage was the original rail and by 1949 was in very poor shape, being badly surface bent, badly out of line and surface with many low joints. It was estimated in 1949 that the total cost of putting this line (Oneonta-Glendora) in good

shape (90 lb. rail, new ties and ballast) would cost \$1,046,846.

FACILITIES There were three station buildings on this line; they were located at Monrovia, Azusa and Glendora. All were of the standard PE frame type and contained a passenger ticket office and waiting room, agent's office, and a freight room. They were constructed shortly after the line was extended to the respective towns, and cost at that time about \$5000 apiece. Each had a small freight yard with house tracks.

There were two substations on this line; Arcadia Substation (No.7), rebuilt 1922 of brick, contained one 1000 kw rotary converter and was automatic in operation; Azusa Substation (No.19), built in 1909 of brick, had one 1000 kw rotary converter and one 400 kw motor-generator set and was also automatic.

and The M-G Line crossed two steam railroads at grade, and both crossings were controlled by interlockings. At Marengo Ave. in South Pasadena the four track system crossed the Pasadena Branch of the Southern Pacific; in 1907 a mechanical interlocking plant at tower were constructed at this crossing; in 1931 the Marengo interlocking was connected for electrical operation from nearby Oneonta interlocking plant and the old tower and its antiquated mechanical interlocker were removed. At Arcadia the M-G Line crossed the main line of the Santa Fe; the Arcadia interlocking installation was staffed by Santa Fe personnel on a 24-hour basis with costs allocated on an agreed basis. A General Railways electrical interlocking was used, the facilities having been set up in 1919. Both the PE M-G Line and the SP Duarte Branch (which crossed Santa Fe about a block away) were controlled from the Arcadia Tower.

Two bridges were features of the M-G Line. At Eaton Wash a double track steel structure spanned this normally dry wash, and near Rivas the Great Bridge (Puente Largo) took trains over the wide San Gabriel River. The Great Bridge was one of the most impressive structures on the entire PE system. A reinforced concrete structure 1019 ft. long, it was built in 1907 "so strong that the heaviest train in the world can pass over in perfect safety and without taxing the bridge to anything like its capacity." It had

18 spans, each 57 ft. long; these hung 50 ft. in the clear and were supported on piers sunk into the river bed some 15 feet. There were 17 piers each 12 ft. thick and 30 ft. wide at the bottom and 7 ft. thick and 26 ft. wide at the top; these had a height of 19 ft. The extreme width of the bridge was 26 ft., permitting the laying of a double track its entire length. 8000 cubic yards of concrete, 10,000 barrels of cement and 250 tons of steel were used. Trolley poles were held in slots on the outer edge of the bridge parapets; -the poles were firmly wedged in place and could easily be removed when due for replacement. After digesting the above figures, our readers doubtless will appreciate the enthusiasm of a contemporary newspaper editor who, after inspecting the Great Bridge, wrote that here was no ordinary interurban bridge but a major structure destined to be a link in a coast-to-coast electric railway. For 30 years the Great Bridge withstood the fiercest floods the river threw at it, but in 1938 the Great Bridge and the Great Flood met; so tremendous was the fury of the waters that three of the massive piers were undermined and toppled. The rebuilding saw the three missing spans replaced by a single track steel structure; this led to the outbound track's being removed from Rivas to Vernon Ave. in Azusa.

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Passenger service began March 1, 1903 to Monrovia and in April 1907 to Glendora. Passenger service ended September 30, 1951.

ROUTE: The line followed the one from Los Angeles to San Marino Junction. The tracks then continued eastward in a private right-of-way dividing Huntington Drive through San Marino and Arcadia, where at approximately San Rafael Road the tracks curved northeastward on a private right-of-way and then curved eastward to cross Arcadia on St. Joseph Street. The tracks continued eastward on a private right-of-way, crossing Santa Anita Creek on a wood trestle to Ninth Avenue in Monrovia, thence, after an S curve, it continued eastward through Monrovia on Olive Avenue to Shamrock Avenue. This was the terminus in 1903. In 1907 the line was extended from Shamrock Avenue in Monrovia eastward on a private right-of-way paralleling Royal Oaks Drive through Duarte to Fish Canyon Road (Las Lomas Avenue). Thence the private right-of-way turned southeasterly and after crossing the San Gabriel River on the Great Bridge, and after entering Azusa, paralleled Crescent Drive from Vernon Avenue to Orange Avenue, where the tracks entered Ninth Street. The Pacific Electric station was south of Ninth between Angeleno and Azusa Avenues. The route was on Ninth to approximately Pasadena Avenue, where a private right-of-way continued eastward, paralleling the Santa Fe right-of-way to approximately Trayer Avenue in Glendora. The tracks entered Glendora on Mountain View Avenue and ended at Pennsylvania Avenue.

MILEAGES:	San Marino Junction	11.35
	Sunnyslope	14.46
	Arcadia	16.24
	Monrovia	18.26
	Duarte	19.82
	Puente Largo	21.56
	Azusa	23.32
	Glendora	25.99

FREQUENCY OF SERVICE: 1911: 29 Outbound trains daily to Monrovia (11 of which continued to Glendora) and 31 inbound trains daily to Monrovia (12 of which started in Glendora); 1943: 47 round trips daily, (25 of which continued to Glendora).

RUNNING TIME: 1911: 31 minutes to San Marino, 42 minutes to Arcadia, 47 minutes to Monrovia, 51 minutes to Duarte, 60 minutes to Azusa, and 68 minutes to Glendora. 1943: 37 minutes to San Marino, 51 minutes to Arcadia, 57 minutes to Monrovia, 78 minutes to Azusa, and 80 minutes to Glendora.

The above is from Spencer Crump's HENRY HUNTINGTON AND THE PACIFIC ELECTRIC 3rd Ed Rev 1978. In describing the line from San Rafael Avenue in Arcadia to Royal Oaks Avenue in Monrovia he has confused the old Southern Pacific right-of-way with the true Pacific Electric. The latter is described above.

T.M. Hotchkiss

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From: CARS OF PACIFIC ELECTRIC Vol.1, City & Interurban Cars
by Ira L. Swett
Interurbans Special 28, 1964

Horsecars 1 and 2 were acquired from the Monrovia Street Railway Co. These cars are pictured above (in original condition) and at right above (as modified for a movie role). They were 19'6" long over buffers, 6' wide, and 9'10" high and could seat 24. They were mounted on a 5'6" truck with 30" wheels. Car 1 was retired and sold in 1917, while Car 2 was held for historical purposes and occasional movie roles until sold in 1941. PE carried these cars on its records as A-1 and A-2.

Probably the proudest moment in the life of horsecar No.2 came in 1925 when the car took part in the pageant opening Los Angeles' magnificent Subway Terminal.