

United States Railroad Administration

WALKER D. HINES, Director General of Railroads

GREAT NORTHERN RAILROAD

CASCADE DIVISION.



TIME TABLE No. 4

TO TAKE EFFECT AT 12 O'CLOCK A. M.

SUNDAY, FEBRUARY 23, 1919.

Superseding Time Table No. 3 and amendments thereto.

THIS TIME TABLE IS FOR THE USE OF EMPLOYEES ONLY.

C. McDONOUGH, Superintendent.

W. C. WATROUS, General Supt. of Transportation.

F. J. GAVIN, General Superintendent.

J. M. DOYLE, Asst. General Superintendent.

C. O. JENKS, Asst. General Manager.

2 WESTWARD.

FIRST DISTRICT—LEAVENWORTH TO EVERETT JUNCTION.

EASTWARD.

SECOND CLASS		FIRST CLASS					Capacity of Side Tracks	Distance from Leavenworth	STATIONS	Triumph Code	Distance from Delta	SIGNS See Rule 2, Page 18.	FIRST CLASS								
401	1	297	27	285	25	28							26	300 (N. P. 442)	286	2					
Foot Freight Daily	Passenger Daily	N. P. 441 Passenger Daily	Foot Mail Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passing Trucks	Other Tracks	Time Table No. 4 In Effect February 21, 1919				Express Daily	Passenger Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily					
Lr 3:00am	Lr 2:20pm		Lr 6:00am		Lr 2:35am	80	492	0.0	LEAVENWORTH	CE	109.5	R	DN	WCTYOP	Ar 6:00am	Ar 2:45pm		Ar 1:20am			
3:22	2:30		6:10		2:45	75		3.2	TUMWATER	A	106.3	DN	P		5:48	2:30		1:09			
3:40	2:38		6:17		2:54	75		6.3	DRURY	DY	103.2	DN	P		5:40	2:20		1:00			
4:15	2:50		6:27		3:05	e82	21	105.4	CHIAWUKUM	CY	99.0	DN	W	P	5:30	2:10		12:50			
4:32	2:59		6:35		3:15	76	10	15.0	WINTON	WI	96.5	DN	P		5:23	2:04		12:44			
4:47	3:10		6:47		3:24	77	4	17.8	NASON CREEK	NC	92.0	DN	P		5:10	1:55		12:32			
5:02	3:17		6:55		3:30	e79	8	20.8	MERRITT	CE	89.0	DN	W	Y	P	5:02	1:48		12:26		
5:25	3:35		7:10		3:45	80		24.9	GAYNOR	GR	84.6	DN	P		4:45	1:39		12:16			
5:42	3:44		7:19		3:59	e77	4	28.0	BERNE	BR	81.5	DN	W	P	4:35	1:31		12:07am			
5:57	4:10		7:35		4:17	e82	88	32.3	CASCADE TUNNEL	CN	77.2	DN	WCT	P	4:17	1:20		11:55			
6:00	4:25		7:48		4:30	85	200	35.9	TYE	WN	72.6	DN	WC	P	4:02	1:03		11:38			
6:25	4:37		7:58		4:40	65	21	39.8	EMBRO	NY	70.0	DN	W	P	3:45	12:50		11:19			
6:35	4:46		8:06		4:48	76	17	42.2	COREA	CO	67.3	DN	P		3:35	12:40		11:08			
6:50	4:57		8:15		4:58	78	10	45.2	SCENIC	MA	64.3	DN	W	P	3:25	12:30		10:55			
6:50	5:08		8:24		5:00	79	9	48.2	ALPINE	NI	61.2	DN	W	P	3:10	12:15		10:40			
7:00	5:15		8:33		5:05	76	12	51.8	TONGA	Q	57.7	DN	P		2:55	12:03pm		10:28			
7:15	5:30		8:48	Lr 6:50am	5:30	63	178	57.0	SKYKOMISH	EY	52.5	R	DN	WC	Y	P	2:35	11:45	Ar 8:10pm	10:10	
7:30	5:45		8:58	f 7:00	5:44	76	7	61.1	GROTTO		48.4		P	2:22	11:32		f 7:58	9:55			
7:40	5:55		9:06	* 7:12	5:53	86	51	66.1	HALFORD	BA	43.4	D	W	P	2:13	11:24		* 7:45	9:45		
7:50	6:07		9:16	* 7:24	6:03	74	17	71.2	INDEX	NX	38.3	DN	P	2:00	11:10		* 7:25	9:33			
8:00	6:17		9:26	f 7:35	6:12	82	16	76.2	REITER		33.2		W	P	1:49	10:54		f 7:08	9:21		
8:10	6:24		9:35	* 7:44	6:19	100	815	80.0	GOLD BAR	GB	29.5	R	DN	C	Y	P	1:40	1:35		* 6:55	9:13
8:20	6:28		9:45	* 7:50	6:23		71	82.4	STARTUP	RU	27.1		P	1:31	10:37		* 6:43	9:09			
8:30	6:35		9:53	* 7:59	6:30	77	35	84.8	SULTAN	SD	23.7	D	P	1:26	10:30		* 6:35	9:03			
8:40	6:55		10:12	* 8:16	6:45	104	26	93.2	MONROE	RO	16.2	DN	W	Y	K	P	1:12	10:12		* 6:15	8:47
8:50	7:15	Lr 3:30pm	10:25	* 8:33	6:59	76	165	100.2	SKYKOMISH	EO	9.3	R	DN	P	12:55	9:58	Ar 3:50pm	* 5:57	8:32		
9:00	7:27	Ar 3:40pm	10:35	f 8:43	7:09	78	27	105.0	LOWELL	W	2.5	R	DN	K	P	12:43	9:46	Lr 3:40pm	* 5:44	8:21	
9:10	7:30		10:37	f 8:48	7:11	43	140	107.8	PACIFIC AVENUE	D	1.9	DN	P	12:40	9:43		* 5:40	8:18			
9:20	7:43		10:52	* 8:52	7:18		8	108.7	EVERETT		0.8		K	P	12:37	9:40		* 5:37	8:15		
9:30	7:45pm		Ar 10:55am	Ar 8:55am	7:20am			109.5	EVERETT JUNCTION	JN	0.0	R	DN	P	Lr 12:30am	Lr 9:30am		Lr 5:30am	Lr 8:10am		
9:40	3:00pm					90	1067	109.2	Via N. P. Ry. DELTA	PG		R	DN	WCTYOKP							
9:50	Daily	Daily	Daily	Daily Ex. Sunday	Daily										Daily	Daily	Daily	Daily Ex. Sunday	Daily		
10:00	401	1	297	27	285	25									28	26	300	286	2		
12:00	5:25	10	4:55	2:05	4:45										8:30	5:15	10	2:40	5:10		
9:1	20:2	34.8	22.8	25.0	23.0									10:1	21.1	34.8	19.8	21.2			

ELECTRIC TRAIN STAFF BLOCK SYSTEM.

STAFF SYSTEM

Time Over District
Average Speed Per Hour

INITIAL STATIONS.
Leavenworth for trains Nos. 1, 25, 27 and 401.
Everett Jet. for trains Nos. 2, 26, 28 and 286.
Skykomish for trains No. 285.

Snohomish for Nos. 297.
Lowell for Nos. 300.

TERMINAL STATIONS.
Leavenworth for Nos. 2, 26, 28.
Skykomish for train No. 285.
Everett Jet. for trains 1, 25, 27 and 285.

Lowell for Nos. 297.
Snohomish for Nos. 300.
Delta, 401.

SPECIAL RULES.

Westward trains are superior to eastward trains of the same class.
 No. 27 is superior to all other trains. Opposing first class trains will clear No. 27 five (5) minutes.
 Other opposing trains will clear No. 27 ten (10) minutes.
 All westward trains must be clear at the time No. 27 is due to leave the next station in the rear where time is shown, and not less than five (5) minutes.
 Bulletin boards are located at Leavenworth, Cascade Tunnel, Skykomish, Gold Bar and Delta.
 Read carefully rules covering operation electric train staff block, pages 14 and 15.
 Electric train staff block system between Everett Jct. and Pacific Avenue and between Skykomish and Leavenworth.
 Maximum speed for passenger trains between Leavenworth and Skykomish 35 miles per hour, through Cascade Tunnel 20 miles per hour, between Skykomish and Gold Bar 40 miles per hour, between Gold Bar and Pacific Avenue 50 miles per hour.
 J Engines in Passenger Service will not exceed speed of forty (40) miles per hour.
 L-1, L-2 and M-2 engines will not exceed speed of 25 miles per hour.
 F-7, 8 and 9 engines will not exceed speed of 30 miles per hour.
 O-1 and P-1 engines will not exceed speed of 30 miles per hour between Skykomish and Gold Bar.
 All trains will not exceed speed of 25 miles per hour on curves of 8 degrees and over.
 Troop trains handling freight cars must not exceed speed of 25 miles per hour.
 All trains will reduce speed to 15 miles per hour over draw bridges.
 On descending grades of 1.8 per cent and greater, the maximum speed for freight trains must not exceed 15 miles per hour, and on less than 1.8 per cent descending grade to a 1 per cent grade, the speed must not exceed 25 miles per hour, live stock and fruit trains excepted. On a 1 per cent grade and less, 30 miles per hour will be the limit.
 It must be understood that the above is maximum speed for freight trains, and that this maximum speed will not be made where track conditions will not warrant, which are regulated by slow orders.
 All trains reduce speed to 25 miles per hour over Bridge 444 one mile east of Sultan.
 All trains reduce speed to 8 miles per hour through Martin Creek tunnel, and over bridges at both ends.
 Passengers trains reduce speed to 25 miles per hour and freight trains to 15 miles per hour through city limits of Monroe.
 All trains reduce speed to 10 miles per hour over crossing just east Pacific Avenue freight depot.
 Pacific Avenue passing track is the track known as the "C" line on north side of main line. No engine heavier than an F-5 should go in on any of the yard tracks on south side of main line.
 Additional to other required tests of the air brake, no train will leave Cascade Tunnel until the air brakes have been carefully tested. Engineer will set the brakes and leave them set until carmen examine each car, then release them, and carmen will again examine each car and see that brakes release before giving the signal to start the train. Conductors must inform engineer how many cars loaded and empty in the train, and how many cars of "air" are working.
 All retainers must be used from Cascade Tunnel to Merritt, from Winton to Leavenworth, and from Cascade Tunnel to Skykomish.
 Trainmen will keep off top of cars while passing through Cascade Tunnel and through concrete snow shed just west of Tye.

Trains are operated between a block post, 125 feet west of the east crossover switch Cascade Tunnel and the safety switch west end depot at Tye, by a train staff block system. No train or engine will be run in either direction between the limits mentioned unless train engineer and the engineer of helper engine each has in his possession a section of a staff which will be handed to them by operators and will be retained by them until entire train has cleared block, then sections of staff must be handed to operator. When no helper engine is used, or when any cars behind helper, conductor or brakeman located on rear of train must be in possession of one-half of the staff.
 Only one train is permitted to enter or use the block at the same time.
 All eastward trains will approach the east end of the concrete shed at Tye under absolute control and will not pass the fouling point of the passing track unless signalled to do so by the Tunnel conductor.
 Switch to safety track located at west end Tye depot. Switch must be kept set and locked for safety track. All trains must come to full stop before reaching safety switch and send a brakeman ahead to set switch for main track. After train has passed over, switch must be reset and locked for safety track by operator.
 All westward freight trains must stop 15 minutes at Scenic to cool wheels, when Conductor and Brakemen must examine train carefully to discover cracked or broken wheels.
 When two trains meeting at Scenic, unless eastward train is to head in, operator will hold the Stop board at west switch at "Stop" until the westward train is into clear of east switch.
 All eastward trains will approach east passing track switch at Scenic under absolute control and will not pass the fouling point of the passing track unless signalled to do so by the operator, and operator will not signal them unless he has staff in readiness.
 Local freight trains between Skykomish and Delta will carry passengers, when provided with proper transportation.
 Miller Liver, Baring and Heybrooks spur will be flag stops for trains 285 and 286.
 No. 2 will stop at stations between Skykomish and Leavenworth for passengers for Twin Cities and east. Nos. 25 and 26 will stop at Nason Creek and Winton to receive or discharge parcel post mail on request of postal clerks.
 Except when running in sections, all first class trains will register by card at Gold Bar, Snohomish, Lowell and Everett Jct.
 Freight trains will use N. P. tracks between Lowell and Delta and will be governed by N. P. time table and rules between these points.
 All trains between Snohomish and Lowell will be handled by Block Card form 80.
 Westward trains will be prepared to stop at Snohomish and eastward trains will be prepared to stop at Lowell and must not go by, or foul cross-over, until they have block card in their possession.
 At Snohomish all N. P. trains will enter and leave G. N. main line through cross-over.
 At Lowell all eastward trains from N. P. connection, and first class westward trains for N. P. connection, will run through cross-over. All westward second and inferior class trains for N. P. connection will enter passing track at east switch.
 Interlocking plant at bridge 455 just east of Snohomish. No distant signals. Home signals are located 550 feet each way from draw span; derails 55 feet in advance of home signals.
 Yard limit boards are placed each way from Gold Bar and Skykomish, east from Cascade Tunnel and west from Leavenworth.
 Yard limits extend from Pacific Avenue to N. P. connection at N. P. Freight Depot, and to yard limit board east of Lowell.
 Lap sidings: Chivankum and Merritt.
 For Business tracks not shown as stations see page 13.

BUSINESS TRACKS FIRST DISTRICT NOT SHOWN AS STATIONS ON TIME TABLE.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY	NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Power House Spur	2.0 Miles west of Leavenworth	East		8	Gravel Bunkers	1.0 Miles east of Reiter	Both ends	1,620 feet	34
Great Republic Mining Co., Miller River	1.5 Miles west of Skykomish	West		14	Sultan Logging Company Connection	2.0 Miles west of Sultan	West		37
Grotto Lumber Co	0.3 Miles east of Grotto	East	3 cars	25	Monroe Gravel Pit	0.0 Miles west of Monroe	West		110
G. N. Shingle Co.'s Siding	3.5 Miles west of Grotto	Both ends		24	Wagner & Wilson Lbr. Co. Spur	Opens off Monroe Gravel Pit Track	West		25
Baring	3.5 Miles west of Grotto	Both ends	1,275 feet	22	Woodruff	2.0 Miles west of Monroe	Both ends		24
Heybrook Spur	2.0 Miles east of Index	West		5	Summer Iron Works Spur	0.9 Miles east of Pacific Ave.	West		25
Index, Galena Mill Spur	0.5 Miles east of Index	East		12	Everett Power House Spur	0.1 Miles west of Everett	West		2
Soderburg Spur	0.7 Miles west of Index	West		13					

LOCATION OF TUNNELS.

Tunnel No. 13,	13,873	feet long, height	19.1	feet, between Tye and Cascade Tunnel	Tunnel No. 15,	1,512	feet long, height	18.7	feet, .66 miles east of Corea.
" " 13.1,	1,202	" " "	22	" " 1.12 miles east of Embro,	" " 15.2,	1,218	" " "	22.5	" " 1.88 miles east of Scenic.
" " 13.2,	458	" " "	22.5	" " 20 miles east of Embro,	" " 15.3,	815	" " "	22.5	" " 1.59 miles west of Corea.
" " 14,	274.8	" " "	19.1	" " 1.18 miles west of Embro	" " 16,	2,368.3	" " "	22	" " Everett, Wash

FIRST CLASS								Time Table No. 4 In Effect February 23, 1919	DISTANCE FROM Station	SIGNS See Rule 2, Page 18.	SECOND CLASS			THIRD CLASS		
356	28	2	358	286	278	26	360				718					
Passenger	Express	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger				Mile. Freight					
Daily	Daily	Daily	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily				Daily Ex. Sunday					
Ar 1.05Am	Ar 12.30Am	Ar 8.10Pm	Ar 6.15Pm	Ar 5.30Pm	Ar 3.25Pm	Ar 9.30Am	Ar 9.15Am	EVERETT JUNCTION.....	32.7	R DN P			Ar 11.25Am			
*12.55	12.24	8.03	6.08	* 5.21	* 3.10	9.23	* 9.08	3.8.....MUKILTEO.....	28.9	D P			11.10			
†12.45	12.17	7.56	6.02	† 5.11	† 3.06	9.17	† 8.59	4.1.....MOSHER.....	24.8	P			10.30			
†12.37	12.12	7.51	5.57	† 5.05	† 3.00	9.12	† 8.51	3.0.....MEADOWDALE.....	21.8	D P			10.15			
*12.29	12.06	7.45	* 5.51	* 4.58	* 2.53	9.06	* 8.43	3.9.....EDMONDS.....	17.9	D W P			10.00			
†12.20	12.01 Am	7.40	5.44	* 4.50	* 2.45	8.59	* 8.33	3.0.....RICHMOND BEACH.....	14.9	D P			9.30			
*12.03Am	11.48	7.27	5.32	† 4.35	* 2.30	8.47	* 8.18	9.1.....BALLARD.....	5.8	D			9.00			
*11.59	11.44	7.24	5.29	† 4.30	* 2.25	8.44	* 8.14	1.1.....INTERBAY.....	4.7	R DN WCTO PK			Lr 8.50Am			
								1.3.....G. N. DOCK.....	3.4							
								3.4.....SEATTLE.....	0	R DN * IPK						
11.45Pm	11.30Pm	7.10Pm	5.15Pm	Lr 4.15Pm	Lr 2.10Pm	Lr 8.30Am	Lr 8.00Am									
* 8.00Pm			* 4.50Pm					Via N.P. Ry. .....SEATTLE.....	183.1							
8.30			3.30					40.7.....TACOMA.....	142.4							
8.20			3.20Pm					142.4.....PORTLAND.....	0							
Lr 1.00Pm			Lr 10.00Am													
Daily	Daily	Daily	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily						Daily Ex. Sunday			
356	28	2	358	286	278	26	360						718			
1.00 24.6	1.00 32.7	1.00 32.7	1.00 32.7	1.15 26.1	1.15 26.1	1.00 32.7	1.15 26.1	Time Over District Average Speed Per Hour					2.35 10.8			

Automatic Block System.

Business Tracks Not Shown as Stations on Time Table.

Automatic Block Signals are in operation between King Street Station, Seattle, and Everett Jet.

Interlocking Signals.

Within the limits of the Automatic Block Signal System Interlocking Plants are located as follows:

- SOUTH PORTAL OF SEATTLE TUNNEL.
- NORTH PORTAL OF SEATTLE TUNNEL.
- EVERETT JUNCTION.

Automatic Block Interlocking Signals and Semaphores

Westward.

Everett Junction interlocking, westward home signal (high line), is located 200 feet from westward crossover switch, and has three arms; the top arm is for main line trains through crossover; the second arm fixed; bottom arm for diverging movements.

Westward Home Signal, Coast line, is located fifty-five feet from east end of eastward crossover switch and has three arms; top arm is for main line; second arm fixed; bottom arm crossover movements.

Distant signals, westward high line, is located 3500 feet from home signal.

First automatic signal westward is 2500 feet west of Everett Junction.

Eastward.

First automatic signal eastward is located 3000 feet from eastward home signal, North Portal.

Eastward home signal, Everett Junction Interlocking is located 200 feet from west end of eastward crossover switch, and has two arms; top arm is for main line to St. Paul; lower arm for crossover up the Coast line.

For Further Instructions and Diagrams see page 16 and 17.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
G. N. Oil Tank Spur.....	1.7 miles west of Everett Jet.....	East	.....	30
Merrill and Ring Spur.....	2.0 miles west of Everett Jet.....	West	.....	2
Wasser-Mowatt Lumber Co. Spur.....	1 mile east of Meadowdale.....	East	.....	3
Brown Bay Logging Co. Connection.....	0.5 miles west of Meadowdale.....	East	.....	2
Invincible Railjoint Spur.....	0.4 miles east of Edmonds.....	West	.....	42
Shipyards Spur.....	1.0 miles east of Richmond Beach, off Standard Oil Spur.....	West	1200	8
Standard Oil Co. Spur.....	1.0 mile east of Richmond Beach.....	West	2185	46
G. N. Clay Co. Spur.....	4.2 miles west of Richmond Beach.....	East	.....	10
Metum Spur, Oil Spur.....	1.6 miles east of Ballard.....	West	.....	43

LOCATION OF TUNNELS.

Tunnel No 17, 5,141.5 feet long, height 22 feet, Seattle, Wash.

THIRD DISTRICT—EVERETT JUNCTION TO BELLINGHAM.

SOUTHWARD.

THIRD CLASS			SECOND CLASS			Capacity of Side Tracks	Distance from Bellingham	Time Table No. 4 In Effect February 23, 1913	STATIONS	Telegraph Code	FIRST CLASS				
717	713		711	729	401						357	277	359	299	355
Mds. Freight Daily Ex. Sunday	Mds. Freight Daily Ex. Sunday		Fast Freight Daily	N. P. 676 Freight Daily Ex. Sunday	Fast Freight Daily	Passenger Trains	Other Trains				Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	N. P. 412 Passenger Daily	Passenger Daily
			4:35pm			119	110	0.0	BELLINGHAM	HM	Lv 2:43am	Lv 7:00am	Lv 11:50 am		Lv 5:30pm
			4:50			45	143	2.9	SOUTH BELLINGHAM	FN	* 3:05	* 7:10	* 12:01 pm		* 5:45
			5:10			54	9	6.9	SOCKEYE		f 3:17	f 7:18	12:09		273 5:53
			5:40			53	8	12.5	SAMISH		f 3:30	f 7:30	12:22		6:05
			5:55			8		13.2	BLANCHARD		f 3:34	* 7:33			6:06
			6:15			65	16	16.6	BOW	BO	* 3:40	* 7:40	12:28		6:12
			6:15			8		21.3	BELLEVILLE	BV	f 3:50	f 7:48	12:34		6:18
	714-360 Lv 11:30am		6:25			63	239	23.8	BURLINGTON	BU	* 4:05	* 7:55	* 12:40		* 6:30
	12:01pm		8:15			42	60	27.9	MT. VERNON	NR	* 4:20	* 8:07	* 12:50		* 6:44
	12:30		8:40			64	19	33.3	FIR	FR	* 4:35	* 8:18	1:00		f 6:55
						6		35.0	MILLTOWN		f 4:38	* 8:22			
		359 1:15	9:15			67	61	40.4	STANWOOD	B	* 4:55	* 8:32	1:15		f 7:08
		1:45	9:45			76	14	45.9	SILVANA	NA	* 5:10	* 8:48	1:24		f 7:22
		2:15	10:10			64	16	50.0	ENGLISH		f 5:20	* 8:56	1:30		7:30
		2:35	10:30	Lv 2:16 pm				53.6	KRUSE	K	5:28	* 9:01	1:34	Lv 3:02pm	7:35
		2:50	10:45	2:30		64	74	57.0	MARYSVILLE	MS	* 5:40	* 9:10	1:40	3:09	f 7:42
Lv 12:50pm	Ar 3:05pm		Ar 11:00pm	Ar 2:45 pm	Lv 2:05pm			59.7	DELTA WYE	WY	5:48	* 9:17	1:46	Ar 3:16pm	7:49
12:55					2:10	41		60.7	LONG SIDING		5:52	9:20	1:49		7:52
1:05					2:20	65	120	63.3	EVERETT		* 6:07	* 9:30	* 1:58		* 8:05
Ar 1:15pm					Ar 2:30pm			64.1	EVERETT JUNCTION	JN	Ar 6:10am	Ar 9:35am	Ar 2:00pm		Ar 8:07pm
Daily Ex. Sunday	Daily Ex. Sunday		Daily	Daily Ex. Sunday	Daily						Daily	Daily Ex. Sunday	Daily	Daily	Daily
717	713		711	729	401						357	277	359	299	355
0.25 10.6	3.35 10.3		6.25 10.0	20 12.1	25 10.6						3.27 18.4	2.35 24.4	2.10 29.6	14 27.0	2.37 24.1

SPECIAL RULES.

Southward trains are superior to northward trains of the same class. Read carefully rules covering operation Electric train staff block, pages 14 and 15.

Electric train staff block system between Delta Wye and Marysville. Automatic Block Signals in operation between Everett Jct. and Delta Wye and between Marysville and South Bellingham. See page 16.

Bulletin boards are located at Burlington and Bellingham. Maximum speed for passenger trains between Delta Wye and Samish, 55 miles per hour, between Samish and Bellingham, 40 miles per hour.

Maximum speed for freight trains between Delta Wye and Samish 25 miles per hour, and between Samish and Bellingham 20 miles per hour, between overhead crossing two miles north of Samish and Tunnel 18, in rainy weather, 15 miles per hour.

J Engines in Passenger Service will not exceed speed of forty (40) miles per hour. F-7-8 and 9 engs will not exceed speed of 30 miles per hour.

All trains will not exceed speed of 25 miles per hour over curves of 8 degrees and over.

All trains will reduce speed to 15 miles per hour over draw bridges. All trains run carefully from overhead crossing 2 miles north of Samish to tunnel 18.

All trains reduce speed to 8 miles per hour passing through town limits, Marysville, Mt. Vernon and Burlington.

Trains will not exceed 6 miles per hour on coast line track over 24th St. near Everett four mill, California St., Hewitt Ave. and Bond St., north and south of passenger depot city of Everett.

Norman, 1 mile north of Silvana, is flag stop for Nos. 277 and 278.

Stanwood will be stop for No. 355 and No. 358 Sundays.

At Kruse all N. P. trains will enter and leave G. N. main line, through cross-over.

Except when running in sections, first class trains will register by card at Kruse, Delta Wye and Everett Jct.

Normal position of gates at crossing of third and fourth districts at Burlington, will be against fourth district trains. Not necessary to stop for crossing when gates are set against opposing district.

South switch Everett passing track, is located 300 feet north of station platform.

Track lying to the north of cross-over, between round house and depot Bellingham, will be known as passing track.

Steam whistle signals for tracks with switches controlled from Delta Wye Interlocking Tower.

Main Line—One Long.

Delta Yard from North—One Long, One Short.

Delta Yard from South—Two Long, One Short.

Delta Yard North—Two Long.

Delta Yard South—Three Long, One Short.

Northward from Northern Pacific connection, One Long, One Short.

One Long.

Southward for Northern Pacific connection, Two Long, One Short.

One Long.

INTERLOCKING SYSTEM—Governing movement of trains N. P. crossing and Bridge 10 just north of Delta Wye.

All southward trains will be governed by a two arm home signal located 700 feet north of draw span. Top arm at 90 degrees up proceed to two arm home signal located 20 feet north of N. P. crossing, top arm at 90 degrees up proceed to Bayside, lower arm 90 degrees up proceed to Delta yard. A caution fixed signal is located 2500 feet north of two arm home signal.

Train movements from Bayside northward will be governed by top arm on home signal located 60 feet south of wye switch and by home signal located on trestle 500 feet south of draw span.

Train movements from Delta northward will be governed by top arm on home signal located 60 feet east of wye switch, and by home signal located on trestle 500 feet south of draw span.

Trains between Delta and Bayside will be governed by lower arm home signal located 60 feet east of wye switch.

Trains northward from Northern Pacific connection to Great Northern main line governed by lower arm on Home Signal on Northern Pacific track. Top arm on advanced Home Signal 500 feet south of draw span.

Southward trains from Northern Pacific connection to be governed by lower arm on Home Signal 700 feet North of draw span.

Staff crane for trains from Northern Pacific connection northward is located on Northern Pacific track on trestle.

Interlocking system is in use bridge 10, 11 and 12 between Delta and Marysville and at Skagit R. R. Crossing one mile south of Fir. Interlocker at Drawbridge No. 36 one mile north of Mt. Vernon. Derails are located 500 feet from end of draw span.

FIRST CLASS					Time Table No. 4 In Effect February 23, 1919	STATIONS	Distance from Everett Junction	SIGNS See Rule 2, Page 18.	SECOND CLASS		THIRD CLASS	
298	358	278	360	356					712	728	714	718
N. P. 441 Passenger Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily					Fast Freight Daily	N. P. 678 Freight Daily Ex. Sunday	Mdse. Freight Daily Ex. Sunday	Mdse. Freight Daily Ex. Sunday
Ar 8:40m	Ar 8:15m	Ar 12:15m	Ar 4:10m	Ar 4:00m	BELLINGHAM	64.1	R* DN CWTKP	Ar 8:45m				
* 8:27	* 6:02	* 12:01m	* 4:00	* 4:00	SOUTH BELLINGHAM	61.2	D O K P	8:30				
8:19	f 8:53	f 11:51	f 3:50	f 3:50	SOCKEYE	57.2	P	8:15				
8:07	f 8:40	11:38	3:30	3:30	SAMISH	51.6	W P	8:00				
	* 5:38	* 11:34	f 3:26	f 3:26	BLANCHARD	50.9	P					
8:00	f 5:31	* 11:28	* 3:20	* 3:20	BOW	47.8	D P	7:40				
7:52	f 5:22	* 11:19	f 3:07	f 3:07	BELLEVILLE	42.9	P	7:10				
* 7:47	* 5:16	* 11:13	* 3:00	* 3:00	BURLINGTON	40.3	R DNCOWYXIKP	7:00				
* 7:35	* 5:03	* 11:00	* 2:45	* 2:45	MT. VERNON	36.2	DN P	6:10				
7:23	* 4:50	* 10:41	* 2:30	* 2:30	FIR	30.8	D P	5:55				
	* 4:45	* 10:35	f 2:25	f 2:25	MILLTOWN	29.1						
7:08	* 4:35	* 10:26	* 2:15	* 2:15	STANWOOD	23.7	DN P	5:35		9:30		
6:55	* 4:20	* 10:12	* 2:00	* 2:00	SILVANA	18.2	D W P	5:10		8:48		
6:48	* 4:10	* 10:01	f 1:49	f 1:49	ENGLISH	14.1	P	4:50		8:05		
Ar 4:16m	6:43	* 4:02	9:53	1:40	KRUSE	10.5	R DN P	4:30	Ar 8:25m	7:45		
4:09	6:38	* 3:54	* 9:48	* 1:34	MARYSVILLE	7.1	DN P	4:15	8:13	7:30		
Ar 4:02m	6:31	3:43	9:38	1:23	DELTA WYE	4.4	R DN IY P	Ar 4:00m	Ar 8:00m	Ar 7:00m	Ar 11:50m	
	6:28	3:40	9:35	1:20	LONG SIDING	3.4					11:40	
	* 6:23	* 3:35	* 9:30	* 1:15	EVERETT	0.8	P				11:30	
Ar 6:15m	Ar 3:25m	Ar 9:15m	Ar 1:05m	Ar 1:05m	EVERETT JUNCTION	0.0	R DN P				Ar 11:25m	
Daily	Daily	Daily	Daily	Daily				Daily	Daily	Daily	Daily	
298	358	278	360	356				712	728	714	718	
14 27.0	2 25 26.5	2 55 23.0	3 0 21.5	3 05 21.0	Time Over District Average Speed Per Hour			4 45 13.4	5 15.0	4 30 8.0	5 25 10.8	

Interlocking Plant at crossing of Pacific Northwest Tracton Company just north of Burlington. Home signals are located 205 feet north and south of crossing. Derrails are located 58 feet inside of home signals. Home Signals are pipe connected.

Mt. Vernon interlocking plant 1 mile north of Mt. Vernon, crossing the P. S. & C. Ry. South derail is located 255 feet south of crossing. North derail located 400 feet north of crossing. North bound home signal is located 260 feet south of crossing. South bound home signal located 458 feet north of crossing. All signals standard indications and are a part of the automatic block system. A switch opening south leading to the P. S. & C. Ry. yards is located with head block 450 feet south of crossing. A pipe connected derail is located 185 feet from head block in on this spur. An automatic dwarf signal is located at this derail for south bound train movements coming out of this spur and will show caution when switch is opened and no train standing between north bound home signal and Mt. Vernon. This dwarf signal is part of automatic block signal system.

INITIAL STATIONS.

Blaine, for train No. 711.
Delta Wye, for trains Nos. 298, 728, 712, 714, 717 and 401.
Everett Jct., for trains Nos. 358, 360, 356, 278 and 718.
New Westminster, for trains Nos. 98, 102 and 104.
Vancouver, for trains Nos. 97, 359, 355, 357, 101, 103 and 719.
Bellingham, for trains Nos. 277 and 720.
Kruise, for trains Nos. 299 and 729.
Burlington No. 713.

TERMINAL STATIONS.

Blaine, for train No. 712.
Delta Wye, for trains Nos. 299, 729, 711, 713 and 718.
Everett Jct., for trains Nos. 359, 355, 357, 277, 401 and 717.
New Westminster, for trains Nos. 97, 101 and 103.
Vancouver, for trains Nos. 98, 356, 358, 360, 102, 104 and 720.
Bellingham, for trains Nos. 278 and 719.
Kruise, for trains Nos. 298 and 728.
Burlington No. 714.

YARD LIMITS

Yard limits extend from yard limit board north of Roundhouse, Bellingham, to yard limit board, south of South Bellingham.
Yard limit boards placed each direction from Burlington.
Everett yard limits include Delta yard and from North end of draw bridge 11 to yard limit board west of Everett Jct.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Coast Clay Spur	Leads off of Chuckanut Spur	South	22	
Chuckanut Quarry Spur	1.0 Miles north of Sockeye	North	24	
Chuckanut Cannery Spur	0.7 Miles north of Sockeye	North	7	
Blanchard Spur	0.5 Miles south of Samish	North	35	
Blooded Decovon Spur	1.3 Miles north of Bow	North	64	
Belleville Pit	1.5 Miles north of Belleville	North	80	
Everett Pulp and Paper Co. Spur	1.7 Miles north of Mt. Vernon	South	4	
Puget Sound and Cascade Ry. Conn.	1.0 Mile north of Mt. Vernon	South	2	
Skaup Crossing Tr. Track	0.9 Miles south of Fir	South	2	
Hawley Spur	1.3 Miles south of Fir	North	6	

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Morrison Mill Spur	2.1 Miles south of Fir	South	8	
Ketchum Spur	2.5 Miles north of Stanwood	South	3	
Hals Spur	1.18 Miles south of Stanwood	South	2	
Norman Spur	1.1 Miles north of Silvana	South	2	
Kennedy Spur	4.2 Miles north of Marysville	South	6	
Kruise Bros. Spur	2.5 Miles north of Marysville	North	2	
Cox's Spur	1.4 Miles north of Marysville	North	4	

LOCATION OF TUNNELS.

Tunnel No. 18, 1,112.9 feet long, height 21.8, .46 miles north Samish.
" " 19, 141.5 " " " 21.3, .62 " south Sockeye.

Tunnel No. 20, 326.5 feet long, height 20.9, .43 miles south Sockeye.
" " 21, 697.6 " " " 21. .32 " " South Bellingham.

THIRD CLASS		SECOND CLASS			Capacity of Side Tracks		Time Table No. 4 In Effect February 23, 1915		FIRST CLASS					
719	103	711			711		STATIONS		357	101	359	355	97	
Mds. Freight Daily Ex Sunday	C. N. P. Ry. 202 Freight Daily	Fast Freight Daily			Passing Tracks	Other Tracks	Distance from Vancouver		Passenger Daily	C. N. P. Ry. 2 Passenger Sun., Wed. and Fri.	Passenger Daily	Passenger Daily	C. N. P. Ry. 35 Passenger Daily	
Lr 8:00am	Lr 1:00am				33	319	0.0	VANCOUVER	VN	Lr 12:01am	Lr 9:00am	Lr 9:30am	Lr 3:00pm	Lr 7:00pm
8:20	1:15						2.7	STILL CREEK	Double Track	12:11	9:11	9:40	3:10	7:11
8:25	1:20						4.6	ARDLEY		12:15	9:16	9:44	3:14	7:16
8:35	1:30				39		7.2	BURNABY		12:21	9:22	9:48	3:18	7:22
8:45	1:40						10.9	ENDOT		12:27	9:28	9:54	3:24	7:28
9:05	1:55				37	55	12.4	SAPPERTON		12:30	9:31	9:57	3:27	7:31
9:10	Ar 2:00am				52		13.1	NEW WESTMINSTER	MN	12:38	Ar 9:35am	10:02	3:33	Ar 7:35 pm
9:15							13.5	FRASER RIVER JCT.		12:43		10:07	3:38	
9:30					64	3	18.7	TOWSEND		12:52		10:15	3:46	
9:50					65	59	24.1	COLEBROOK	G	1:02		10:23	3:54	
10:00							27.7	CRESCENT		1:10		10:30	4:01	
10:40					65	21	32.5	WHITE ROCK	WR	1:35		10:55	4:26	
							35.5	INTERNATIONAL BOUNDARY						
10:50 11:45							36.0	BLAINE	BN	1:55		11:05	4:48	
12:55pm							43.5	CUSTER	CU	2:10		11:22	5:01	
							46.2	ENTERPRISE		2:17		11:26		
1:40							49.1	PERDALE	FD	2:23		11:32	5:13	
							51.3	BRENNAN		2:28		11:38		
Ar 2:30pm					119	110	58.1	BELLINGHAM	BM	Ar 2:43pm		Ar 11:50am	Ar 5:30pm	
Daily Ex Sunday	Daily	Daily								Daily	Sun., Wed. and Fri.	Daily	Daily	Daily
719	103	711								357	101	359	355	97
6:30 9:0	1:00 13:1	1:40 13:3						Time Over District Average Speed Per Hour		2:42 22.3	35 22.9	2:20 25.0	2:30 23.2	35 22.9

Special Rules.

Southward trains are superior to northward trains of the same class.

Double track between Still Creek and Endot. Normal position of switch at Still Creek is for southward trains and at Endot for northward trains.

No. 355 meets No. 360 on double track between Still Creek and Endot.

Bulletin Boards are located at Bellingham and Vancouver.

Maximum rate of speed for passenger trains between Bellingham and Vancouver, 45 miles per hour.

J Engines in Passenger Service will not exceed speed of forty (40) miles per hour.

F-7-8 and 9 engs. will not exceed speed of 30 miles per hour.

All trains will not exceed speed of 25 miles per hour, on curves of 8 degrees and over, and between mile post 139 and bridge 77, Fraser River.

All trains will reduce speed to 15 miles per hour over draw bridges.

On descending grades of 1.8 per cent and greater, the maximum speed for freight trains must not exceed 15 miles per hour, and on less than 1.8 per cent descending grade to a 1 per cent grade, the speed must not exceed 25 miles per hour, live stock and fruit trains excepted. On a 1 per cent grade and less, 30 miles per hour will be the limit.

It must be understood that the above is maximum speed for freight trains, and that this maximum speed will not be made where track conditions will not warrant, which are regulated by slow orders.

Trains must not exceed speed of 10 miles per hour over Brunette Street at Sapperton.

All trains reduce speed to 10 miles per hour between Mile Post 123 and Mile Post 127, between White Rock and Crescent.

All trains reduce speed to 8 miles per hour through city limits at Blaine.

All trains will come to a full stop within 50 feet of home signal on either side of Fraser River bridge, and will not proceed until clear signal is displayed, and will not exceed a speed of 6 miles per hour over this bridge.

Ocean Park, 1 mile south of Crescent, will be flag stop for No's 355 and 357.

No. 355 will register by card at Colebrook.

The normal position of switches at Colebrook Jct., Guichon line Jct., and Fraser River Jct. will be for main line.

Track lying to the north of cross-over between round house and depot, Bellingham, will be known as passing track.

Semaphores for protection of draw, Fraser River bridge, between Fraser River Jct. and New Westminster, are located on north and south end of bridge.

Retaining wall, New Westminster, between Front St., crossing and old interlocking tower, does not give full side clearance. Train and engine men must not hang on side of cars or engines passing same.

No trains in either direction will pass International Boundary at Blaine and White Rock without permission of Customs officials.

Yard limit boards at Bellingham, Blaine and Vancouver.

Yard limit board at Sapperton Sand Pit North of Wye, covers limits to Fraser River Bridge.

THIRD DISTRICT—VANCOUVER TO BELLINGHAM.

NORTHWARD. 9

FIRST CLASS					Time Table No. 4 In Effect February 23, 1915	STATIONS	Telegraph Code	Distance from Bellingham	SIGNS See Rule 2, Page 18.	SECOND CLASS			THIRD CLASS	
358	102	360	98	356						712			720	104
Passenger Daily	C. N. P. Ry. 1 Passenger Mon., Wed., Sat.	Passenger Daily	C. N. P. No. 37 Passenger Daily	Passenger Daily						Fast Freight Daily			Mdse. Freight Daily Ex. Sunday	C. N. P. Ry. 201 Freight Daily
Ar 11.10Am	Ar 8.00Am	Ar 3.30Pm	Ar 11.00Am	Ar 8.00Am	.....VANCOUVER.....	VN	58.1	R DN WCYTOPK						
10.55	7.46	f 3.12	10.44	f 7.40	.....2.7.....STILL CREEK.....		55.4	P				Ar 4.30Pm	Ar 11.55Pm	
10.51	7.41	f 3.07	10.38	f 7.35	.....2.2.....ARDLEY.....		53.1	P				4.15	11.40	
10.46	7.35	f 2.59	10.30	f 7.28	.....2.0.....BURNABY.....		50.9	P				4.08	11.32	
10.40	7.28	2.47	10.19	7.21	.....3.2.....ENDOT.....		47.7	P				4.00	11.23	
10.36	7.23	f 2.42	10.14	f 7.17	.....2.0.....SAPPERTON.....		45.7	W I V PK				3.48	11.10	
*10.33	Le 7.20Am	* 2.40	Le 10.12Am	* 7.15	.....0.7.....NEW WESTMINSTER.....	MN	45.0	R DN I PK				3.27	11.00	
10.24		2.30		7.05	.....0.4.....FRASER RIVER JCT.....		44.6					3.17	Le 10.55Pm	
10.16		f 2.20		f 6.55	.....5.2.....TOWNSEND.....		39.4	P				3.12		
*10.08		* 2.10		* 6.42	.....5.4.....COLEBROOK.....	Q	34.0	R DN W Y P				3.00		
10.00		f 2.02		f 6.20	.....3.6.....CRESCENT.....		30.4					2.40		
* 9.36		7.90 * 1.35		* 5.55	.....4.8.....WHITE ROCK.....	WR	25.6	DN P				2.15		
					.....2.0.....INTERNATIONAL BOUNDARY.....		22.6					3.60 1.35		
* 9.25		* 1.15		* 5.25	.....0.5.....BLAINE.....	BN	22.1	R DN W T P	Ar 10.25Am			7.19 12.40Pm 11.45		
* 9.07		7.19 *12.55		* 4.54	.....7.5.....CUSTER.....	CU	14.6	D P	10.05			3.59 11.22		
9.00		f 12.47		f 4.46	.....2.7.....ENTERPRISE.....		11.9							
* 8.57		*12.42		* 4.40	.....2.9.....FERNDALE.....	FD	9.0	D P	9.40			10.45		
8.49		f 12.35		4.29	.....2.2.....BRENNAN.....		6.8							
Le 8.40Am		Le 12.20Pm		Le 4.15Am	.....3.8.....BELLINGHAM.....	HM	0.0	R DN W C T PK	Le 9.00Am			Le 9.55Am		
Daily	Mon., Wed., Sat.	Daily	Daily	Daily					Daily			Daily Ex. Sunday	Daily	
358	102	360	98	356					712			720	104	
3.30 23.2	40 20.9	3.10 18.3	48 17.5	2.45 15.6					1.25 15.8			6.35 8.7	1.00 13.1	
					Time Over District Average Speed Per Hour									

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	Length	Car Capa- city
Maddough-Shaw Spur	0.7 Miles north of Ardley	South		5
Ardley Power Spur	0.3 Miles south of Ardley	South		2
Wolfe Spur	0.5 Miles north of Burnaby	North		6
Haight Spur	1.5 Miles north of Sapperton	South	450	7
Bradford and Taylor	0.7 Miles north of Sapperton	South		4
St. Mingo Spur	1.0 Mile north of Townsend	North		23
Delta Shingle Co. Spur	0.8 Miles south of Townsend	North		10
Mosher Lumber & Logging Spur	2.2 Miles south of Townsend	South	630	16
Campbell Lumber Co. Spur	1.0 Miles south of Whiterock	South	2450	62
Blaine Shingle Co.'s Spur	1.9 Miles south of Blaine	South		8
Blaine Shingle Co.'s Spur	2.0 Miles south of Blaine	South		31
City Dock Spur (off Passing Tracks)	0.0 Blaine	South		6
North Bluff Mill Spur (off City Dock Spur)	0.0 Blaine	South		6
Barge Spur (off City Dock Spur)	0.0 Blaine	South		5
Drayton Bay Shingle Spur	400 ft. south of Blaine	North		4
McDonald Spur	1.2 Miles north of Custer	South		2
Enterprise Spur	0.7 Miles north of Enterprise	South		3
Sand Pit Spur	0.8 Miles south of Enterprise	South		13
Milk Spur	0.3 Miles south of Ferndale	South		28
Marietta Spur	3.3 Miles north of Bellingham	South		2

New Westminster Interlocking System.—Signal tower is located 4600 feet north of north end of Fraser River bridge. This apparatus controls the crossing of the C. P. Ry., also switches leading to and from the Fraser River Bridge tracks and New Westminster. South derail is 1600 feet south of tower. North derail is 625 feet north of tower.

Northward home signal is located to the left of the track and is 1655 feet south of tower. Southward home signal is located 675 feet north of the tower. Distant signals are located 1200 feet north and south of home signals. This plant has two advance home signals governing train movements over switches at north and south end of plant. North of plan top arm for main line, lower arm for diverging track leading to Fraser Mills. South of plan top arm for main line, lower arm for track leading to water front and freight house.

Interlocking plants are in use on bridges 69 and 70 between Crescent and Colebrook. Home signals and derails are located 600 feet north and south of both bridges. The caution fixed signals are located 3000 feet from home signals.

Interlocking system used on bridge 64, 1,000 feet south of Ferndale. Derails located 55 feet in advance of home signals.

Interlocking plant at Ardley, B. C., governing movement of G. N. Ry., trains and B. C. Electric Railway Company trains: Northward home signal is located 555 feet from crossing. Derail is 58 feet ahead of signal. Northward distant signal is located 2000 feet from home signal. Southward home signal is located 558 feet from crossing and has two arms. Derail is 58 feet ahead of signal. Southward distant signal is located 2000 feet from home signal.

Burrard Inlet Interlocking plant crosses the C. P. Ry. and B. C. Electric Ry. at Burrard Inlet, Vancouver. South derail is located 200 feet south of B. C. Electric crossing. North derails are located 200 feet north of C. P. Ry. crossing. Northward home signal is 255 feet south of B. C. Electric crossing. Southward home signal is 210 feet north of C. P. Ry. crossing. No distant signals at this plant.

THIRD CLASS		SECOND CLASS		FIRST CLASS		Capacity of Side Tracks	Distance from Rockport	Time Table No. 4 Effective February 23, 1919	STATIONS	Telegraph Calls	Distance from Anacortes	FIRST CLASS		SECOND CLASS		THIRD CLASS	
723	377	289	279	290	280							378	724				
Mid. Freight	Mixed	Passenger	Passenger	Passenger	Passenger	Mixed	Mid. Freight										
Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily	Daily	Daily	Daily Ex. Sunday	Daily Ex. Sunday										
Lv 6.30am		Lv 7.24am	Lv 9.40am	39			ROCKPORT	RK	53.7	R D Y W	Us 1.30Pm	Ar 9.35Pm					Ar 4.40Pm
6.50		f 5.00	f 9.53	16	5.8		FABER		47.9		f 1.12	f 9.20					4.10
7.25		* 5.10	*10.03	83	9.1		CONCRETE	BA	44.6	D	* 1.00	* 9.12					3.30
7.50		f 5.13	*10.06	39	76	10.2	GRASSMERE		43.5	W	f 12.50	f 9.04					2.40
8.20		* 5.24	*10.17	41	15.5		BIRDSVIEW		38.2		*12.38	* 8.52					2.15
8.50		* 5.35	*10.28	35	9	20.6	HAMILTON	II	33.1	D W	*12.25	* 8.40					1.40
9.15		* 5.44	*10.37	25	23.9		LYMAN	MY	29.8	D	*12.15Pm	* 8.31					1.10
9.35		f 5.54	*10.47	21	29.2		COKEDALE JUNCTION		24.5		f 11.58	f 8.19					12.40
10.00	Lv 9.15am	* 6.05	*10.57	42	63	32.4	SEDRO-WOOLLEY	SW	21.3	D X R I K	*11.50	* 8.11	Ar 8.30am				12.25
		f 6.10	*11.02			34.7	STERLING		19.0		f 11.38	f 8.02					
Ar 10.25am	8.35-200 10.55	* 6.20 ²⁰⁰ 7.55	*11.30 ²⁰⁰ 11.30	63	225	37.2	BURLINGTON	BU	16.5	R DN CO WYX IK	10.30 ²⁷⁹ 10.55 ²⁷⁷	7.55 ²⁵⁹ 8.50	8.10 7.20				Ar 12.01Pm
	*11.05	* 8.03	*11.38	18	40.0		AVON		13.7		*10.46	* 6.39	* 7.05				
	f 11.15	f 8.10	*11.45	7	42.8		FREDONIA		11.1		f 10.40	f 5.32	f 6.57				
	*11.25	* 8.17	*11.52	17	44.1		WHITNEY		9.8		*10.36	* 5.25	* 6.50				
				46.3			DRAW BRIDGE		7.4								
	f 11.45	f 8.33	*12.08Pm	3	49.8		FIDALGO		4.1		f 10.21	f 5.11	f 6.20				
	Ar *12.05Pm	Ar * 8.45Pm	Ar 12.20Pm	225	53.7		ANACORTES	AC		R D T W	Ar 10.10am	Ar 5.00Pm	* 6.00am				
Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily								Daily	Daily	Daily Ex. Sunday				Daily Ex. Sunday
723	377	289	279								290	280	378				724
3.55 9.5	2.50 6.7	4.00 13.4	2.40 20.2								3.20 10.1	4.35 11.7	2.20 9.05				4.30 8.9

Special Rules.

Business tracks not shown at stations on time table.

Westward trains are superior to eastward trains of the same class.

Bulletin boards are located at Anacortes, Burlington and Rockport.
Maximum rate of speed for passenger trains between Anacortes and Rockport, 30 miles per hour. Freight trains 15 miles per hour.

All trains will not exceed speed of 25 miles per hour on all curves of 8 degrees and over.
All trains will reduce speed to 15 miles per hour over draw bridges.
J Engines in Passenger Service will not exceed a speed of forty (40) miles per hour.
No engine heavier than D-4 Mogul should cross Drawbridge No. 12 west of Whitney.

First class trains will stop on flag at Fidalgo Mill Spur, Summit Park, Minkler, Superior Ave., East Side, Van Horn, Saak and Cowden's Spur.

Normal position of gates at crossing third and fourth districts at Burlington, will be against fourth district trains.
Normal position of gates at crossing Puget Sound and Baker River Railway two miles east of Burlington will be clear for Great Northern trains. Not necessary to stop when gates are clear and set against P. S. & B. R. Ry.

Interlocking Plant one half mile west of Sedro-Woolley at crossing of Pacific Northwest Traction Company. Distant signals are located 2000 feet east and west of crossing and have one arm showing caution. Home signals are located 208 feet east and west of crossing. Derails are located 58 feet inside of Home Signals.

Interlocking Plant just west of Burlington at crossing of Pacific Northwest Traction Company eastward distant signal is located 2000 feet west of crossing, has one arm showing caution. Home signals are located 55 feet each way from crossing. Derails are located 5 feet inside of home signals. There is no distant signal for westward trains.

INITIAL STATIONS.
Anacortes, for trains Nos. 290, 289 and 378.
Rockport, for trains Nos. 279, 289 and 723.
Burlington, for train No. 724.
Sedro-Woolley, for train No. 377.

TERMINAL STATIONS.
Anacortes, for trains Nos. 279, 289 and 377.
Rockport, for trains Nos. 280, 290 and 724.
Burlington, for train No. 723.
Sedro-Woolley, for train No. 378.

Yard limit boards are located at Anacortes, Burlington and Sedro-Woolley.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Briscoe Spur	1.8 Miles west of Rockport	West	14	
Saak Spur	2.0 Miles west of Rockport	West	7	
Cowden's Spur	3.5 Miles West of Rockport	East	9	
Van Horne's Spur	0.5 Miles west of Faber	East	15	
Vix Spur	1.5 Miles west of Faber	West	24	
Washington Port Cement Co.	0.7 Miles east of Concrete	West	110	
Superior Portland Cement Co. Spur	0.7 Miles west of Concrete	East	37	
Burpee Shingle Spur	0.4 Miles west of Grassmere	West	5	
Highlower Spur	0.4 East of Birdsvie	West	40	
L. L. Spur	0.2 Miles west of Hamilton	West	3	
Hop Ranch Spur	0.8 Miles east of Lyman	West	3	
Skaigt Mill Co. Spur	Lyman	West	39	
Minkler's Mill	3.0 Miles east of Cokedale Jct.	Both Ends	13	
Sound Iron Spur	Woolley	West	7	
Holbrook's Spur	0.4 Miles west of Woolley	West	8	
Burlington Mill Spur	0.6 Miles west of Burlington	West	8	
Callahan-Abbott Spur	Fredonia	West	7	
Gravel Pit Spur	5.9 Miles east of Anacortes	West	2	
Fidalgo Island Shingle Co. Spur	4.6 Miles east of Anacortes	East	14	
Loe Rollway	2.7 Miles east of Anacortes	Both Ends	21	
Fidalgo Mill Spur	2.1 Miles east of Anacortes	East	4	

Maximum Clearance Table to be observed in the loading of material on open cars.

For Points Between	LIMIT OF LOAD—MEASUREMENT																Max- imum Hgt.	Max- imum Wdth.		
	WIDTH OF LOAD AT HEIGHT ABOVE TOP OF RAIL																			
	1'0"	2'0"	3'0"	4'0"	5'0"	6'0"	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	10'2"	10'6"	11'0"			11'6"	
	W I D T H																			
	H E I G H T																			
*Lines East of Cut Bank except Pacific Junction to Butte	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	17'0"	16'0"	18'0"	11'6"	
Cut Bank to Spokane	17'0"	17'0"	17'0"	17'0"	16'8"	16'4"	16'0"	15'9"	15'6"	15'3"	15'0"	14'8"	14'4"	14'3"	14'0"	13'0"	12'0"	17'0"	11'6"	
Spokane to Seattle	17'0"	17'0"	17'0"	17'0"	16'8"	16'3"	15'9"	15'6"	15'3"	15'0"	14'9"	14'6"	14'0"	13'10"	13'6"	13'0"	12'0"	17'0"	11'6"	
Seattle to Vancouver, B. C.	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	17'9"	17'6"	17'3"	17'0"	16'10"	16'6"	16'0"	15'3"	18'0"	11'6"
Seattle to Portland	19'0"	19'0"	19'0"	19'0"	19'0"	18'7"	18'1"	17'10"	17'4"	17'1"	16'9"	16'4"	15'11"	15'10"	15'5"	15'0"	14'6"	19'0"	11'6"	
Pacific Jet. to Great Falls	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	17'9"	17'6"	17'3"	17'0"	16'9"	16'6"	16'5"	16'3"	16'0"	15'6"	18'0"	11'6"	
Great Falls to Helena	16'0"	16'0"	16'0"	16'0"	16'0"	15'8"	15'4"	15'2"	15'0"	14'8"	14'4"	14'0"	13'0"	12'8"	12'0"	11'0"	10'0"	16'0"	11'6"	
Helena to Butte	17'0"	17'0"	17'0"	17'0"	17'0"	16'8"	16'4"	16'2"	16'0"	15'9"	15'6"	15'3"	15'0"	14'11"	14'9"	14'6"	13'6"	17'0"	11'6"	
Spokane to Vancouver, B. C. via Marcus and Brookmere	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	18'0"	17'9"	17'6"	17'3"	17'0"	16'6"	16'4"	16'0"	15'0"	14'0"	18'0"	11'6"	
Spokane to Portland via S. P. & S. Ry.	21'0"	21'0"	21'0"	20'9"	20'6"	20'2"	19'9"	19'7"	19'4"	19'2"	19'0"	18'8"	18'3"	18'2"	18'0"	17'9"	21'0"	11'0"		

*Except Minneapolis Junction to Clearwater Junction and University Switch to Union Depot Junction via Stone Arch, which limit heights to 16'6" and 17'3" respectively.

BILLING INSTRUCTIONS.

As per Rules 114 and 198 of Instructions to Agents, waybills should not be issued for the movement of cabooses, bad order cars on their own wheels or empty freight cars, either system or foreign. Empty car slip, Form 300, should be used for this purpose. When moved in revenue freight trains, the following described equipment should be waybilled on D. H. Co. waybill, Form 16, at the weights shown below:

Salvage of bad order car	Pounds	30,000	Dozers	Pounds	40,000
Dead engines	Actual weight	120,000	B. & B. outfit cars		28,000
Steam shovels, 60 ton		130,000	First class coach (wood)		86,000
" " 65 ton		142,000	Second class coach (wood)		57,400
" " 70 ton		184,000	Coaches (steel)		120,700
" " 95 ton		112,000	Tourist sleepers		84,900
File Drivers		121,400	Sleepers		111,800
Derrick Cars, 35 ton		160,400	Diner		106,400
" " 50 ton		163,500	Parlor		108,700
" " 60 ton		148,000	Baggage		65,000
" " 75 ton		174,500	Mail		114,700
" " 100 ton		246,500	Baggage and express		36,900
" " 150 ton		200,000	Express refrigerator		76,500
Rotary plows (95007 and 95008)		127,000	Pass. and baggage		50,800
Rotary plows (others)			Mail and baggage		57,000
			Mail, baggage and express		109,000

NOTE—The weights shown for steam shovels are net. If shipment includes a boom, 20,000 pounds should be added. If dipper and dipper sticks are included, 10,000 pounds should be added.

These instructions do not apply when equipment is moved in work trains.

CAPACITY OF ENGINES IN ADDITION TO WEIGHT OF ENGINES, TENDERS AND CABOSES.

STATIONS	Ruling Grade	Class M2-1950-1990				Class L1-1900-1921				Class L2-1800-1844 "O1" 3020-3069 " P-1750-1764				Class F8-1140-1199 Superheated				Class F5-1095-1099 " F6-1100-1109				Class G2-700-719 " G3-720-769				Class F1-500-565 " D5-450-476							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Gold Bar to Skykomish.....	1.0	1700				1600				1550				1350				1200				1000				775							
Skykomish to Cascade Tunnel...	2.2	900				850				700				625				600				480				360							
Cascade Tunnel to Leavenworth..	Down	2500				2500				2500				2500				2500				1250				900							
Leavenworth to Cascade Tunnel..	2.2	900				850				700				625				600				480				360							
Seattle to Delta.....	0.5									3500				2850				2500				2000				1500							
Delta to Seattle.....	0.4									4000				3000				2750				2300				1800							
Cascade Tunnel to Skykomish....	Down	2500				2500				2500				2500				2500				1250				900							
Bellingham to Delta.....	0.5													2600				2300				1650				1300							
Delta to Bellingham.....	0.4													2800				2500				1800				1460							
Delta to Gold Bar.....	0.4					3800				3500				2800				2500				1800											
Skykomish to Delta.....	0.3					4000				3800				3200				3000				2200											
Bellingham to Vancouver.....	1.1													1500				1300				1000				775							
ancouver to Bellingham.....	1.1													1500				1300				1000				775							

WEATHER RATING {1—When temperature is 25 degrees above zero or over.
2—Very frosty or wet. 5 to 25 above zero.

WEATHER RATING {3—Five degrees above to 10 below zero.
4—Ten below zero and colder.

Chief Train Dispatcher may increase or decrease above rating as it may be found necessary.

Weights of Empty Freight Cars.

Box Cars, 28 to 30 foot.....	11 Tons
Box Cars, 33 foot.....	12 Tons
Box Cars, 34 foot.....	13 Tons
Box Cars, 36 foot.....	15 Tons
Box Cars, 40 foot.....	17 Tons
Refrigerator Cars.....	20 Tons
Express Refrigerator Cars.....	33 Tons
Furniture Cars, 30 to 40 foot.....	17 Tons
Furniture Cars, 40 to 50 foot.....	19 Tons
Caboose, 6 wheel.....	17 Tons
Caboose, 4 wheel.....	10 Tons
Flat Cars, 28 to 30 foot.....	9 Tons
Flat Cars, 33 and 34 foot.....	11 Tons
Flat Cars, 40 foot.....	12 Tons
Coal Cars.....	12 Tons
Gondola Cars.....	13 Tons
Ore Cars, Wood.....	12 Tons
Ore Cars, Steel.....	15 Tons
Oil Tanks.....	15 Tons
Ballast Cars.....	12 Tons
Steam Wreckers.....	75 Tons

The following will govern when handling empty cars: With 10 or less empty cars in a train no allowance will be made for wheel friction; with 10 to 20 empty cars in a train, add to actual weight 5 tons for each empty car for wheel friction; with more than 20 empty cars in a train add 6 tons per car for wheel friction.

Weights of Passenger Equipment.

	Wooden	Steel Under-frame	Steel
Postal Cars.....			
Nos. 1 to 21.....			67 Tons
Nos. 90 and 91.....			48 Tons
Nos. 50 to 69.....	54 Tons		
Nos. 107 to 114.....	43 Tons		
Baggage and Mail.....	26 Tons		
Series 300 and 400.....	45 Tons		
Series 500 and 600.....	60 Tons		
Series 700.....		60 Tons	
Series 800.....			60 Tons
Baggage and Express.....			
Nos. 1000 to 1027.....	25 Tons		
Nos. 1050 to 1089.....	50 Tons		
Nos. 1100 to 1119.....		60 Tons	
Nos. 1588 to 1702.....	55 Tons		
Express Refrigerators.....			
Nos. 1900 to 2097.....	Have weights stenciled on cars.		
Passenger and Baggage.....			
Nos. 2100 to 2201.....	25 Tons		
Coaches.....			
Nos. 3000 to 3241.....	27 Tons		
Nos. 3250 to 3606.....	48 Tons		
Nos. 3700 to 3724.....		52 Tons	

Weights of Passenger Equipment—Cont.

	Wooden	Steel Under-frame	Steel
Coaches—Cont.....			
Nos. 4000 to 4012.....	36 Tons		
Nos. 4013 to 4060.....	41 Tons		
Nos. 4100 to 4159.....	51 Tons		
Nos. 4200 to 4317.....	59 Tons		
Nos. 4500 to 4529.....			70 Tons
Tourist.....			
Nos. 6520 to 6567.....	43 Tons		
Nos. 6568 to 6611.....	52 Tons		
Diners.....			
Nos. 7010 to 7015.....	50 Tons		
Nos. 7030 to 7041.....	58 Tons		
Nos. 7100 to 7131.....	61 Tons		
Parlor Cars.....			
Nos. 7500 to 7571.....	45 Tons		
Nos. 7572 to 7604.....	60 Tons		
Sleepers.....			
Nos. 8000 to 8456.....	60 Tons		
Compartment-Observation.....			
Nos. 9001 to 9035.....	63 Tons		
Business Cars.....			
Average Weight.....	40 Tons		

Weights of Dead Engines and Tanks.

Engines numbered below 200 series.....	80 Tons
Engines numbered in 200 series.....	90 Tons
Engines numbered in 300 series.....	86 Tons
Engines numbered in 400 series.....	110 Tons
Engines numbered in 500 series.....	115 Tons
Engines numbered in 600 series.....	120 Tons
Engines numbered in 700 series.....	140 Tons
Engines numbered in 800 series.....	155 Tons
Engines numbered in 900 series (except 992 to 997).....	95 Tons
Engines numbered 992 to 997.....	131 Tons
Engines numbered 1000 to 1007.....	144 Tons
Engines numbered 1050 to 1069.....	158 Tons
Engines numbered 1079 to 1095.....	160 Tons
Engines numbered in 1100 and 1200 series.....	160 Tons
Engines numbered in 1300 series.....	173 Tons
Engines numbered 1400 to 1405.....	188 Tons
Engines numbered 1405 to 1425.....	179 Tons
Engines numbered in 1500 and 1600 series.....	180 Tons
Engines numbered in 1700 series.....	219 Tons
Engines numbered in 1800 series.....	252 Tons
Engines numbered in 1900 series.....	217 Tons
Engines numbered in 3000 series.....	246 Tons
Engines numbered 1750 to 1764.....	30 Tons
Engine Tank (Empty).....	30 Tons

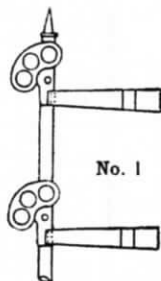
Speed Table.

50 miles per hour is equivalent to one mile in 1 minute and 12 seconds.
45 miles per hour is equivalent to one mile in 1 minute and 20 seconds.
40 miles per hour is equivalent to one mile in 1 minute and 30 seconds.
35 miles per hour is equivalent to one mile in 1 minute and 43 seconds.
30 miles per hour is equivalent to one mile in 2 minutes and 0 seconds.
25 miles per hour is equivalent to one mile in 2 minutes and 24 seconds.
20 miles per hour is equivalent to one mile in 3 minutes and 0 seconds.
15 miles per hour is equivalent to one mile in 4 minutes and 0 seconds.

ELECTRIC TRAIN STAFF BLOCK SIGNAL DIAGRAMS.

Bell Code of Signals

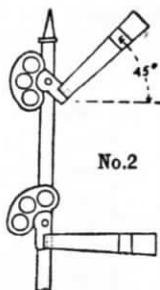
1 —	To attract attention.
2 --	All Right. Yes.
3 ---	Block wanted, Unlock my Instrument, Ans. by Unlocking or by 5 or 3-1.
4 ----	Train has entered Block.
5 -----	Block is not clear.
6 -----	Has a train entered this Block? Answer by 2 or 2-1.
1-2 ---	Clear. Train has cleared Block.
2-1 ---	No.
2-2-2 ---	Previous Signal given in error. Answer by 2.
2-4 ---	Has train Cleared Block? Answer by 5 or 3-1.
3-1 ---	Have unlocked. Block is clear. It must not be used unless Block is known to be clear.
3-3 ---	Train in Block.
5-5-5 ---	Obstruction in Block. Stop all trains approaching this Station. Answer by repeating.
8 - - - -	Testing. Answer by repeating.



No. 1

Home Signal.

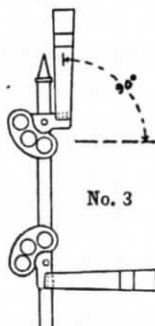
Color. Upper Arm RED light at night.
Lower Arm RED light at night.
Indication. STOP. Proceed only when Signal clears.
Name. STOP Signal.



No. 2

Home Signal.

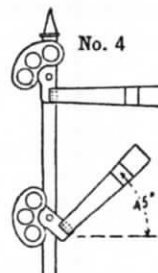
Color. Upper Arm, YELLOW light at night.
Lower Arm, RED light at night.
Indication. Proceed on main line with caution, be prepared to stop at the Block Station.
Name. CAUTION Signal.



No. 3

Home Signal.

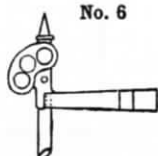
Color. Upper Arm GREEN light at night.
Lower Arm, RED light at night.
Indication. Main line route clear staff in crane.
Name. CLEAR Signal.



No. 4

Home Signal.

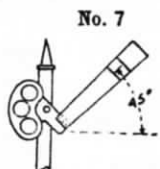
Color. Upper Arm, RED light at night.
Lower Arm, YELLOW light at night.
Indication. Take Passing track.
Name. CAUTION Signal.



No. 6

Distant Signal.

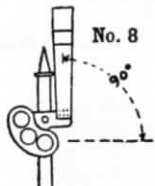
Color. RED light at night.
Indication. STOP then proceed with caution to Home Signal.
Name. STOP Signal.



No. 7

Distant Signal.

Color. YELLOW light at Night.
Indication. Proceed with CAUTION prepared to stop at Home Signal.
Name. CAUTION Signal.



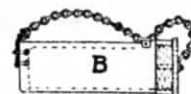
No. 8

Distant Signal.

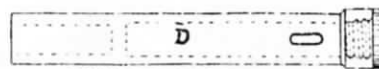
Color. GREEN light at night.
Indication. PROCEED. Staff in Crane.
Name. CLEAR Signal.



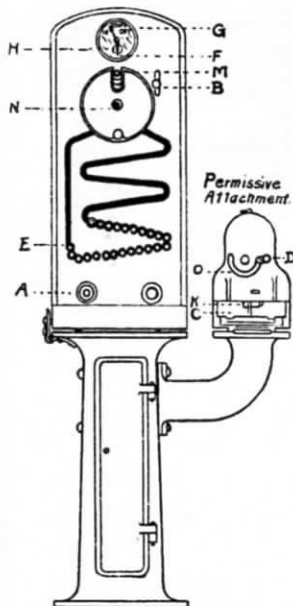
Pouch for permissive staff disc.



Pouch for permissive staff complete



POUCH FOR ABSOLUTE STAFF.



STAFF INSTRUMENT.

GENERAL INSTRUCTIONS

FOR

OPERATING TRAIN STAFF INSTRUMENTS.

TO REMOVE STAFF FROM MACHINE.

Instructions to Operator removing staff.

- 1st. Press bell key "A" once. Answer will be two @ taps.
- 2nd. Press bell key "A" three @ times. Then watch current indicating needle "F" until it deflects to the right.
- 3rd. Turn preliminary spindle "B" to the right as far as it will go and then release it, permitting it automatically to return to its former position. A white disc will appear in place of the red one at "H". This indicates that staff is ready to be removed.
- 4th. Move end staff "E" up to vertical slot into engagement with guard "N". This guard having been turned so that the staff will slip into the slot in the edge of the guard "N."
- 5th. Revolve guard "N" using staff as a handle and withdraw the staff through the opening at "M". This operation moves staff, indicating needle "G" from "Staff in" to "Staff out."
- 6th. Immediately upon withdrawal of staff, press bell key "A" once. This is absolutely necessary.

Instructions to Operator aiding in removal of a staff.

- 1st. Upon receipt of one ring acknowledge same by two pushes on bell key "A."
- 2nd. Upon receipt of three rings, press bell key and hold it so until staff indicating needle "F" moves from left to right Twice then release key "A" as operation is complete.

TO REPLACE STAFF IN THE MACHINE.

Instructions to Operator replacing staff.

- 1st. Turn outer guard "N" to place and insert staff in the opening "M."
- 2nd. Using staff as handle revolve guard "N" to the right and allow staff to roll down spiral into place.

- 3rd. Press bell key "A" according to signal 1-2 of the bell code.

Instructions to Operator at opposite end of Block.

The signal 1-2 of the bell code must in every case be answered in order to place the machines in proper condition for the withdrawal of the next staff.

TO REMOVE THE PERMISSIVE STAFF FROM MACHINE.

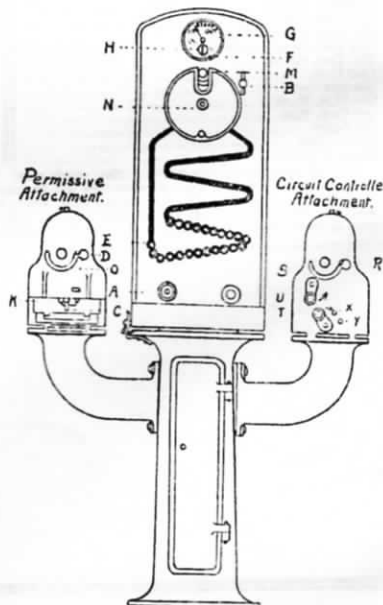
- 1st. Insert solid staff in the opening "D" of the permissive attachment and move to the extreme left of the slot "O."
- 2nd. Turn the latch "K" and allow door "C" to drop and the permissive staff to roll out.

TO REPLACE THE PERMISSIVE STAFF IN THE MACHINE.

- 1st. Be sure all discs are on the permissive staff in their proper numerical order.
- 2nd. Place staff in attachment, close door "C" and latch with "K."
- 3rd. Move solid staff to the right thru slot "O" and remove at opening "D."

INSTRUCTIONS FOR OPERATING SEMAPHORE SIGNALS THROUGH CIRCUIT CONTROLLER ATTACHMENT.

- 1st. To operate Upper Arm of Semaphore 0° to 45° (See Fig. No. 2), turn handle "T" to the right clockwise to stop "X."
- 2nd. To operate Upper Arm of Semaphore 45° to 90° (See Fig. No. 3), withdraw absolute staff and insert into opening "R" and move to extreme left of slot "B" then turn handle "T" to right to stop "Y" remove absolute staff from opening "R" and place staff in Pouch "D", Fig. 9. Then place Pouch in staff crane which action automatically "Clears" Home and Distant Signals to 90° Position. (See Fig. Nos. 3 and 8).
- 3rd. To operate Lower Arm of Semaphore 0° to 45° (See Fig. No. 4), turn handle "U" to the right as far as it will go.



STAFF INSTRUMENT.

Electric Train Staff Block Signal System in operation between Leavenworth and Skykomish, Everett Jet., and Pacific Ave., and between Delta Wye and Marysville.

The use of the divided staff through Cascade Tunnel and all rules and instructions pertaining thereto will continue in effect.

All rules relating to the protection of trains are in force and are only modified by the General Instructions herein.

1. All trains and engines in both direction will be governed exclusively in their movements by the train staff.
2. Home and Distant semaphores are located at each block station. Home signals are located at the passing track switches. Distant Signals are located about 4,000 feet from home signals. The signal indications are illustrated by figures Nos. 1, 2, 3, 4, 6, 7, 8 and the meaning of the positions of the signal arms and lights is explained under the diagrams. In all cases the block signals are located upon the right of and adjoining the track upon which trains are governed by them. The semaphore arms that govern are displayed to the right of the signal mast as seen from an approaching train.
3. The possession of the staff by the Engineer gives him the right of track to the next block station.
Engineers must know that the staff is in the pouch before proceeding.
4. The staff will be handled by the Engineer of the leading engine of the train; and the staff must be in the actual possession of the Engineer before he moves his train into a block, and such engine must not be uncoupled from the train except at a block station. The Conductor will receive a "proceed" signal from Block Operator to indicate that staff has been delivered to Engineer. (See Rule 21-E.)
- 4-A. In the case of an engine pushing a train, it must be considered as part of that train through to the next block station, and may be uncoupled only at a block station. Such engine, if then uncoupled, must be treated as a separate train.
5. When a staff has been secured by the Engineer, he will announce the fact by sounding one short, one long and one short blast of the whistle, thus (o-o-o.)
6. An absolute staff permits but one train at a time to use a block. See D figure No. 9.
- 6-A. A permissive staff disc permits two or more train in the same direction at one time to use a block on ascending grade only, except westward between Leavenworth and Drury, Winton and Merritt, and eastward between Seenic and Tye. Each train must be in possession of a permissive staff disc before proceeding. See C. Fig. No. 9.
- 6-B. Permissive staff discs must not be given to Engineers with light engines or light tonnage trains to follow a passenger train.
- 6-C. Permissive staff complete permits but one train at a time to use a block descending grade only. See B, Fig. No. 9, and Rule No. 22-D.
7. The delivery of the staff to the Enginemen will be either by staff crane, hand of Block Operator, or the Conductor or head Brakeman of his own train and the Engineer must not accept delivery of a staff from any other person. Block Operators will not deliver staff to any other than one of these employees.

8. Staff will be delivered by Engineer on arrival at Block Station by dropping same at a designated spot, or, in case of taking siding, and it cannot be personally delivered by Engineer, it will immediately be sent to Block Operator by head Brakeman or Conductor.
Under no circumstances will a staff be transferred from one train to another. It is the duty of the Block Operator to see that all of the train clears the block before inserting staff into instrument.
9. In case a train parts, or it is necessary to "double," the staff must be retained by the Engineer until all the train is clear of the block. A train is clear of a block when it has passed the home signal. A train proceeding on main track enters a block at the block office. It may occupy the main track inside of home signals in either direction to do station work or to allow another train to enter the sidetrack, but must not proceed until in possession of a staff, as per Rule No. 3.
- 9-A. A train making switching movements may use the main track to, but not beyond the distant signal, when protected as per Rule 99. Superior class trains must not be delayed.
10. Enginemen and Trainmen will carefully note the position of all signals and be governed accordingly in the movement and protection of their trains. See Figs. Nos. 1, 2, 3, 4, 6, 7, 8.
11. Conductors and Engineers, before leaving initial points, must secure clearance card. Form 219.
12. Block Operators, unless otherwise instructed by Train Dispatcher, will staff the train of superior time table rights and side track the inferior train when a meeting point develops at their station.
13. When it is desired to reverse the right of track, trains will be moved by train Dispatcher's orders on Form 19, issued to Block Operators giving instructions to staff the train that is to receive preferred attention, and side track the superior train.
14. Work trains, after receiving orders authorizing the existence of the train, will occupy the block after receiving the absolute staff until same is surrendered at a block station at either end of the block. They will be given a time by the Train Dispatcher when delivery shall be made, and unless otherwise instructed, they shall clear the block and deliver the staff to the Block Operator so that regular and extra trains will not be delayed. Train Dispatcher may authorize the delivery of a permissive disc in the prescribed direction to enable work train to work under protection of flag until following train approaches.
15. In case of failure of staff apparatus, all concerned must be notified and trains will be moved by train orders until it has been repaired. In such event, the train order takes the place of the staff, through only one block on each train order and this order must be given jointly to the Conductor and Engineer of the train and the Block Operator at both ends of the block.
- 15-A. In the event of staff apparatus and other means of communication becoming out of order due to the breakage of line wires or other causes, trains will move in accordance with general rules and time table rights, obtaining at each block office, block card, Form No. 2615, signed by Block Operator.
- 15-B. When a staff apparatus has been repaired it will not be put into use until authorized by Train Dispatcher.
- 15-C. Before issuing train orders, superseding staff system, the Train Dispatcher must know that block is clear and the Block Operator and Train Dispatcher must know that the full number of staffs are in the two instruments of this block.
16. In case a staff should be lost, the staff instruments in this block are inoperative and trains must be moved only by the authority of Train Dispatcher, who will then issue train orders. The staff can only be replaced by Signal Repairman who has charge of the staffs not in use. No extra staffs will be allowed in the possession of any other employee.
17. Should a train pass a block station without markers, the Block Operator must notify the Train Dispatcher and the next block station in each direction and must not report that train clear of the block until he has ascertained that the train is complete.
18. A record of all trains must be kept at each block station on Form No. 290.
19. In case of unexpected delay to a train to which a staff has been delivered, same can be recalled by Block Operator and return of staff to the instrument will cancel the authority given to such train to proceed. The train then has no right to main track until given another staff.
20. Block Operators must not deliver a staff received from one train to another train. It must be placed in the instrument and another withdrawn in accordance with the rules.
21. Block Operators will handle the staff machines in accordance with the rules and general instructions for operating staff instruments.
- 21-A. When two or more trains bound in opposite directions are at a block station, Block Operator must exercise great care in delivery of staffs and must know that the staff is delivered to the train for which it was withdrawn.
- 21-B. Enginemen and Trainmen may accept an absolute staff (See Rule 3) as authority for a train movement only when placed in a pouch bearing a metal plate upon which is printed the names of the two stations between which the train is to be moved.
- 21-C. Enginemen and Trainmen may accept a permissive staff disc (See Rule 6-A) as authority for a train movement only when such disc has printed upon it the names of the two stations between which the train is to be moved.
- 21-D. Enginemen and Trainmen may accept a permissive staff (See Rule 6-C) as authority for a train movement only when such permissive staff has printed upon it the names of the two stations between which the train is to be moved. Block Operator will deliver permissive staff with printed end up in pouch "B" open. Engineer after observing that proper staff has been received will close pouch.
- 21-E. Block Operator will remain in view until rear end of the train has passed and will then give a "Proceed Signal" to the Trainman thereon, to indicate that the staff has been delivered to the Engineman.
22. Absolute staffs (See D, Fig. No. 9) must be used for all trains on descending grades, or eastward from Cascade Tunnel to Leavenworth, and westward from Tye to Skykomish.
- 22-A. Trains moving under authority of a permissive staff disc must protect against following trains as per Rule No. 99. Trainmen will not be required to protect rear of train in staff territory between Skykomish and Leavenworth, when positively known engineer holds a positive staff. When a train stops between stations, engineer if holding permissive staff, will immediately

whistle out flag. If holding positive staff, will not whistle out flag, but a trainman must be on rear of train.

- 22-B. When two or more trains use permissive staff discs the last train will be given the permissive staff (See B, Fig. No. 9) with all the remaining discs and this confers the same rights as a single permissive staff disc.
- 22-C. The Block Operator receiving the permissive staff must at once assemble on it in numerical order all the permissive discs received from preceding trains and place the complete permissive staff in the permissive attachment.
- 22-D. The first train in the opposite direction (descending the grade) must be given the complete permissive staff, which confers the same rights as an absolute staff.
23. When no train movement is imminent, home signals must be kept in stop position.
24. Block Operators must not make nor permit any unauthorized alterations or additions to the apparatus. If alterations or additions are made, the work will be done under the direction of the Signal Supervisor.
25. If any electrical or mechanical appliance fails to work properly, the Signal Repairman and Train Dispatcher must be notified and only duly authorized persons permitted to make repairs.
26. Block Operators must have the proper appliances for hand signaling (a yellow flag by day and a yellow light by night) ready for immediate use. Hand signals must not be used when the proper indications can be displayed by the fixed signals. When hand signals are necessary, they must be given from such a point and in such a way that there can be no misunderstanding on the part of Enginemen or Trainmen as to the signals or as to the train for which they are given.
27. Block Operators are responsible for the care of the block station, lamps and supplies and of the signal apparatus unless provided for otherwise.
28. Lights in block stations must be so placed that they cannot be seen from approaching trains.
29. Block Operators must not use, nor will Enginemen or Trainmen accept pouches, which are defective. Care must be exercised to keep the pouch plugs in good order with clamps, bearing station, names, securely in place. Signal Repairmen must also frequently inspect all pouches and keep same in good order at all times.
30. The Engineer of a train which has parted must sound the whistle signal for "train parted" on approaching a block station.
31. An Engineer receiving a "train parted" signal must answer by two short blasts of the whistle.
32. When a parted train has been recoupled the Block Operator must be notified.
33. If the track is obstructed between block stations notice must be given to the nearest Block Operator.
34. If a train is held by a block signal to exceed two minutes, the Conductor must ascertain the cause.
- 34-A. The Conductor must report to the Superintendent any unusual detention at block stations.
35. Special attention of all concerned is directed to meaning of caution signal as shown by Fig. No. 2.
36. Staff instruments must be kept locked. Keys will be furnished to the signal repairman but to no other person.

SPECIAL RULES.

REFERENCE MARKS

1. Car capacity of passing tracks based on 42 feet to the car inside of clearance points, and does not allow for engines and cabooses.

2. In addition to signs provided in Rule 7, Book of Rules, the following signs in column headed "signs."

- P—Dispatchers' telephone, accessible at all times.
I—Interlocked.
K—Connection with foreign road.
•—Standard clock.

DERAIL SWITCHES

Chiwaukum House track.
Cascade Tunnel, east passing track lead.
Tye, west end industry track, and at west end No. 3 track outside shed, and west end No. 1 track.
Corea, west end industry.
Scenic, industry track.
Alpine, industry track and mill spur.
Grotto, industry track and mill spur.
Skykomish house track.

Index, industry track.
Reiter, west end industry track.
Pacific Avenue, Brewery spur. Frye-Bruhn spur.
Everett, power house spur.
Skagit Crossing, English Log spur.
Mt. Vernon, Pacific Northwest Traction Co. transfer.
Bellingham B. & N. transfer.
Ardley, power house transfer.
Ferndale, industry track.
Abbotsford, east end of passing track.

PERSONAL INJURIES.

1. Whenever passengers or employes are injured, everything must be done to care for them properly. If they are able to be moved, take them for treatment to the nearest place at which the Company has a surgeon. If they cannot be moved, call the nearest Company surgeon. If the case is urgent and the Company surgeon cannot be immediately procured, the conductor, agent or officer in charge is authorized to call the nearest surgeon available to administer first aid and care for the patient until the Company surgeon can take charge of the case.

No surgical operation must be performed until the arrival of the Company surgeon, unless it may be required for the immediate safety of the patient.

2. In cases of serious accidents to trains, conductors, after making everything safe, must give their undivided attention to the care and comfort of their passengers, especially to those who are injured. Bedding and linen may be taken from sleepers for this purpose, the conductor keeping careful account of all material so taken, and its return or safe keeping attended to; and, when necessary, injured persons may be put in the sleepers.

When a number of persons are injured, the service of competent surgeons in the vicinity should at once be secured, and every possible effort made to care for the injured, the Division Surgeon being notified by wire to come immediately to the place of the accident.

3. When tramps, boys and other persons, climbing on or jumping from moving trains, or persons walking or lying on the track, are injured or killed, they should be sent to their homes or placed in charge of the local county, city or village authorities, and no expense incurred on the part of the Company in the matter.

4. When people are killed away from a station the body should be picked up and taken to the nearest station and the authorities notified. Never take a body out of the county where the accident happened if it can be avoided, but if there is no station in that county take it to the nearest station in the next county, notifying the county authorities in all cases.

5. A report of all accidents must be made, and immediately sent by wire to Superintendent, giving all information.

In reporting accidents to trains carrying passengers, conductors should give the correct names of the injured and uninjured, the addresses and destinations of all persons on the train, and of the injured, and the extent of their injuries. This report must be sent from first telegraph office to the General Claim Agent and to the Assistant Claim Agent in whose jurisdiction the accident occurs.

As soon as possible thereafter Form 245 should be made out by each employe and forwarded to the Superintendent of the Division; a separate report being made for each person injured.

6. Every effort must be made to procure the names and addresses of all persons, outsiders as well as employes, who witnessed the accident, especially when persons are injured within the corporate limits of any city, town or village, or when crossing the tracks at a public highway.

7. In every case of personal injury in any Department, a full and complete report must be made at once by every employe immediately present, no matter whether he considers his statement of importance or not, answering every question as fully as possible.

8. When persons are injured by an accident which may have been caused by defective appliances, tools or machinery, the car or appliance, tool or machinery must be immediately examined by the person in charge to ascertain its condition, and report made of the inspection, giving the numbers and initials of cars examined, with names, occupation and address of the persons making the inspection. This inspection must be made before the car or engine leaves the place where the accident occurred, and afterwards at the first district terminal by the inspector, foreman, or Master Mechanic at such point, the Superintendent to notify such person of the necessity of making such examination. When an accident is caused by the breaking of machinery, tools, appliances or rails, the broken parts must be so marked as to be readily identified, and immediately turned over to the Superintendent.

9. This Company will not recognize any responsibility for board, medicine, nursing or surgical attention furnished by other than Company Surgeons, except for the emergency service required under Rules 1 and 2, unless authorized by the Superintendent, General Claim Agent, or a general officer of the Company, and when so authorized the General Claim Agent should at once be notified.

COMPANY SURGEONS.

Dr. J. A. Quinn, Chief Surgeon, Room 124 Great Northern Building, St. Paul.
Boeckman and Boeckman, Ophthalmic Surgeons, 642 Lowry Building, St. Paul.
Leavenworth.....DR. G. W. HOXSEY.
Index.....DR. O. R. VOSS.
Sultan.....DR. O. R. VOSS.
Monroe.....DR. H. K. STOCKWELL.
Everett.....DR. C. A. MEAD and W. T. FLYNN.
Interbay.....DR. F. A. BOOTH.
Seattle.....DR. J. C. MOORE.
Seattle.....DR. R. W. PERRY, Oculist.

Portland, Ore.....DR. R. C. McDANIELS, 923 Electric Bldg.
Vancouver, Wash.....DR. J. T. GUERIN.
Tacoma.....DR. JAMES A. LA GASA.
Burlington.....DR. H. E. CLEVELAND.
Bellingham.....DR. W. A. KIRKPATRICK.
Blaine.....DR. A. O. SUTHERLAND.
New Westminster.....DR. GEO. E. DREW.
Vancouver.....DR. A. S. MONRO.
Anacortes.....DR. H. E. FROST.

TIME INSPECTORS.

Leavenworth.....F. E. CARLQUIST.
Seattle.....J. F. HUNTER; C. B. COFFIN
Burlington.....J. H. CROSSBY.
Everett.....ROBT. ANDERSON
Bellingham.....WILBER GIBBS.
New Westminster, B. C.....W. C. CHAMBERLAIN.

Vancouver, B. C.....PAUL & McDONALD.
Tacoma, Wash.....RICHARD VEATH.
Centralia, Wash.....BEN SALICK.
Portland, Ore.....A. L. FIELD.
Monroe, Wash.....O. E. WILLIAMS
Vancouver, Wash.....COOVERT & CARTER.

Delta—

E. O. WADHAMS, Dispatcher.
T. H. REED, Dispatcher.
C. O. JOHNSON, Dispatcher.
H. L. CAULKINS, Dispatcher.
G. E. WELLIEN, Dispatcher.

C. E. LAMKIN, Dispatcher.
C. E. McKILLIPS, Dispatcher.
D. MOORE, Asst. Chief Dispatcher.
J. C. DEVERY, Chief Dispatcher.

M. J. WELSH, Trainmaster.
W. A. SMITH, Trainmaster.
L. W. WOODROW, Trainmaster.