

# GREAT NORTHERN RAILWAY LINE.

GREAT NORTHERN RAILWAY.

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CASCADE DIVISION

## TIME TABLE NO. 50.

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EFFECTIVE 12:01 A. M.

### SUNDAY, APRIL 2, 1905.

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General Rules, Regulating the Movement of Trains, are contained in Book of Rules for the Government of the Operating Department, a copy of which must be in possession of each employe in train service while on duty.

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This Time Table is not intended for the information of the public, nor as an advertisement of the time or hours of any train. The Company reserves the right to vary from it at pleasure. It is for the information of employes only.

F. S. ELLIOTT,  
Asst. Superintendent.

W. D. SCOTT,  
Superintendent.

H. A. KENNEDY,  
Asst. Gen'l Superintendent.

GEO. T. SLADE,  
General Superintendent.

F. E. WARD,  
General Manager.

BETWEEN LEAVENWORTH AND SEATTLE--West Bound
PACIFIC STANDARD TIME

Table with multiple columns: EFFECTIVE 12:01 A. M. APRIL 2, 1905., Distance from Seattle, Telegraph Calls, Telegraph Offices, Third Class (Nos. 719, 717, 713, 711), Second Class (No. 401), First Class (Nos. 275, 273, 271, 3, 1), Water, Coal, Seals, Tables and Wyes, Car Capacity, Distance from St. Paul, Distance from Leavenworth. Rows include Leavenworth, Drury, Chivaukum, Nason Creek, Merritt, Gaynor, Berne, Cascade Tunnel, Wellington, Alvin, Coreia, Madison, Nippon, Tonga, Skykomish, Grotto, Halford, Index, Roby, Gold Bar, Startup, Sultan, Monroe, Snohomish, Lowell, Pacific Avenue, Everett Junction, Mukilteo, Moshier, Meadowdale, Edmonds, Richmond Beach, Metum, Ballard, Interbay, and Seattle.

West Bound Trains are Superior to East Bound Trains of the same class. See Rule 43.
All trains will be handled under absolute control and without regard to making schedule time at all points where land or snow slides or falling rock are liable to be encountered.
Trains must not follow each other out of Stations less than 15 minutes apart.
Trains 273 and 274 will stop on signal for passengers at the Great Northern Clay Co.'s works at M. P. 10, between Metum and Richmond Beach.
Edmonds and Mukilteo will be a flag stop for No. 4 to take passengers destined Spokane or points east.
Standard Clocks are located at telegraph offices at Leavenworth, Skykomish, Delta, Interbay and Seattle.
All trains must register their arrival and departure at Leavenworth, Cascade Tunnel, Skykomish, Lowell, Delta, Pacific Avenue, Everett, Interbay and Seattle, stating whether they are or not carrying signals. No trains will be considered registered unless such notation is made, and in case of omissions, conductors of trains affected will govern themselves accordingly and report the fact to the Superintendent.
Bulletin Boards are located at Leavenworth, Cascade Tunnel, Skykomish, Delta, Interbay and Seattle.
Trains in the same direction down grade between Skykomish and Leavenworth must keep at least 25 minutes apart and operators will block trains as provided in this rule.
All trains will reduce speed to eight miles per hour passing through town limits of Edmonds.
All trains must use 15 minutes between Seattle and Interbay.
Trains will date from time due to leave terminals. Leavenworth and Seattle will be considered terminals for passenger trains; Leavenworth, Everett Junction, Interbay and Lowell for freight trains.
Skykomish will be considered terminal for Nos. 711, 712, 713 and 714.
All trains will stop at drawbridge one-fourth mile east of Snohomish.
All trains will reduce speed to eight miles per hour through Martin Creek tunnel and over bridges at each end.
Freight trains will not exceed speed of schedule freight trains in same direction between Leavenworth and Skykomish.
Passenger trains descending the two and two-tenths per cent grade between Leavenworth and Skykomish must not exceed thirty-five miles per hour and west bound trains should not exceed schedule time through Cascade Tunnel. Passenger trains between Everett and Seattle must not exceed time card schedule.
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 trainmen examine each car, then release them, and train- (See next page.)

# BETWEEN LEAVENWORTH AND SEATTLE-East Bound.

PACIFIC STANDARD TIME.

Station	Distance from Seattle	Telegraph Calls	Telegraph Offices	First Class	First Class	First Class	First Class	First Class	Second Class	Third Class	Third Class	Third Class	Second Class	Water, Coal, Scales, Tables and Wyes.	Car Capacity	Distance from St. Paul	Distance from Leavenworth	EFFECTIVE 12.01 A. M. APRIL 2, 1905.
				No. 2	No. 4	No. 272	No. 274	No. 276	No. 402	No. 712	No. 714	No. 718	No. 720					
				Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Passenger Daily	Time Freight Daily	Way Freight Daily	Way Freight Daily	Way Freight Daily	Time Freight Daily					
Leavenworth	141.8	CH DN		2.25	2.20				5.15	12.55				W. C. T.	231	1690.0	0	Leavenworth
DRURY	125.5			2.06	2.01				4.45	12.25							6.3	DRURY
CHWAWKUM	131.3	CY DN		1.55	1.50				4.25	12.05	AM			W.	89	1709.5	10.5	CHWAWKUM
NASON CREEK	124.3			1.38	1.34				4.00	11.30							17.5	NASON CREEK
MERRITT	121.3	CK D		1.30	1.26				3.45	11.20				W.	55	1710.5	20.5	MERRITT
GAYNOR	116.9			1.19	1.16				3.28	11.05							24.9	GAYNOR
BERNE	113.8			1.11	1.08				2.45	10.50				W.	42	1718.0	25.0	BERNE
CASCADE TUNNEL	109.5	CN DN		1.00	12.57				2.15	10.20				W. T.	214	1722.3	32.3	CASCADE TUNNEL
WELLINGTON	105.9	WN DN		12.46	12.45				1.15	9.30				W. C.	92	1725.9	35.9	WELLINGTON
ALVIN	102.3			12.32	12.28				12.28	8.45				W.	65	1729.5	39.5	ALVIN
COREA	99.6			12.23	12.17				11.45	8.10							42.2	COREA
MADISON	96.6	MA DN		12.10	12.05				11.10	7.35				W.	53	1735.2	45.2	MADISON
NIPPON	93.5			11.54	11.49				10.25	6.50				W.	41	1738.3	48.3	NIPPON
TONGA	90.0			11.42	11.37				9.50	6.10							51.8	TONGA
Skykomish	84.8	KY DN		11.25	11.20				9.00					W. C. Y. O.	145	1747.0	57.0	Skykomish
GROTTO	80.7			11.10	11.06				8.15	5.20							61.1	GROTTO
HALFORD	75.7			10.59	10.57				7.55					W.	68	1751.1	61.1	HALFORD
INDEX	70.6	NX DN		10.44	10.44				7.30								66.1	INDEX
ROBY	65.5			10.30	10.28				6.50					W.	56	1761.2	71.2	ROBY
GOLD BAR	61.8	GB D		10.20	10.19				6.12					W.	81	1766.3	76.8	GOLD BAR
STARTUP	59.4			10.15	10.15				5.30					Y.	118	1770.0	80.0	STARTUP
SULTAN	56.0	SU DN		10.10	10.07				5.00					W.	76	1772.4	82.4	SULTAN
MONROE	48.5	RO D		9.54	9.52				4.25								85.8	MONROE
SNOKOMISH	41.6	S DN		9.40	9.37				4.00								93.3	SNOKOMISH
Lowell	35.8	W DN		9.29	9.25				3.35								100.2	Lowell

Via N. P. RY.  
..... DELTA..... 3.15 AM De 7.15 AM De Via N. P. RY.  
..... DELTA.....

Pacific Avenue	84.2	D DN		9.25	9.20				5.10	10.02									Pacific Avenue
EVERETT	33.1	NE DN		9.21	9.16				5.06	9.58									EVERETT
EVERETT JUNCTION	32.3			9.16	9.11				5.01	9.49									EVERETT JUNCTION
MUKILTEO	28.8	MU D		9.09	9.04				4.54	9.42									MUKILTEO
MOSHER	24.3			9.00	8.56				4.46	9.32									MOSHER
MEADOWDALE	21.6			8.54	8.51				4.41	9.27									MEADOWDALE
EDMONDS	17.4	DR D		8.45	8.43				4.33	9.18				W.	103	1814.4	124.4	EDMONDS	
RICHMOND BEACH	14.4			8.38	8.37				4.26	9.09									RICHMOND BEACH
METUM	8.2			8.26	8.25				4.14	8.55									METUM
BALLARD	5.8	BD D		8.18	8.18				4.03	8.48									BALLARD
Interbay	4.2	RB DN		8.15	8.15				4.00	8.45				W. C. T. O.	706	1827.6	137.6	Interbay	
Seattle	0	BA DN		8.00	8.00				3.45	8.30									Seattle

**West Bound Trains are Superior to East Bound Trains of the same class. See Rule 43.**  
**All trains will be handled under absolute control and without regard to making schedule time at all points where land or snow slides or falling rock are liable to be encountered. Trains must not follow each other out of Stations less than 15 minutes apart. Destroy all Time Tables of previous date. (See Rule 5.)**

men will again examine each car and see that brakes release before giving the signal to start the train. Conductors must inform engineers 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, and from Chwawkum to Leavenworth, and from Cascade Tunnel to Skykomish.

NOTE—All trains are operated under a block system between Block Post 125 feet west of east cross-over switch, Cascade Tunnel, and the east switch of the passing track at Wellington.

No westbound train must pass the Block Post at Cascade Tunnel, and no eastbound train must pass the east switch of the passing track at Wellington, to enter the block, without a block clearance card, properly filled out, in the possession of the conductor and engineer, respectively.

Only one train is permitted to enter or use the block at the same time.

Seattle yard limit extends to the yard-limit board east of Ballard. All trains except regular passenger trains will run under control between this yard-limit board and Seattle, expecting to find main track occupied.

West-bound trains will not exceed schedule time between Halford and the east mile-board at Gold Bar.

All except first class trains must be under absolute control while passing through yard limits Leavenworth, Skykomish, Lowell, Pacific Avenue and Delta.

Semaphores are located 1200 feet west of west switch Edmonds, 1200 feet east of east switch Madison and 1200 feet west of west switch at Chwawkum.

Horizontal position of the semaphore blades by day and yellow light shown by night indicates that switches with which the distant signals are connected are open and approaching trains should immediately be brought under control ready to either stop before reaching the open switch or to enter it at a proper rate of speed.

Diagonal position of the blades and green lights displayed at night indicate that switches with which the distant signals are connected are properly set and train should proceed as per rule.

Under no circumstances must distant signals be used as flags by trains standing between switches, nor will their use modify in any way the existing rule in regard to the protection of trains standing at stations.

Cars must not be set out on passing tracks without an order from the Superintendent.

Empty flats and gondolas must be hauled in trains behind all loaded and empty box, stock and refrigerator cars, and when helper engine used they must be put behind it and ahead of caboose.

Outfit cars must be placed next to caboose. When helper engine used they must be put behind it and ahead of caboose.

**J. C. DEVERY, Chief Train Dispatcher.**

**Freight trains will use Northern Pacific tracks between Lowell and Delta, and will be governed by N. P. time table between these points**

# BETWEEN PACIFIC AVENUE AND VANCOUVER

PACIFIC STANDARD TIME

EAST BOUND					EFFECTIVE 12:01 A. M. APRIL 2, 1905.	WEST BOUND							
Third Class No. 721	Third Class No. 715	First Class No. 275	First Class No. 273	First Class No. 271		First Class No. 272	First Class No. 274	First Class No. 276	Third Class No. 716	Third Class No. 722			
Way Freight Daily Except Sunday	Way Freight Daily	Passenger Daily	Passenger Daily	Passenger Daily		Passenger Daily	Passenger Daily	Passenger Daily	Way Freight Daily	Way Freight Daily Except Sunday			
8.00 AM De			9.30 AM De	3.45 PM De Mt 271		119.1	Vancouver	157.6	V. N.	D. N.	10.00 PM Ar	3.45 PM Ar Mt 271	

**ALL TRAINS BETWEEN WESTMINSTER AND VANCOUVER WILL BE COVERED BY V. W. & Y. TIME TABLE**

Time	Direction	Class	Station	Time	Direction	Class	Station	Time	Direction	Class	Station	Time	Direction	Class	Station
10.30 AM De				10.15 AM De			Westminster	4.25 PM De				9.20 PM Ar			
10.45				10.25			Liverpool	4.33				3.00 PM Ar			3.20 PM Ar
				10.30			Bon Accord	4.50				2.50			3.05
				10.43			Port Wells	5.00				2.43			
11.20				10.54			Cloverdale	5.15				2.30 Ps 722			2.30 274 Ps
11.55				11.05			Hazelmere	5.17				2.18			1.50
				11.12			Douglass B.C.	5.23				2.04			
12.45 PM Ar				11.13			Blaine	5.37				2.04			
12.47 De				11.14			Custer	5.48				1.57 De			12.55 De
12.50 Ar Mt 722				11.20			Enterprise	5.57				1.56 Ar			12.53 Ar
1.48 Ps 274				11.35			Ferndale	6.08				1.55 De			12.50 PM Ar
2.55				11.41			Brennan	6.17				1.48 Ar Mt 721			12.05 PM Ar
				11.50			Bellingham	6.28				1.34			11.35 Mt 273
				11.55			Harris Ave.	6.39				1.28			
3.50				12.15			Chuckanut	6.46				1.21			10.35
				12.25			Samish	6.55				1.15			
5.00 PM Ar				12.36			Bow	7.04				1.00 PM Ar			4.00 PM Ar
				12.45			Belleville	7.16				1.00			9.30 AM De
				1.00			Burlington	7.27				9.55			
				1.15			Mt. Vernon	7.39				9.40			
				1.35			Stanwood	7.53				9.24			
				1.48			Silvana	8.08				9.14			
				2.05			Marysville	8.29				9.00			
				2.50			Delta	8.36				8.50			
				3.00								8.36			
				3.05								8.20			
				3.36								8.06			
				3.36								7.30			
				3.36								7.00			
				3.36								6.15			

**ALL TRAINS WILL USE NORTHERN PACIFIC TRACKS BETWEEN DELTA AND N. P. JUNCTION, 1.2 MILES**

Time	Direction	Class	Station	Time	Direction	Class	Station	Time	Direction	Class	Station	Time	Direction	Class	Station
				9.15			N. P. Junction	8.32				5.14			10.06
				9.20 AM Ar			Pacific Avenue	8.36				5.10 PM De			10.02 AM De
															7.09
															7.05 PM De

**East Bound Trains are Superior to West Bound Trains of the same class. See Rule 43.**

**All trains will be handled under absolute control and without regard to making schedule time at all points where land or snow slides or falling rock are liable to be encountered. Trains must not follow each other out of Stations less than 15 minutes apart. Destroy all Time Tables of previous date. (See Rule 5.)**

All except first class trains must be under absolute control while passing through yard limits at Delta, Burlington, Harris Avenue and Bellingham.

West yard-limit board Bellingham is located 400 feet west of round house track switch.

Delta yard limit commences 500 feet east of junction switch, east of coal chute, and extends to west end of drawbridge 11 on Coast line and around the point on Bayside (old Coast line) to Everett Junction yard-limit board. Between the hours of seven (7) p. m. and seven (7) a. m., the yard-limit rules are suspended between Everett Junction and Delta yard and all trains will be operated by train orders over this district (going towards Seattle is west bound).

All trains will reduce speed to 8 miles per hour passing through town limits of Mt. Vernon.

All trains will reduce speed to 10 miles per hour passing through town limits of Burlington.

All trains will reduce speed to ten miles per hour over Frazer River Bridge.

Switch at Everett Junction will be kept set for main line.

Standard clocks are located in telegraph offices at Delta and Bellingham.

All trains must register their arrival and departure at Pacific Avenue, N. P. Junction, Delta, Burlington, Belleville, Bellingham, Blaine, Cloverdale and Westminister, stating whether or not they are carrying signals. No train will be considered registered un-

less such notation is made and in case of omission conductors of trains affected will govern themselves accordingly and report the fact to the Superintendent.

Bulletin boards are located at Delta, Burlington and Bellingham.

No trains will cross International Boundary at Blaine without permission of Customs officers.

Seattle and Bellingham are terminals for trains 275 and 276. Seattle and Vancouver are terminals for trains 271, 272, 273 and 274. Bellingham and Vancouver are terminals for trains 721 and 722. Delta and Bellingham are terminals for trains 715 and 716.

All trains must stop at drawbridges and railroad crossings at a distance not exceeding 200 feet from same.

Conductors of trains hauling logs must stop on all summits and see that brakes are properly set before descending grade.

Freight trains will not carry passengers.

Outfit cars must be placed next to caboose.

**WESTMINSTER INTERLOCKING SYSTEM.**—Signal tower is located 3094 feet west of west end of Fraser River bridge opposite crossing of the C. P. Ry. This apparatus controls the crossing of the C. P. Ry. also switches leading to and from the Fraser River bridge tracks and Westminister.

**SEMAPHORES** for protection of draw on Fraser River bridge between Liverpool and Westminister are located on the east and west end of bridge. Rules for operation of semaphores will govern.

**J. C. DEVERY, Chief Train Dispatcher.**



# SKAGIT BRANCH.

## PACIFIC STANDARD TIME

EAST BOUND										WEST BOUND													
Second Class		First Class		Water, Coal, Seams, Poles, Wye, R.R. Crossings.	Station Numbers	Distance from Anacortes	EFFECTIVE 12:01 A. M. APRIL 2, 1905	Telegraph Calls	Capacity of Sidings in Cars	First Class		Second Class											
No. 395		No. 277								No. 278		No. 396											
Mixed Daily		Passenger Daily								Passenger Daily		Mixed Daily											
	7.00	AM De		Y W	cn 54	53.7	Rockport	R K	42			6.00	PM Ar										
	7.25				cn 48	47.9	Faber		67			5.25											
	7.50			W	cn 44	43.6	Grassmere		42			4.55											
	8.20				cn 39	38.2	Birdsview		44			4.25											
	9.05			T	cn 34	33.1	Hamilton	H	47			3.55											
	9.30			W	cn 30	29.8	Lyman					3.05											
	10.00					24.5	Cokedale Junction		22			2.25											
	10.55			Y X	cn 22	21.3	Woolley	W L	27			2.00											
					cn 20	19.0	Sterling		8														
	11.40	AM Ar					Burlington	B U	54														
	1.30	PM De		Y O W X	cn 17	16.5	Burlington		54	6.30	PM Ar	11.30	PM De										
	1.45			f	cn 15	13.7	Avon		16	f 6.18		11.15	AM Ar										
	2.00			f	cn 13	11.1	Fredonia		5	f 6.08		11.00											
	2.15			f	cn 11	9.6	Whitney		20	f 6.03		10.45											
					cn 8	7.4	Draw Bridge																
	2.45			f	cn 5	4.1	Fidalgo			f 5.44		10.15											
	3.00				cn 2	0.5	Tenth Street		20	5.33		9.50											
	3.05	PM Ar		T W C	cn 0	0.0	Anacortes	A C	63	5.30	PM De	9.45	AM De										
No. 395 Daily				No. 277 Daily								No. 278 Daily				No. 396 Daily							

DESTROY ALL TIME TABLES OF PREVIOUS DATE. (SEE RULE 5.)

East Bound Trains are superior to West Bound Trains of same class. (See rule 43.)

All Trains will Register at Anacortes, Burlington and Rockport, stating whether or not they are carrying signals.

No. 278 has right over No. 277.

Yard limit at Burlington 2,500 feet west of transfer switch. All trains must be moved under perfect control expecting to find trains occupying main line within these limits.

Bulletin boards located at Anacortes, Burlington and Rockport.

All trains will reduce speed to ten miles per hour through town limits of Burlington.

All Trains will come to Full Stop before passing over R. R. Crossing at Burlington and Woolley.

Outfit cars must be hauled next to caboose.

Water tank at Minkler's Mill, two miles east of Lyman.

### NAME AND LOCATION OF SPUR TRACKS.

NAME OF SPUR	Location M. P.	STATIONS		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location M. P.	STATIONS		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location M. P.	STATIONS		Distance	Track Opens	Capacity Cars
		WEST	EAST						WEST	EAST						WEST	EAST			
House Track	0.0	Anacortes		0.1	West	4	Hawkins Spur	11.7	Fredonia		0.7	West	5	Hop Ranch Spur	30.6	Lyman		0.8	East	3
Repair Track	0.6	Tenth St.		0.2	West	15	Dickey and Angel	11.4	Fredonia		0.3	West	40	L. L. Spur	33.0	Hamilton		0.2	East	
Store Track	0.6	Tenth St.		0.2	West	7	J. C. Waugh Spur	13.6	Avon		0.3	East	2	Alder Spur	35.1	Hamilton		1.9	East	17
Skagit Mill Spur	1.1	Tenth St.		0.7	West	28	Burlington Mill Spur	16.0	Burlington		0.6	East	6	Hightower No. 2	36.5	Birdsview		1.8	East	19
Storm Mill Spur	1.5	Tenth St.		0.9	West	12	Holbrook's Spur	20.8	Woolley		0.4	East	8	Wiley Spur	44.6	Grassmere		1.0	East	9
E. S. Cook Spur	1.5	Tenth St.		0.8	East	4	Sound Iron Spur	21.2			0.0	East	7	Van Horne's Spur	47.2	Faber		0.5	West	16
Cavanaugh Spur	2.2	Tenth St.		1.4	East	4	Tyee Spur	22.6	Woolley		1.4	Both ends		Tower Mill Co.	46.0	Faber		0.3	West	19
Skagit Mfg Spur	2.3	Tenth St.		1.7	West	6	Green Mill Spur	24.5	Woolley		3.3	East	22	Hightower No. 3	46.8	Faber		1.0	West	15
Log Rollway	2.5	Tenth St.		1.9	Both ends	22	Minkler's Mill	27.6	Cokedale Jct.		3.0	Both ends	13	F. A. Wheelihan Spur	50.2	Faber		1.9	East	15
Fidalgo Mill Spur	3.6	Tenth St.		2.0	East	3	Child's Spur	28.2	Cokedale Jct.		3.6	East	3	Sauk Spur	51.5	Rockport		2.0	East	2
Gravel Pit Spur	6.5	Tenth St.		5.9	East	9	Hitchcock-Kelly	29.4	Lyman			East	3							
Fox Lumber Co. Spur	11.8		Fredonia	0.5	West	6	McLeod's Spur	30.1	Lyman		0.2	East	2							

NAME AND LOCATION OF SPUR TRACKS.

NAME OF SPUR	Location M. P.	STATION		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location M. P.	STATION		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location M. P.	STATION		Distance	Track Opens	Capacity Cars	
		EAST	WEST						EAST	WEST						EAST	WEST				
Woods Spur	1688.1		Chiwaukum	2.5	East	11	Nickerson Mach'y Co.	33.1	Everett		0.0	West	4	Alger Mineral Spur	82.5	Alger			East	9	
Kirby Mill Spur	1732.0		Skykomish	0.1	East	12	Everett Milling Co.	33.5		Everett Jct.	1.5	East	15	Gaudette's Spur	82.5	Alger	0.0		East	8	
Skykomish Mill Co.'s Spur	1732.4		Skykomish	0.3	East	20	Clark-Nickerson Mill	34.0		Everett Jct.	1.8	West	31	Samish Lake Spur	85.2		Samish Lake	0.1		East	90
Great Republic Mining Co.	1733.6		Skykomish	1.5	West	14	Log Dump Spur	34.0		Everett Jct.	1.8		21	Owens Spur	85.2	Off Samish			Spur	West	5
Berlin Spur, Miller Riv Co.	1733.6		Skykomish	1.5	West	4	Wheelihan Spur	34.1	Everett Jct.		1.9	West	7	Lindley Spur	85.2	Off Samish			Spur	East	1
G. N. Shingle Co.'s Siding	1739.6		Grotte	3.5	Both ends	24	Neffs Spur	34.5		Long Siding		East	50	Sound Shingle Co.'s Spur	79.4		Belleville	2.9		Both Ends	3
Smith Lbr. Co.	1744.3	Index		0.5	East	12	Blackman Spur	35.0	Long Siding		0.4	East	7	McCoy's Tyr. Track	80.3	Bow			West	3	
Heybrook Spur	1744.7	Index		1.5	East	2	Union Slough	37.3	Marysville		1.5	East	6	Winner Shingle Co.'s Spur	81.2	Bow			West	6	
Ellis Quarry Spur	1745.7	Index		0.5	West	9	Kruse Bros. Spur	42.1		Marysville	1.4	West	4	Blanchard Spur	84.1	Samish			West	3	
Soderburg Spur	1746.9		Index	0.7	West	10	Cox's Spur	42.7		Marysville	2.0	West	2	Chuckanut Quarry Spur	91.8	Chuckanut			West	38	
Robinson's Spur	1755.6		Gold Bar	0.5	East	26	Zindorf Spur	44.6		Marysville	3.9	East	2	Marietta Spur	101.0		Bellingham	0.9		East	2
Black Bros. Spur	1757.4	Startup		0.0	West	26	Kennedy Spur	45.2		Marysville	4.2	East	6	Henry Spur	103.0	Brennan			East	2	
Caseys Spur	1759.5	Sultan		1.3	East	5	British Spur	45.5	Silvana		4.4	East	2	LaPointe Spur	104.2		Brennan	0.0		East	2
Sultan Lumber Co. Spur	1763.2	Sultan		1.5	West		Summit Mill Co.	46.0		Marysville	4.7	East	2	Sand Pit Spur	108.7	Enterprise			East	15	
Owens Spur	1763.6	Monroe		4.7	East	3	English Spur	47.0	Silvana		2.9	East	16	Shields Spur	108.9	Enterprise			East	2	
Holmquist Spur	1767.3	Monroe		1.0	East	4	Norman Spur	51.0		Silvana	1.1	East	2	Enterprise Spur	109.2	Enterprise			East	3	
Monroe Mill Spur	1768.0	Monroe		1.0	East	9	Rabels Spur	51.7		Silvana	1.8	West	2	Red Cedar Shingle Co.	110.5	Custer			East	9	
Monroe Gravel Pit	1768.3	Monroe		0.0	West	56	Washington Shingle Co.	53.4			1.1	East	3	McDonald Spur	113.0		Custer	1.2		East	2
Wood and Iverson Spur	1771.3		Monroe	3.0	East	8	Manley & Church Spur	54.2	Stanwood		1.4	East	4	Melrose Spur	114.3		Custer	2.5		East	5
Cascade Cedar Spur	1775.2	Snohomish		0.3	East	27	Hals Spur	54.3	Stanwood		1.5	West	2	Blaine Shingle Co.'s Spur	117.0	Blaine			West	12	
Creosote Spur	1780.6	Lowell		0.5	West	25	Ketchum Spur	59.6		Stanwood	2.0	East	2	Blaine Spur	119.0	Blaine			East		
House Track	1781.1	Lowell		0.0	East	25	Morrison Mill Spur	61.6	Fir		2.5	East	8	Shelton Spur (off Blaine spr.)					East	2	
State Mill Co.	35.2		Everett	0.5	East	12	Milltown	62.2	Fir		2.2	East	6	City Dock Spur (off Blaine spur)					East	81	
Power House Spur	1782.2		Everett	0.1	West	5	Hawley Spur	62.4	Fir		2.0	West	5	Erie Mill Spur (off City Dock Spur)					East	6	
G. N. Clay Co. Spur	10.2		Metum	2.0	West	10	Skagit Crossing Tr. Track	63.4	Fir		1.0	East	2	Monarch Mill Spur (off City Dock Spr.)					East	14	
E. W. Mills Spur	12.0	Richmond Bch		2.3	East	2	Little Mountain Spur	67.7	Mt. Vernon		2.0	East	3	Hazelmere Spur	122.4		Blaine	3.4		West	3
Brady's Spur	17.4		Edmonds	0.0	West	3	Skagit Spur	69.8		Mt. Vernon	2.0	East	3	McNair Spur	129.6		Cloverdale	2.0		East	5
Sand Spur	14.0		Edmonds	3.4	West	7	Burlington Quarry	72.5		Burlington	0.5	East	11	Gravel Spur	137.0		Port Kells	2.4		East	3
Mukilteo Lumber Co.	31.4	Mukilteo		2.1	West	10	Butler Spur	77.0		Bellville	0.1	East	2	Liverpool Wharf Spur	141.8		Liverpool	0.6		East	21
McNeeley No. 2	32.5		Everett Jct.	0.5	East	9	Belfast Mfg. Co.	76.5	Belfast		0.5	East	10	Brownsville Spur	144.5	Liverpool			East	9	
Weyerhaeuser Timber Co.	32.8		Everett Jct.	1.0	East	38	Samish Pt Spur	76.6	Belfast		0.6	East	52								
Nail House Spur	32.8		Everett Jct.	1.0	West	24	Burlington Mill Spur	76.9	Belfast		0.1	East	6								
							Desmond Spur	81.7	Alger		1.4	West	3								

DERAIL SWITCHES.

Derail Switches must always be set for derail except when in actual use, whether there are any cars on these tracks or not.  
 Cascade Tunnel, east passing track lead, 30 feet from main line.  
 Wellington, west end passing track.  
 Wellington Safety Switch, 70 feet west of station, on main line.  
 Alvin, 150 feet east of west passing track switch head block.  
 Index Passing track 120 feet from west head block.  
 Roby, west end passing track.  
 Ellis Quarry Spur.  
 Monroe Mill Spur, 200 feet from head block.  
 Sultan Jct., 143 feet from head block.  
 Power House Spur, 105 feet from head block.  
 Mukilteo Lumber Co. Spur, 144 feet from head block.  
 Samish Lake, M. P. 85.2, on Spur, 3635 feet north from head block.  
 Chuckanut, east end siding. B. B. & R. Transfer Track east end.

Capacity of Different Classes of Engines in Tons in Addition to Weight of Engine, Tender and Caboose—Cascade Division.

GOING EAST									
STATIONS	Ruling Grade	CLASS							
		F4 to F9	G3	G1	F1&D5	D4	D1&2	B20	B6
		20x32 210 lb	19x32 200 lb	20x26 180 lb	19x26 180 lb	19x24 180 lb	19x24 150 lb	18x24 145 lb	17x24 145 lb
Everett to Skykomish	1.0	1200	1000	865	775	715	575	435	385
Skykomish to Cascade Tunnel	2.2	600	480	410	360	340	276	200	183
Cascade Tunnel to Leavenworth	Down								
GOING WEST									
STATIONS	Ruling Grade	CLASS							
		F4 to F9	G3	G1	F1&D5	D4	D1&2	B20	B6
		20x32 210 lb	19x32 200 lb	20x26 180 lb	19x26 180 lb	19x24 180 lb	19x24 150 lb	18x24 145 lb	17x24 145 lb
Leavenworth to Cascade Tunnel	2.2	600	480	400	360	340	275	200	185
Cascade Tunnel to Lowell	Down								

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.

Time Inspectors: Leavenworth, TAYLOR & CATCHADAL; Everett, S. O. WALLGREN; Seattle, J. F. HUNTER; Bellingham, BEVENS & SONS; Anacortes, H. L. DODGE.

## CONTENTS OF MEDICAL CASE.

### Conductors Must Study and Familiarize Themselves with the List of Articles in the Case, and Their Uses.

- No. 1. Rubber Bandage and Tourniquet, for stopping hemorrhage; apply on sound flesh above the wound, draw tightly each time, and encircle the limb until the whole bandage is used. Fasten securely in slot.
- No. 2. Twelve Assorted Muslin Bandages, to hold dressings in place, assist in stopping hemorrhages, and hold splints upon fractured limbs; wind around the injured part from below upward.
- No. 3. Six packages of Borated Gauze, a prepared dressing for open wounds, always used to cover large wounds; apply wet (by dipping in solution, see No. 7) directly to the wound.
- No. 4. Four packages Absorbent Cotton. This is for making compresses, and to assist in covering a large wound; Do not apply directly to the wound.
- No. 5. One ounce Styptic Cotton. This Cotton is permeated with a substance which stops small hemorrhages: apply directly to small wounds and hold in place with muslin bandage.
- No. 6. Two ounces Bicarbonate Soda, for burns and scalds, one tablespoonful to a quart of water; saturate a piece of the gauze and apply over a burn or scald, and fasten with bandage.
- No. 7. One bottle Corrosive Sub. Tablets. These small tablets are to be dissolved in clean water, preferably warm, in the proportion of one tablet to a pint of water; with this solution you disinfect a wound and keep it free from infection. **THEY ARE POISONOUS** if swallowed or the solution be drunk.
- No. 8. Four Surgical Needles, to be used for closing small cuts or jagged wounds, after thoroughly cleansing with the sublimate solution.
- No. 9. One Pair Scissors, used in cutting dressings, bandages, clothing, etc.
- No. 10. One Pair Forceps, used for removing bits of gravel, and to seize a bleeding artery while it is being tied.
- No. 11. One Dozen Envelopes Catgut (two sizes), to be used in tying an artery when it is seen free and bleeding in a wound, also for closing small wounds. **Never Save any Catgut** once the envelope is open. Note directions on envelopes.
- No. 12. One Roll Adhesive Plaster, for closing small torn or cut wounds, after they are cleansed with the sublimate solution. It needs no heat; apply directly to the skin, which must be perfectly dry.
- No. 13. One Cake Red Cross Soap, used in cleansing an injured part around a wound.
- No. 14. One Can Chloroform, for anæsthesia.
- No. 15. One Ounce Antifebrine, an antiseptic powder for dusting on fresh wounds.
- No. 16. One Hand Brush, for brushing the hands and nails thoroughly with the Red Cross Soap before handling an open wound.
- No. 17. One Enamel Tray, for corrosive sublimate solution (see No. 7).
- No. 18. One Yard Wire Gauze, for making splints (see directions under fractures, No. 5).
- No. 19. One Dozen Safety Pins.
- No. 20. One Pyramid of Pins.

### RULES FOR TREATMENT OF THE INJURED IMMEDIATELY AFTER AN ACCIDENT.

1. Shock. This condition usually follows every severe injury. The chief point is to restore heat to the body as soon as the injured person is put in a comfortable position. Do this by covering with heavy coats, previously warmed, if practicable. Cut off the shoes or boots and wrap the feet in a warmed coat or blanket. Give only small dose of whiskey in hot water.
2. Hemorrhage (Bleeding). This follows shock, and is rarely severe until reaction takes place. Too much stimulation increases hemorrhage and for this reason it is best to give only a little stimulant, well warmed, and repeat the dose if reaction is delayed.
 

Bleeding of two kinds: First, arterial, when the blood comes out bright and red and in spurts. Second, venous, when the blood is dark and flows in an even stream.

A. To stop hemorrhage when the wound is large and the blood comes out in spurts. Apply the rubber band tightly just above the wound, previously raising the wounded part, especially if it be a limb. Be careful to put the band on **UNINJURED FLESH** if the limb be badly crushed and about three inches above the crushed tissues, else it would slip down and increase the hemorrhage. **Be very careful** to see that the band be firmly fixed before leaving it. Small wounds, even though the hemorrhage be arterial, require only a firm compress of the sublimated gauze placed immediately over the wound and bandaged tightly in place with one of the muslin bandages. It is best after this to bandage firmly from the extremity (hand or foot) upward to beyond the wound with muslin bandages.

B. Venous bleeding, which occurs when the wound is shallow (does not go deeper than the skin), as a rule requires firm pressure over the wound and especially below it. If the wound be quite small, put a wad of styptic cotton into and over it and bandage tightly in place, and then apply a bandage from below upwards over and beyond the wound. If the wound be extensive, fill it full of sublimated gauze and then put a thick wad of absorbent cotton over it and bandage tightly from below upward.

C. Bleeding from the head, if only the scalp is involved, may be controlled by bringing the wounded or torn surfaces together and applying along the wound a thick layer of styptic cotton, and over this another layer of absorbent cotton and a tight bandage. It is well to pass the bandage under the chin if the wound be on top of the head, as this holds it firmer and tighter.
3. Remove the clothing from the wounded part by cutting it away. Do not attempt to tear or draw clothing off, as this may further injure the wounded part. **Always see the wound and know by your eye** just what the nature of it is.
4. After Hemorrhage has been stopped. The next point is to prevent the wound from being infected and thus prevent blood poisoning. To accomplish this the wound should be cleaned if badly soiled. If soiled by oil and soot or dirt, bathe it gently with a small quantity of antiseptic soap and warm water. After it is apparently clean, wash it out carefully with a pint of warm water in which one of the corrosive sublimate tablets has been dissolved, using a piece of gauze to do this. Then wet several layers of the borated gauze in a fresh solution of the same strength used in washing the wound and lay them over the wound and bandage in place with a muslin bandage. Always cover an open wound with a piece of gauze

wet in the solution of corrosive sublimate (one tablet to a pint of water) before transporting the wounded man. Never allow an open wound to remain unprotected longer than the time employed in stopping hemorrhage. **Remember a soiled covering is worse than none at all, however.**

5. Fractures. If a bone be broken in any of the limbs the member should be firmly fixed before the injured individual is being transported. If this be not done, great injury may result by the movements of the sharp fragments of the bone while the individual is being transported. Use flat piece of wire gauze, broken or cut into strips long enough to reach beyond the two nearest joints, will do. A bundle of twigs or stout straws may also serve when nothing else is to be had. Always put one of the improvised splints on either side of the limb, then tie a bandage over the splints at either extremity and in the middle. If there be a wound treat it according to the foregoing rules and then apply the splints, using some clean gauze as padding or some strips torn from clothing. If there be no wound, apply the splints over the trousers or sleeve. If nothing of any kind can be obtained to make a splint, tie the fractured leg or thigh to the sound one, or the fractured arm firmly to the side of the body, by a muslin bandage.

6. Compound fractures are fractures accompanied by a wound of the soft tissues at the point of fracture, so that the bone is exposed to the air. In these cases treat hemorrhage and the wound according to the foregoing rules and then apply splints. If the bones project beyond the skin, remember to bring them back into place by pulling the extremity in the direction of the displacement, never in the direction the bone normally should be, until the ends of the fragments are quite free from any over-riding. Be very careful always to cover these WOUNDS with the wet sublimate GAUZE and bandage it on.

7. Burns. Carefully remove the clothing by cutting it off, if the part be clothed, and apply immediately three or four thicknesses of the borated gauze wet in warm water, in which one tablespoonful of the bicarbonate of soda to the quart has been dissolved. As a rule never attempt to clean burns immediately after they occur. Cover the wounded part immediately as directed above and leave the cleansing to the surgeon afterward.

Extensive burns are attended by great shock as a rule, and require free stimulation. As burns are very rarely followed by hemorrhage, stimulants may be and should be given in considerable quantities.

8. Prostration from Excessive Heat. In these cases (not sunstroke) the face is pale, lips colorless or blue, breathing slow and quiet, pulse slow and very weak. Place the patient on his back, with his head level with his body, and loosen clothing. Apply heat to the surface of the body and extremities. Bathe the face with warm water into which a little alcohol or whiskey has been poured, and if he can swallow, give the patient an ounce of whiskey in as much warm water.

B. Prostration from Drinking too much Ice Water when Overheated. The face is red or even purple, the breathing heavy and irregular, pulse irregular. Loosen clothing, place on back with head slightly elevated. Give hot drinks, apply heat to the spine and the extremities.

9. Position in which a Patient should be Placed after Injury. Injuries to the head require that the head be raised higher than the level of the body. In all cases, if practical, lay the patient on his back with the limbs stretched out in their natural positions; loosen the collar and waistbands, and unless the head be injured, remember to have the head on the same level as the body. Do not bolster it up with anything.

### INSTRUCTION FOR STRETCHERS.

The equipment includes—

- 1 Stretcher,
- 1 Pair of Blankets,
- 1 Pillow,
- 1 Pillow Case,
- 1 Rubber Pillow Case,
- 1 Water-proof Cover,
- 1 Pair Wall Brackets.

The bedding and side pieces are to be kept strapped on the stretcher, and the latter placed on the wall bracket.

When about to use the stretcher, unfasten the straps from the side pieces which hold down the bedding, and buckle them tightly underneath, to guard against the breaking of a spring; place the side pieces properly on the sides, place the rubber cover over the stretcher for protection against blood and discharges. The blanket is to be used double, as a cover for the patient.

Whenever necessary to do so, the patient may be lifted on the inner portion of the stretcher, resting on the springs, without lifting the whole stretcher. In cramped positions, and for purposes of examination, this will be found convenient.

When storing the stretcher away, fold the blanket and pillow neatly into a narrow, even and compact parcel, and envelop this in the rubber cover, folding in the ends first. Place this on the stretcher with the side pieces on top, to assist in holding it in position, then pass the straps through the keepers on the side pieces, and fasten all snugly in place. This will protect the bedding, if properly done, from moths and wet. The whole stretcher should then be placed on the brackets.

The blanket should be taken out occasionally and shaken, to prevent damage from moths, as well as to keep it cleanly at all times. Replace at once, so that the stretcher is ready for immediate use whenever required.

The stretcher and bedding must not be used for any other purpose than in transporting injured persons.

Agents will be personally responsible for the care of property, and will be particular to take proper receipts whenever it is allowed to go out of his possession, and will notify his Division Superintendent when sent out and by whom.

Stations where stretchers are kept are as follows:

St. Paul Frt. Office,	Sioux Falls,	Glasgow,	Leavenworth,
St. Paul Shops,	Sioux City,	Havre,	Everett,
Minneapolis Jct.,	Breckenridge,	Great Falls Shops,	Carman,
Hamilue Transfer,	Grand Forks,	Cut Bank,	Cass Lake,
St. Cloud Shops,	Larimore,	Whitefish,	West Superior,
Melrose,	Devils Lake,	Libby,	Sandstone,
Barnesville,	Minot,	Hillyard Shops,	Swan River.
Willmar,	Williston,		

### COMPANY SURGEONS.

St. Paul . . . . .	J. A. QUINN, Chief Surgeon.	St. Paul . . . . .	J. W. CHAMBERLIN, Ophthalmic Surgeon
Everett . . . . .	W. C. COX	Seattle . . . . .	J. B. EAGLESON
Leavenworth . . . . .	G. W. HOXSIE	Seattle . . . . .	E. W. PERRY, Oculist
		Bellingham . . . . .	H. A. COMPTON
		Anacortes . . . . .	GEO. B. SMITH