

NORTHERN PACIFIC RAILWAY COMPANY.

PUGET SOUND DIVISION.

TIME 42 TABLE

In Effect at 12:01 A. M. Pacific or 120th Meridian Time

SUNDAY, AUGUST 19, 1917

For the Government of Employees only. The Company reserves the right to vary therefrom at pleasure. Be positive that you have the Current Time Table and destroy all previous numbers. Read carefully the Special Rules and always have for reference a copy of TRANSPORTATION RULES.

E. C. BLANCHARD,
General Manager.

I. B. RICHARDS,
General Superintendent.

P. H. McCAULEY,
Superintendent of Transportation.

J. J. McCULLOUGH,
Superintendent.

WESTWARD

FIRST-SUBDIVISION

Time Table 42 August 19, 1917 Succeeding No. 415		FIRST CLASS																							
		STATIONS																							
		Telegraph Offices and Calls																							
Station Numbers		Distance from Seattle																							
TW Y WC OT		401	403	405	407	413	415	417	421	423	425	429	437	439	445	449	455	457	459	465	511	563	569	595	
		Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Mall	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	
		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	
		Seattle Portland Express	No. 317's and Buckley Line Conn.	No. 4 Atlantic Express	Seattle Portland Express	Seattle & Portland Special	No. 41's Con. Puget Sound Ltd.	No. 42 Miss'p. Val. Limited	Grays Harbor Limited	Grays Harbor Express	Gt. Nor. No. 27 Tacoma.	Gt. Nor. No. 1	No. 318 Spokane Limited	No. 1 Con. No. Coast Limited	North Bend Accommo- dation	No. 2 No. Coast Limited	Gt. Nor. Portland	Gt. Nor. Portland	Gt. Nor. Portland	Puget Sound Express	O-W R & N Shasta Limited	O-W R & N Portland Express	O-W R & N Ore & Wash. Express	No. 3's Con. N. P. Express	
UD.....SEATTLE.....DN King Street Station 0.8		0.0	11.59PM	6.45AM	8.20AM	8.00AM	4.15PM		3.35PM	7.45AM		6.00AM	8.35PM	12.10AM		1.00PM	7.10PM	10.45PM	11.15AM	3.45PM	12.20PM				
.....SECOND AVE. YD..P 2.4		0.8																							
.....ARGO.....P O.W.R.&N and P.C.&R.R. Crossings 6.8		3.2	12.09AM	6.53	8.28	8.09	4.24		3.44	7.54		6.09	8.44	12.19		1.09	7.18	10.55	11.24	3.54	12.29				
C.M. & St. P. R. R. Crossing 0.8		10.0																							
BI..BLACK RIVER..DN 1.4		10.8	12.20	7.03	8.38	8.19	4.34		3.55	8.04		6.18	8.54	12.30		1.20PM	7.28	11.06	11.34	4.04	12.40				
.....ORILLIA..... 2.0		12.2		7.05																					
.....O'BRIEN..... 2.1		14.2		7.07																					
KN.....KENT.....D 1.9		18.3	12.30	7.10	8.47	8.30	4.43		4.05	8.12		6.25	9.04	12.40			7.35	11.15	11.44	4.14	12.50				
.....THOMAS..... 1.4		18.2		7.13																					
.....CHRISTOPHER..... 1.9		19.6		7.15																					
AU.....AUBURN.....DN 0.9		21.5	12.40	7.18 7.30	8.55	8.40	4.51		4.15	8.20		6.32	9.15	12.48			7.45	11.24	11.53AM	4.23	1.00				
GR..EAST AUBURN..DN 0.9		22.4			9.00AM				7.10AM	4.20PM				12.52AM	7.32PM		7.50PM								
AU.....AUBURN.....DN 4.9		21.5	12.40	7.18 7.30		8.40	4.51	7.15		8.20		6.32	9.15		7.37			11.24	11.53AM	4.23	1.00				
.....DIERINGER..... 2.6		26.4	12.50	7.38		8.50	5.00	7.24		8.27		6.40	9.27		7.49			11.32	12.03PM	4.31	1.11				
SN.....SUMNER.....D 1.6		29.0	12.55	7.43		8.55	5.05	7.30		8.30		6.44	9.32		7.56			11.37	12.09	4.35	1.18				
.....MEEKER.....P 1.3		30.6	1.00	7.46		8.58	5.08	7.37		8.32		6.46	9.37		8.02			11.40	12.12	4.39	1.21			10.27AM	
PY.....PUYALLUP.....DN 6.4		31.9	1.05	7.55		9.05	5.15	7.43		8.36		6.48	9.42		8.08			11.44	12.17	4.42	1.30			10.32	
RN..RESERVATION..DN 0.2		38.3	1.20	8.07		9.18	5.28	7.55		8.48		7.00	9.53		8.25			11.54PM	12.28	4.53	1.45	10.38AM	12.33AM	12.05PM	10.45
O.-W.R. & N. Co. Crossing 0.5		38.5																							
.....RIVER STREET....P 1.1		39.0																							
Q.....TACOMA.....DN 2.3		40.1	Via Drawbridge Line	Via Drawbridge Line		Via Drawbridge Line	Via Drawbridge Line	Via Drawbridge Line		8.55 9.00	5.45PM	Via Drawbridge Line	Via Drawbridge Line		Via Drawbridge Line			Via Drawbridge Line	Via Drawbridge Line	Via Drawbridge Line	Via Drawbridge Line	10.45 10.59	12.40 12.54	12.10 12.24	Via Drawbridge Line
NX.....STADIUM.....DN 0.4		42.4								9.08	5.51														
.....McCARVER ST..DN		42.8								9.07AM	5.52PM										11.00AM	12.55AM	12.25PM		
RN..RESERVATION..DN 0.2		38.3		8.07		9.18	5.28	7.55				7.00	9.53		8.25			11.54PM	12.28	4.53	1.45				10.45
O.-W.R. & N. Co. Crossing 0.3		38.5																							
O.-W.R. & N. Co. Crossing 1.6		38.8																							
Q.....TACOMA.....DN 4.6		40.4	1.30 1.40	8.15AM		9.25 9.35	5.35 5.45	8.00AM				7.05AM	10.00PM		8.30PM			12.01AM 12.10	12.35 12.45	5.00 5.05	1.50 2.00				10.50AM
SU...SO. TACOMA ..DN		45.0	1.55AM			9.50AM	6.00PM											12.25AM	1.00PM	6.19PM	2.15PM				
Time Over Subdivision			1.46	1.18	.40	1.40	1.35	.50	.45	1.17	.07	1.05	1.25	.42	.58	.20	.40	1.31	1.35	1.29	1.45	.17	.17	.15	.23
Average Speed per Hour			25.5	31.1	33.6	26.9	28.4	23.8	29.0	31.2	24.5	37.2	28.8	32.0	23.0	30.3	33.6	29.4	28.8	30.0	25.7	14.1	14.1	16.0	25.2

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.

WESTWARD

FIRST SUB-DIVISION.

Time Table 42 August 19, 1917 Succeeding No. 41-S		STATIONS		Telegraph Offices and Calls		Distance from Seattle		FIRST CLASS										SECOND CLASS										THIRD CLASS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
								597		673	677	679	681	683	689	691	699	929	943	963	971	997																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

FIRST SUB-DIVISION

EASTWARD.

Distance from McCarver St.	Time Table 42 August 19, 1917 Succeeding No. 41S		Car Capacity of Siding	FIRST CLASS																							
	STATIONS			402	406	408	410	416	418	422	424	426	430	434	436	438	440	446	450	456	458	460	466	512	562	564	
	Telegraph Offices and Calls			Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Mail Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Ex. Sun.	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily
				Portland Seattle Express	No. 3 Northern Pacific Express	Portland Seattle Express	Buckley Line connection	No. 41 Puget Sound Limited	No. 42's connection Mississippi Valley Limited	Grays Harbor Limited	Grays Harbor Ex- press and Buckley Line con.	Gt. Nor. No. 28 Tacoma	Gt. Nor. No. 2 Tacoma	Evergreen State Limited	No. 317 Spokane Limited	318's Connection Spokane Limited	No. 1 North Coast Limited	North Bend accommoda- tion	No. 2's connection	Gt. Nor. Portland	Gt. Nor. Portland	Gt. Nor. Portland	Puget Sound Express	O-W R & N Shasta Limited	O-W R & N Seattle Passenger	O-W R & N Seattle Express	
42.8	DOUBLE TRACK Except between Stadium and Ryan, between Reservation and Tacoma on Drawbridge line, and between Auburn and East Auburn	UD.....SEATTLE.....DN King Street Station 0.8	A 6.50AM	A 10.30AM	A 2.20PM	A 11.40AM	A 8.00AM		A 10.10PM	A 6.10PM	A 9.30PM	A 7.10PM	A 10.55PM	A 8.15AM		A 8.30PM	A 10.40AM		A 11.15PM	A 4.15PM	A 7.30AM						
42.0		...SECOND AVE. YD...P 2.4																									
39.6		...ARGO.....P O-W R & N and P C R R Cros. 6.8	6.40	10.20	2.10	11.30	7.50		10.00	6.00	9.20	7.00	10.45	8.05		8.20	10.32		11.05	4.05	7.20						
32.8		C. M. & St. P. R. R. Cros. 0.8																									
32.0		BI...BLACK RIVER...DN 1.4	6.25	10.05	1.58	11.16	7.36		9.48	5.46	9.09	6.47	10.30	7.52		8.02	L 10.18AM		10.50	3.53	7.08						
30.6		.....ORILLIA..... 2.0																								
28.6		.....O'BRIEN..... 2.1				11.10																				
26.5		KN.....KENT.....D 1.9	6.10	9.54	1.47	11.06	7.23		9.39	5.34	8.58	6.35	10.21	7.42		7.51			10.40	3.41	6.57						
24.6		.....THOMAS..... 1.4				11.00																				
23.2		.....CHRISTOPHER..... 1.9																								
21.3		AU.....AUBURN.....DN 0.9	6.55	9.42	1.35	10.54	7.10		9.29	5.22	8.49	6.24	10.12	7.33 7.23		7.42			10.33	3.30	6.45						
22.2		QR..EAST AUBURN..DN 0.9		L 9.32AM			L 7.07AM	A 4.15PM						L 7.20AM	A 12.50AM	L 7.35PM		A 7.45PM									
21.3		AU.....AUBURN.....DN 4.9	6.55		1.35	10.54		4.10	9.29	5.22	8.49	6.24	10.12		12.45			7.40	10.33	3.30	6.45						
16.4		.....DIERINGER..... 2.6	5.44		1.26	10.44		4.00	9.17	5.12	8.43	6.12	10.04		12.38			7.29	10.25	3.23	6.34					
13.8		SN.....SUMNER.....D 1.6	5.38		1.21	10.40		3.55	9.13	5.08	8.39	6.08	10.00		12.33			7.24	10.21	3.19	6.30						
12.2		.....MEEKER.....P 1.3	5.30		1.16	10.35		3.49	9.08	5.03	8.36	6.05	9.56		12.28			7.19	10.17	3.16	6.26					
10.9		PY...PUYALLUP...DN 6.4	5.27		1.13	10.32 10.27		3.46	9.06	5.00	8.34	6.03	9.54		12.25			7.16	10.15	3.14	6.23						
4.5		RN..RESERVATION..DN 0.2	5.15		12.59	10.15		3.35	8.54	4.45	8.24	5.50	9.44		12.14			7.05	10.04	3.04	6.10		A 6.50PM	A 1.45PM	A 4.52AM		
4.3		O-W.R. & N. Co. Crossing 0.5																									
3.8		.....RIVER STREET...P 1.1																								
2.7		Q.....TACOMA.....DN 2.3				L 10.10AM		L 3.30PM	8.50 8.40		L 8.20PM	L 5.45PM			L 12.10AM			L 7.00PM					A 12.40PM	6.45 6.40	1.40 1.35	4.45 4.40	
0.4		NX....STADIUM.....DN 0.4							8.33														12.31	6.31	1.26	4.29	
0.0	McCARVER ST...DN							L 8.32PM														L 12.30PM	L 6.30PM	L 1.25PM	L 4.28AM	
6.7	Automatic Block Except between Stadium and Ryan, between Reservation and Tacoma on Drawbridge line, and between Auburn and East Auburn	RN..RESERVATION..DN 0.2	5.15		12.59					4.45									10.04	3.04	6.10						
6.5		O-W.R. & N. Co. Crossing 0.3																									
6.2		O-W.R. & N. Co. Cross. 1.6																									
4.6		Q.....TACOMA.....DN 4.6	5.10 5.00		12.55 12.45					4.40 4.30									10.00 9.55	3.00 2.55	6.05 6.00						
0.0		SU...SO. TACOMA...DN	L 4.42AM		L 12.27PM				L 4.15PM				L 9.13PM						L 9.40PM	L 2.40PM	L 5.45AM						
Time Over Subdivision			1.58	.58	1.42	1.25	.53	.45	1.28	1.45	1.10	1.25	1.32	.48	.40	.55	Ex. Sun. .20	.45	1.30	1.30	1.40	.10	.15	.15	.19		
Average Speed Per Hour			24.6	21.4	26.9	28.3	23.4	26.0	28.5	25.7	34.2	27.6	28.0	25.7	30.6	22.8	30.3	28.0	29.8	29.8	26.9	14.4	16.0	16.0	12.6		

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN THE OPPOSITE DIRECTION.

FIRST SUB-DIVISION

EASTWARD

Distance from McCarver St.	Time Table 42 August 19, 1917 Succeeding No. 41-S		Car Capacity of Sittings	FIRST CLASS		SECOND CLASS.								THIRD CLASS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	STATIONS	Telegraph Offices and Calls		596	598	672	674	678	680	682	688	692			930	944	964	972	998																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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- ## COMMERCIAL SPURS

Distance from King Street Station, Seattle				Distance from Interbay				
STATIONS	Miles	How Connected	Car Capacity	STATIONS	Station Number	Miles	How Connected	Car Capacity
Edgewater....	7.2	1 E	8	Ballard.....	B-5	2.7		50
Latona.....	8.7	1 E	4	Ballard to Fremont..		2.3		
Wood Spur...	11.2	1 W	16					
Flaherty.....	11.6	1 W	7					

SEATTLE TERMINAL.

16. Overhead bridge at Thirteenth Avenue West, located $\frac{1}{4}$ mile west of Interbay station does not clear man on top of high cars.
17. The operation of Bascule Drawbridge, West Seattle Line. It will be necessary for trains to get signal from Bridge Tender, green flag by day and green lantern by night, before entering on this draw.
18. Track on West Seattle Line between O.-W. R. & N. connection and switch leading to the Fisher Flour Mill is joint with the O.-W. R. & N. and will be operated by both companies. O.-W. R. & N. has rights to this track between 12:00 Midnight and 12:00 Noon, and the N. P. between 12:00 Noon and 12:00 Midnight; either company has the right to switch on the hours assigned to the other but must move through the joint territory under full protection.
19. Track known as the "Fisher Mill Spur" is joint with O.-W. R. & N., C. M. & St. P. and N. P., and operated the same as above on the following hours: O.-W. R. & N., 4:00 A. M. to 12:00 Noon; N. P. Ry., 12:00 Noon to 8:00 P. M.; C. M. & St. P., 8:00 P. M. to 4:00 A. M.
20. Freight trains containing cars loaded with logs must not be run via King Street Station tunnel.

AS PER DIAGRAM FOLLOWING:

TO BUCKLEY ←

NEEKER

THIRD LINE "A"

1

2

3

4

5

6

7

8

TO SEATTLE ←

TO TACOMA →

TO SEATTLE →

TO TACOMA →

MERIDIAN ST.

FOYALLUP

EAST BOUND MAIN LINE "B"

WEST BOUND MAIN LINE "C"

All westward trains from Tenth Subdivision, Tacoma Division, use Line A from points 1 to 5 (Meeker to Meridian Street) thence to Line C.
All eastward Tenth Subdivision trains use Line B from points 6 to 2 (Puyallup to Meeker), thence to Line A.
Line A between points 1 and 5 (Meeker and Meridian Street), may be used as siding, protecting as per Transportation Rule 93.
Normal position of switches: At points 4 and 5 will be for Line A; at points 2 and 3, and 6 and 7 for Line B; at point 8 for Line C.

SPECIAL RULES—Continued

22. **REGISTERING STATIONS.**—King Street Station, Middle Yard, Seattle, Auburn, East Auburn, Auburn Transfer, Puyallup, Union Station Tacoma, Stadium, 15th Street Tower Tacoma, (for Tacoma Fourth Subdivision trains only) South Tacoma and for freight trains at River Street, Tacoma.
At Auburn, East Auburn, Puyallup, Stadium, 15th Street Tower Tacoma, and South Tacoma all trains register by ticket. Tacoma Fourth Subdivision trains will register by ticket and must obtain clearance at 15th Street Tower Tacoma.
23. **BULLETIN STATIONS.**—Seattle (King Street Station and Yard Office), Auburn Transfer, Tacoma (River Street Yard and Union Station).
24. **STANDARD CLOCKS.**—King Street Station, Seattle, Auburn Transfer and Union Station, Tacoma.
25. **YARD LIMITS.**—Indicated by signs at proper locations.
26. **SPEED RESTRICTIONS.**
15 miles per hour through crossovers and entering sidings.
30 miles per hour through interlocking plants.
10 miles per hour within the corporate limits of Puyallup, Sumner, Auburn and Kent.
8 miles per hour passing over all switches, King Street Passenger Station, Seattle.
Maximum speed of passenger trains is one minute or sixty seconds per mile. This limit must never be exceeded.
30 miles per hour at any point of W, W-1, W-2 and W-3 engines, this restriction does not abrogate other restrictions of lesser speed.
27. All trains and light engines entering King Street Passenger Station, Seattle, from the west must not pass the standpipe at west end of yard without proceed signal from the switchtender given with green flag by day or green light by night.
28. On Colorado Street at Seattle, Trains or Engines holding Cards "A" or "B" via this line will move under control inside Yard limit board, looking out for switch engines working on Main line.
29. On double track, as indicated by division time table, Rule 86 is modified to the extent that inferior class trains and extras may run ahead of second class trains without authority of train order.
30. Trains originating at, taking siding, or entering double track at Auburn or Puyallup, will obtain clearance before leaving. Other trains will not be given clearance at these points unless stop or caution signal is displayed.
31. Rule D-97 is modified to the extent that extra trains may run with the current of traffic without orders provided they secure clearance from A upon entering double track. Operators secure authority from Dispatcher before issuing clearance.
32. In automatic block territory any train moving against the current of traffic must receive a proper clearance card at every open block office.
33. In automatic block territory Rule 514 does not apply to trains moving against the current of traffic, and the rear of the train must be protected as prescribed in Rule 99.
34. Except as modified above the transportation rules govern.
35. To insure personal safety, Operators having train orders or messages for passing trains should stand on the right hand side of the train and never stand between the tracks.
36. Any train moving against the current of traffic on double track will be governed by the indication of the arm to the right on semaphore of train order signal as seen by an approaching train, same as if moving with the current of traffic.
37. Trains handling logs on double track will not be permitted to meet passenger trains between stations. Conductors of such trains must secure block order at Puyallup and Auburn to the effect that passenger trains will be held at next station until they have arrived. Conductors of trains coming from Buckley line must arrange with operator at Puyallup to hold opposing passenger trains. Logs will not be moved between any points on double track from sunset to sunrise.
38. Normal position of switch at head of the wye at Auburn will be for Seattle leg of wye.
39. It is possible for light engines and trains using crossover in automatic signal territory to stand between the switches in such a manner as to release the signals when switches are closed. Light engines and trains using crossovers in automatic signal territory must have at least one switch open while engine or train is on any part of the crossover.
40. No. 401 stop on signal at Auburn for paying passengers only.
41. No. 421 stop on signal at Sumner for passengers on days that Train No. 415 is behind No. 421 and on flag at Kent, Sumner and Auburn for Grays Harbor business west of Lakeview.
42. No. 598 connect with No. 413 at Puyallup.
43. No. 450 connect with No. 440 at Auburn and with No. 2 at East Auburn.
44. Nos. 405 and 449 stop on signal at Kent for passengers holding tickets for Spokane and east thereof.
45. No. 410 connect with No. 595 at Puyallup.
46. No. 434 stop at Puyallup, Sumner, Auburn and Kent to let off passengers from points south of Tacoma.
47. Nos. 406, 416, 436 and 440 stop at Kent to let off passengers from points east of Auburn.
48. Nos. 417 and 437 stop on signal at Kent to pick up passengers for points east of Auburn.
49. No. 596 wait at Puyallup for Seattle-Buckley Line business from No. 403.
50. No. 424 stop on flag at Christopher, O'Brien, Orillia and Thomas for parcel post mail and passengers, and connect with No. 597 at Puyallup.
51. Nos. 401 and 438 stop on flag opposite freight transfer shed, Auburn Yard, for Way Bills.
52. No. 436 stop on flag at Thomas and Kent for express shipments.
53. All westward trains come to full stop at O.-W. R. & N. connection located ¼ mile west of Reservation and will not proceed unless track is clear and switches in proper position.
54. All westward trains will approach extreme east crossover at Reservation, where train from drawbridge line crosses over to eastward main track, under full control and not proceed until track is known to be clear and signal received from operator.
55. **RULES GOVERNING SINGLE TRACK BETWEEN STADIUM AND MCCARVER ST. OPERATED BY AUTOMATIC STAFF SYSTEM.**
No train, engine or propelled cars will be run in either direction, until engineman receives from operators and has in his possession the staff which must be retained and delivered to operator at opposite end of block.
Signals interlocked with staff machine located at ends of double track at McCarver St. and Stadium are set normally at stop and can not be cleared until operator at opposite end of block returns staff to machine, which must not be done until train passes 300 feet beyond the home signal.
56. Head and tail lights will be used by all trains while passing through Tin tunnel between Stadium and McCarver St.
57. **WHEN MAKING BACK-UP MOVEMENT, RUNNING TEST OF AIR BRAKES MUST BE MADE FROM REAR OF TRAIN.**
58. In the State of Washington, conductors of passenger trains consisting of four or more cars, and freight trains consisting of 25 or more cars, must know that brakeman has had at least one year's experience in train-service before assigning them to flagging duties.

RULES GOVERNING INTERLOCKING PLANT C. M. & St. P. CROSSING (Black River).

59. All movements and the direction of traffic are governed by "Home Signal" No. 40 eastward track, and "Home Signal" No. 37 on westward track, which are located 600 feet from crossing.
- "DAY INDICATIONS."**
60. "Home Signals." Both upper and lower arm horizontal—Stop. Upper arm inclined at an angle of 45 degrees upward; lower arm horizontal—Proceed under caution. Upper arm inclined upward 90 degrees to vertical position; lower arm horizontal—Proceed.
"Dwarf Signals." Arm horizontal—Stop. Arm inclined upward 90 degrees to vertical position—Proceed. Used in back-up movements.
- "NIGHT INDICATIONS."**
61. All movements against regular movements of traffic are governed by back-up or dwarf signals. These signals are located 390 feet from crossing and on opposite side of track from "Home Signals" Nos. 37 and 40. Signals Nos. 37 and 40 are equipped with two blades and two lights. Dwarf signals are equipped with one blade and one light.
62. "Home Signals." Both upper and lower lights red—Stop. Upper light yellow; lower light red—Proceed under caution. Upper light green; lower light red—Proceed.
"Dwarf Signals." Red light—Stop. Green light—Proceed. Used in back-up movements.

TACOMA TERMINAL

RULES GOVERNING INTERLOCKING PLANT, O.-W. R. & N. CO. CROSSING (RESERVATION)

63. All movements are governed by DISTANT and HOME SIGNALS, located as follows:
"Distant Signals," 1300 feet WEST of Crossing, and 4,000 feet EAST of Telegraph Office at Reservation.
"Home Signals," 500 feet from Crossing.
"Dwarf Signals" govern movement on track known as "St. Paul & Tacoma Lumber Co.'s lead," are located 500 feet from Crossing.
Derailing switches, located 55 feet beyond Home and Dwarf Signals, and will be in derail position when signals are at "Stop" position.

INDICATIONS

64. 90 degrees upward, Green Light, "Proceed."
45 degrees upward, Yellow Light, "Proceed under Control."
Horizontal, Red Light, "Stop."
No towermen are used to manipulate this plant and when O.-W. R. & N. trains or yard cuts have occasion to use crossing the conductor or foreman will operate the levers, bearing in mind that after used signals and derails must be set clear for Northern Pacific route. When signals are against Northern Pacific route, conductor investigate cause and if necessary flag through interlocking district.
65. **MOUNTAIN GRADE.**—Fifteenth Street, Tacoma, to 2½ miles west.
66. Speed of passenger trains must not exceed 30 miles per hour and speed of freight trains must not exceed 20 miles per hour on descending grade between Bailey Street and Pacific Avenue, Tacoma. Rule No. 93 must also be strictly observed.
- 66a. Speed of trains through Tin Tunnel between Stadium and McCarver Street must not exceed 15 miles per hour.
67. The normal position of double track switch at South Tacoma is for eastward trains.
68. Trains will approach crossover switches on double track between Reservation and Stadium, located at East "D" Street (near roundhouse), at South Twenty-first Street (entering passenger station), and O.-W. R. & N. connection, at Fifteenth Street, Tacoma, under full control and will not proceed until tracks are known to be clear and signal is received from switch tender.
- 68a. Trains will approach crossover switches on double track at cold storage plant opposite Tacoma Wharf under full control and will not proceed until tracks are known to be clear.
69. "All eastward freight trains or yard engines with drags, moving via Point Defiance Line, destined to main train yard, Head of Bay, will cross over about 200 feet west of Twenty-first Street and use freight yard lead, which is extreme track to the left from that point to East "D" Street.
This track will not be used for westward movements; westward trains will take center or westward main track from East "D" Street.
Yard engines, while switching at the west end of yard, will not pass stop board located between East "D" Street and East "C" Street without full flag protection against eastward trains."

RULES GOVERNING OPERATION BETWEEN FIFTEENTH STREET TOWER AND PASSENGER STATION, TACOMA

70. At Tacoma a signal of the single arm semaphore pattern located near junction of line leading to passenger station and the draw bridge line at Fifteenth Street; another signal of the same pattern located at the north end of passenger yard. The two signals are controlled by operator at Fifteenth Street and will govern single track passenger line between Fifteenth Street and Tacoma passenger station. No train from the drawbridge line or eastward main line will enter passenger station when signal at Fifteenth Street is at "Stop," and no train will proceed from passenger station to drawbridge line or westward main line when signal at the north end of yard is at "Stop." Push button operating signal to towerman is located on post under concourse. Switch crew will operate for Portland bound trains and conductors attend to it for Seattle bound trains.

RULES GOVERNING OPERATION OF DRAWBRIDGE LINE

71. Between Reservation and Fifteenth Street Tower at Tacoma, enginemen and conductors will obtain card order at Fifteenth Street Tower or Reservation as authority to use Drawbridge line. Drawbridge Card Form "A" will govern movement from Reservation to Fifteenth Street. Drawbridge Card Form "B" will govern movement from Fifteenth Street to Reservation. This bridge card to be delivered to operator at Reservation or Fifteenth Street.
72. Trains receiving drawbridge card on which exceptions are noted of trains running ahead, will proceed under full control. This bridge card does not relieve trains from protecting rear end as per Rule 99, Book of Transportation Rules.
73. Interlocking signals at east and west approach to Drawbridge control use of bridge and trains will not proceed unless home signal shows clear indication. Distant signal located at Drawbridge line 1500 feet east of home signal just east of Tacoma draw span is semi-automatic. When home signal is clear, distant signal will be clear; when home signal shows stop position, distant signal will show stop position. Trains will observe automatic block rules.
74. Enginemen will not use sand over derail switches and rail locks at east and west end of Tacoma draw span.
75. No engine heavier than N. P. class W loaded weight of which is as follows: Weight on drivers 207,000 lbs.; weight of engine and tender 456,000 lbs., will be run over Bridge No. 254, Tacoma Draw Span. No two engines of any class will double head over this bridge where the combined weight is greater than N. P. class W.
76. Enginemen will reduce exhaust on engine to the lowest possible point while passing under concourse, Tacoma Union Station.
77. Tell Tales have been placed on train sheds at east and west end of concourse, Tacoma Union Station.
78. Test inspection and understanding, as required by Rule 703, Book of Transportation Rules, will be had at South Tacoma eastward on all freight trains. Conductors will fill out card, Form 3632, and deliver same to the operator at South Tacoma, who will complete and mail to Trainmaster, Tacoma, each day. Retainers will be turned up on all cars before descending Tacoma Hill.
79. Enginemen on road engines eastward trains, before backing into the passenger station after stop has been made, will cut out air brake valve, and leave air applied, to be released by switch engine. Switch engine will control the air until stop is made at the passenger station, leaving brakes applied after making the stop.
80. Enginemen on road engines of westward trains, will, after terminal air test is made, apply air to the train and cut out air brake valve, leaving the air applied to be released by switch engine when ready to depart. Switch engine will control the air while backing out of the station and make the stop before starting up the hill, leaving the air applied to be released by the road engine. The leading engine will control the air under all conditions.
81. Pusher engines will come to full stop at once after parting from rear end of train.
82. Freight trains leaving Tacoma yard or switch engine taking transfer to South Tacoma, will not pass crossover track above Fifteenth Street leading from passenger yard to outgoing track without signal from switch tender, who will not allow trains or transfers to pass this crossover when any passenger train is backing out of or waiting in the passenger station.
83. Eastward trains will be under absolute control approaching Pacific Avenue at Tacoma and will not pass Pacific Avenue crossing without signal from switch tender indicating that crossovers at Pacific Avenue are clear, and no train or engine moving east will exceed speed of six miles per hour with any part of train while passing over crossing. At night switch tender will give signal with a "White" light.
84. All trains using the Drawbridge line that do not enter passenger station, will stop above Pacific Avenue and not proceed until engineman is furnished with a bridge card and an understanding established with switch tender covering movement of train over Drawbridge line. If it is found that freight train cannot use Drawbridge line and following passenger train will be delayed on this account, conductor will arrange to enter Half Moon yard and be handled via freight tracks to Reservation.

SPECIAL RULES—Concluded**85. SPECIAL RULES GOVERNING OPERATION OF TRAINS AND YARD ENGINES BETWEEN EAST AUBURN AND 89. AUBURN AND BETWEEN EAST AUBURN AND AUBURN TRANSFER.**

No train or engine in either direction will occupy main track or wye between East Auburn and Auburn, or between East Auburn and Auburn Transfer, regardless whether such train or engine holds rights conferred either by time table or train orders (except switch engines going around wye upon authority of work order) without first procuring a card form "K", "L", "M" or "N" from operator at Auburn, East Auburn or Auburn Transfer properly filled out. Automatic Block rules must also be observed.

Card must be surrendered to operator at end of block immediately upon arrival.

RAILROAD CROSSINGS AT GRADE.

86. O.-W. R. & N. and P. C. R. R. crossings at Argo, interlocked. P. S. T., L. & P. Co. crossing, Argo. C. M. & St. P. crossing just east of overhead bridge on Colorado Street Line, Seattle. P. C. R. R. and O.-W. R. & N. crossings at Atlantic Street, Seattle. G. N. crossing at Washington Street, Seattle. G. N. crossing at Bell Street, Seattle. G. N. crossing at Seattle Lumber Company, Seattle, protected by gates. P. S. T., L. & P. Co. crossing 1.1 miles west of Interbay, C. M. & St. P. crossing at Black River, interlocked. P. C. R. R. and C. M. & St. P. crossing at Spokane Avenue and Colorado Street, Seattle, interlocked. O.-W. R. & N. crossing 0.5 mile west of Reservation on draw-bridge line, interlocked.

87. RULES GOVERNING USE OF INTERLOCKING PLANT AT SOUTH PORTAL OF TUNNEL AT SEATTLE.

Signals are of the dwarf type (low semaphores) and are located to right of track governed; where two arms are on one post, higher arm governs trains along main tracks and lower arm trains diverging from main track. Signal arm in horizontal position indicates "Stop." Signal arm in diagonal position 60° below horizontal indicates "Proceed." By night, signal indications will be given by colored lights, as follows:
Red indicates "Stop."
Green indicates "Proceed."
Yellow indicates "Caution, proceed with Caution."

88. RULES GOVERNING INTERLOCKING PLANT**SALMON BAY BASCULE DRAWBRIDGE, BETWEEN INTERBAY AND FREMONT.**

Distant signal located near electric line crossing east of Drawbridge, in horizontal position indicates home signal in stop position. Distant signal 45 degrees upward indicates route is clear for Ballard. Distant signal 90 degrees upward indicates route clear for Fremont. Home signal located east of Drawbridge is equipped with two arms; upper arm controls movement to Fremont, lower arm, movements to Ballard. Approaches to Drawbridge from west and from Ballard line are controlled by home signals only.

RULES GOVERNING INTERLOCKING PLANT AT NORTH PORTAL OF TUNNEL AT SEATTLE.

All signals located at right hand of tracks they govern.
Train movements to Main Line controlled by Semaphore signals, about 25 feet in height.
Train movements to sidings or to main tracks against current of traffic controlled by dwarf semaphores, about two feet in height.
The home signal is the semaphore with a square end, which in a horizontal position indicates "Stop" and 60° below horizontal indicates "Proceed."
The distant signal is the semaphore arm with a forked end, which in a horizontal position indicates "Caution, proceed with Caution," and 60° below horizontal indicates "Proceed."
By night signal indications are given by colored lights, as follows:
Red indicates "Stop."
Green indicates "Proceed."
Yellow indicates "Caution, proceed with Caution."
Westward N. P. trains from tunnel are governed by lower arm of semaphore, located about 150 feet east of tower building.
Eastward N. P. trains to the tunnel and to the water front are governed by semaphore signal, located about 350 feet west of the tower. Upper arm governs to tunnel, lower arm to water front.
Westward trains from the water front are governed by semaphore, located about 300 feet east of the tower. Upper arm governs movement, lower arm stationary in stop position. The dwarf signal, at the base of this semaphore, governs G. N. trains.
Trains will not exceed 10 miles per hour between Battery St., 400 feet east of tower and King Street Station.
At night and during foggy weather, eastward trains will give one long blast of whistle for tunnel and three shorter blasts for water front.
Westward trains from water front will give three blasts of whistle for N. P. Main Line.
Hand signals must not be taken against interlocking signals, except when given by the towerman from the center of the track, with a yellow flag by day and a yellow light by night.

90. RULES GOVERNING TUNNEL BLOCK SEMAPHORES AND MOVEMENTS OF TRAINS THROUGH TUNNEL AT SEATTLE.

Westward trains are governed by the semaphore block signal located about 50 feet south of the south portal of the tunnel.
Eastward trains are governed by the semaphore block signal located 250 feet north of the north portal of the tunnel.
Semaphore arm in the horizontal position indicates "Stop."
Semaphore arm 60° below horizontal indicates "Proceed."
By night indications are given by colored lights, as follows:
Red indicates "Stop."
Green indicates "Proceed."
Block signal rules do not modify train rules nor relieve trainmen from protecting as per Rule 99.

91. CLEARANCE EXCEPTIONS.

Clearance will not be issued at East Auburn to westward trains, at Stadium and South Tacoma to eastward trains unless stop or caution signal is displayed.
At River Street and Tacoma Union Station no clearance required.

MAXIMUM CLEARANCES

		LIMIT OF LOAD—MEASUREMENT																			Max. Height	Max. Width
		HEIGHT ABOVE TOP OF RAIL																				
		1 ft. Wide	2 ft. Wide	3 ft. Wide	4 ft. Wide	5 ft. Wide	6 ft. Wide	7 ft. Wide	7 ft. 6 in. Wide	8 ft. Wide	8 ft. 6 in. Wide	9 ft. Wide	9 ft. 6 in. Wide	10 ft. Wide	10 ft. 2 in. Wide	10 ft. 6 in. Wide	11 ft. Wide	11 ft. 6 in. Wide				
1st Subdivision...	Main Line (Seattle-Reservation).....	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	20' 7"	11' 6"	
2nd Subdivision...	Seattle (Middle Yard) to Keith.....	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 6"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	11' 6"	
2nd Subdivision...	Seattle (King Street Station) to Bell Street.....	23' 11"	23' 7"	23' 2"	22' 9"	22' 5"	21' 11"	21' 5"	21' 2"	20' 9"	20' 7"	20' 3"	19' 11"	19' 6"	19' 5"	19' 2"	18' 8"	18' 3"	23' 11"	11' 6"		
.....	West Seattle Line.....	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 3"	21' 1"	20' 9"	20' 7"	20' 3"	20' 2"	20' 0"	19' 9"	19' 7"	21' 3"	11' 6"		
.....	Lake Union Line.....	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	11' 6"		
.....	Reservation-McCarver St.....	17' 2"	17' 2"	17' 2"	17' 2"	17' 2"	17' 2"	17' 0"	16' 9"	16' 6"	16' 4"	16' 2"	16' 0"	15' 9"	15' 8"	15' 7"	15' 5"	15' 2"	17' 2"	11' 6"		
.....	Reservation to South Tacoma (via Draw Bridge Line).....	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 2"	20' 2"	20' 1"	19' 8"	19' 3"	19' 1"	18' 11"	18' 11"	18' 9"	18' 7"	17' 11"	20' 3"	11' 6"		

WATCH INSPECTORS

W. S. DIPPO, Auburn
J. F. HUNTER, 215 Yesler Way, Seattle
RICHARD VAETH, 924 Pacific Ave., Tacoma

CLINTON T. COOKE, Oculist, Seattle
P. W. WILLIS, Seattle
F. S. BOURNS, Seattle
Seattle Yard Office (S)
King St. Station, Seattle (S)

AUTHORIZED SURGEONS, PUGET SOUND DIVISION.**Location of Stretchers (S).**

S. W. MOWERS, Chief Surgeon, Western Div., Tacoma.
B. E. HOYE, Auburn
WM. H. BRANDT, Auburn
Auburn Yard Office (S)
Auburn Station (S)
M. W. KARSHNER, Puyallup (S)
I. J. D. SHULER, Fremont
P. B. WING, Oculist, Tacoma.
W. G. CAMERON, Specialist, Tacoma
N. P. B. A. Hospital, Tacoma (S)
Baggage Room, Tacoma (S)
Round House, Tacoma (S)

Head-of-Bay Yard Office, Tacoma (S)
Half Moon Yard Office, Tacoma (S)
Tool Car, Tacoma (S)
Wharf, Tacoma (S)

Note.

Surgeons will attend, when called upon officially, to all cases of ACCIDENT occurring to employes or passengers. In cases of SICKNESS it is the intention to limit medical service to the locality or town where a surgeon resides, unless some urgent necessity exists for which distinct official authority must be had in accordance with established regulations.

Railway Officials are required to call on the nearest authorized surgeons whenever practicable, when surgical or medical services are needed. When such are accessible, the Association will not be responsible for bills for medical services rendered by any other physician. In the event of a sudden emergency, arising from accident, if necessary, proper surgical aid should be procured until the arrival

of a regularly appointed surgeon, when the case should be placed in his charge and in no case should the services of any but an authorized company surgeon be continued at the expense of the Railway Company or of the Association after such surgeon is able to assume charge of the case.

Boarding and Nursing are furnished ONLY AT OUR OWN HOSPITALS. We are not responsible for bills incurred elsewhere unless specially authorized or approved by the Chief Surgeon, and then only in critical cases of injury or illness occurring in the discharge of duty.

AUTHORIZED SURGEONS, G. N. RY.

DR. H. M. READ, Seattle.

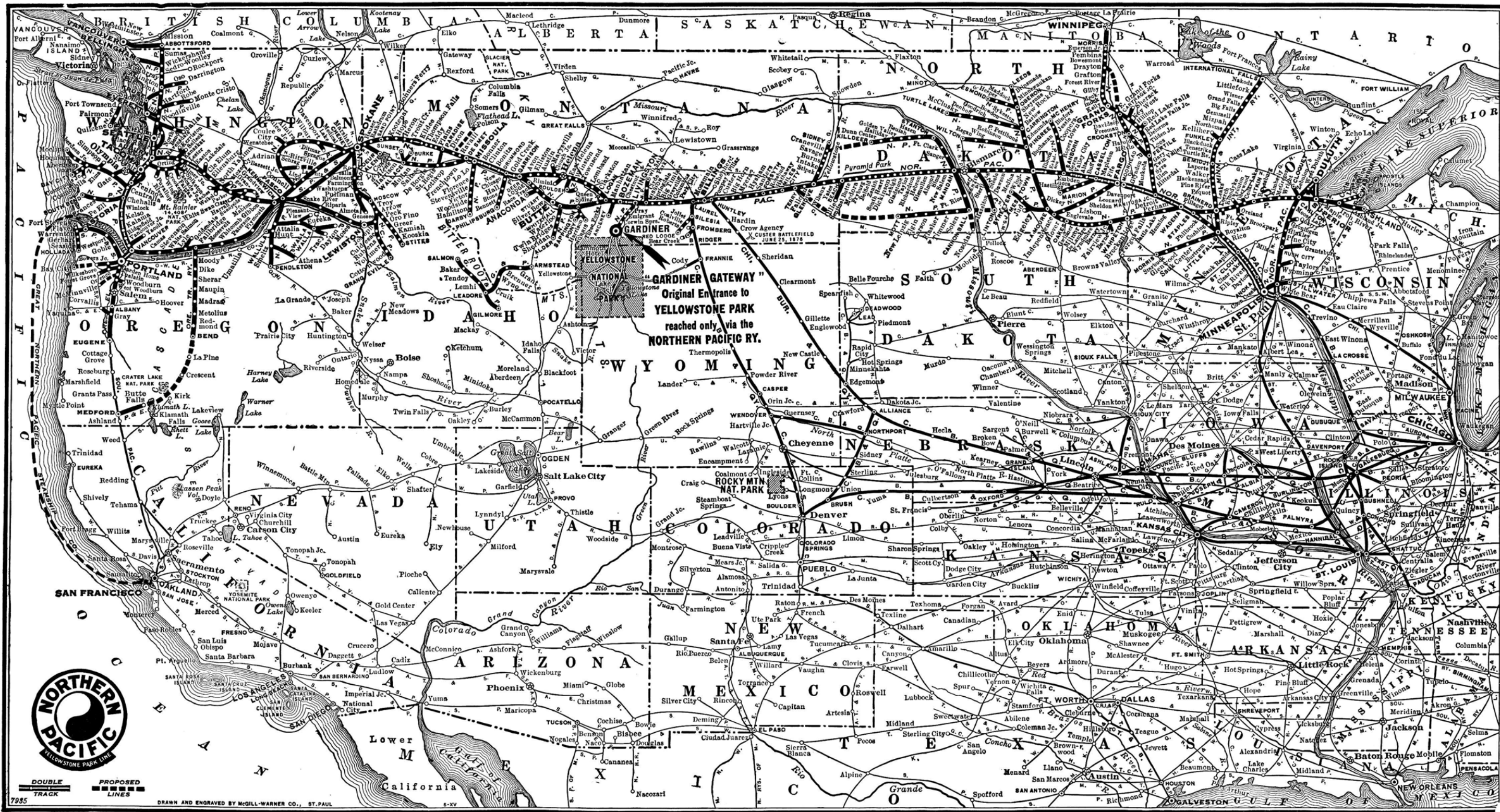
DR. J. A. LA GASA, Tacoma.

J. F. ALSIP,
Trainmaster, Tacoma.

FRED BRASTRUP,
Trainmaster, Seattle.

E. H. FRIBERG,
Chief Dispatcher, Seattle.

J. F. COLEMAN,
Chief Dispatcher, Tacoma



GARDINER GATEWAY
Original Entrance to
YELLOWSTONE PARK
reached only via the
NORTHERN PACIFIC RY.



DOUBLE TRACK
PROPOSED LINES

DRAWN AND ENGRAVED BY MCGILL-WARNER CO., ST. PAUL