



Northern Pacific Railway Company.  
Engineering Department Records.

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Form 1757

I. P. RY. CO.

OFFICE OF

Chief Engineer

FILE NO.

3127

SUBJECT:

Pitzville to Ellensburg

Survey by ~~W. H. K.~~

see file 3004 for

Special Report to

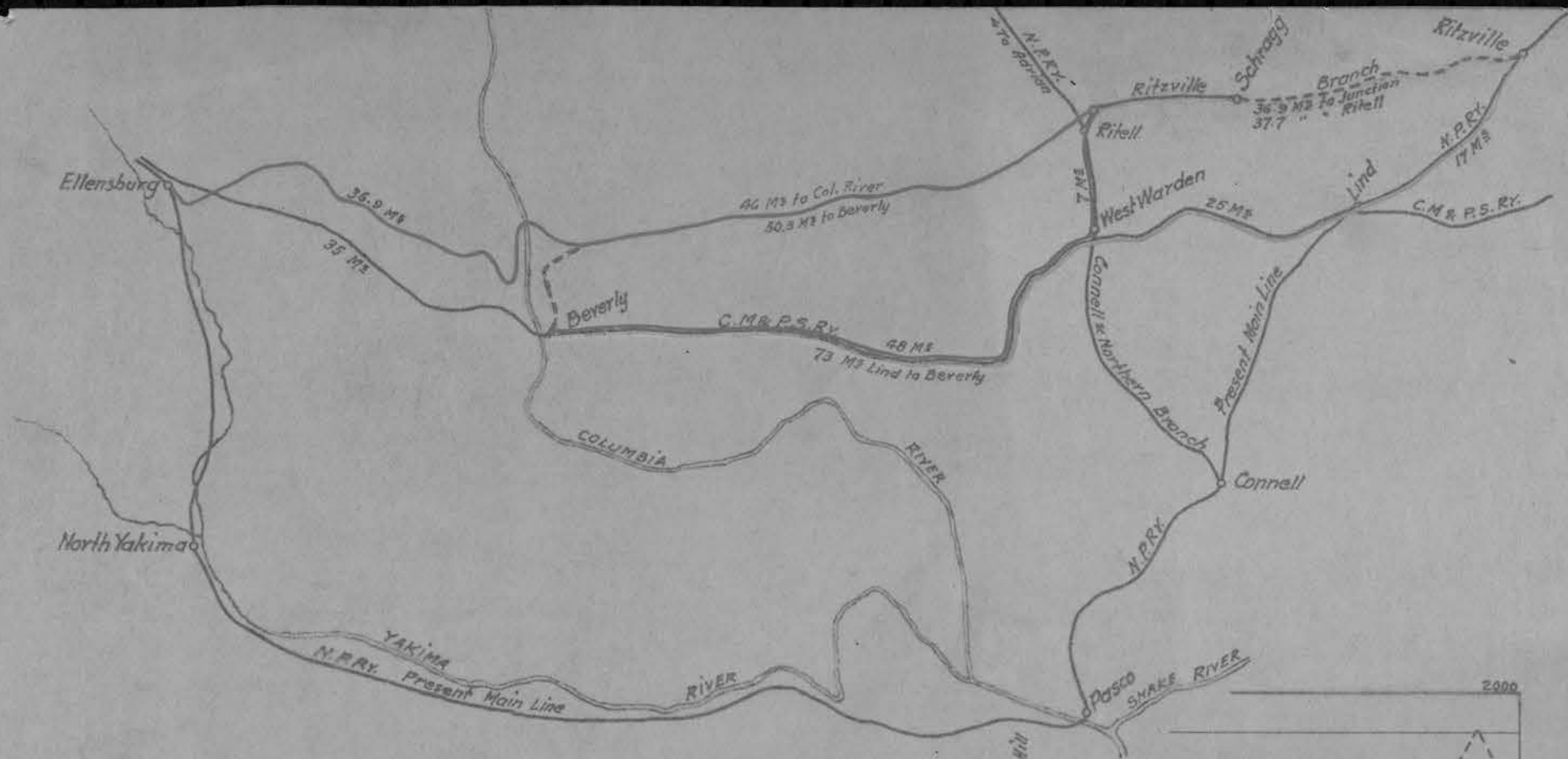
President

Part 1:



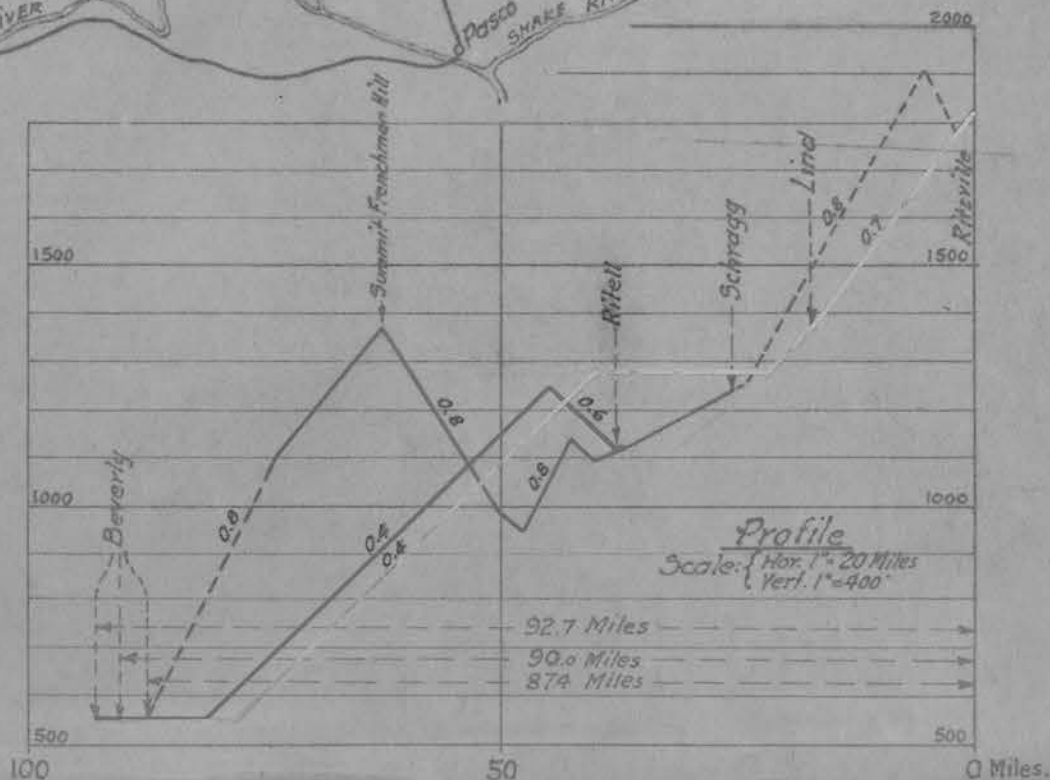
3127

1



N.P.Ry.  
Ritzville-Ellensburg Cut Off  
Comparative Map and Profile  
Showing Different Routes between  
Ritzville and Beverly  
Office of Chief Engr. June 3<sup>rd</sup> 1911.

Copy for office file



61ST CONGRESS,  
2D SESSION.

Mr. Darling 3127  
**House Calendar No. 261.**

**S. 8316.**

[Report No. 1582.]

IN THE HOUSE OF REPRESENTATIVES.

JUNE 3, 1910.

Referred to the Committee on Interstate and Foreign Commerce.

JUNE 14, 1910.

Referred to the House Calendar and ordered to be printed.

**AN ACT**

Authorizing the construction of a bridge across the Columbia River between the counties of Grant and Kittitas, in the State of Washington.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*  
3       That the Northern Pacific Railway Company, or any  
4       railway corporation controlled by it, is hereby authorized  
5       to construct, maintain, and operate a bridge and ap-  
6       proaches thereto across the Columbia River between  
7       the counties of Grant and Kittitas, in the State of  
8       Washington, at a point, suitable to the interests of navi-  
9       gation, in section twenty, township seventeen north, range  
10      twenty-three east, in accordance with the provisions of an  
11      Act of Congress entitled "An Act to regulate the construc-

tion of bridges over navigable waters," approved March  
twenty-third, nineteen hundred and six.

SEC. 2. That the right to alter, amend, or repeal this  
Act is hereby expressly reserved.

Passed the Senate June 2, 1910.

Attest:

CHARLES G. BENNETT,

*Secretary.*

61ST CONGRESS,  
2D Session.

**S. 8316.**

HOUSE CALENDAR NO. 261.

[Report No. 1582.]

## AN ACT

Authorizing the construction of a bridge across  
the Columbia River between the counties  
of Grant and Kittitas, in the State of  
Washington.

JUNE 3, 1910.—Referred to the Committee on Inter-  
state and Foreign Commerce.

JUNE 14, 1910.—Referred to the House Calendar and  
ordered to be printed.



3127

Mr. Darling

## House Calendar No. 261.

61st Co ss, }  
2d Session. }

HOUSE OF REPRESENTATIVES. }

REPORT  
No. 1582.BRIDGE ACROSS COLUMBIA RIVER, GRANT AND  
KITITAS COUNTIES, WASH.

JUNE 14, 1910.—Referred to the House Calendar and ordered to be printed.

Mr. MANN, from the Committee on Interstate and Foreign Commerce,  
submitted the following

## REPORT.

[To accompany S. 8316.]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (S. 8316) authorizing the construction of a bridge across the Columbia River between the counties of Grant and Kittitas, in the State of Washington, having considered the same, report thereon with a recommendation that it pass.

The amendments suggested by the War Department, referred to in the report of the Senate committee, were included in the bill as it passed the Senate.

The following is the report of the Senate Committee on Commerce on the bill:

The Committee on Commerce, to whom was referred the bill (S. 8316) authorizing the construction of a bridge across the Columbia River between the counties of Grant and Kittitas, in the State of Washington, having considered the same, report it with amendments, and as amended recommend its passage.

The bill thus amended has the approval of the War Department, as will appear by the annexed indorsement, the amendment referred to therein having been incorporated in the bill as reported.

WAR DEPARTMENT,  
OFFICE OF THE CHIEF OF ENGINEERS,  
Washington, May 25, 1910.

Respectfully returned to the Secretary of War.

With a slight amendment, indicated in red thereon, the accompanying bill (S. 8316), to authorize the construction of a bridge across Columbia River in the State of Washington, will make ample provision for the protection of navigation interests, and so far as those interests are concerned I do not know any objection to its favorable consideration by Congress.

W. L. MARSHALL,  
Chief of Engineers, U. S. Army.

WAR DEPARTMENT, May 26, 1910.

Respectfully returned to the chairman Committee on Commerce, United States Senate, inviting attention to the preceding indorsement.

ROBERT SHAW OLIVER,  
Assistant Secretary of War.

61ST CONGRESS,  
2D SESSION.

*M. Darling*  
House Calendar No. 261.

S. 8316.

[Report No. 1582.] *W.S.*

IN THE HOUSE OF REPRESENTATIVES.

JUNE 3, 1910.

Referred to the Committee on Interstate and Foreign Commerce.

JUNE 14, 1910.

Referred to the House Calendar and ordered to be printed.

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6       proaches thereto across the Columbia River between  
7       the counties of Grant and Kittitas, in the State of  
8       Washington, at a point, suitable to the interests of navi-  
9       gation, in section twenty, township seventeen north, range  
10      twenty-three east, in accordance with the provisions of an  
11      Act of Congress entitled "An Act to regulate the construc-

1 tion of bridges over navigable waters," approved March  
 2 twenty-third, nineteen hundred and six.

3 SEC. 2. That the right to alter, amend, or repeal this  
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Passed the Senate June 2, 1910.

Attest: CHARLES G. BENNETT,  
*Secretary.*

61st CONGRESS,  
 2d Session.

**S. 8316.**

HOUSE CALENDAR NO. 261.

[Report No. 1582.]

## AN ACT

Authorizing the construction of a bridge across  
 the Columbia River between the counties  
 of Grant and Kittitas, in the State of  
 Washington.

JUNE 3, 1910.—Referred to the Committee on Inter-  
 state and Foreign Commerce.  
 JUNE 14, 1910.—Referred to the House Calendar and  
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# Northern Pacific Railway Company

Ritzville, Wash., June 17th., 1910

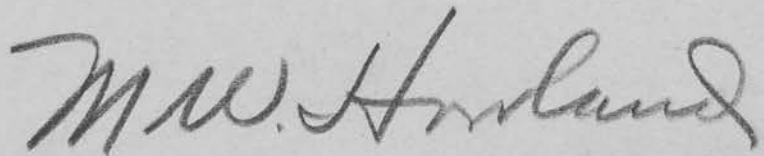
Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith estimate Ritzville-Ellensburg Cut-off from the Junction with the Connell Northern Ry. via Frenchman Hill and Sand Hollow to the Chicago Milwaukee & Puget Sound Bridge at Beverly on a maximum grade of 0.8% and using the revised profile M.P. 0-76 to M.P. 40, which was sent you about two weeks ago.

I think that this will complete your record of estimates for this work

Yours truly,



Asst. Engineer.



## NORTHERN PACIFIC RAILWAY COMPANY

Ritzville - Eikenburg Cut-Off.

From Jct. with Connell Northern Ry. via Frenchman Hill and Sand Hollow to Chicago Milwaukee and Puget Sound Ry. Bridge at Beverly Wash.

50.51 Miles Main Track } 58.3 Total 0.8% Max. Grade M. W. Howland Asst. Engr.

7.79 " Sidings }

JUNE 1910

1 Mile

50.51 Miles

## ENGINEERING.

- 1 A Salaries and Wages  
 1 B General Expenses  
 1 C Subsistence of Men and Animals  
 1 D Animals, Vehicles, Field Equipment and Guides

1 776.38 89 724.89

## LAND.

- 2 Right of Way and Station Grounds  
 3 Real Estate

733.04 37 026.00

## ROADWAY.

- 4 A Clearing and Grubbing  
 4 B Grading  
 4 C Protection of Banks *Rip Rap*  
 5 Tunnels  
 6 A Steel Bridges  
 6 B Wooden Bridges  
 6 C Masonry and Concrete Substructures  
 6 D Masonry and Concrete Bridges and Culverts  
 6 E Other Culverts

36.53 1 845.00  
 15 256.07 770 584.00  
 44.54 2 250.00

601.79 30 396.52

313.40 15 830.00

## TRACK.

- 7 Ties  
 8 Rails  
 9 Frogs and Switches  
 10 Track Fastenings and other Material  
 11 Ballast  
 12 Track Laying and Surfacing  
 13 Roadway Tools

1 277.96 69 550.00  
 4 836.52 244 292.90  
 80.28 4 055.00  
 1 198.77 60 549.93  
 1 256.95 63 488.71  
 1 146.30 57 899.70

## STRUCTURES

- 14 Fencing Right of Way  
 15 Crossings and Signs  
 16 Interlocking and other Signal Apparatus  
 17 Telegraph and Telephone Lines  
 18 Station Buildings and Fixtures  
 19 *Section and Tool Houses*  
~~General Office Buildings and Fixtures~~  
 20 Shops, Enginehouses and Turntables  
 21 Shop Machinery and Tools  
 22 Water Stations  
 23 Fuel Stations  
 24 Grain Elevators  
 25 *Stock Yards*  
~~Storage Warehouses~~  
 26 Dock and Wharf Property  
 31 Miscellaneous Structures

346.43 17 500.00  
 35.66 1 801.41

225.00 11 362.50  
 181.65 9 175.00  
 128.19 6 475.00  
 230.44 11 640.00

528.61 26 700.00  
 98.99 5 000.00

15.84 800.00

## MISCELLANEOUS.

- 32 Transportation of Men and Material  
 33 Rent of Equipment  
 34 Repairs of Equipment  
 35 Earnings and Operating Expenses during Construction  
 36 Cost of Road Purchased  
 43 Law Expenses  
 44 Stationery and Printing  
 45 Insurance  
 46 Taxes  
 47 Interest and Commissions  
 48 Other Expenditures

6 954.57 351 275.20

TOTAL EXPENDED  
 APPROPRIATION  
 BALANCE

37 303.91 1884 221.71

St. Paul, Minn.

June 17

1910

M. W. Howland  
Asst. Disbursements

## NORTHERN PACIFIC RAILWAY COMPANY.

## CONSTRUCTION DEPARTMENT.

To secure uniformity in making estimates of cost of railroads, and to call to mind items that might otherwise be forgotten, Engineers will use this blank, and be particular to include in their estimates, full and complete details of everything required to build the road.

*Ritzville - Ellensburg Cutoff*

Estimate of cost of line *From Jct with Connell Northern Ry. via Frenchman Hill and Sand Hollow to Chicago Milwaukee & Puget Sound Ry. Bridge at Beverly, Wash.*

Length: Main Track *50.51* miles; Siding, etc. *7.79* miles; Total *58.3* miles,

Based upon *0.8 % Maximum Grade* made *June* 19*00*, by *M.W. Howland*

*Asst.* Engineer, under direction of *W.L. Darling, Chief Engr.*

ITEM	QUANTITIES	@	AMOUNT	TOTAL
<b>3. RIGHT OF WAY AND STATION GROUNDS.</b>				
Right of Way—Agricultural Lands	<i>778</i> acres	<i>45.<sup>00</sup></i>	<i>33660.00</i>	
“ “ —Mining Claims	acres			
Station Grounds	acres			
Terminal Grounds at	acres			
Damages to property				
Salaries and expenses	<i>10%</i>		<i>3366.00</i>	<i>37026.00</i>
<b>4. REAL ESTATE.</b>				
	acres			
<b>5. CLEARING AND GRUBBING.</b>				
Clearing, light <i>Sage Brush.</i>	<i>369</i> acres	<i>5.<sup>00</sup></i>	<i>1845.00</i>	<i>1845.00</i>
Clearing, heavy	acres			
Grubbing	stations			
Cutting down overhanging trees	trees			
<b>6. GRADING.</b>				
Solid rock	<i>5277740</i> cu. yds.	<i>85<sup>c</sup></i>	<i>448579.00</i>	
Loose rock	<i>67550</i> cu. yds.	<i>40<sup>c</sup></i>	<i>27020.00</i>	
<i>Hardpan</i>	<i>329920</i> cu. yds.	<i>33 1/2<sup>c</sup></i>	<i>110523.20</i>	
<i>Earth { 300' Haul</i>	<i>153950</i>	<i>18<sup>c</sup></i>	<i>27711.00</i>	
<i>Earth { 300'-1000' Haul</i>	<i>243840</i> cu. yds.	<i>22<sup>c</sup></i>	<i>53644.80</i>	
<i>Borrow { 300' Haul</i>	<i>207100</i>	<i>18<sup>c</sup></i>	<i>37278.00</i>	
<i>Earth { 300'-1000' Haul</i>	<i>56050</i> cu. yds.	<i>22<sup>c</sup></i>	<i>12331.00</i>	
Borrow pits <i>Hardpan</i>	<i>89020</i> cu. yds.	<i>33 1/2<sup>c</sup></i>	<i>29821.70</i>	
Extra haul	<i>1675170</i> cu. yds.	<i>01<sup>c</sup></i>	<i>23675.30</i>	
Train service (widening cuts, banks, etc.)	days			
Rent of equipment	days			
Riprap	<i>1800</i> cu. yds.	<i>1.<sup>25</sup></i>	<i>2250.00</i>	<i>772834.00</i>
Slope wall	cu. yds.			
Retaining wall	cu. yds.			
Carried Forward,	(1)			<i>811705.00</i>

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			811705.00
Wing dams, cribbing, etc.				
Contingencies				
7. TUNNELS.				
Excavation	lin. ft.			
Extra excavation	cu. yds.			
Timber lining	ft. B. M.			
Masonry lining	cu. yds.			
8. BRIDGES, TRESTLES AND CULVERTS. (State number of spans, length and kind of truss).				
spans, feet, truss.				
spans, feet, truss.				
spans, feet, truss.				
Wrought Iron in truss	lbs.			
Cast Iron in truss	lbs.			
Timber in truss	ft. B. M.			
Framing and erection	lin. ft.			
Painting				
Falsework				
Concrete in abutments and piers	cu. yds.			
Masonry in abutments and piers	cu. yds.			
Timber in abutments and piers	ft. B. M.			
Excavation for abutments and piers	cu. yds.			
Abutment and pier filling	cu. yds.			
Wrought Iron in abutments and piers	lbs.			
Cast Iron in abutments and piers	lbs.			
Piles, hardwood, in place	lin. ft.			
Piles, softwood, in place	24960 lin. ft.	30¢	7488.00	
Timber in pile and trestle bridges	543440 ft. B. M.	23.00	12499.12	
Wrought Iron in pile and trestle bridges	33240 lbs.	3¢	997.20	
Cast Iron in pile and trestle bridges	10540 lbs.	3¢	316.20	
<del>Iron guard rails for high trestles</del> Gal. Iron	15000 <del>gro. tons</del>	3¢	450.00	
<del>Pastenings for guard rails</del> Timber Haul	8160 <sup>M. Ft. B. M./Miles</sup>	60¢	4896.00	
<del>Timber in culverts</del> Piling Haul	375000 <sup>Lin. Ft./Miles</sup>	1¢	3750.00	30396.52
Vit. Pipe.	372000 #			
<del>Log culverts</del>	2000 lin. ft. log	1.50	3000.00	
Cast Iron pipe culverts	232 gro. tons	40.00	9280.00	
<del>Masonry culverts</del> Pipe Haul	7100 <sup>Ton Miles</sup>	50¢	3550.00	15830.00
	Carried Forward,			857931.52
	(2)			



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			857931.52
Blind drains	cu. yds.			
Train service	days			
Inspection and incidentals				
Contingencies				
9. TIES.				
58.3 miles $\times$ 2,700 ties per mile =	157910 ties	40 <sup>00</sup>	62964.00	
18 sets switch ties		98 <sup>00</sup>	864.00	
19	set	38 <sup>00</sup>	722.00	64550.00
Inspection and incidentals				
10. RAILS.				
50.51 miles, <sup>90</sup> 50 lb. $\times$ <sup>141.4</sup> gro. tons per mile	7142.1 gro. tons	30 <sup>00</sup>	214263.00	
miles, 66 lb. $\times$ 104 gro. tons per mile	gro. tons			
7.79 miles, 72 lb. $\times$ 113 gro. tons per mile	880.3 gro. tons	25 <sup>00</sup>	22007.50	
Inspection, handling, etc.	8022.1	1 <sup>00</sup>	8022.40	244292.90
11. TRACK FASTENINGS. (200 lb. kegs.)				
Track spikes 58.3 miles $\times$ 33 kegs =	1924 kegs	3 <sup>80</sup>	7311.20	
Track bolts 58.3 miles $\times$ 1500 =	750 kegs	4 <sup>50</sup>	3375.00	
Angle bars, <sup>90</sup> 50 lb. <sup>51</sup> miles $\times$ 712 bars $\times$ <sup>27</sup> 16 lbs. each	971001 lbs.	1 <sup>60</sup>	15536.00	
Angle bars, 66 lb. miles $\times$ 712 bars $\times$ 17 lbs. each	lbs.			
Angle bars, 72 lb. <sup>7.79</sup> miles $\times$ 712 bars $\times$ 18 lbs. each	99829 lbs.	1 <sup>60</sup>	1597.25	
Rail braces	braces			
Track spikes for braces—1 keg to 160 braces	kegs			
Tie plates 50.51 Miles 7# each	272754 each	12 <sup>00</sup>	32730.48	60549.93
12. FROGS AND SWITCHES.				
Split switches, complete with frogs	18-90#	125 <sup>00</sup>	2250.00	
Stub switches, complete with frogs	19-72# sets	95 <sup>00</sup>	1805.00	4055.00
Railroad crossings, (including timbers)	crossings			
13. TRACK LAYING AND SURFACING.				
Track laying	58.3 miles	300 <sup>00</sup>	17490.00	
Rent of equipment	58.3 days	200 <sup>00</sup>	11660.00	
Train service (1/2 mile track per day)	58.3 days	335 <sup>00</sup>	19530.50	
Track surfacing Placing Switches	37 miles	25 <sup>00</sup>	925.00	
Track tools (sections 5 to 7 miles long each)	sections			
Track inspection and incidentals				
Contingencies Tie Plating 50.51 Miles		60 <sup>00</sup>	3030.60	
10%	Carried Forward,		5263.60	57899.70
	(3)			1289279.05

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1289279.05
14. <b>BALLAST.</b>				
58.3 miles × 1,500 cu. yds. =	87450 cu. yds.	32	27984.00	
Train service miles × 5 days per mile =	87450 <del>days</del>	21	18364.50	
Rent of equipment	87450 days	13	11368.50	
Contingencies	10%		5771.71	63488.71
15. <b>STATION BUILDINGS and FIXTURES.</b> (Standard Plans)				
1st class combination depots S. 26-1				
2d class combination depots S. 26-4				
2d class combination (2 story) depots S. 26-7				
3d class combination depots S. 26-9				
3d class combination (2 story) depots S. 26-14	5	1600. <sup>00</sup>	8000.00	
4th class combination depots S. 26-31				
1st class freight depots S. 27-1				
2d class freight depots S. 27-20				
1st class brick passenger stations S. 28-1				
1st class frame passenger stations S. 28-7				
2d class frame passenger stations S. 28-12				
Depot privies M. 41-1	5	35. <sup>00</sup>	175.00	
Furniture and fixtures	5 stations	200. <sup>00</sup>	1000.00	9175.00
Wells at stations		wells		
Track scales				
Contingencies				
16. <b>ENGINE HOUSES AND TURNTABLES.</b>				
1st class round house, brick, stalls S. 32-1		per stall		
Frame engine house stalls S. 32-30	1	per stall 1800. <sup>00</sup>	7200.00	
Ash pit S. 32-35				
Turntables, iron—85 ft. diameter 118490	53 Tons	80. <sup>00</sup>	4240.00	11440.00
Turntables, combination— ft. diameter				
17. <b>ENGINE AND CAR SHOPS.</b>				
Blacksmith shop M. 41-5				
Repair shop				
Brick sand and oil house M. 41-6				
Frame sand house M. 41-7	1	200. <sup>00</sup>	200.00	200.00
	Carried Forward,			
	(4)		13	1373582.76

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			13 735 82.76
18. SHOP MACHINERY AND TOOLS.				
19. WATER STATIONS.				
Water tanks S. 37-3	4	3200. <sup>00</sup>	12 800.00	
Pump houses with pumps and boilers S. 37-1	4	1600. <sup>00</sup>	6 400.00	
Wells (generally 16 ft. diam. and curbed) <i>Drilled</i>	3	2500. <sup>00</sup>	7 500.00	26 700.00
Gravity supply, or by aqueduct, ram, etc.—cast pipe				
Submerged tanks S. 37-7				
20. FUEL STATIONS.				
1st class coaling station—48'x S. 36-1	1	5000. <sup>00</sup>	5 000.00	5 000.00
2d class coaling station S. 36-5				
Coal platform—16'x 80' S. 36-9				
21. FENCING RIGHT OF WAY.				
Fencing—against stock—100 miles of fence		175. <sup>00</sup>	17 500.00	17 500.00
22. SNOW FENCES AND SNOW STRUCTURES.				
Snow fences		ft. B. M.		
Snow sheds		ft. B. M.		
23. STOCK YARDS.				
Stockyards—8 car capacity				
Stockyards—4 car capacity				
Stockyards—2 car capacity	4	200. <sup>00</sup>	8 00.00	8 00.00
24. CROSSINGS, CATTLE GUARDS AND SIGNS.				
Cattle guards	40 guards	15. <sup>00</sup>	6 00.00	
Road Crossings	35 crossings	8. <sup>00</sup>	2 80.00	
Signs, posts, etc.,	50.51 miles	15. <sup>00</sup>	7 57.65	
	10%		1 63.76	18 01.41
	Carried Forward,			19 253 84.17
	(5)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1925384.17
25. INTERLOCKING OR SIGNAL APPARATUS.				
26. DOCKS, WHARVES AND COAL BUNKERS.				
27. TRANSER BOATS AND BARGES.				
28. SECTION AND TOOL HOUSES.				
1st class section houses S. 39-1				
2d class section houses S. 39-4				
3d class section houses S. 39-6	7	850. <sup>00</sup>	5950.00	
Double tool houses S. 39-8				
Single tool houses S. 39-8	7	50. <sup>00</sup>	350.00	
Section house privies M. 41-1	7	25. <sup>00</sup>	175.00	6475.00
29. MISCELLANEOUS STRUCTURES.				
Telegraph offices M. 44-1				
Watchman's houses M. 41-3				
100 ton ice house S. 27-41				
200 ton ice house S. 27-42				
Team Loading Platforms M. 41-13				
30. TELEGRAPH LINES.				
50.5 miles	50.5 miles	225. <sup>00</sup>	11362.50	11362.50
31. TRANSPORTATION CHARGES.				
Steel rails 8022.4 gro. tons = 8985.1 net tons		17. <sup>00</sup>	152746.70	
Track spikes 1924 kegs = 192.1 net tons		19. <sup>00</sup>	3655.60	
Track bolts 750 kegs = 75.0 net tons		"	1425.00	
Angle bars 1070829 lbs. = 535.1 net tons		"	10172.60	
Tie Plates 1909278 lbs. = 954.6 net tons		"	18137.40	
Rail braces		"	1064.00	
Frogs and switches 37 sets = 56 net tons		1.21	5224.42	
Bridge iron 431770 lbs. = 216 net tons		.94	3496.80	
Vitrified Pipe	322000 #	1.29	5985.60	
Cast Iron Pipe	964000 #			
	Carried Forward,			
	(6)			
			201908.12	1443221.67



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		2 01 908.12	1443221.67
Water stations <sup>46.5</sup> 4 × 30 tons each = net tons	372 000 #	19¢	7 06.80	
Telegraph <sup>Poles and Fence Posts</sup> material net tons	1 800 000 #	19¢	342 0.00	
Building material and miscellaneous net tons	131 4800 #	19¢	2498.12	
Cement	11 000 0 #	25¢	275.00	
Wire	200 000 #	1.25	250 0.00	
Total to tons × miles	755 260 #			
Piling 24960' ft. timber = tons × miles	898 560 #	19¢	1 707.26	
157410 cross ties = tons × miles	286 84950 #	19¢	54501.40	
37 sets Sw. ties. engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges	1675170 cu. yds.	05¢	83 758.50	351275.20
Transportation of laborers and others	miles			
32. OPERATING EXPENSES AND EARNINGS.				
Train service hauling material	days			
33. CONSTRUCTION EQUIPMENT.				
Hand, push, velocipede cars, pile drivers, etc.				
34. GENERAL EXPENSES.				
Expenses of incorporation, taxes, etc.				
35. INTEREST AND DISCOUNT.				
Discount, interest, etc., during construction				
			TOTAL,	1794496.87
Engineering expenses, add 5 per cent of above total (generally about 5 per cent)				89724.81
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				1884221.71
Per mile of main track			37303.93	

Ritzville, Wash.

June 15, 1910

(7)

M. W. Howland  
Asst. Engineer.



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		201908.12	1443221.67
Water stations <sup>46.5</sup> 4 × 30 tons each = net tons	372000 #	19¢	706.80	
Telegraph <sup>Poles</sup> material and Fence Posts net tons	1800 000 #	19¢	3420.00	
Building material and miscellaneous net tons	1314800 #	19¢	2498.12	
Cement	110000 #	25¢	275.00	
Wire	200000 #	1.25	2500.00	
Total to tons × miles	200000 #			
Piling 24960' ft. timber = tons × miles	898560 #	19¢	1707.26	
157410 cross ties = tons × miles	28684950 #	19¢	54501.40	
37 sets Sw. ties engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges	1675170 cu. yds.	05¢	83758.50	351275.20
Transportation of laborers and others	miles			
32. OPERATING EXPENSES AND EARNINGS.				
Train service hauling material	days			
33. CONSTRUCTION EQUIPMENT.				
Hand, push, velocipede cars, pile drivers, etc.				
34. GENERAL EXPENSES.				
Expenses of incorporation, taxes, etc.				
35. INTEREST AND DISCOUNT.				
Discount, interest, etc., during construction				
			TOTAL,	1794496.87
Engineering expenses, add 5 per cent of above total (generally about 5 per cent)				89724.81
Expend on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				1884221.71
Per mile of main track			37303.93	

Ritzville, Wash.

June 15, 1910

(7)

M. W. Howland  
Asst. Engineer.

WLD R

St. Paul, June 17th, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

Referring to your letter of the 13th inst. relative to 1% separation of grades between Ellensburg and Mile Post  $4\frac{1}{2}$ . I hand you herewith blueprint with another line extending from about Station 91 on the L-6 Line to Station 218 on the L-3 Line. I estimate the grading about as follows:

	<u>Cubic Yards</u>
Grade crossing	20,000
L-6 Line with grade raised for over-crossing,	672,000
L-3 Line, grade raised for over-crossing as shown in red on attached map,	362,000.

You did not estimate the quantities on your location for overcrossing but it looks to me as if the location is either an absurd one or that the topography is wrong. The line in red as proposed shows up very much more favorable than your location. I wish therefore that you would have different lines run on the ground and let me have complete analysis of the situation.

H B S -- 2.

6 17 10..

I want to call your attention to another apparent error on your part. You have shown in your letter of the 13th that the overcrossing has 204° more curvature and 860 feet extra distance which is not at all the case if we can take your map as correct. As I estimate it the curvature is approximately 111° more with 750 feet extra distance. In any event would like to have you go over it again and correct your letter of the 13th if necessary.

In addition to the blueprint plan referred to I also attach hereto profiles of the various lines.

. Yours truly,

Chief Engineer.

Encl.

Ellensburg Wash 6/3/18  
 Mr W. Darling Griffiths  
 St Paul

Dear Sir,

I enclose map of first 5 miles of 1st line out of Ellensburg and profiles to accompany this report.

Am sending you this map and these profiles in order to show the situation in regard to Grade and Overhead Crossings of the C. M. & S. Ry.

Our overhead crossing line additional grading by high fills on approaches to C. M. & S. will

Cost	\$50,000
Extra bridging	15,000

25 Acres " R.R. Way labor & materials	10,000
---------------------------------------	--------

204° " Curvature @ \$100	20,400
--------------------------	--------

860' " distance @ \$30	25,800
------------------------	--------

\$121,200

The above sum represents the cost of eliminating a grade crossing with interlocking system which would probably be required. Please advise which line you desire shown on filing map.

W. H. Stone

Send please note filing reference of book



ST. PAUL, MINN.  
NOR. PAC. RY.  
1910  
JUN 16  
OFFICE OF  
CHIEF ENGINEER

3127

## Northern Pacific Railway Company

Ritzville, Wash., June 11th., 1910

Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith estimate of Ritzville-Ellensburg  
Cut-Off from Junction with the Connell Northern Ry. to the Columbia River,  
including the Columbia River Bridge. This estimate is on a basis of the  
Frenchman Hill, Sand Hollow Route to crossing two miles north of Sand Hollow  
, using the 1.6% pusher grade and quantities for revised grade line M.P. <sup>0+76</sup>~~20~~  
to M.P. 40. This revised profile M.P. <sup>0+76</sup>~~20~~ to M.P. 40 was sent you about ten  
days ago. # 477-18+19

There are no changes other than noted except that in this estimate, I  
have figured on hauling the bridge timber and corrected freight rates used  
in computing transportation charges.

Yours truly,

*M. W. Howland*

Asst. Engineer.

✓

## NORTHERN PACIFIC RAILWAY COMPANY

Ritzville, Wash. - Ennsburg Cut-Off

Via Frenchman Hill and Sand Hollow from Jct. of Connell-Northern Ry. to Columbia River Crossing Two Miles North of Sand Hollow including Columbia River Bridge  
0.8% Max Grade with 42 Miles 1 1/2% Pusher Grade 190 Month JUNE 1910

1 Mile  
THIS MONTH46.02 Miles  
TOTAL TO DATE

## ENGINEERING.

1 A Salaries and Wages	}	2121.70	2121.70	97690.69
1 B General Expenses				
1 C Subsistence of Men and Animals				
1 D Animals, Vehicles, Field Equipment and Guides				

## LAND.

2 Right of Way and Station Grounds	742.18	742.18	34155.00
3 Real Estate			

## ROADWAY.

4 A Clearing and Grubbing	}		32.92	1 515.00
4 B Grading			11 336.54	521 707.70
4 C Protection of Banks <i>Rip-Rap</i>		11418.35	98.89	2 250.00
5 Tunnels		233.60	2 33.60	10 750.00
6 A Steel Bridges	}		5 315.76	244 632.00
6 B <del>Wooden Bridges</del>		8754.18		
6 C Masonry and Concrete Substructures			3 438.42	158 236.00
6 D Masonry and Concrete Bridges and Culverts	}			
6 E Other Culverts		897.68	260.12	11 971.00
<i>Wooden Bridges</i>			637.56	29 340.52
TRACK.				

## TRACK.

7 Ties	}	9615.66	1243.46	57224.00
8 Rails			4765.20	219294.50
9 Frogs and Switches			66.93	3080.00
10 Track Fastenings and other Material			1188.98	54716.82
11 Ballast			1230.51	56628.00
12 Track Laying and Surfacing			1120.58	51569.32
13 Roadway Tools				

## STRUCTURES

14 Fencing Right of Way	}	1490.09	349.85	16100.00
15 Crossings and Signs			37.53	1727.33
16 Interlocking and other Signal Apparatus				
17 Telegraph and Telephone Lines			225.00	10354.50
18 Station Buildings and Fixtures			293.13	13490.00
19 General Office Buildings and Fixtures				
20 Shops, Enginehouses and Turntables				
21 Shop Machinery and Tools				
22 Water Stations			475.88	21900.00
23 Fuel Stations			108.65	5000.00
24 Grain Elevators				
25 Storage Warehouses				
26 Dock and Wharf Property				
31 Miscellaneous Structures				

## MISCELLANEOUS.

32 Transportation of Men and Material	9282.30	9282.30	427172.23
33 Rent of Equipment			
34 Repairs of Equipment			
35 Earnings and Operating Expenses during Construction			
36 Cost of Road Purchased			
43 Law Expenses			
44 Stationery and Printing			
45 Insurance			
46 Taxes			
47 Interest and Commissions			
48 Other Expenditures			

TOTAL EXPENDED  
APPROPRIATION  
BALANCE

44555.69

44555.69 2050454.61

St. Paul, Minn.

*Ritzville, Wash.*  
*June 11-10*

*M. W. Holland*  
Auditor



## NORTHERN PACIFIC RAILWAY COMPANY.

## CONSTRUCTION DEPARTMENT.

To secure uniformity in making estimates of cost of railroads, and to call to mind items that might otherwise be forgotten, Engineers will use this blank, and be particular to include in their estimates, full and complete details of everything required to build the road.

*Ritzville - Ellensburg Cut-off*  
*Via Frenchman Hill and Sand Hollow.*  
 Estimate of cost of line from Jct. of Connell Northern Ry to Columbia River Crossing  
 Two Miles North of Sand Hollow, including Columbia River Bridge.  
 Length: Main Track 46.02 miles; Siding, etc. 5.98 miles; Total 52 miles.  
 Based upon 0.8% Max. Grade with 4.7 Miles of 1.6% Pusher grade June 10 1910, by M. W. Howland  
 Asst. Engineer, under direction of W. L. Darling, Chief Engineer.

ITEM	QUANTITIES	@	AMOUNT	TOTAL
3. RIGHT OF WAY AND STATION GROUNDS.				
Right of Way—Agricultural Lands	690 acres	45 <sup>00</sup>	31 050.00	
" " —Mining Claims	acres			
Station Grounds	acres			
Terminal Grounds at	acres			
Damages to property				
Salaries and expenses	10%		31 05.00	341 55.00
4. REAL ESTATE.				
	acres			
5. CLEARING AND GRUBBING.				
Clearing, light Sage Brush	303 acres	5 <sup>00</sup>	1 515.00	1 515.00
Clearing, heavy	acres			
Grubbing	stations			
Cutting down overhanging trees	trees			
6. GRADING.				
Solid rock	280 830 cu. yds.	75	238 705.50	
Loose rock	42 690 cu. yds.	40 <sup>x</sup>	17 076.00	
Shell Rock	15 000 "	30 <sup>x</sup>	4 500.00	
Hardpan	254 450 cu. yds.	33 <sup>1</sup> / <sub>2</sub>	8 5240.75	
Earth { 300' Haul	94 460 "	18 <sup>1</sup> / <sub>2</sub>	17 002.80	
{ 300'-1000' Haul	243 210 cu. yds.	22 <sup>1</sup> / <sub>2</sub>	53 506.20	
Earth Borrow { 300' Haul	217 840 "	18 <sup>1</sup> / <sub>2</sub>	39 211.20	
{ 300'-1000' Haul	50 250 cu. yds.	22 <sup>1</sup> / <sub>2</sub>	11 055.00	
Borrow pits Hardpan	63 190 "	33 <sup>1</sup> / <sub>2</sub>	21 168.65	
Solid Rock	34 060 cu. yds.	55 <sup>x</sup>	18 733.00	
Extra haul	155 0860 cu. yds.	01 <sup>x</sup>	15 508.60	
Train service (widening cuts, banks, etc.)	days			
Rent of equipment	days			
Riprap	1 800 cu. yds.	125	2250.00	523 957.70
Slope wall	cu. yds.			
Retaining wall	cu. yds.			
Carried Forward,				559 627.70
(1)				



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			559627.70
Wing dams, cribbing, etc.				
Contingencies				
7. TUNNELS.				
Excavation	185 lin. ft.	50 <sup>00</sup>	9250.00	
Extra excavation	cu. yds.			
Timber lining	60000 ft. B. M.	25 <sup>00</sup>	1500.00	10750.00
Masonry lining	cu. yds.			
8. BRIDGES, TRESTLES AND CULVERTS. (State number of spans, length and kind of truss.)				
1 spans, 350 feet, <i>steel</i> truss.				
5 spans, 250 feet, " truss,				
3 spans, 100 feet, <i>Deck Plate Girders</i> truss,	Total 2955 Tons	60 <sup>00</sup>	177300.00	
Wrought Iron in truss	lbs.			
Cast Iron in truss	lbs.			
Timber in truss <i>Decking</i>	1900 <i>Lin. Ft.</i> ft. B. M.	2 <sup>00</sup>	3800.00	
<del>Framing</del> and erection	2955 Tons lin. ft.	20 <sup>00</sup>	59100.00	
Painting	2955 Tons	15 <sup>00</sup>	4432.00	
Falsework				
Concrete in abutments and piers	9600 cu. yds.	10 <sup>00</sup>	96000.00	
<del>Masonry in abutments and piers</del> <i>Concrete Piles</i>	1500 <i>Lin. Ft.</i> cu. yds.	2 <sup>00</sup>	3000.00	
Timber in abutments and piers	ft. B. M.			
Excavation for abutments and piers <i>Wet</i>	1100 cu. yds.	6 <sup>00</sup>	6600.00	
<i>Excavation " " " Dry</i>	900 cu. yds.	1 <sup>00</sup>	900.00	
<i>Abutment and pier filling</i>				
<i>Caisson sunk below low water.</i>				
<del>Wrought Iron in abutments and piers</del>	62400 lbs.	14 <sup>00</sup>	8736.00	
<i>Air Plant and equipment.</i>				
<del>Cast Iron in abutments and piers</del>	lbs.		35000.00	
<i>Protection Work</i>				
<del>Piles, hardwood, in place</del>	lin. ft.		8000.00	402868.00
Piles, softwood, in place	24300 lin. ft.	30 <sup>00</sup>	7290.00	
Timber in pile and trestle bridges	522440 ft. B. M.	23 <sup>00</sup>	12016.12	
Wrought Iron in pile and trestle bridges	31840 lbs.	3 <sup>00</sup>	955.20	
Cast Iron in pile and trestle bridges	10040 lbs.	3 <sup>00</sup>	301.20	
Iron guard rails for high trestles <i>Galv. Iron</i>	14500 <i>lbs.</i> gro. tons	3 <sup>00</sup>	435.00	
Fastenings for guard rails <i>Hauling Br. Tim</i>	7830 <i>M. Ft. Miles</i>	60 <sup>00</sup>	4698.00	
Timber in culverts <i>Hauling Piling</i>	364500 <i>Lin. Ft. Miles</i>	01 <sup>00</sup>	3645.00	29340.52
<del>Log culverts</del> <i>Vitrified Pipe 24"</i>	2600 lin. ft. <del>log</del>	15 <sup>00</sup>	3900.00	
Cast Iron pipe culverts <i>614-24"-93940#</i> <i>558-36"-152892#</i>	124 gro. tons	40 <sup>00</sup>	4960.00	
<del>Masonry culverts</del> <i>Hauling Pipe</i>	6222 <i>Ton Miles</i> cu. yds.	50 <sup>00</sup>	3111.00	11971.00
Carried Forward,				1014557.22
(2)				

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1014557.22
Blind drains	cu. yds.			
Train service	days			
Inspection and incidentals				
Contingencies				
9. TIES.				
52 miles $\times$ 2,700 ties per mile =	140400 ties	38 <sup>00</sup>	56160.00	
28 sets switch ties	set	38 <sup>00</sup>	1064.00	57224.00
Inspection and incidentals				
10. RAILS.				
46.02 miles $\times$ 90 lb. $\times$ 144 gro. tons per mile	6507.3 gro. tons	30 <sup>00</sup>	195219.00	
miles, 66 lb. $\times$ 104 gro. tons per mile	gro. tons			
5.98 miles, 72 lb. $\times$ 113 gro. tons per mile	675.7 gro. tons	25 <sup>00</sup>	16892.50	
Inspection, handling, etc.	7183.0	1 <sup>00</sup>	7183.00	219294.50
11. TRACK FASTENINGS. (200 lb. kegs.)				
Track spikes 52 miles $\times$ 40 kegs =	2080 kegs	38 <sup>00</sup>	7904.00	
Track bolts 52 miles $\times$ 1500 =	676 kegs	45 <sup>00</sup>	3042.00	
Angle bars, 90 lb. $\times$ 46.02 miles $\times$ 640 bars $\times$ 27 lbs. each	795226 lbs.	16 <sup>00</sup>	12723.62	
Angle bars, 66 lb. miles $\times$ 712 bars $\times$ 17 lbs. each	lbs.			
Angle bars, 72 lb. 5.98 miles $\times$ 712 bars $\times$ 18 lbs. each	76640 lbs.	16 <sup>00</sup>	1226.24	
Rail braces	braces			
Track spikes for braces—1 keg to 160 braces	kegs			
Tie plates 46.02 Miles	248508 each	12 <sup>00</sup>	29820.96	54716.82
12. FROGS AND SWITCHES.				
Split switches, complete with frogs	14 sets	95 <sup>00</sup>	1330.00	
Stub switches, complete with frogs	sets	125 <sup>00</sup>	1750.00	3080.00
Railroad crossings, (including timbers)	crossings			
13. TRACK LAYING AND SURFACING.				
Track laying	52 miles	300 <sup>00</sup>	15600.00	
Rent of equipment	52 Miles days	200 <sup>00</sup>	10400.00	
Train service (1/2 mile track per day)	52 Miles days	335 <sup>00</sup>	17420.00	
Track surfacing Placing Switches	28 miles	25 <sup>00</sup>	700.00	
Track tools (sections 5 to 7 miles long each)	sections			
Track inspection and incidentals Tie Plating	46.02 Miles	60 <sup>00</sup>	2761.20	
Contingencies	10%		4688.12	51569.32
	Carried Forward,			1400441.86
	(3)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1400441.86
14. BALLAST.				
52 miles $\times$ 1,500 cu. yds. =	78000 cu. yds.	32¢	24960.00	
Train service miles $\times$ 5 days per mile =	78000 days	21¢	16380.00	
Rent of equipment	78000 days	13¢	10140.00	
Contingencies	10%		5148.00	56628.00
15. STATION BUILDINGS and FIXTURES. (Standard Plans)				
1st class combination depots S. 26-1				
2d. class combination depots S. 26-4				
2d class combination (2 story) depots S. 26-7				
3d class combination depots S. 26-9	4	1600 <sup>00</sup>	6400.00	
3d class combination (2 story) depots S. 26-14				
4th class combination depots S. 26-31				
1st class freight depots S. 27-1				
2d class freight depots S. 27-20				
1st class brick passenger stations S. 28-1				
1st class frame passenger stations S. 28-7				
2d class frame passenger stations S. 28-12				
Depot privies M. 41-1	4	35 <sup>00</sup>	140.00	
Furniture and fixtures	4 stations	200 <sup>00</sup>	800.00	7340.00
Wells at stations	wells			
Track scales				
Contingencies				
16. ENGINE HOUSES AND TURNTABLES.				
1st class round house, brick, stalls S. 32-1	per stall			
Frame engine house stalls S. 32-30	per stall			
Ash pit S. 32-35				
Turntables, iron— ft. diameter				
Turntables, combination— ft. diameter				
17. ENGINE AND CAR SHOPS.				
Blacksmith shop M. 41-5				
Repair shop				
Brick sand and oil house M. 41-6				
Frame sand house M. 41-7				
	Carried Forward,			1464409.86
	(4)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1464409.86
18. SHOP MACHINERY AND TOOLS.				
19. WATER STATIONS.				
Water tanks S. 37-3	3	3200 <sup>00</sup>	9600.00	
Pump houses with pumps and boilers S. 37-1	3	1600 <sup>00</sup>	4800.00	
Wells (generally 16 ft. diam. and curbed) <i>Drilled</i>	3	2500 <sup>00</sup>	7500.00	21900.00
Gravity supply, or by aqueduct, ram, etc.—cast pipe				
Submerged tanks S. 37-7				
20. FUEL STATIONS.				
1st class coaling station—48'x S. 36-1	1	5000 <sup>00</sup>	5000.00	5000.00
2d class coaling station S. 36-5				
Coal platform—16'x 80' S. 36-9				
21. FENCING RIGHT OF WAY.				
Fencing—against stock— <i>92</i> miles of fence		175 <sup>00</sup>	16100.00	16100.00
22. SNOW FENCES AND SNOW STRUCTURES.				
Snow fences	ft. B. M.			
Snow sheds	ft. B. M.			
23. STOCK YARDS.				
Stockyards—8 car capacity				
Stockyards—4 car capacity				
Stockyards—2 car capacity	3	200 <sup>00</sup>	600.00	600.00
24. CROSSINGS, CATTLE GUARDS AND SIGNS.				
Cattle guards	40 guards	15 <sup>00</sup>	600.00	
Road Crossings	35 crossings	8 <sup>00</sup>	280.00	
Signs, posts, etc.	46.02 miles	15 <sup>00</sup>	690.30	
	<i>10%</i>		157.03	1727.33
	Carried Forward,			1509737.19
	(5)			



ITEM		QUANTITIES	@	AMOUNT	TOTAL
		Brought Forward,			1509737.19
25.	INTERLOCKING OR SIGNAL APPARATUS.				
26.	DOCKS, WHARVES AND COAL BUNKERS.				
27.	TRANSFER BOATS AND BARGES.				
28.	SECTION AND TOOL HOUSES.				
1st class section houses	S. 39-1				
2d class section houses	S. 39-4				
3d class section houses	S. 39-6	6	850 <sup>00</sup>	5100.00	
Double tool houses	S. 39-8				
Single tool houses	S. 39-8	6	50 <sup>00</sup>	300.00	
Section house privies	M. 41-1	6	25 <sup>00</sup>	150.00	5550.00
29.	MISCELLANEOUS STRUCTURES.				
Telegraph offices	M. 44-1				
Watchman's houses	M. 41-3				
100 ton ice house	S. 27-41				
200 ton ice house	S. 27-42				
Team Loading Platforms	M. 41-13				
30.	TELEGRAPH LINES.				
46.02 miles		miles	225 <sup>00</sup>	10354.50	10354.50
31.	TRANSPORTATION CHARGES.				
Steel rails 7183 gro tons = 8050 net tons			17 <sup>00</sup>	136850.00	
Track spikes 2080 kegs = 208 net tons			19 <sup>00</sup>	3952.00	
Track bolts 676 kegs = 676 net tons			19 <sup>00</sup>	1284.40	
Angle bars 871 866 lbs. = 436 net tons			"	8284.00	
Tie Plates Rail braces lbs. = 870 net tons			"	16530.00	
Frogs and switches 28 sets = 56 net tons			"	1064.00	
Bridge iron 6149400 lbs. = 30747 net tons			121	74407.74	
Cast Pipe 124 "	248000#		1.29	3199.20	
Vit. " 242 "	484000#		.94	4549.60	
Equipment for Columbia River Br.				35000.00	
				285120.94	1525641.69

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		285120.94	1525641.69
Water stations 3 <sup>46.5</sup> / <sub>30</sub> tons each = net tons	279000 #	19¢	530.10	
Telegraph material <sup>Poles</sup> and Fence Posts. net tons	1750000 #	19¢	3325.00	
Building material and miscellaneous net tons	455300 #	19¢	865.07	
Wire	184000 #	12.5¢	2300.00	
Cement	4492400 #	25¢	11231.00	
Total Piling tons × miles	1774800 #	19¢	3372.12	
Br. Timber Tunnel Timber <sup>False Work</sup> ft. timber = tons × miles	3647320 #	19¢	6929.91	
140400 cross ties = tons × miles	25631100 #	19¢	48699.09	
28 sets Sm. Ties engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges	1295980 cu. yds.	05¢	64799.00	427172.23
Northern Pacific express charges				
Transportation of laborers and others	miles			
32. OPERATING EXPENSES AND EARNINGS.				
Train service hauling material	days			
33. CONSTRUCTION EQUIPMENT.				
Hand, push, velocipede cars, pile drivers, etc.				
34. GENERAL EXPENSES.				
Expenses of incorporation, taxes, etc.				
35. INTEREST AND DISCOUNT.				
Discount, interest, etc., during construction				
			TOTAL,	1952813.92
Engineering expenses, add 5 per cent of above total (generally about 5 per cent)				97640.69
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)	1600000			
Total estimated cost				2050454.61
Per mile of main track			\$44555.70	

Ritzville Wash.  
June 11 1900

M. W. Houland  
Asst. Engineer.

3127

Helena Mont 6/10 '10  
 Mr C Darling Chieftain  
 Ssgt  
 Dear Sir.

Herewith 1.97 profile  
 which Mr Stendall sent  
 me from Ellensburg. I  
 might be able to revise this  
 profile slightly between MPO  
 and 10. If I make any  
 changes I will send you  
 a revised profile in a  
 few days. The changes if  
 any will be only slight and  
 will be between MPO and 10  
 respectfully

O. B. Storer  
 A. E.

for name MPO 6/10

Profile filed  
 # 477-20.8  
 J. J. m.

ST. PAUL  
NOV 1910  
JUN  
CHIEF OF  
ENGINEER



**Northern Pacific Railway Company**

Ritzville, Wash., June 7th. 1910

Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Drill men report 80 feet to bed rock on  
east bank of the Columbia River Station 1639 plus 65 st Sand Hollow  
Crossing. The material gravel and boulders.

The Company testing outfit arrived at Beverly the last of the  
past week and the foreman sent out by Mr. Stevens reached there Sunday.  
We will move the outfit up the west bank and start drilling from the west  
bank.

Yours truly,

*M. W. Houlund*

Asst. Engineer.

*W. L. Darling*  
*W. L. Darling*  
6/11

ST. PAUL, MINN.  
NOR. PAC. RY.  
1910  
JUN 11  
CHIEF ENGINEER  
OFFICE OF

ST. PAUL, MINN., June 11, 1910

Mr. J. H. Thompson, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Will you please let me know how to reach you

at the bank of the Columbia River Station 1870 plus 15 at and below

Crossing. The material gravel and boulders.

The company located office arrived at Beverly one foot of the

past week and the foreman sent out by Mr. Stevens reached there Sunday.

We will have the outfit in the next hour and about drilling from the west

bank.

Sincerely,

Wm. J. Thompson.

61ST CONGRESS,  
2D SESSION.

*W.S. Hatcher*  
*Am. Darling*  
*Indefinite*  
*6/10/10*  
3127  
**S. 8316.**

IN THE HOUSE OF REPRESENTATIVES.

JUNE 3, 1910.

Referred to the Committee on Interstate and Foreign Commerce.

## AN ACT

Authorizing the construction of a bridge across the Columbia River between the counties of Grant and Kittitas, in the State of Washington.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*  
3       That the Northern Pacific Railway Company, or any  
4       railway corporation controlled by it, is hereby authorized  
5       to construct, maintain, and operate a bridge and ap-  
6       proaches thereto across the Columbia River between  
7       the counties of Grant and Kittitas, in the State of  
8       Washington, at a point, suitable to the interests of navi-  
9       gation, in section twenty, township seventeen north, range  
10      twenty-three east, in accordance with the provisions of an

1 Act of Congress entitled "An Act to regulate the construc-  
2 tion of bridges over navigable waters," approved March  
3 twenty-third, nineteen hundred and six.

4 SEC. 2. That the right to alter, amend, or repeal this  
5 Act is hereby expressly reserved.

Passed the Senate June 2, 1910.

Attest: CHARLES G. BENNETT,  
*Secretary.*



61<sup>ST</sup> CONGRESS, }  
2<sup>D</sup> SESSION. } S. 8316.

---

## AN ACT

---

Authorizing the construction of a bridge across  
the Columbia River between the counties  
of Grant and Kittitas, in the State of  
Washington.

---

JUNE 3, 1910.—Referred to the Committee on Inter-  
state and Foreign Commerce.



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	RAIL FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
40	hm r d			M.		M.			M.		

FROM

Helena June 10-

TO

W L Darling

DATE

ST

STPaul

My address will be Ellensburg until further notice

H B Stoner 354a

6

ST. PAUL, MINN.  
NOR. PAID. BY  
JUN 19 1910  
OFFICE OF  
ENGINEER

40 m r d

John June 10-

W. J. Davidson

2-11-10

My address will be Ellensburg until further notice

H. J. Stoner

## Northern Pacific Railway Company



Ritzville, Wash., June 2nd., 1910

Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith tracings of maps as follows, Ritzville

Ellensburg survey:-

Preliminary map Jct. of Connell Northern to Columbia River scale 4000' = 1" *#363-2*Location map Connell Northern Jct. to Ellensburg, scale 4000' = 1" *#363-6*Right of Way map M.P. 40 to Columbia River 1.6% Dusher Grade Line *#215-25*

Yours truly,

*M. W. Honland*

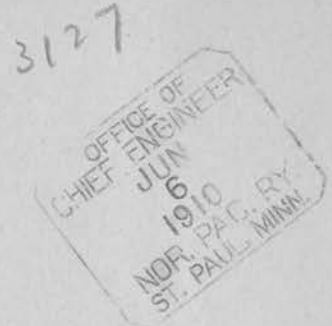
Asst. Engineer.

*map  
please furnish prints  
R.G.H.  
prints herewith  
6/7*

*Mr Darling  
also prints these maps  
under separate cover  
6/7*



## Northern Pacific Railway Company



Ritzville, Wash., June 3rd. 1910

Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith tracing of map and profile of the  
0.8% line from Sand Hollow to the Milwaukee bridge at Beverly.

Yours truly,

*M. W. Howard*

Asst. Engineer.

*JNP please forward  
this WSD 6/6  
R. G. A. F. prints presented  
6/7*

*in packing  
also prints these maps  
under separate cover  
rest  
6/7*



Form 1330

3127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

DATED

June 2, 1910.

TO W L Darling,

AT Car 12, On Line

Stoner wires from Ellensburg June 1st: Expect to reach Miles City Saturday. Will wire tonight what train I can get.

R E Gemmell

4:30-----P M



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
266	BY	VN.A.									
				M.		M.			M.		

FROM                      Millensburg    June 1-1910.                      TO                      W.L.Darling.  
DATED                                           AT                      ST.Paul.

Expect to reach Miles City saturday.will wire tonight.

What train I can get.

H.B.Stoner.

341pm.2.



Form 1234

18 3.127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

TO W L Darling,

DATED

June 2, 1910

AT Car 12, On Line

Stoner wires June 1st from Ellensburg: Leaving  
on No. 8 second reach Miles City Friday night.

R F Gemmell

10:20-----A M





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	RECEIVED BY	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
166	BY S.A.										
			Ellensburg		June 1-1910.			W.L. Darling.			

ST. Paul.

FROM

TO

DATED

AT

Leaving on no 8 second reach Miles City friday night.

H.B. Stoner.

851am.2.



FORM 1386

3127

10 09 100mF

**TELEGRAM.** All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgement would have served the Company's interest as well if sent by train mail, or which appear unnecessary, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	NUMBER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.					M.		

COPY.

FROM

St Paul

TO

H B Stoner,

DATED

June 1st, 1910..

AT

Ellensburg.

Am going west tonight first on No. 7. Expect to be at Terry, Miles City, and Forsythe probably until middle of next week. Wire me St Paul how soon you can meet me there as I ~~want~~ may want to go over line with you from White Sulphur Springs to Helena.

W L Darling.

WLD R



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Rate Fares	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
2003	BY 0	N									
				M.		M.			M.		

FROM

Ellensburg, May 31/10

TO

W.L. Darling


DATED

BY

Stp.

Address Ellensburg until further notice, Wired you to this effect from  
Winston 26th.

H.B. Stoner. 5am





# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FE	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY

FROM St Paul  
May 31st, 1910..

TO H B Stoner,

DATED

AT Ellensburg.

I must have your address so as to know where to find you. Have been trying to get hold of you for week and get no answers Wire me ~~quik~~ where I can always reach you. Am going west Wednesday night and want to get hold of you sometime this week.

W L Darling.

WLD R





Form 1390

3127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
7	BY:RO:FO:			M.		M.			M.		

FROM

Ellensburg. <sup>TO</sup> 30- 1-1910

W.J. Darling

Stpaul

One percent line, 3 miles longer than one six .Will have line located and section ties made one week from date.

H.B. Stoner

150am



# TELEGRAM.

3  
Form 1000 3127  
All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those of parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM St Paul

DATED

May 20th, 1910.. AT

TO H B Stoner,

Ellensburg.

Think you better locate one per cent line instead of  
nine tenths if nine tenths is going to be two miles  
longer.

W L Darling.

WLDR



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
276	BY.B.A.										

FROM

DATED

Ellensburg May 20-1910.

TO

AT

W L Darling.

ST. Paul.

Stendahls Party arrived Last night other Parties have gone to Montana  
nine tenths line would be two miles longer than one percent line the  
Alignment would be bad near Ellensburg being similar to eight tenths  
Line which was projected to come in east of Yards. It runs east and  
then looped back in order to cross C M & P.S.

H B Stoner.

331pm.



Form 1588

**TELEGRAM.**

✓  
All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 234, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

**COPY.**

FROM St Paul TO H B Stoner,  
DATED May 19th, 1910.. AT Ellensburg.

If nine tenths line is possible what is matter with it.  
Are you figuring on using Stendahl's party. Have both  
your parties gone east.

W L Darling.

WLD R





FORM 1330

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1222	BY	PO	CH	1157pm.	M.				M.		

FROM Ellensburg. May 18-10.

TO

W. L. Darling.,

DATED

AT

St. Paul.

Nine tenths line possible But do not consider a good a line as one per cent. shall get out a projection Expect to leave for virginia city Friday.

HB Stoner



Form 1000

3360

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 226, and forward same to the Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME SENT	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

TO

H B Stoner,

DATED

St Paul

May 17th, 1910..

Ellensburg.

How soon will you be able to make reconnoissance from Virginia City over to Madison. Very important this be ~~do~~ done. Can you not do this while they are locating the one per cent line from Summit to Ellensburg.

W L Darling.

WLD R



FORM 1234

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
						<b>COPY.</b>					
				M.		M.			M.		

FROM

St Paul

TO

H B Stoner,

DATED

May 17th, 1910..

AT

Ellensburg.

Is it practicable to reduce the one percent grade from  
Ellensburg east to the summit to nine tenths instead  
of one percent.

W L Darling.

WLD R

Northern Pacific Railway Company

3127

Ellensburg, Wash., May 27, 1910.

Mr. H. L. Darling,  
 Chief Engr.,  
 St. Paul, Minn.,

Dear sir,

Herewith 400' map of "Middle Creek  
 Location" Please note that on the 2000' map of  
 same location which I sent you on the 23rd. inst.  
 the R/W. in sec. 20, T. 17 N., R. 23 E. is shown in-  
correctly and has been corrected on 400' map.

Yours truly,  
 Correction made

on 1"=2000' map # 215-20  
 6/2

H. B. Stoner,

Asst Engr.

C. G.

JMS

Print please 6/2

ms 6/2

R. B. J.  
 Herewith  
 6/2

Blue print Herewith

OFFICE OF  
 CHIEF ENGINE  
 JUN  
 2  
 1910  
 ST. PAUL, MINN.



Elmsburg Nov 5/20

Mr. A. Darling Chief Engr  
St Paul

Pearlie -

Under separate cover I am  
 sending you following maps and profiles  
 2000 map <sup>#215-18</sup> 1.6 Location Ellensburg to summit  
 2000 map <sup>#215-16</sup> 0.8 " " From main line connection  
 5 mi west of Ellensburg to summit  
 2000 map <sup>#215-20</sup> 2.4 " Summit to Columbia river  
 400 maps of above 1.6 and 0.8 locations  
 Profiles of above lines <sup>6% line = #477-14</sup> <sup>1.6% line = #477-15</sup> <sup>2.4% line = #477-16</sup>  
 The 400 map of 2.4 location will be completed  
 in a few days and will be mailed as soon  
 as ready.

Yours truly  
W. B. Stokes A.S.

Mrs  
 phone note  
 being referred to  
 Plot 4  
 index + Profiles  
 filed as noted above  
 6/10/27  
 J. M.



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending, and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
91	Wm. C. J. B.			M.	pm						

FROM Winston TO W. L. Darling

DATED May 26/10 AT

Wire. Wire from Curtis Greene Draftsman Ellensburg  
 Maps sent you May 23rd you should  
 get them this morning. There be at  
 Camp today and tomorrow Helena  
 tomorrow evening Spokane Saturday  
 Ellensburg Sunday H. B. Stoner ✓

Not yet received

reg  
 5/26



Form 1380

277 3127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
13 ST MCNN				M.		M.			M.		

FROM

Ritzville, May 24/10

TO

W.L.Darling

AT

Stpaul.

Maps Mile forty to River on number eight tonight.

M.W.Howland.

108am

*Inc*  
*some these been received*  
*R&H*  
*yes*  
*map #215-15*  
*6/4*

**TELEGRAM.**

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NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

**COPY.**

FROM St Paul TO H B Stoner,  
 DATED May 25th, 1910.. AT Helena. Aktax.

Maps not yet received from your draftsman. How can I reach your draftsman so as to find out when they were sent When will you send in me report of reconnoissance you just made. What will be your address after leaving Helena.

W L Darling.





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
112	HN	R	C	432 P.		M.					

FROM Alder TO W L DarlingDATED May 25/10 AT 

Right way map river to summit wash to  
be sent you by draftsman from Ellensburg  
May 22nd advise at Helena if recd  
Leaving here for Helena today shall be there  
two days

H B Stoner



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those by parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 234, and forward same to Superintendent of Telegraph.

FORM 1484

3127

NUMBER	Rec'd Fr	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY.

FROM

St Paul

TO M W Howland,

DATED

May 23rd, 1910..

AT

Ritzville.

Have not yet received right of way maps of your line  
Mile Post 40 to Sand Hollow crossing including one  
six line. When will we get them.

W L Darling.

WLD R



FORM 128

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interests well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 223, and forward same to Superintendent of Telegraphs.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME SENT	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

St Paul

TO

H B Stoner,

DATED

May 23rd, 1910..

AT

Alder.

When will we get your right of way maps river to top  
of hill connecting one per cent line. Need them badly.

W L Darling.

WLD R



Form 1386

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
121	Hamm	n	gnd								

FROM

Bulte

TO

W J Darling

DATED

May 22

AT

St Paul

Telegraphic address alder until further  
Notice party at Ellensburg on one percent  
line.

H B Stoner

V



3127

## Northern Pacific Railway Company



Ritzville, Wash., May 24th., 1910

Mr. W. L. Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith profiles of the Ritzville Ellensburg Cut-Off M.P. 0.76 to M.P. 40 with grade line revised. There is no waste on this profile except at the summit cut just west of Crab Creek in Mile 16 where we have 5500 CU. Yds. waste. Raising the grade line another foot will do away with the waste but it will cost \$1000 more to construct as it increases the embankment more than it decreases the cut.

Estimate for grading on this line will be a little less than on the original profile and I will turn in estimates as soon as I can complete them.

Yours truly,

*M. W. Howland*

Asst. Engr.

*Prof. to record  
copy*

*Profile filed #  
#477-10419*

3127

**Northern Pacific Railway Company**

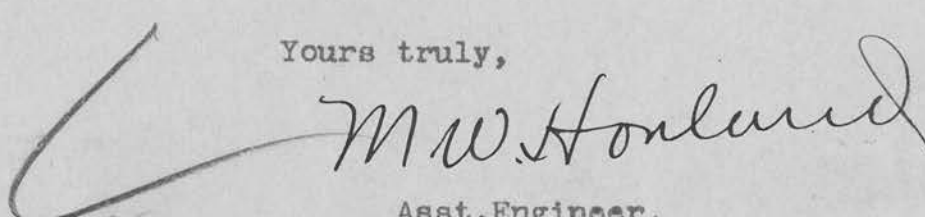
Ritzville, Wash., May 24th., 1910

r.W.L.Darling, Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Herewith maps and profiles of 1.6% pusher  
grade line down Sand Hollow from M.P.40 to the Columbia River.

Yours truly,

A large, stylized handwritten signature in dark ink, reading "M.W. Honland".

Asst. Engineer.

*Imp  
phone auto filing  
reference ref*

*Q.B.  
filed -  
mat # 215-15.1  
profile # 477-13 Jm.  
5/27*

3127

St. Paul, Minn., May 24th, 1910.

Mr. M. W. Howland,

Asst. Engr. Ritzville, Wash.

Dear Sir:

I return herewith your Voucher #178, ED #2195, amount,  
\$15.00.

Voucher is made out in favor of E. A. Schluter, and  
bill reads "Ernest" Schluter.

Will you please make voucher and bill agree.

Yours truly,

Chief Engineer.

M-W-enc-



# Columbia River Crossing "Located" Line at Skookumchuck Creek "A" Line Route

Same Csg. used by 0.8% line from Sand Hollow.  
Beverly 3-13-10 M. W. Howland A.E.





Form 1230

3127

## TELEGRAM.

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NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.					M.		

COPY.

FROM

St Paul

TO M W Howland,

May 24th, 1910..

Ritzville.

Your wire 23rd. about right of way map mile 0 to 40.

This is not what we want. What we do want is mile 40 to River.

W L Darling.

WLD R





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
26	SF OM N										

FROM

Ritzville, May 23/10

TO

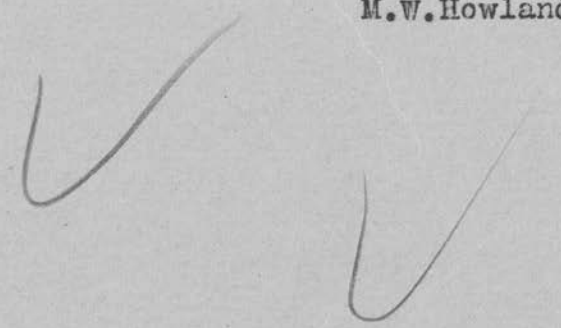
W.L.Darling,

AT

St Paul.

Right of way map mile 0 to mile 40 on Number eight tonight.

M.W.Howland. 240am



Ellensburg Wash 5/20/10  
 Mr M. L. Dwyling Chufangs  
 St Paul Minn  
 Dear Sir.

In regard to your letter of  
 inquiry regarding Carcadden  
 I've Bill wish to state that  
 numerous articles were purchased  
 there owing to the fact that I  
 was away from Ellensburg two  
 weeks and the camp was short  
 of some things and as I had  
 made no arrangements for  
 the different parties to order from  
 Tacoma they purchased what they  
 thought necessary at Carcadden.  
 The last day of the month I  
 purchased supplies in order to  
 send a crew back to the Columbia  
 river to revise a line. This part  
 of the work came up unexpectedly  
 and as I had scarcely any  
 supplies on hand it was necessary  
 to purchase locally.  
 Yours truly H. B. Stoddard

OFFICE OF  
CHIEF ENGINEER  
MAY 24  
1910  
NOR. PAC. RY.  
ST. PAUL, MINN.



Form 1280

312-7

**TELEGRAM.**

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NUMBER	RECEIVED	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY.

FROM

St Paul

TO

H B Stoner,

DATED

May 18th, 1910..

AT

Ellensburg.

Stendahl's party has been sent to you to locate the one per cent line or nine tenths line. Understand both other parties have gone east.

W L Darling.

WLD R



FORM 1386

2-10 100M F

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgement would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
		236	BY W J								
				M.		M.					

FROM

Ellensburg May 17 th 1910

TO

DATED

AT

St. Paul.

~~W. R.~~ W. L. Doring

Cannot locate one per cent line 10 days after getting party  
in field

H B Stoner

1145 am



WLD R

St. Paul, May 18th, 1910..

Mr. M. W. Howland,  
Assistant Engineer,  
Ritzville, Washington.

Dear Sir:-

Referring to your letter of the 11th inst.  
about sounding Columbia River for bed rock at crossing  
two miles north of Sand Hollow. I would like to have  
this work started and carried to conclusion as rapidly  
as possible. Mr. Stevens, our Bridge Engineer, will  
send a man out to supervise it. Meanwhile I made re-  
quisition for the cables and Mr. Stevens will arrange to  
have sounding outfit sent you at once.

Yours truly,

Chief Engineer.

Copy H E S



Form 1386

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1064	BY \$	CH	523a								
				M.		M.			M.		

FROM Ellensburg May 16-18-10.

TO

W L Darling

DATED

AT

St Paul

Howland advises that he has instructions to send stendahl's party to me at Ellensburg have recd no word from you to this effect please advise

H. B Stoner

*Mr Darling - You wired him on 16<sup>th</sup> & he  
replied on 17<sup>th</sup>. This message is dated 16<sup>th</sup>  
& probably sent before he received your wire*

*Rog*

# Northern Pacific Railway Company

REG-W

IN YOUR REPLY PLEASE

REFER TO FILE 3351

St. Paul, May 16, 1910.

Mr. H. B. Stoner,

Ass't. Engineer, Ellensburg, Wash.

Dear Sir:

Referring to bill of the Carscadden Grocery Company turned in by you for voucher amounting to \$101.95.

I do not understand the necessity for making such large purchases locally instead of making requisition. Will you please explain?

Do not think apples should be purchased this season of the year when they are so expensive.

I dont think lemons at \$6.60 per case should be purchased.

Will be glad to hear from you concerning this bill.

Yours truly,

*W. A. Darling*  
Chief Engineer.



# TELEGRAM.

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NUMBER	FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

St Paul

DATED

May 16th, 1910..

COPY  
TO  
AT

H B Stoner,

Ellensburg.

Am having Stendahl's locating party now at Ritzville with Howland report to you at once at Ellensburg to locate one percent line Wire me quick how long it will take to complete this location.

W L Darling.

WLD R



# TELEGRAM.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

St Paul

TO M W Howland,

DATED

May 16th, 1910.. AT

Ritzville.

Disregard my wire today about disbanding ~~Stendahl~~  
 Stendahl's locating party and send them to Stoner  
 Ellensburg.

W L Darling.

WLD R





Form 1240

**TELEGRAM.**

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NUMBER	Radio From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	TIME SENT	SENDER	RECEIVER

**COPY**

FROM

St Paul

TO

M W Howland,

DATED

May 16th, 1910..AT

Ritzville.

You will have to disband Stendahl's locating party.

Have no place for them at present. Send instrumentsto

St. Paul.

W L Darling.

WLD R

340pm



FORM 1386

2-10 100 MF

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
121	sf	n	f								

FROM

Ritzville May 14-10

TO

W.L.Darling,

DATED

AT

StPaul.

Stendahl has finished location advise what to do with party.

M.W.Howland. 520 pm



# TELEGRAM.

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FORM 1355

3127

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1042	BY	S CH	543a	_____M.	_____	_____M.			_____M.		

FROM Ellensburg May 14-15

TO W L Darling

DATED

AT

St Paul.

I am reminign in Ellensburg to complete Maps profiles and estimates  
espect to have everything in shape by May 20.

H B Stoner





Form 1384

**TELEGRAM.**

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NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				12200							
				M.							

FROM *Ritzville* TO *S Darling*  
DATED *May 11* AT *Spaul*

*Stendahl will finish 1.6 per cent line tomorrow*  
*What do you wish done with the party*

*M W Howland*



FORM 1386

3127

2-10 100m F

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
244	EB	7	h	1106am							

FROM

DATED

Ellensburg 5/3 '10

TO

AT

M. Darling  
Tacoma

In Tacoma on 7 with maps  
and profiles with to see you  
concerning certain revisions before  
moving Magoffins Camp

H. J. Stoner



Wf Darling  
of Cook



# TELEGRAM.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM Tacoma

TO H B Stoner,

DATED

May 2nd, 1910..

COPI AT

Ellensburg.

Expect to be in Tacoma until middle of week and probably go through Ellensburg about Thursday or Friday and want to see you then with maps and profiles. Will wire you later just when.

W L Darling.

WLD R



# TELEGRAM.

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NUMBER	REC'D FROM	*SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM  
DATED

Connell

April 28th, 1910..

TO  
AT

H B Stoner,  
Care A C Cook,  
Tacoma, Wash.

Expect to be on the coast all of this week and part of next. I would like to see you after you get your maps and profiles finished and before you go east.

W L Darling.

R



Form 1386

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
36	EPB	MR	an	1025	SP						

FROM

DATED

Ellensburg 571

TO

AT

W L Darling  
Tacoma

Necessary to revise 4 miles  
lower end two four line  
Can at ship magoffin's party  
before last of week  
Can take maps + profiles  
Monday night to Tacoma if  
you wish advise. The ~~the~~ revision  
on two four line can be shown only by  
projection at present  
H B Stoner



Form 1396

**TELEGRAM.**

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NUMBER	RECEIVED	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY

FROM

St Paul

TO

H B Stoner,

DATED

April 4th, 1910..

AT

Ellensburg.

Your wire 31st. We do not want to make change at Ellensburg ~~xx~~ you showed in your letter 26th. I wrote you on the first which letter you should have by this time. Advise if you received it.

W L Darling.

WLD R





Form 1386

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
620	BY	RO	NR								
				M.		M.			M.		

FROM Ellensburg, April 4-5-1910.

TO W.L. Darling,

AT StPaul.

Your wire of this date. Have not rec'd letter may get it tomorrow .

H.B. Stoner.

521 AM

Ritzville, Wash. 7-10  
 Mr. W. L. Darling Chief Eng.  
 St. Paul, Minn.

Dear Sir:—

Following is a report  
 of location work Ritzville Ellenburg  
 Cutoff for week ending Apr. 29<sup>th</sup>.

Stendahl party has moved to the  
 mouth of Sand Hollow and begun  
 running out a 1.6% pusher grade  
 to crossing two miles north of Sand  
 Hollow, raising the bridge 25 feet  
 at East end and crossing on a 0.7%  
 grade as per our conversation at  
 Spokane. It will take the party  
 about 10 days to finish field work,  
 maps and estimates.

The drill outfit began work of  
 sounding for bed rock this week and  
 should have first hole pretty well down.  
 Report not received as yet.

Maps profiles and estimates have  
 all been furnished you with exception  
 of 0.8% line to Cross P. S. bridge  
 We are revising grade line on

CHIEF ENGINEER  
MAY 5 1910  
NOR. PAC. RY.  
ST. PAUL, MINN.

Profiles of the line from Cornell Northern  
to crossing two miles north of Sand Hollow  
and will furnish new ~~maps~~ and profiles  
as soon as possible.

Yours truly  
M. W. Honland.



3127

## Northern Pacific Railway Company.

Ritzville, April 30th, 1910.

Mr. W. L. Darling,

Chief Engineer.

Tacoma, Wash.

Dear Sir:

Herewith tracing and profile of Ritzville-Ellensburg Cut-Off M.P. 0 - 20 also small scale map of my location and estimates form 214 covering the line from Connell Northern Ry to Snookumchuck Crossing and also from Connell Northern Ry to Crossing two miles above Sand Hollow.

I have shown on profile in pencil a grade revision for first twenty mile section but expect to furnish new profiles and estimates covering the revision of grade as soon as we can make them up.

The estimate on the line to crossing two miles north of Sand Hollow of \$36,000 per mile is about \$ 5,000 per mile higher than my preliminary estimate. The difference is about \$ 1,000 on track due to use of 90# steel and balance on grading due in part to classification being too low on first estimate and in part to work along the cliffs running considerably heavier than expected. However the grade revision will lower the final estimate somewhat and I believe that the 1.6% line will be much cheaper construction along the cliffs. I think that \$ 34,000 per mile will cover the final estimate from the Connell Northern Ry to the



1 Northern Pacific Railway Company.

Columbia River Crossing two miles north of Sand Hollow but not including the bridge.

Yours truly,

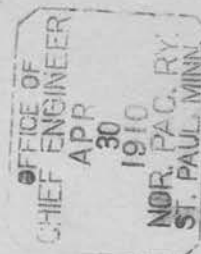
*M. W. Honland*

MWH

Assistant Engineer.

3127

# Northern Pacific Railway Company.



Ritzville, April 27, 1910.

Mr. W. L. Darling,  
Chief Engineer.  
St. Paul, Minn.

Dear Sir:

*Ritzville-Ellensburg Cutoff*

Tracing of map L2 M.P. 20 - M.P. 40 <sup>^</sup> is in error  
with respect to P.C. of curve at Summit Frenchman Hill.

The P.C. should be 1367 plus 60, notes as follows, -

P.C. - 1367 plus 60 Angle = 27 degree 20'

P.T. - 1394 plus 93.3 1 degree curve right.

Will you please correct the P.C. on tracing.

Yours truly,

*M. W. Harland*  
Assistant Engineer.

MWH

*Correction made on  
map & profile  
6/10 JHB*

*MP  
Plo comply  
4/30 JHB*

504

(4)

INTERLOCKERS - Continued.

Concrete Pipe Carrier Foundations (Number)	Each
" Cant Foundations ( " )	Each
" Compensation Foundations ( " )	Each
Wire, other than line (Same as Auto. Block Rig)	
Live Wire Structure ( " " " " " )	
Pole Structure ( " " " " " )	
Signals ( " " " " " )	
Conduit ( " " " " " )	
Drumming and capping ( " " " " " )	

Have 1" span

259-23 Ready to resign

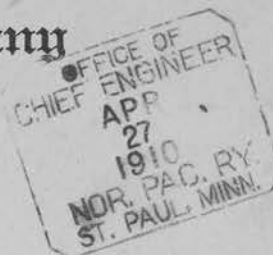
1764-23 Horn

---

800 514  
179 009



Northern Pacific Railway Company



Mandan, N. Dak., April 26, 1910

Mr. W. L. Darling,

Chief Engineer,

St. Paul, Minn.

Dear Sir:

I am sending you by express under separate cover another tooth similar to the one sent you last fall which has been found in one of the channel changes on the Cannon Ball Line.

Yours truly,

*P. E. Thian*  
Assistant Engineer

PET-T



3127  
St. Paul, April 25, 1910.

REG-W

Mr. H. B. Stoner,

Ass't. Engr., Ellensburg, Wash.

Dear Sir:

As requested in your message of the 21st, I  
am returning herewith Magoffin's maps and profiles of  
projected 2.5 line.

Yours truly,

Enc.

Chief Engineer.

3127

Ritzville, Wash. <sup>4/25-10</sup>  
Mr. W. L. Darling, Chief Eng.  
St. Paul, Minn.

Dear Sir:—

Following is  
a report of location work Ritzville  
Ellensburg Cut off for week ending  
Apr. 23-10.

Auderson's Party finished field  
work last week and moved to Ritzville  
first of this week and party disbanded.

Stendahl's Party finished location of  
0.8% line to Beverly the first of this  
week and have since been working  
out an 0.8% line to Crossing <sup>of Columbia River</sup> two  
miles north of Sand Hollow.

Maps and profiles all ready except  
0.8% line to Beverly and that will no  
doubt be finished first of the week.

Your letter <sup>Apr. 20.</sup> in regard to using  
company outfit for soundings of  
Columbia River for bedrock received  
Saturday. The outfit I had arranged for  
were already on the work and as  
Mr. Darling is expected here on the

ST. PAUL, MINN.  
NOR. PAC. RY.  
1910  
APR 30  
OFFICE OF  
CHIEF ENGINEER

next few days thought best to let them  
work for the time being.

Yours truly  
M. W. Howard.



ST. PAUL, MINN.  
NOR. PAC. RY.  
NOV 30 1910  
APR  
CHIEF ENGINEER  
OFFICE OF





**TELEGRAM.** All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal seal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM St. Paul, Minn., TO M. W. Howland,  
 DATED April 24th, 1910. AT Ritzville, Wash.

Make 4000 foot map Connell Junction to River . Expect  
 to be in Connell about Wednesday or Thursday . Would like  
 to see you at that time if possible.

W. L. Darling.

WLD-D

COPY

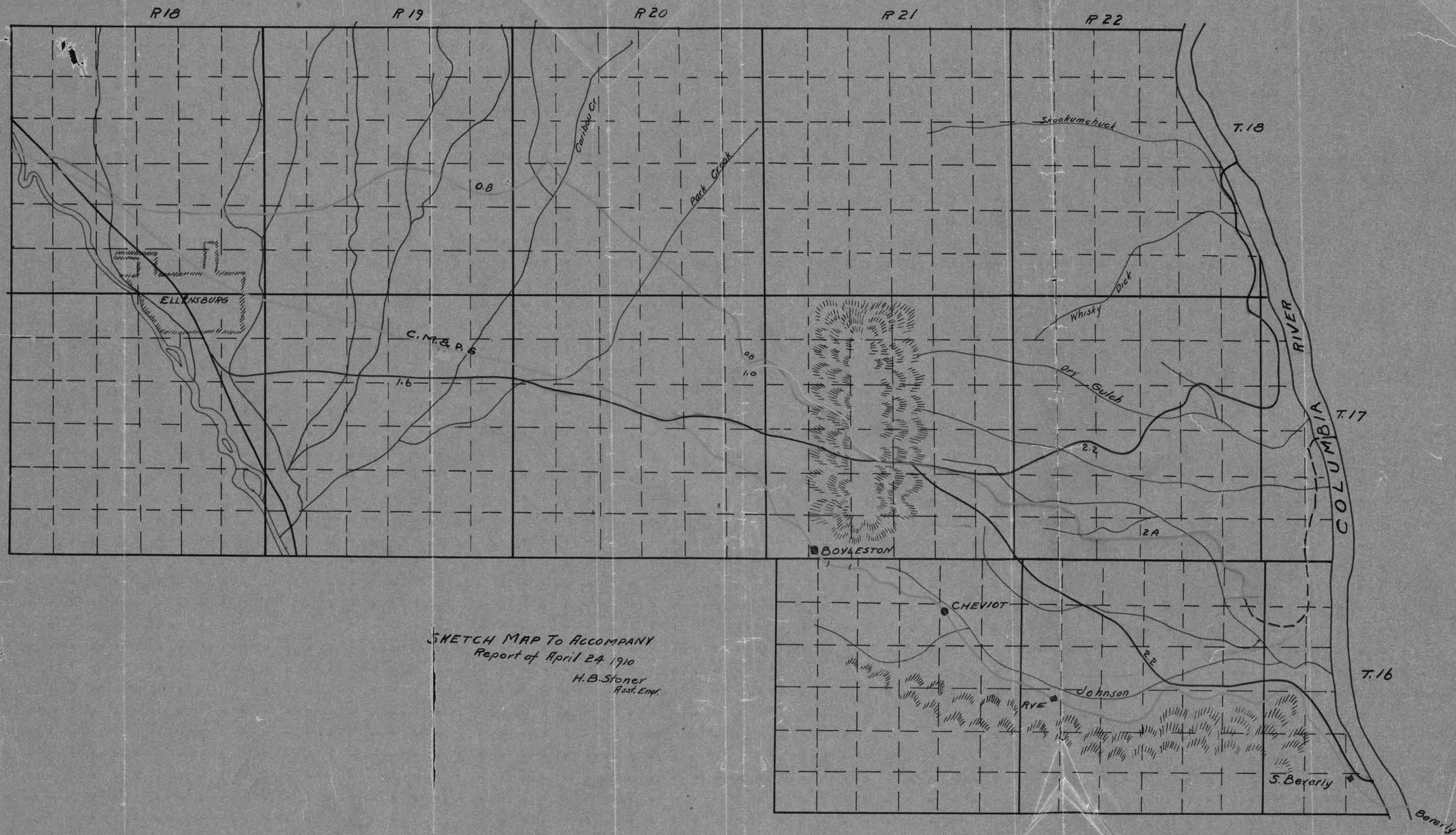
3127

Ellensburg Wash / 24 10  
 Mr. A. Darling Chief Eng.  
 St. Paul  
 Dear Sir -

Herewith sketch  
 to accompany report  
 of this date.  
 The O.S. line is completed  
 with exception of few section  
 line ties. Expect to move  
 Timmy to summit of mts  
 east of Helena last of the week  
 shall complete 1.00, and O.S.  
 lines sometime next week  
 Sincerely,  
 J. B. Honey

ST. PAUL, MINN.  
NOR. PAC. RY.  
APR 28 1910  
OFFICE OF  
CHIEF ENGINEER





SKETCH MAP TO ACCOMPANY  
Report of April 24 1910

H. B. Stoner  
Asst. Engr.



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
25	A	V	NR								

FROM Mandan Apl 23-1910

TO W.L. Darling,

DATED

AT

stPaul

Leave for stPaul Sunday on no 8 with Maps and profiles of edgeley  
line make estimate Monday cant make estimate here acct no data or  
Dorsetts location.

Kay Alexander.

1051pm



ST. PAUL, MINN.  
NOV. 24, 1910  
APP  
CHIEF ENGINEER  
OFFICE OF

*lower 2*  
*col 2*

10.30

*Go home*



Form 1386

**TELEGRAM.**

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**COPY.**

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

TO H B Stoner,

DATED

April 23, 1910

AT Ellensburg

Following from H E Bonner, Ellensburg. Can you send Tate's eight tenths preliminary hard copy at once for Kinney's use. Answer.

W L Darling

11:45----- ----A M



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signature of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

**COPY**

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

DATED

April 23, 1910

TO H B Stoner,

AT Ellensburg

The following from Magoffin: W H Mann  
in Ellensburg. Advise if you can use him.

W L Darling

11:45-----A M



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1039	by	cc	p								

FROM

Ellensburg, Apl. 21, 1910

W. L. Darling,

DATED

AT

St. Paul.

Please return Magoffin's maps and profiles.

H. B. Stoner.

526am 22





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D	HOW	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
					M.		M.					

**COPY**

FROM

DATED

April 21, 1910

TO W L Darling,

AT Car 12, Mandan.

Howland wires, has instructions from you to hold at Ritzville for inspection maps and profiles mile post 20 to river but had sent same to St Paul and asks to have them returned to him. These just received. Shall I forward them to you or to him at Ritzville.

R E Gemmell

11:45-----A M



Form 1386

3127

**TELEGRAM.**

Δ11 Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
48	a	om	in	4:11 pm							

FROM *Mandan* TO *RE Emmell*DATED *Apr 21* 10 AT *St Paul*

*Your wire 2:21 about Billings  
Ritzville Maps Leave on my desk  
I will be in St Paul Saturday  
night or Sunday Morning for a day  
W L Darling*



Form 1230

3127 3

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

DATED

April 21, 1910

TO H. B Stoner,

Ellensburg

COPY.

W O Frost wires from Ellensburg through taking  
topography what next.

W L Darling

3:50-----P M



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.	_____	_____M.			_____M.		

FROM

Mandan

TO R E Gemmell,

DATED

April 21st, 1910..

AT

St Paul.

Your wire 21st. about Ritzville maps. Leave on my desk. I will be in St Paul Saturday night or Sunday Morning for a day.

W L Darling.

WLD R



.....NP...GI... ..OM..... 1133 am

St. paul 4-21-1910.

W. L. Darling,

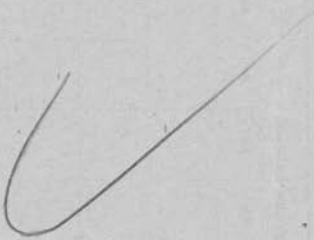
andan N.D.

---000---

Howland wires has instructions from You to hold at Ritzville for inspection maps and profiles Mile post 20 to River But had sent same to Saint Paul and asks to have them returned to him.

These just recieved. Shall I forward them to you or to him at Ritzville.

R.E.G



WLD R

At Mandan, North Dakota,

April 20th, 1910..

Mr. H. E. Stevens,

Bridge Engineer.

Dear Sir:-

Please note attached from Mr. Howland relative to soundings of the Columbia River north of Sand Hollow.

I do not believe it is necessary yet to make these soundings, but when it does become necessary we can use the outfit now at the mouth of the Cannon Ball.

Yours truly,

Chief Engineer.

Encl.

Copy Mr Howland.

3127 12  
WLD:R

At Mandan, April 20th, 1910..

Mr. M. W. Howland,  
Assistant Engineer,  
Ritzville, Washington.

Dear Sir:-

Referring to your letter of the 13th inst. We have a very good sounding outfit now at the mouth of the Cannon Ball River. We can send it to you for use in the next few days if found advisable.

Yours truly,

Chief Engineer.





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. Also transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
252	sf n f			M.		M.			M.		

FROM Ritzville April 19-10

TO W.L. Darling

DATED

AT

StPaul.

Maps and profiles Ritzville Ellensburg cut off MP 20 to River sent to StPaul by express on Number six yesterday. Wire today from Mr. Darling hold same here for his inspection. Please return at once

M.W.Howland. 406 pm 20

222 at n 1

Ritzville April 19-10

W.L. Darling

St Paul.

Maps and profiles Ritzville Ellensburg out off MP 20 to River sent  
to St Paul by express on Number six yesterday. Wire today from Mr.  
Darling hold same here for his inspection. Please return at once  
M.W. Howard. 408 pm 20

OFFICE OF  
CHIEF ENGINEER  
APR 20 1910  
NOR. PAC. RY.  
ST. PAUL, MINN.





FORM 1386

3127

3165

109100m F

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
114	sf b f										
				M.		M.			M.		

FROM Ritzville April 19-10

TO W.L. Darling,

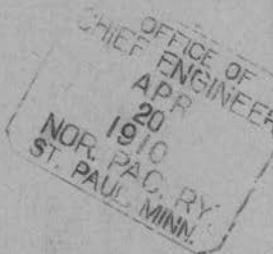
DATED

AT

StPaul.

Your pink April 15th. received today, distance from Crossing Connell  
Adrian to Crossing twomiles North Sand ~~Raint~~ Hollow is forty five  
and one tenth miles.

M.W.Howland. 515 pm





Form 1330

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				_____M.	_____M.	_____M.			_____M.		

FROM

DATED

April 18, 1910.

TO

H. B. Stoner,  
Ellensburg, Wash.

**COPY.**

Have received from McGoffin for you map and profile  
project 2.5 line. Shall I forward same.

W. L. Darling.

10:15-----A. M.



## TELEGRAM.

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NUMBER	FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
348	BY	US.A.									
				M.		M.			M.		

Ellensburg April 18-1910.

H D Stoner,

FROM

TO

DATED

AT

Care W.L.Darling.

ST.Paul.

Through Taking Topography what next.

W.O.Frost.

847am.21.





FORM 1550

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
15	Ellensburg	Ellensburg	St Paul	1104a					504		
				M.					M.		

FROM

DATED

Ellensburg 4/8 TO H B Stoner  
St Paul  
W H Mann in Ellensburg  
advise if you can use  
him

S. S. Magoffin





*221000000*

*with*

*to the*

*in the*

*of the*

*of the*

*of the*

*of the*

*of the*

*of the*

*of the*

*of the*

3127 X  
Mr Gemmell:

Retained Mr Howland's report  
and an extra copy of this message  
as Mr Darling may call for it at  
Ritzville.

J H R



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM  
DATED

Mandan

April 17th, 1910..

TO

M W Howland,

AT

Ritzville, Wash.

Your report 9th. Hold all maps and profiles Ritzville west until I reach Ritzville which will be about a week or ten days. See that all maps and profiles are in shape including right of way lines. Have estimate made on Form 114 so that I can check over with you.

W L Darling.

WLD R



# TELEGRAM.

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NUMBER	RECD FR	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM  
DATED

Mandan

April 17th, 1910..

TO M W Howland,

AT Ritzville, Wash.

Your report 9th. Hold all maps and profiles Ritzville west until I reach Ritzville which will be about a week or ten days. See that all maps and profiles are in shape including right of way lines. Have estimate made on Form 114 so that I can check over with you.

W L Darling.

WLD R

Pitzville, Wash. 7/17-10  
Mr. W. L. Darling Chief Eng.  
St. Paul, Minn.

Dear Sir:-

Herewith maps on 1"=400' scale also profiles of located line M.P. 20 to M.P. 53 at Sookumchuk Crossing and M.P. 40-47 at crossing two miles north of Sand Hollow. Also short piece of profile showing a connection between the L line pusher grade and L<sup>2</sup> line. This projection carries the 1.9% grade to an intersection of the 0.8% and reduces the length of pusher grade by 7000 feet. We did not run this line on the ground for the reason that it can be easily handled by resident engineer at in case the pusher grade is built.

The 0.8% line to Sookumchuk Crossing was thrown into heaven cut along the cliffs than projection sent you and it would probably have to be thrown more at points marked on profile "Edge of bluffs". I do not think that this will change the preliminary estimate very materially.



CHIEF OF  
ENGINEER  
APPROVED  
1910  
NOR. PAC. RY.  
ST. PAUL, MINN.

as this change cuts out the viaducts. In case this line is adopted it would be well to consider the slack grade and run an alternate line shifting the slack to the cliffs and endeavor to make the grade line fit along the benches. A projection along the cliffs is of but little value for this purpose.

Will forward the balance of our location maps etc as soon as possible.

Yours truly  
M. W. Howland.

Ritzville, Wash. Apr. 17/10  
Mr. W. L. Darling, Chief Eng.  
St. Paul, Minn.  
Dear Sir:-

Following is report  
of location work Ritzville Ellensburg Cutoff  
for week ending Apr. 16-10.

Anderson has finished all field work  
and the party is enroute for Ritzville  
where I will disband them as per your  
wire.

Stendahl has the location of the 0.8%  
line to C.M. & P. S. Br. at Beverly made but  
will require a day or two to complete  
section ties.

I am checking over maps from M.P.  
to the River today and will forward to  
you tonight or tomorrow a.m. Maps will  
all be in my office by Tuesday night  
and will forward at once.

We are trying out a projection over  
the "C" line to Crossing two miles above  
Sand Hollow and a 1.6% or 1.7% down  
Sand Hollow to this crossing. We may  
be able to get this 1.6% or 1.7% by taking



CHIEF OF  
ENGINEER  
APR 1910  
ST. PAUL, MINN.  
NOR. PAC. RY.

a Summit cut and raising the bridge about 20 feet which will do away with the draw bridge. I do not expect to locate these piers upon the ground unless Mr. Stoner's line to this crossing proves of sufficient value to warrant the work.

I have received information from Major Gamble, the engineer who did the work on C.M. & P.S. Bridge at Beverly, which I am offering merely as interesting material. Gamble says that none of the piers of C.M. & P.S. Br. rest upon bed rock and it seems that no preliminary sounding for bed rock were made. Efforts were made along this line but were failures - a few holes were attempted along shore but the drill outfit was <sup>much</sup> too light. Heavy rope cables were purchased for anchoring barge in midstream but these were lost in the attempt to stretch them and the work abandoned. Sheet piling was driven in place around the site and excavation made with clam shell buckets. The material was small boulders and coarse gravel very compact but not



Cemented. Rails were driven occasionally to test bottom but in only two instances to bed rock, which was encountered at a depth of 50 to 60 feet below river bed. In these two cases sand pockets were encountered and piling driven for foundation. The two high piers in the middle of the stream were excavated to depth of but 7 to 9 feet and concrete put in after testing bottom by driving rail, which did not reach bed rock. Gamble tells me that he still has his record sheets and offers to permit me to inspect same at first opportunity.

It would appear from above that bed rock may be at a considerably greater depth than I estimated. My estimate was 15 to 30 ft.

I made arrangements for a 6" steam well drill to go to Peru by the last of this week but think there was a little delay account of getting an experienced foreman. Will give this matter attention at once and endeavor to get the work moving.

Yours truly  
M.W. Howland.



Form 1336

**TELEGRAM.**

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NUMBER	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
38	Elk River			11:26							
				M.		M.			M.		

FROM

Ellensburg  
Apr 17 - 10

TO  
AT

AB Stone 504  
C/O W L Darling  
St Paul

Can you send dates eight tenths  
preliminary hard copy advance  
for Kinney's use x Ans

HE Bonner

OFFICE OF  
CHIEF ENGINEER  
APP  
23  
1910  
NOR. PAC. RY.  
ST. PAUL, MINN.



FORM 153c

3127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 22, and forward same to Superintendent of Telegraph.

NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY 6

FROM

St Paul

TO

M W Howland,

DATED

April 15th, 1910..

AT

Ritzville.

Your answer to my pink not intelligent. I care nothing about your stationing. You say it is 46 miles to the crossing of the Columbia north of Sand Hollow. I want to know what the distance is from Connell & Northern line crossing to the crossing of the Columbia River two and half miles north of Sand Hollow. Answer quick.

W L Darling.

WLD R





Form 1364

**TELEGRAM.**

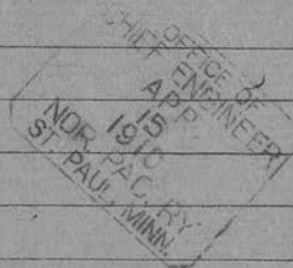
All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
21	of	Sc	W	106 <sup>a</sup> <sub>M.</sub>	15				6 <sub>M.</sub>		

FROM Ritzville 4  
 DATED 14.  
 TO W. L. Darling  
 AT R

Your wire date station twenty two  
 on located line equals thirty four  
 plus twenty on Ritzville Branch  
 we use Krumms Location under  
 Connell adrian line but back  
 our stationing to junction with  
 Ritzville Branch

W. W. Howland





FORM 1280

**TELEGRAM.**

all Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 228, and forward same to Superintendent of Telegraph.

NUMBER	Code	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

St Paul

TO

M W Howland,

DATED

April 14th, 1910..

AT

Ritzville.

Wire me quick today where your distances start from on Connell Northern Line. Your letters and reports show no connection with either Connell Northern or Ritzville Branches and we must have them today.

W L Darling.

WLD R

3127



**TELEGRAM.** All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgement would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
112	sf n fr			M.		M.			M.		

FROM Ritzville April 13-10 TO W.L. Darling  
 DATED AT StPaul.

Cannot get eight tenths line down stream to crossing two miles above Sand Point Have to Use "C" line or Crab Creek to get eight tenths line to this crossing.

M.W.Howland. 528 pm



# TELEGRAM.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

St Paul

TO

M W Howland,

DATED

April 13th, 1910.

Ritzville.

When Anderson's party is through, think you better  
disband them.

W L Darling.

WLD R



172  
Ritzville, April 13th, 1910..

Mr. W. L. Darling,  
Chief Engineer.

Dear Sir:-

Referring to your letter of April 1st, in regard to soundings for bed rock at Columbia River crossings twomiles north of Sand Hollow.

The river bed is covered to some depth with coarse gravel and boulders and in my judgement it will be necessary to use a heavy drill mounted upon a barge. With a small drill outfit it would be impossible to tell whether we were hitting a fair sized boulder or bed rock.

I am endeavoring to get a well drill barge and cable for anchoring the barge.

Yours truly,

M W Howland,  
Ass't Engr.

MWH



# TELEGRAM.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY.

FROM St Paul, TO M W Howland,  
 DATED April 12th, 1910.. AT Ritzville.

Is it practicable to get eight tenths line down Columbia River and across two miles north of Sand Hollow. If so which way and what will be the distance and what will be approximate cost. Wire me tomorrow.

W L Darling.

WLD R



## TELEGRAM

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NUMBER	Rec'd FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
16	sf	D	m	1 48 a	15						

FROM

Ritzville 4  
.12

TO

W L Darling  
Mn

DATED

AT

Anderson will finish location to Junction  
Connell Nov. by Thursday  
M W Howland

L

3127

St Paul Minn 4/11 '10  
 Revised Estimate A Ellensburg  
 to Summit 16 Lins 17.5 mi  
 Total Curvature 648°

204 191 SR @ 85¢	124 162.00
103208 Earth @ 20¢	20642.00
62191 yds SR Box @ 55¢	34205.00
646166 yds SN @ 01	6262.00
1000' Tunnel @ 75¢	75000.00
234000 Tr. Haul Box to feet timber truck @ 25¢	58500.00
308' CIP @ 10	3080.00
3601 yds Concrete @ 10	36010.00
1048450 FBM in trunks @ 30	31453.00
30 tons iron " " @ 65	1950.00
1202 tons radium steel @ 100	120200.00
160 X Rt way @ 300	48000.00
91.5 X Rt Up @ 30	2745.00
17.5 mi track, ballast, fence, tel line etc @ 1700	175000.00
17.5 mi Gravel. Men & materials 7000	122500.00

859709.00

42985

---

 \$902694.00

Add 5% Eng. etc

Trans men on grading 1.3





Form 1336

3127

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
75 Md 0m		P		100 7h							

FROM Missoula TO W. L. DarlingDATED 4/10 AT St PaulOn delayed No. 4.H. B. StonerC

In lower Superior

They have been -



# TELEGRAM.

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FORM 1000

3127

NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
255	BT.	B.A.									
				M.		M.			M.		

FROM

Ellensburg April 8-1910. TO

W.L.Darling.

DATED

AT

ST.Paul.

Will reach ST.Paul Monday night .

H.B.Stoner.

333pm.

U

Ritzville, Wash 4/9-10  
Mr. W. L. Darling, Chief Eng.  
St. Paul, Minn.

Dear Sir:-

Herewith sketch  
report for week ending apr. 9-10

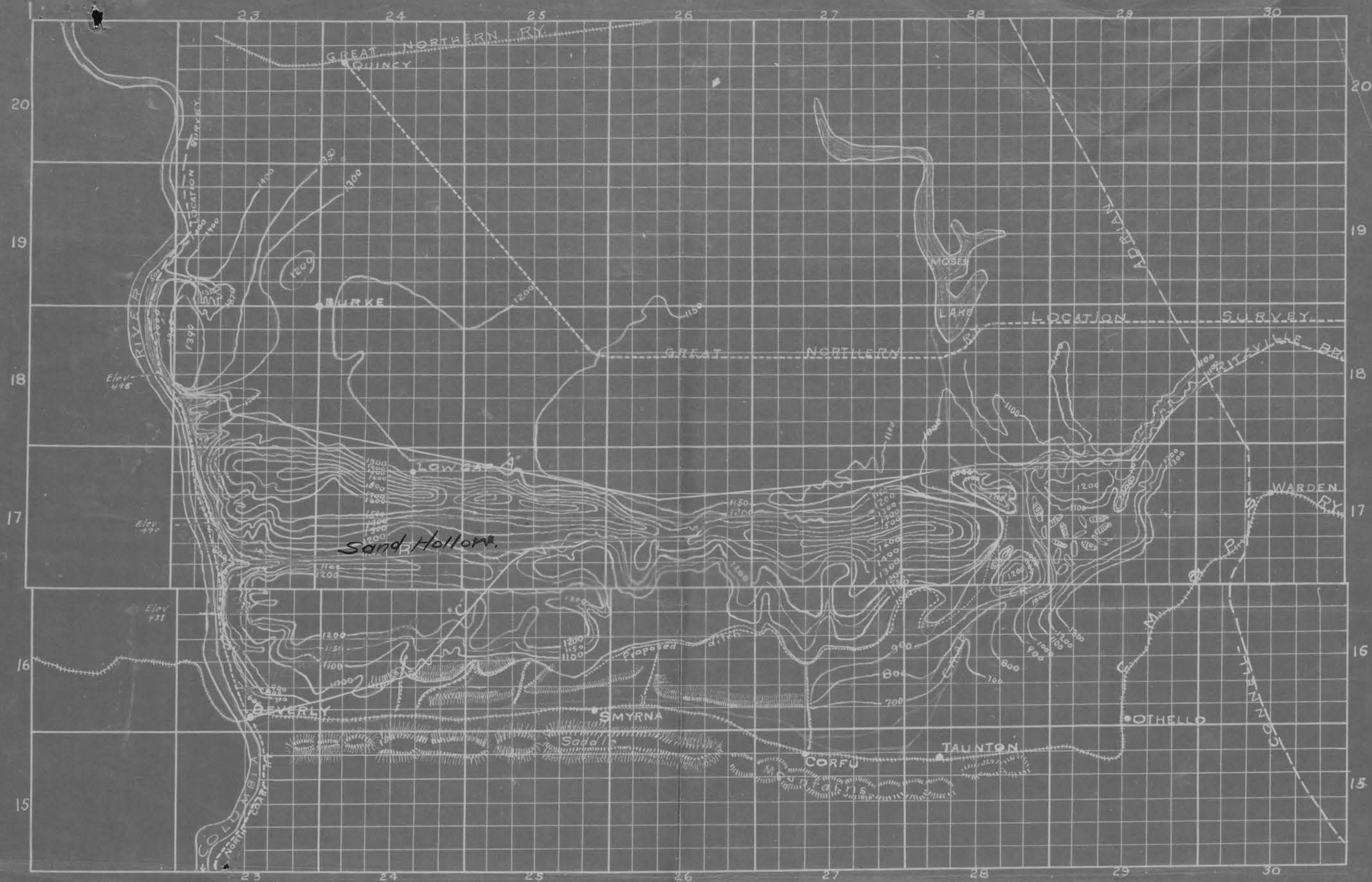
Anderson will finish his location  
by Wednesday or Thursday of next week  
and Stendahl will finish by end of  
the week. Maps and profiles to you  
by end of the week apr. 16<sup>th</sup>.

Have letter from you regarding  
soundings <sup>for bed rock</sup> at crossing two miles  
North of Sand Hollow. I am endeavoring  
to get outfit to do the work and will  
report more fully within a few  
days.

Yours truly  
M. W. Howard



OFFICE OF  
CHIEF ENGINEER  
APR 16  
1910  
NOR. PAC. RY.  
ST. PAUL, MINN.



Sketch Report  
 by M. W. Howland

N. P. Ry.  
 Ritzville - Ellensburg Survey  
 Reconnaissance Map  
 of  
 country between  
 Connell-Adrian Ry. and Columbia River.  
 scale. 1" = 4 miles.

Beverly, Wash, March 3, 1910.

M. W. Howland. A.E.



Form 1386

**TELEGRAM.**

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NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
345											
				M.		M.			M.		

FROM Ellensburg April 6-10.

TO W.L.Darling.

DATED

AT ST.Paul.

Must make trip to all camps for Maps and Profiles before starting  
for ST.Paul. Expect start St.paul saturday.

H B Stoner.4pm





# TELEGRAM.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

COPY.

FROM St Paul TO H B Stoner,  
 DATED April 5th, 1910.. AT Ellensburg.

Can you not reach St Paul sometime this week with  
 all the estimates for project including projection  
 down Middle Creek. Answer when you can come.

W L Darling.

WLD R



## Northern Pacific Railway Company

HES

3127



Saint Paul, April 5, 1910.

Mr. W. L. Darling,  
Chief Engineer.

Dear Sir:

The approximate cost of Columbia River crossing, B Line route, assuming that solid rock will be found at a depth not greater than 10' below ground line shown on profile, is \$456,000., exclusive of freight charges; and \$606,000., including freight charges.

As soon as we get some data regarding character of the bottom I will revise figures, if necessary.

Yours truly,

Bridge Engineer.



# TELEGRAM.

All Railway Messages must be written in ink on the  
parties on trains (except trainmen), enclosed in sealed  
After transmitting telegrams which in their judgment would have served the Company's  
long, operators are required to attach a copy to Form 238, and forward same to Superintendent.

Form 1236

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED
340	BY	W	CN	M.	M.	M.

FROM

Ellensburg..April. 5th-10

W.L.Darling

DATED

AT

St Paul.

Your letter received this am

H B Stoner

440pm

✓

## NORTHERN PACIFIC RAILWAY COMPANY

3127

Ritzville - Ellensburg Cut-off.

CONSTRUCTION

Jct. with Connell Northern to Columbia River Crossing at  
Snookumchuck Creek.

Max. Grade 0.8%.

File

Apr 1910

Month

190

Per Mile  
THIS MONTH52.55 Miles  
TOTAL TO DATE

## ENGINEERING.

- 1 A Salaries and Wages
- 1 B General Expenses
- 1 C Subsistence of Men and Animals.
- 1 D Animals, Vehicles, Field Equipment and Guides

## LAND.

- 2 Right of Way and Station Grounds
- 3 Real Estate

## ROADWAY.

- 4 A Clearing and Grubbing } 19894.23
- 4 B Grading } 34.25 1800.00
- 4 C Protection of Banks } 19859.98 1043642.05
- 5 Tunnels } 1423.88 1423.88 74825.00
- 6 A Steel Bridges } 340.27 17881.30
- 6 B Wooden Bridges } 512.29 172.02 9040.00
- 6 C Masonry and Concrete Substructures }
- 6 D Masonry and Concrete Bridges and Culverts }
- 6 E Other Culverts }

## TRACK.

- 7 Ties } 1253.58 65876.00
- 8 Rails } 478873 251647.80
- 9 Frogs and Switches } 7174 3770.00
- 10 Track Fastenings and other Material } 113740 59770.48
- 11 Ballast } 123924 65122.20
- 12 Track Laying and Surfacing } 1129.01 59329.60
- 13 Roadway Tools }

## STRUCTURES

- 14 Fencing Right of Way } 16318 8575.00
- 15 Crossings and Signs } 3240 1703.07
- 16 Interlocking and other Signal Apparatus }
- 17 Telegraph and Telephone Lines } 22500 11823.75
- 18 Station Buildings and Fixtures } 29191 15340.00
- 19 General Office Buildings and Fixtures }
- 20 Shops, Enginehouses and Turntables } 28352 14900.00
- 21 Shop Machinery and Tools }
- 22 Water Stations } 47193 24800.00
- 23 Fuel Stations } 19029 10000.00
- 24 Grain Elevators }
- 25 Storage Warehouses }
- 26 Dock and Wharf Property }
- 31 Miscellaneous Structures } 1658.23

## MISCELLANEOUS.

- 32 Transportation of Men and Material } 8463.59 8463.59 444761.83
- 33 Rent of Equipment }
- 34 Repairs of Equipment }
- 35 Earnings and Operating Expenses during Construction }
- 36 Cost of Road Purchased }
- 43 Law Expenses }
- 44 Stationery and Printing }
- 45 Insurance }
- 46 Taxes }
- 47 Interest and Commissions }
- 48 Other Expenditures 5% Eng. } 2106.17 2106.17 110679.38

TOTAL EXPENDED  
APPROPRIATION  
BALANCE

44229.63

2324266.96

## NORTHERN PACIFIC RAILWAY COMPANY.

## CONSTRUCTION DEPARTMENT.

To secure uniformity in making estimates of cost of railroads, and to call to mind items that might otherwise be forgotten, Engineers will use this blank, and be particular to include in their estimates, full and complete details of everything required to build the road.

## Ritzville-Ellensburg Cutoff

Estimate of cost of line *Jct. Connell Northern to Columbia River Crossing at Snookmuck Creek*

Length: Main Track *52.55* miles; Siding, etc. *7.25* miles; Total *59.8* miles,

Based upon *0.8 Max. Grade*

made

*Jan - Apr. 1900*, by *M. W. Howland*

*Asst* Engineer, under direction of *W. L. Darling, Chief Engr.*

*Rockcuts - 18'*  
*Earth - 24'*  
*Embank - 18'*

ITEM	QUANTITIES	@	AMOUNT	TOTAL
RIGHT OF WAY AND STATION GROUNDS.				
Right of Way—Agricultural Lands	<i>557</i> acres	<i>35<sup>00</sup></i>	<i>19495.00</i>	
" " —Mining Claims <i>Scab Lands</i>	<i>199</i> acres	<i>25<sup>00</sup></i>	<i>4750.00</i>	
Station Grounds	<i>60</i> acres	<i>35<sup>00</sup></i>	<i>2100.00</i>	
Terminal Grounds at	acres			
Damages to property				
Salaries and expenses	<i>10%</i>		<i>2634.50</i>	<i>28979.50</i>
4. REAL ESTATE.				
	acres			
5. CLEARING AND GRUBBING.				
Clearing, light <i>Sagebrush</i>	<i>360</i> acres	<i>5<sup>00</sup></i>	<i>1800.00</i>	<i>1800.00</i>
Clearing, heavy	acres			
Grubbing	stations			
Cutting down overhanging trees	trees			
6. GRADING.				
Solid rock	<i>789700</i> cu. yds.	<i>85x</i>	<i>671245.00</i>	
Loose rock	<i>63050</i> cu. yds.	<i>40x</i>	<i>25220.00</i>	
<i>Hardpan.</i>	<i>372510</i> cu. yds.	<i>33 1/4x</i>	<i>124790.85</i>	
<i>Earth 300' H.</i>	<i>114950</i> cu. yds.	<i>18x</i>	<i>20691.00</i>	
Earth <i>300'-1000' H.</i>	<i>264710</i> cu. yds.	<i>22x</i>	<i>58236.20</i>	
Borrow pits	<i>E. 300' H.</i>	<i>18x</i>	<i>27108.00</i>	
	<i>E. 300'-1000'-H.</i>	<i>22x</i>	<i>11220.00</i>	
	<i>S.R.B.</i>	<i>55x</i>	<i>50490.00</i>	
Extra haul	<i>5239100</i> cu. yds.	<i>01x</i>	<i>52391.00</i>	
Train service (widening cuts, banks, etc.)	days			
Rent of equipment	days			
Riprap	<i>1800</i> cu. yds.	<i>125</i>	<i>2250.00</i>	<i>1043642.05</i>
Slope wall	cu. yds.			
Retaining wall	cu. yds.			
Carried Forward,				<i>1074421.55</i>
(1)				



ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				1074421.55
Wing dams, cribbing, etc.					
Contingencies					
7. TUNNELS.					
Excavation	580 710	Lin. Ft. lin. ft.	50 <sup>00</sup> 60 <sup>00</sup>	29000.00 42600.00	
Extra excavation		cu. yds.			
Timber lining	129000	ft. B. M.	25 <sup>00</sup>	3225.00	74825.00
Masonry lining		cu. yds.			
8. BRIDGES, TRESTLES AND CULVERTS. (State number of spans, length and kind of truss.)					
spans, feet, truss.					
spans, feet, truss,					
spans, feet, truss,					
Wrought Iron in truss		lbs.			
Cast Iron in truss		lbs.			
Timber in truss		ft. B. M.			
Framing and erection		lin. ft.			
Painting					
Falsework					
Concrete in abutments and piers		cu. yds.			
Masonry in abutments and piers		cu. yds.			
Timber in abutments and piers		ft. B. M.			
Excavation for abutments and piers		cu. yds.			
Abutment and pier filling		cu. yds.			
Wrought Iron in abutments and piers		lbs.			
Cast Iron in abutments and piers		lbs.			
Piles, hardwood, in place		lin. ft.			
Piles, softwood, in place	20820	lin. ft.	24 <sup>00</sup>	4996.80	
Timber in pile and trestle bridges	490100	ft. B. M.	23 <sup>00</sup>	11272.30	
Wrought Iron in pile and trestle bridges	23400	lbs.	3 <sup>00</sup>	702.00	
Cast Iron in pile and trestle bridges	17180	lbs.	3 <sup>00</sup>	515.40	
Iron guard rails for high trestles <i>Galv. Iron</i>	13160	# gro. tons	3 <sup>00</sup>	394.80	
Fastenings for guard rails		lbs.			
Timber in culverts		ft. B. M.			
<del>Exc</del> culverts <i>Vit. Pipe 24"</i>	2240	lin. ft. <del>log</del>	15 <sup>00</sup>	3360.00	
Cast Iron pipe culverts	142	gro. tons	40 <sup>00</sup>	5680.00	26921.30
Masonry culverts		cu. yds.			
	Carried Forward,				1176167.85
	(2)				

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1176167.85
Blind drains	cu. yds.			
Train service	days			
Inspection and incidentals				
Contingencies				
9. TIES.				
59.8 miles $\times$ 2,700 ties per mile =	161460 ties	40x	64584.00	
34 sets switch ties	set	38 <sup>00</sup>	1292.00	65876.00
Inspection and incidentals				
10. RAILS.				
52.55 miles, <sup>90</sup> 66 lb. $\times$ <sup>141.4</sup> 141.4 gro. tons per mile	7430.6 gro. tons	30 <sup>00</sup>	222918.00	
miles, 66 lb. $\times$ 104 gro. tons per mile	gro. tons			
7.25 miles, 72 lb. $\times$ 113 gro. tons per mile	819.2 gro. tons	25 <sup>00</sup>	20480.00	
Inspection, handling, etc.	8249.8	1 <sup>00</sup>	8249.80	251647.80
11. TRACK FASTENINGS. (200 lb. kegs.)				
Track spikes 59.8 miles $\times$ 33 kegs =	1973 kegs	38 <sup>00</sup>	7497.40	
Track bolts 59.8 miles $\times$ 1500 =	490 kegs	45 <sup>00</sup>	2205.00	
Angle bars, <sup>90</sup> 56 lb. <sup>52.55</sup> miles $\times$ <sup>640</sup> 712 bars $\times$ <sup>27</sup> 16 lbs. each	908064 lbs.	cwt. 16 <sup>00</sup>	14529.02	
Angle bars, 66 lb. miles $\times$ 712 bars $\times$ 17 lbs. each	lbs.			
Angle bars, 72 lb. <sup>7.25</sup> miles $\times$ 712 bars $\times$ 18 lbs. each	92916 lbs.	cwt. 16 <sup>00</sup>	1486.66	
Rail braces	braces			
Track spikes for braces—1 keg to 160 braces	kegs			
Tie plates 52.55 miles	283770 each	12x	34052.40	59770.48
12. FROGS AND SWITCHES.				
Split switches, complete with frogs	<sup>16</sup> 18 sets	95 <sup>00</sup> 125 <sup>00</sup>	1520.00 2250.00	3770.00
Stub switches, complete with frogs	sets			
Railroad crossings, (including timbers)	crossings			
13. TRACK LAYING AND SURFACING.				
Track laying	59.8 miles	300 <sup>00</sup>	17940.00	
Rent of equipment	do days	200 <sup>00</sup>	11960.00	
Train service (1/2 mile track per day)	do days	335 <sup>00</sup>	20033.00	
Track surfacing, <i>Placing Switches</i>	34 sets	25 <sup>00</sup>	850.00	
Track tools (sections 5 to 7 miles long each) <i>Tie Plateing</i>	52.55 sections	60 <sup>00</sup>	3153.00	
Track inspection and incidentals				
Contingencies			5393.60	59329.60
	Carried Forward,			1616561.73
	(3)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1616561.73
14. BALLAST.				
59.8 miles X 1,500 cu. yds. =	89700 <sup>00</sup> cu. yds.	32¢	28704.00	
Train service miles X 5 days per mile =	do days	21¢	18837.00	
Rent of equipment	do days	13¢	11661.00	
Contingencies	10%		5920.20	65122.20
15. STATION BUILDINGS and FIXTURES. (Standard Plans)				
1st class combination depots S. 26-1				
2d. class combination depots S. 26-4				
2d class combination (2 story) depots S. 26-7				
3d class combination depots S. 26-9	4	1600 <sup>00</sup>	6400.00	
3d class combination (2 story) depots S. 26-14				
4th class combination depots S. 26-31				
1st class freight depots S. 27-1				
2d class freight depots S. 27-20				
1st class brick passenger stations S. 28-1				
1st class frame passenger stations S. 28-7				
2d class frame passenger stations S. 28-12				
Depot privies M. 41-1	4	35 <sup>00</sup>	140.00	
Furniture and fixtures	4 stations	200 <sup>00</sup>	800.00	7340.00
Wells at stations		wells		
Track scales				
Contingencies				
16. ENGINE HOUSES AND TURNTABLES.				
1st class round house, brick, stalls S. 32-1		per stall		
/ Frame engine house 4 stalls S. 32-30	4	per stall	1800 <sup>00</sup>	7200.00
Ash pit S. 32-35				
Turntables, iron— 85 ft. diameter	1	7500 <sup>00</sup>	7500.00	14700.00
Turntables, combination— ft. diameter				
17. ENGINE AND CAR SHOPS.				
Blacksmith shop M. 41-5				
Repair shop				
Brick sand and oil house M. 41-6				
Frame sand house M. 41-7	/	200 <sup>00</sup>	200.00	200.00
	Carried Forward,			1703973.93
	(4)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1703973.93
18. SHOP MACHINERY AND TOOLS.				
19. WATER STATIONS.				
Water tanks S. 37-3	4	3200 <sup>00</sup>	12800.00	
Pump houses with pumps and boilers S. 37-1	4	1600 <sup>00</sup>	6400.00	
Wells (generally 16 ft. diam. and curbed)	2 Drilled 2 Dug Wells.	2000 <sup>00</sup> 800 <sup>00</sup>	4000.00 1600.00	24800.00
Gravity supply, or by aqueduct, ram, etc.—cast pipe				
Submerged tanks S. 37-7				
20. FUEL STATIONS.				
1st class coaling station—48'x S. 36-1				
2d class coaling station S. 36-5	2	5000 <sup>00</sup>	10000.00	10000.00
Coal platform—16'x 80' S. 36-9				
21. FENCING RIGHT OF WAY.				
Fencing—against stock— 49 miles of fence		175 <sup>00</sup>	8575.00	8575.00
22. SNOW FENCES AND SNOW STRUCTURES.				
Snow fences		ft. B. M.		
Snow sheds		ft. B. M.		
23. STOCK YARDS.				
Stockyards—8 car capacity				
Stockyards—4 car capacity				
Stockyards—2 car capacity	3	200 <sup>00</sup>	600.00	600.00
24. CROSSINGS, CATTLE GUARDS AND SIGNS.				
Cattle guards	40 guards	15 <sup>00</sup>	600.00	
Road Crossings	20 crossings	8 <sup>00</sup>	160.00	
Signs, posts, etc.	52.55 miles	15 <sup>00</sup>	788.25	
	10%		154.82	1703.07
	Carried Forward,			1749602.00
	(5)			



ITEM		QUANTITIES	@	AMOUNT	TOTAL
		Brought Forward,			1749602.00
25.	INTERLOCKING OR SIGNAL APPARATUS.				
26.	DOCKS, WHARVES AND COAL BUNKERS.				
27.	TRANSFER BOATS AND BARGES.				
28.	SECTION AND TOOL HOUSES.				
1st class section houses	S. 39-1				
2d class section houses	S. 39-4				
3d class section houses	S. 39-6	8	850 <sup>00</sup>	6800.00	
Double tool houses	S. 39-8				
Single tool houses	S. 39-8	8	50 <sup>00</sup>	400.00	
Section house privies	M. 41-1	8	25 <sup>00</sup>	200.00	7400.00
29.	MISCELLANEOUS STRUCTURES.				
Telegraph offices	M. 44-1				
Watchman's houses	M. 41-3				
100 ton ice house	S. 27-41				
200 ton ice house	S. 27-42				
Team Loading Platforms	M. 41-13				
30.	TELEGRAPH LINES.				
miles		52.55 miles	225 <sup>00</sup>	11823.75	11823.75
31.	TRANSPORTATION CHARGES.				
Steel rails 8249.8 gro tons = 9239.7 net tons			21.32	196990.40	
Track spikes 1973 kegs = 197.3 net tons			23.30	4597.09	
Track bolts 490 kegs = 49 net tons			"	1141.70	
Angle bars 1000980 lbs. = 500.5 net tons			"	11661.65	
Tie Plates 1986390 lbs. = 993.2 net tons			"	23141.56	
Frogs and switches 34 sets = 51 net tons			"	1188.30	
Bridge iron 446230 lbs. = net tons			151 crvt	7005.81	
Cast Iron Pipe		142 Tons	122	3663.60	
V.it. Pipe		416640 <sup>+</sup>	27 <sup>00</sup>	3916.42	1768825.75
		Carried Forward,		253306.53	

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		253306.53	1768825.75
Water stations <sup>47 Ton</sup> 4 × 30 tons each = net tons	372000#	264	967.20	
Telegraph <sup>Poles</sup> material + Fence Posts. net tons	1338,050#	264	3478.93	
Building material and miscellaneous net tons	2,055,480#	264	5344.25	
Cement	253600#	364	912.96	
Wire	100000#	135	1350.00	
Total to tons × miles				
Br. Tim. ft. timber = tons × miles	2,377,800#	264	6182.28	
<sup>161460</sup> 34 Sets. Sw. cross ties = tons × miles	30116800#	264	78303.68	
engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges	1898320 9.54		94916.00	444761.83
Transportation of laborers and others	miles			
32. OPERATING EXPENSES AND EARNINGS.				
Train service hauling material	days			
33. CONSTRUCTION EQUIPMENT.				
Hand, push, velocipede cars, pile drivers, etc.				
34. GENERAL EXPENSES.				
Expenses of incorporation, taxes, etc.				
35. INTEREST AND DISCOUNT.				
Discount, interest, etc., during construction				
			TOTAL,	2213587.58
				110679.38
Engineering expenses, add per cent of above total (generally about 5 per cent)				
Expend on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				2324266.96
Per mile of main track 52.55	44229.63.			

## NORTHERN PACIFIC RAILWAY COMPANY

## CONSTRUCTION

"Ritzville-Ellensburg Cut-off" Sct. Connell Northern to Columbia  
 River Csq. Two Miles North of Sand Hollow.  
 File Apr. 1910 Month 190

Per Mile 45.74 Miles.  
 THIS MONTH TOTAL TO DATE

## ENGINEERING.

- 1 A Salaries and Wages
- 1 B General Expenses
- 1 C Subsistence of Men and Animals
- 1 D Animals, Vehicles, Field Equipment and Guides

## LAND.

- 2 Right of Way and Station Grounds 563.95 563.95 25 795.00
- 3 Real Estate

## ROADWAY.

- 4 A Clearing and Grubbing } 32.79 1 500.00
- 4 B Grading } 14 243.03 14 210.24 649 976.40
- 4 C Protection of Banks }
- 5 Tunnels 109.31 109.31 5000.00
- 6 A Steel Bridges } 420.97 19 255.38
- 6 B Wooden Bridges }
- 6 C Masonry and Concrete Substructures }
- 6 D Masonry and Concrete Bridges and Culverts }
- 6 E Other Culverts 615.55 194.58 8 900.00

## TRACK.

- 7 Ties 1 243.99 56 900.00
- 8 Rails 90# steel 4 766.20 21 8006.00
- 9 Frogs and Switches 67.34 30 80.00
- 10 Track Fastenings and other Material 1 140.55 52 168.82
- 11 Ballast 1 230.89 56 301.30
- 12 Track Laying and Surfacing 95 69.98 1 121.01 51 275.29
- 13 Roadway Tools

## STRUCTURES

- 14 Fencing Right of Way 175 00 8 004.50
- 15 Crossings and Signs 34 78 1 590.71
- 16 Interlocking and other Signal Apparatus
- 17 Telegraph and Telephone Lines 225.00 10 291.50
- 18 Station Buildings and Fixtures 294.93 13 490.00
- 19 General Office Buildings and Fixtures
- 20 Shops, Enginehouses and Turntables
- 21 Shop Machinery and Tools
- 22 Water Stations 445.99 20 400.00
- 23 Fuel Stations 109.31 5 000.00
- 24 Grain Elevators
- 25 Storage Warehouses
- 26 Dock and Wharf Property
- 31 Miscellaneous Structures 1285.01

## MISCELLANEOUS.

- 32 Transportation of Men and Material 8191.84 8191.84 374 694.61
- 33 Rent of Equipment
- 34 Repairs of Equipment
- 35 Earnings and Operating Expenses during Construction
- 36 Cost of Road Purchased
- 43 Law Expenses
- 44 Stationery and Printing
- 45 Insurance
- 46 Taxes
- 47 Interest and Commissions
- 48 Other Expenditures 5% Engineering. 1728.81 1728.81 79 081.47

TOTAL EXPENDED

APPROPRIATION

BALANCE

St. Paul, Minn.

Apr. 23 - 1910

M. W. Howland  
 Auditor District Agents

## NORTHERN PACIFIC RAILWAY COMPANY.

## CONSTRUCTION DEPARTMENT.

To secure uniformity in making estimates of cost of railroads, and to call to mind items that might otherwise be forgotten, Engineers will use this blank, and be particular to include in their estimates, full and complete details of everything required to build the road.

*Ritzville-Ellensburg Cut-off.*

Estimate of cost of line *Sct. Connell Northern* to *Columbia River Crossing Two Miles North of Sand Hollow.*

Length: Main Track *45.74* miles; Siding, etc. *5.96* miles; Total *51.7* miles,

Based upon *0.8 Max. Grade with 53 Miles of 1.9% Pusher made Jan - April 1900*, by *M.W. Howland*

*grade* Asst. Engineer, under direction of *W. L. Darling, Chief Engr.*

*Rock Cuts - 18' - 28' - 10'*  
*Earth Embank - 10'*

ITEM	QUANTITIES	@	AMOUNT	TOTAL
RIGHT OF WAY AND STATION GROUNDS.				
Right of Way—Agricultural Lands	<i>560</i> acres	<i>35<sup>00</sup></i>	<i>19600<sup>00</sup></i>	
" " Mining Claims <i>Scab Lands</i>	<i>70</i> acres	<i>25<sup>00</sup></i>	<i>1750<sup>00</sup></i>	
Station Grounds	<i>60</i> acres	<i>35<sup>00</sup></i>	<i>2100<sup>00</sup></i>	
Terminal Grounds at	acres			
Damages to property			<i>2345<sup>00</sup></i>	<i>25795<sup>00</sup></i>
Salaries and expenses <i>R/W Agent 10%</i>				
4. REAL ESTATE.				
	acres			
5. CLEARING AND GRUBBING.				
Clearing, light <i>Sage brush</i>	<i>300</i> acres	<i>5<sup>00</sup></i>	<i>1500<sup>00</sup></i>	<i>1500<sup>00</sup></i>
Clearing, heavy	acres			
Grubbing	stations			
Cutting down overhanging trees	trees			
6. GRADING.				
Solid rock	<i>395060</i> cu. yds.	<i>85¢</i>	<i>335801<sup>00</sup></i>	
Loose rock	<i>25970</i> cu. yds.	<i>40¢</i>	<i>10388<sup>00</sup></i>	
<i>Hardpan</i>	<i>360940</i> cu. yds.	<i>33½¢</i>	<i>120914<sup>90</sup></i>	
	cu. yds.			
Earth <i>{ 300' haul</i>	<i>110290</i> "	<i>18¢</i>	<i>19852<sup>20</sup></i>	
<i>{ 300'-1000' "</i>	<i>269730</i> cu. yds.	<i>22¢</i>	<i>59340<sup>60</sup></i>	
Borrow pits <i>{ 300' haul</i>	<i>147660</i> "	<i>18¢</i>	<i>26578<sup>80</sup></i>	
<i>{ 300'-1000' "</i>	<i>50000</i> cu. yds.	<i>22¢</i>	<i>11000<sup>00</sup></i>	
Extra haul <i>{ Solid Track</i>	<i>55320</i> "	<i>55¢</i>	<i>30426<sup>00</sup></i>	
	<i>3342490</i> cu. yds.	<i>01¢</i>	<i>33424<sup>90</sup></i>	
Train service (widening cuts, banks, etc.)	days			
Rent of equipment	days			
Riprap	<i>1800</i> cu. yds.	<i>12<sup>5</sup></i>	<i>2250<sup>00</sup></i>	<i>649976<sup>40</sup></i>
Slope wall	cu. yds.			
Retaining wall	cu. yds.			
Carried Forward,				<i>677271<sup>40</sup></i>
(1)				



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			677271 40
Wing dams, cribbing, etc.				
Contingencies				
7. TUNNELS.				
Excavation	100 lin. ft.	50 00	5000 00	5000 00
Extra excavation	cu. yds.			
Timber lining	ft. B. M.			
Masonry lining	cu. yds.			
8. BRIDGES, TRESTLES AND CULVERTS. (State number of spans, length and kind of truss.)				
spans, feet, truss.				
spans, feet, truss,				
spans, feet, truss,				
Wrought Iron in truss	lbs.			
Cast Iron in truss	lbs.			
Timber in truss	ft. B. M.			
Framing and erection	lin. ft.			
Painting				
Falsework				
Concrete in abutments and piers	cu. yds.			
Masonry in abutments and piers	cu. yds.			
Timber in abutments and piers	ft. B. M.			
Excavation for abutments and piers	cu. yds.			
Abutment and pier filling	cu. yds.			
Wrought Iron in abutments and piers	lbs.			
Cast Iron in abutments and piers	lbs.			
Piles, hardwood, in place	lin. ft.			
Piles, softwood, in place	23220 lin. ft.	24 1/2	5572 80	
Timber in pile and trestle bridges	513000 ft. B. M.	23 00	11799 00	
Wrought Iron in pile and trestle bridges	23446 # lbs.	34	703 38	
Cast Iron in pile and trestle bridges	21180 # lbs.	34	635 40	
Iron guard rails for high trestles <i>Galv. Iron</i>	18160 # <del>gro. tons</del>	34	544 80	
Fastenings for guard rails	lbs.			
Timber in culverts	ft. B. M.			
<del>Log culverts</del> <i>24" (240/875) Vitrified Pipe Culverts</i>	2580 lin. ft. <del>log</del>	1 50	3870 00	
Cast Iron pipe culverts	68 gro. ton	40 00	2720 00	
Masonry culverts <i>Hauling</i>	4620 <del>ton miles</del>	50 1/2	2310 00	
	Carried Forward,		28155 38	682271 40
	(2)			

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		28155 <sup>38</sup>	682271 <sup>40</sup>
Blind drains	cu. yds.			
Train service	days			
Inspection and incidentals				
Contingencies				28155 <sup>38</sup>
9. TIES.				
51.7 miles × 2,700 ties per mile =	139590 ties	404	55836 <sup>00</sup>	
28 sets switch ties	set	38 <sup>00</sup>	1064 <sup>00</sup>	56900 <sup>00</sup>
Inspection and incidentals				
10. RAILS.				
45.74 miles, <sup>90</sup> <del>66</del> lb. × <sup>141.4</sup> <del>104</del> gro. tons per mile	6468 gro. tons	30 <sup>00</sup>	194040 <sup>00</sup>	
miles, 66 lb. × 104 gro. tons per mile	gro. tons			
5.96 miles, 72 lb. × 113 gro. tons per mile	673 gro. tons	25 <sup>00</sup>	16825 <sup>00</sup>	
Inspection, handling, etc.	7141	1 <sup>00</sup>	7141 <sup>00</sup>	218006 <sup>00</sup>
11. TRACK FASTENINGS. (200 lb. kegs.)				
Track spikes 51.7 miles × 33 kegs =	1706 kegs	3 <sup>80</sup>	6482 <sup>80</sup>	
Track bolts 51.7 miles × <del>1500</del>	484 kegs	4 <sup>50</sup>	2178 <sup>00</sup>	
Angle bars, <sup>90</sup> <del>66</del> lb. <sup>640</sup> <del>45.74</del> miles × <sup>27</sup> <del>112</del> bars × <del>17</del> lbs. each	78039 <sup>80</sup> <del>bars</del>	1 <sup>60</sup> <del>cent.</del>	12646 <sup>37</sup>	
Angle bars, 66 lb. miles × 712 bars × 17 lbs. each	lbs.		1222 <sup>13</sup>	
Angle bars, 72 lb. 5.96 miles × 712 bars × 18 lbs. each	7638 <sup>30</sup> <del>bars</del>	1 <sup>60</sup>	1222 <sup>13</sup>	5216 <sup>82</sup>
Rail braces	braces			
Track spikes for braces—1 keg to 160 braces	kegs			
Tie plates 45.74 miles 7# each	246996 each	124	29639 <sup>52</sup>	52168 <sup>82</sup>
12. FROGS AND SWITCHES.				
Split switches, complete with frogs	14 sets	95 <sup>00</sup>	1330 <sup>00</sup>	
Stub switches, complete with frogs	14 sets	125 <sup>00</sup>	1750 <sup>00</sup>	3080 <sup>00</sup>
Railroad crossings, (including timbers)	crossings			
13. TRACK LAYING AND SURFACING.				
Track laying	51.7 miles	300 <sup>00</sup>	15510 <sup>00</sup>	
Rent of equipment	do days	200 <sup>00</sup>	10340 <sup>00</sup>	
Train service (½ mile track per day)	do days	335 <sup>00</sup>	17319 <sup>50</sup>	
Track surfacing	28 sets miles	25 <sup>00</sup>	700 <sup>00</sup>	
Placing Switches				
Tie plating	45.74 Miles sections	60 <sup>00</sup>	2744 <sup>40</sup>	
Track tools (sections 6 to 7 miles long each)				
Track inspection and incidentals				
Contingencies 10%			4661 <sup>39</sup>	51275 <sup>29</sup>
Carried Forward,				1091856 <sup>89</sup>
(3)				

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1091856 <sup>89</sup>
14. BALLAST.				
51.7 miles × 1,500 cu. yds. =	77550 cu. yds.	32¢	24816 <sup>00</sup>	
Train service miles × 5 days per mile =	40 days	21¢	16285 <sup>50</sup>	
Rent of equipment	46 days	13¢	10081 <sup>50</sup>	
Contingencies	10%		5118 <sup>30</sup>	56301 <sup>30</sup>
15. STATION BUILDINGS and FIXTURES. (Standard Plans)				
1st class combination depots S. 26-1				
2d. class combination depots S. 26-4				
2d class combination (2 story) depots S. 26-7				
3d class combination depots S. 26-9	4	1600 <sup>00</sup>	6400 <sup>00</sup>	
3d class combination (2 story) depots S. 26-14				
4th class combination depots S. 26-31				
1st class freight depots S. 27-1				
2d class freight depots S. 27-20				
1st class brick passenger stations S. 28-1				
1st class frame passenger stations S. 28-7				
2d class frame passenger stations S. 28-12				
Depot privies M. 41-1	4	35 <sup>00</sup>	140 <sup>00</sup>	
Furniture and fixtures	4 stations	200 <sup>00</sup>	800 <sup>00</sup>	7340 <sup>00</sup>
Wells at stations		wells		
Track scales				
Contingencies				
16. ENGINE HOUSES AND TURNTABLES.				
1st class round house, brick, stalls S. 32-1		per stall		
Frame engine house stalls S. 32-30		per stall		
Ash pit S. 32-35				
Turntables, iron— ft. diameter				
Turntables, combination— ft. diameter				
17. ENGINE AND CAR SHOPS.				
Blacksmith shop M. 41-5				
Repair shop				
Brick sand and oil house M. 41-6				
Frame sand house M. 41-7				
	Carried Forward,			1155498 <sup>19</sup>
	(4)			

ITEM	QUANTITIES	⑦	AMOUNT	TOTAL
	Brought Forward,			1155498.19
18. SHOP MACHINERY AND TOOLS.				
19. WATER STATIONS.				
Water tanks S. 37-3	3	3200 <sup>00</sup>	9600 <sup>00</sup>	
Pump houses with pumps and boilers S. 37-1	3	1600 <sup>00</sup>	4800 <sup>00</sup>	
Wells (generally 16 ft. diam. and curbed) drilled	3	2000 <sup>00</sup>	6000 <sup>00</sup>	20400 <sup>00</sup>
Gravity supply, or by aqueduct, ram, etc.—cast pipe				
Submerged tanks S. 37-7				
20. FUEL STATIONS.				
1st class coaling station—48'x S. 36-1	1	5000 <sup>00</sup>	5000 <sup>00</sup>	5000 <sup>00</sup>
2d class coaling station S. 36-5				
Coal platform—16'x 80' S. 36-9				
21. FENCING RIGHT OF WAY.				
Fencing—against stock—45.74 miles of fence		175 <sup>00</sup>	8004 <sup>50</sup>	8004 <sup>50</sup>
22. SNOW FENCES AND SNOW STRUCTURES.				
Snow fences	ft. B. M.			
Snow sheds	ft. B. M.			
23. STOCK YARDS.				
Stockyards—8 car capacity				
Stockyards—4 car capacity				
Stockyards—2 car capacity	3	200 <sup>00</sup>	600 <sup>00</sup>	600 <sup>00</sup>
24. CROSSINGS, CATTLE GUARDS AND SIGNS.				
Cattle guards	40 guards	15 <sup>00</sup>	600 <sup>00</sup>	
Road Crossings	20 crossings	8 <sup>00</sup>	160 <sup>00</sup>	
Signs, posts, etc.	45.74 miles	15 <sup>00</sup>	686 <sup>10</sup>	
	10%		144 <sup>61</sup>	1590 <sup>71</sup>
	Carried Forward,			1191093.40
	(5)			



ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			11 91 09 3 <sup>40</sup>
25. INTERLOCKING OR SIGNAL APPARATUS.				
26. DOCKS, WHARVES AND COAL BUNKERS.				
27. TRANSFER BOATS AND BARGES.				
28. SECTION AND TOOL HOUSES.				
1st class section houses S. 39-1				
2d class section houses S. 39-4				
3d class section houses S. 39-6	6	850 <sup>00</sup>	51 00 <sup>00</sup>	
Double tool houses S. 39-8				
Single tool houses S. 39-8	6	50 <sup>00</sup>	300 <sup>00</sup>	
Section house privies M. 41-1	6	25 <sup>00</sup>	150 <sup>00</sup>	5550 <sup>00</sup>
29. MISCELLANEOUS STRUCTURES.				
Telegraph offices M. 44-1				
Watchman's houses M. 41-3				
100 ton ice house S. 27-41				
200 ton ice house S. 27-42				
Team Loading Platforms M. 41-13				
30. TELEGRAPH LINES.				
45.74 miles	miles	225 <sup>00</sup>	10291 <sup>50</sup>	10291 <sup>50</sup>
31. TRANSPORTATION CHARGES.				
Steel rails 6468 gro tons = 7244 net tons		21.32	154442 <sup>08</sup>	
Track spikes 1706 kegs = 170.6 net tons		23.30	39749 <sup>80</sup>	
Track bolts 484 kegs = 48.4 net tons		do	11277 <sup>20</sup>	
Angle bars 790398 lbs. = 395.2 net tons		do	9208 <sup>16</sup>	
Rail braces lbs. = net tons				
Frogs and switches 28 sets = 56 net tons		do	1304 <sup>80</sup>	
Bridge iron 243000 <sup>#</sup> lbs. = net tons		1.57 cent	3815 <sup>10</sup>	
Cast iron pipe 68 do		1.29 cent	1754 <sup>40</sup>	
Vitrified pipe 240 do		94 cent	4512 <sup>00</sup>	
	Carried Forward,			
	(6)		226063 <sup>54</sup>	1206934 <sup>90</sup>

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,		226063 <sup>54</sup>	1206934 <sup>90</sup>
Water stations 3 × <sup>47</sup> <del>32</del> tons each = net tons	279000 #	26¢ cent.	725 <sup>40</sup>	
Telegraph material Poles <sup>9 1/2</sup> fence post net tons	1232800 #	26¢ "	3205 <sup>28</sup>	
Building material and miscellaneous net tons	255300 #	26¢ "	663 <sup>78</sup>	
Wire 46 " "	92000 #	1.35 "	1242 <sup>00</sup>	
Cement	88200 #	36¢ "	317 <sup>52</sup>	
Total to tons × miles				
791640 ft. timber = tons × miles	2374920 #	26¢ "	6174 <sup>79</sup>	
139596 cross ties = tons × miles	25213000 #	26¢ "	65553 <sup>80</sup>	
285655 SW engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges	1414970 yds @ 5¢		70748 <sup>00</sup>	374694 <sup>61</sup>
Transportation of laborers and others		miles		
32. OPERATING EXPENSES AND EARNINGS.				
Train service hauling material		days		
33. CONSTRUCTION EQUIPMENT.				
Hand, push, velocipede cars, pile drivers, etc.				
34. GENERAL EXPENSES.				
Expenses of incorporation, taxes, etc.				
35. INTEREST AND DISCOUNT.				
Discount, interest, etc., during construction				
			TOTAL,	1581629 <sup>51</sup>
Engineering expenses, add 5% per cent of above total (generally about 5 per cent)				79081 <sup>42</sup>
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)	14600 <sup>00</sup>			
Total estimated cost				1660710 <sup>98</sup>
Per mile of main track	45.74			63
				36307 <sup>63</sup>

3127

Warden. Wash 4/4-10

Mr. W. L. Darling Chief Eng.

St. Paul, Minn.

Dear Sir:-

Herewith sketch report for week ending Apr. 2-10. Located lines shown in vermilion. Miles located 27.

I have shown some distances on sketch for lines using river crossings B' and B<sup>2</sup> near mouth of Sand Hollow.

Stoner favors the B' crossing at present. We have a 2% line to B' crossing located and can get an 0.8% via the "C" Preliminary as shown. The 2% line will be 46 miles long and the 0.8% line 52 miles. This 0.8% line is the best ~~to~~ 0.8% line that we can get to B' crossing.

My parties will finish the lines they are now running in two weeks as reported to you and this 0.8% line will require 3 weeks more for one party.

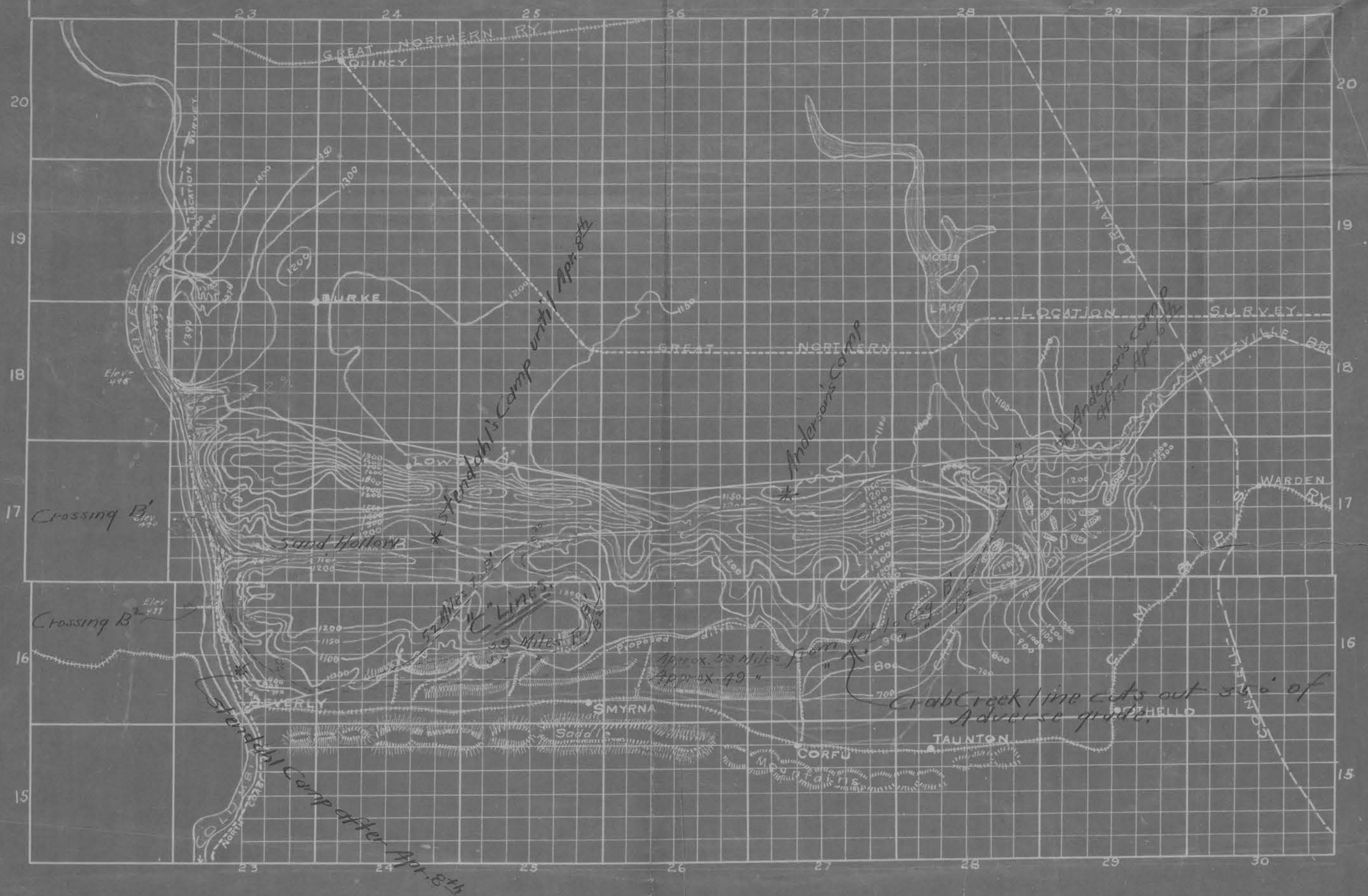
The Crab Creek line shows up well when compared with any of our 0.8% lines, except that it does not hit the

ST. PAUL, MINN.  
NOV. 9, 1910  
9  
APR  
OFFICE OF  
CHIEF ENGINEER



Country we want. However it should  
be considered in connection with the  
0.8% line to C.M. + St. P. Br. at Beverly for  
the reason that it is several miles  
shorter than an 0.8% line to C.M. + St. P. Br.  
and cuts out some 350 feet of adverse grade.  
I do not expect to run out this line for  
the reason that its importance is only  
in connection with <sup>the</sup> C.M. + St. P. bridge.

Yours truly  
M. W. Howland



Sketch Report

N.P. Ry.

Ritzville-Ellensburg Survey.

Reconnaissance Map

of country between

Connell-Adrian Ry. and Columbia River.

scale, 1" = 4 miles.

Beverly, Wash, March 3, 1910.

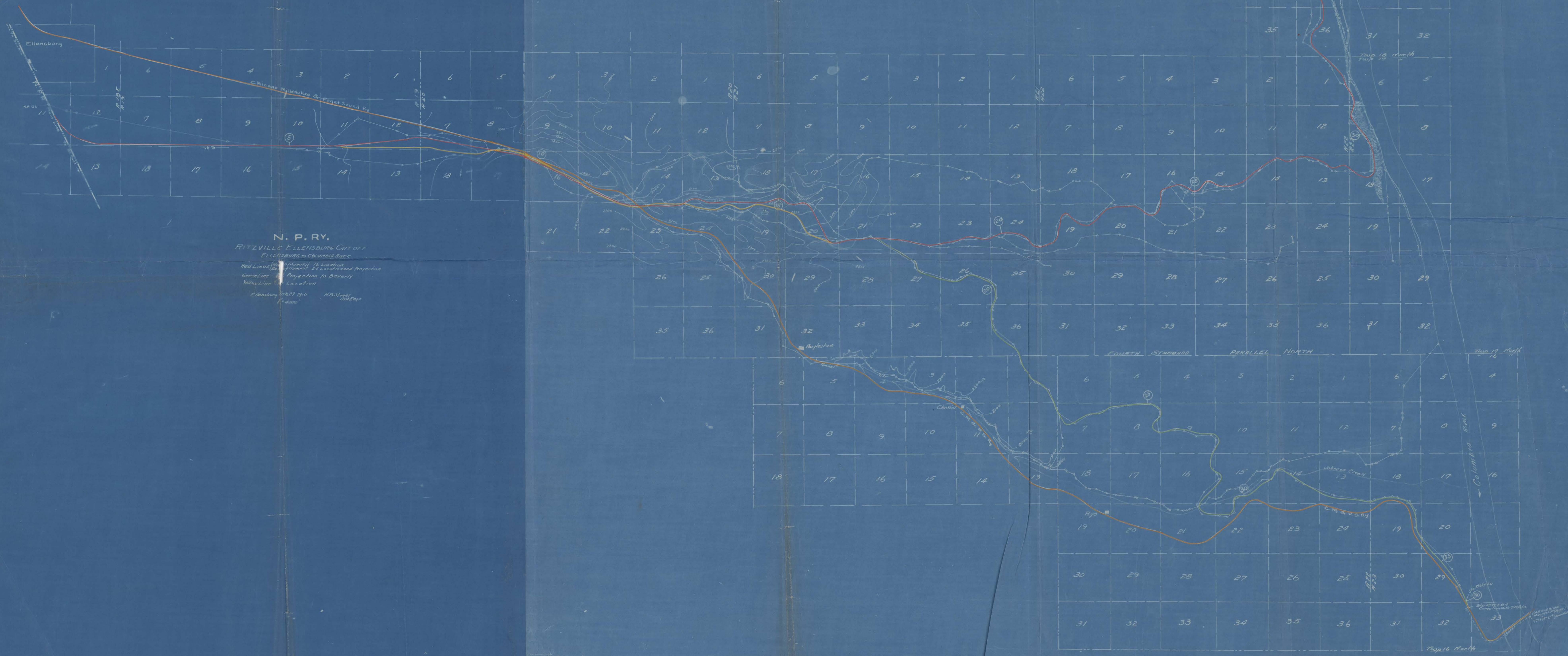
M. W. Howland, A.E.

Distances shown are from Jct. C.N. Ry.  
to Crossings Columbia River.

Crossings B' = { 2% Via Sand Hollow 46.5 Miles  
0.8% Via "C" Prelim. 52 Miles  
0.8% Via Crab Creek 53 Miles

Crossings B' = { Via Crab Creek 49 Miles  
Via "C" Limbo 55 "





N. P. RY.  
FITZVILLE ELLENSBURG CUT-OFF  
ELLENSBURG TO COLUMBIA RIVER  
Red Line - Summit & Location  
Green Line - Projection to Beverly  
Yellow Line - Location  
Ellensburg 18627 1710  
H.A. Slinger  
Railway



Ellensburg  
Mr. W. Darling  
St. Paul

Dear Sir:

Herewith attach to  
accompany report of this  
date.

That by summit Tair is pushing  
the O.B. location as fast as  
possible in order to complete it  
by Apr 25<sup>th</sup>

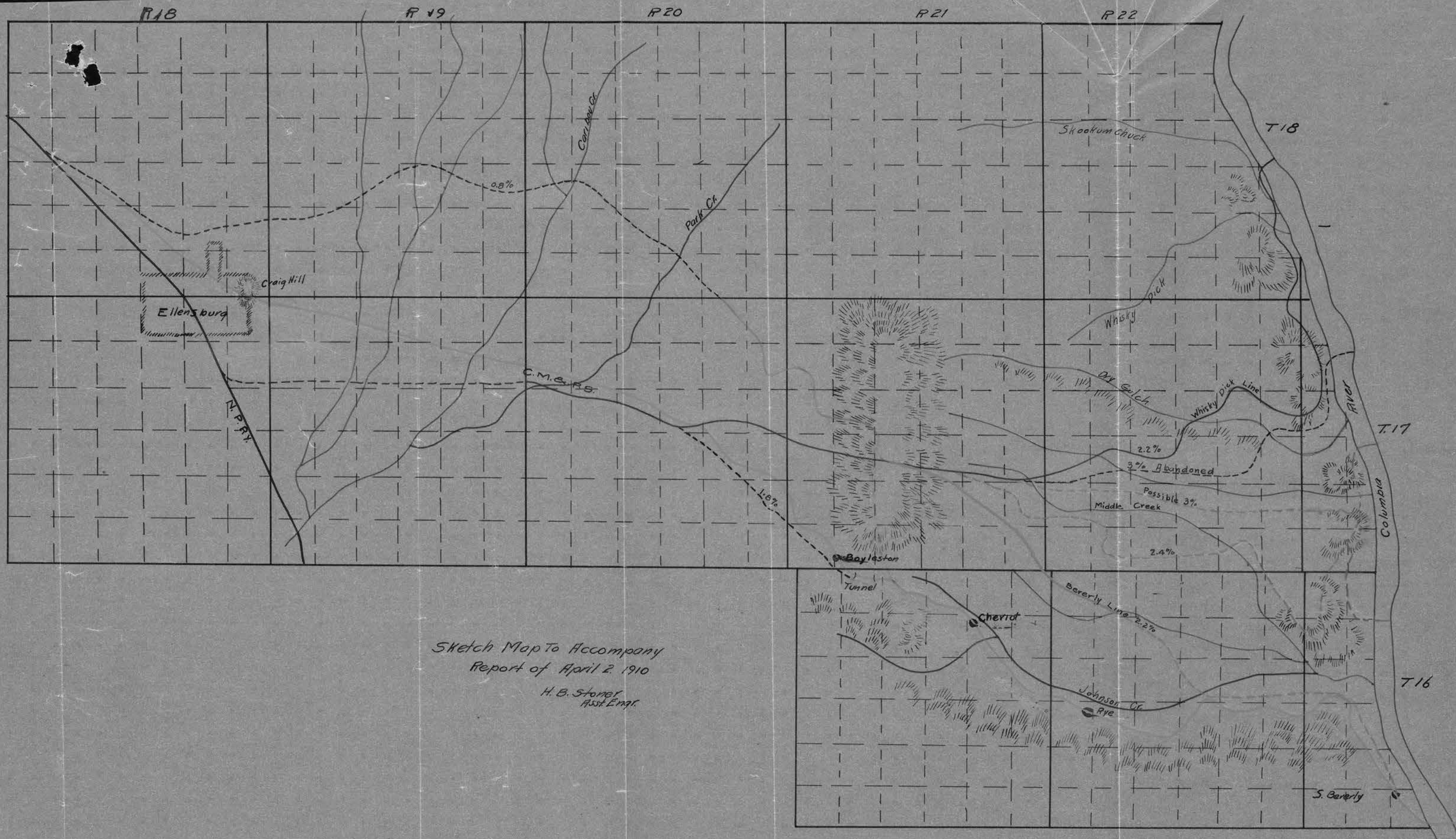
East of the summit tunnel is  
working on the 2.2 Beverly line  
6 mi. located. Will complete in 10 or 12 days.  
Have a better line than shown  
by projected profile which I sent  
you Feb 27. Expect to cut out  
about  $\frac{1}{2}$  the viaduct steel reported in  
estimate of that date.

Macgaffin is working on preliminary  
for a 2.4 location from Middle Cr to  
join with Howlands **Sand** Hollow line.  
Did not have distance enough to get a  
2.2 line and was forced to back up and  
run new preliminary for 2.4 line.  
Yours truly H.B. Stone



ST. PAUL, MINN.  
NOR. PAC. RY.  
1910  
8  
APR  
CHIEF OF  
ENGINEER

Good





Northern Pacific Railway Company.

WLD R.

St. Paul, April 1st, 1910..

Mr. H. E. Stevens:

Please give me approximate estimate of cost of bridge across the Columbia River on section shown on attached print called Columbia River Crossing B Line route, two miles north of Sand Hollow.

W. L. Darling.

Encl.

NOR PAC RY  
OFFICE OF  
APP  
1910  
BRIDGE ENGINEER  
ST. PAUL, MINN.

6  
Columbia River Crossing "B" Line Route 2 1/2 Line  
Crossing 2 miles North of Sand Hollow.





WLD R

St. Paul, April 1st, 1910..

Mr. M. W. Howland,  
Assistant Engineer,  
Ritzville, Washington.

Dear Sir:-

I wish you would arrange to have soundings made at the crossing two miles north of Sand Hollow so that we can determine the exact location of bottom, and see how far it is to rock.

Have you the necessary outfit or can you get it handy to make these soundings?

Yours truly,

Chief Engineer.

Copy of this letter sent to Beyerley US.

3127  
WLD R

St. Paul, April 1st, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

Referring to your report of the 26th ult. I am very glad to find that there is a good line down Middle Creek, giving us a crossing in the North  $\frac{1}{2}$  of Section 20, Township 17, Range 23. This works out very nicely with the line that Mr. Howland has got down Sand Hollow.

I do not care anything about running the connection between Craig Hill and the east end of the Northern Pacific yards as shown in dotted green, but would like to have Mr. Tate get information enough from his 0.8% line to show approximately the location of 1% line west of the summit and where we could get into town.

It seems to me that with a 1% line we would be able to pass east of Craig Hill and to a connection with the Northern Pacific east of the depot.

When you have projection made down Middle Creek and the 0.8% line, I wish you would come to St. Paul as I would like to talk the whole situation over with you and decide which line to use. Before you come in,

HBS -- 2.

4 1 10..

however, I wish you would get projected location and bring in what actual locations you have already have.

I would also like to have Mr. Howland come in at the same time. I wish you would wire me a few days ahead in order that I may arrange for Mr. Howland to come in at the same time.

Yours truly,

Chief Engineer.



FORM 1380

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1137	by	ro p									
				M.		M.			M.		

FROM

Ellensburg, Moh. 31, 1910.

TO

W. L. Darling,

DATED

AT

St. Paul.

See my report 26th if you approved connection at Ellensburg suggested it will be necessary to move slight change in location near Summit as reported. Advise so that party can make change at once.

H. B. Stone.

411am 4



21 NOV 1910  
31  
36 70

Ellensburg Wash  
Mr H. Darling Chrysler  
At Ogden Utah  
Dear Sir

Herewith sketch to  
accompany report of this date  
also Howlands blue print  
which you sent me.

This sketch shows location of  
O.S. line as accurately as it could  
be placed on sketch of the scale.  
You will find that it checks  
out 1 1/4 mi longer than to  
go through Ellensburg and out  
over the I.C. Line dotted  
in green shows a possible  
connection with main line near  
W.P. depot. In your letter you  
suggested a connection near west  
end of yards but the best that  
could be secured in that vicinity  
would be 1 1/2 mi west of the cow switch  
and a grade crossing of the  
C.M. & P.S. It would not  
be advisable to cross the

ST. PAUL, MINN.  
NOR. P&S. RY.  
NOR. 1910  
1  
APR  
OFFICE OF  
CHIEF ENGINEER

C.M. & P.S. overhead at Craig Hill  
and then proceed west along their  
track as they have a 0.7 down  
grade west from this hill themselves  
with considerable fill.

For us to cross over them and  
go west would give us a high fill  
for one mile and a connection  
with the W.P. about 3 miles west  
of our present depot.

The grade at the green line connection  
would be 1570. Grade of C.M. & P.S.  
at Craig Hill is about 1600. The  
top of the hill is 1670. This would  
require about  $3\frac{1}{2}$  mi of distance  
between the connection and an  
overhead crossing of the C.M. & P.S.  
providing I can get down to an  
elevation of 1635 with my line at the  
crossing. Think this can be done by  
putting in  $\frac{1}{2}$  mi of distance near the  
summit.

Have 3 miles of P.S. line located. In 10 days  
the party will move to a point near Ellenburg.  
If this connection meets with your approval  
will have them run it out at that time.



In regard to line east of  
the Summit Krumm is working  
on Beverly line running a new  
preliminary as in making a  
few revisions mentioned in my  
report Feb 27 on Mayers Beverly line  
it threw us out of his topography  
Have started Magglin on the  
Middle Cr. line. This will  
undoubtedly prove to be the  
best line east of the Summit as  
far as my side of the river is  
concerned. Have the preliminary  
down 11 miles on a 2.2 grade. In  
case I do not get sufficient distance  
to meet Howlands Sand Hollow crossing  
I will change to a 2.3 or 2.4 but I  
even wish that it will be a better  
line than the Whiskey Creek or Beverly line  
as the work will be much lighter.  
I do not consider 3.00% line to be  
of any value and have abandoned it.  
It lays 300 ft above the water along an  
almost vertical cliff in Sec 18 T17 R23 and  
when I get down I have to put in  $\frac{3}{4}$  mi of  
flat grade before I can get round to turn



The work assigned to each party is as follows and will require until Apr 25<sup>th</sup> to complete same

Tate has 21 miles of O.S line to locate and preliminaries for other connections than that made at Muddick to complete  
Kinney has 4 miles of preliminary to run and 19 miles of location for the Beverly connection to complete  
Maggoffin has 7 miles of main preliminary also a few side lines and 18 miles of location on the Middle Creek line to complete

Yours truly  
W. B. Lister C.E.







# Columbia River Crossing "Located" Line at Skookumchuck Narrows "A" Line Route

Same Csg. used by 0.8% line from Sand Hollow:  
Beverly 3-13-10  
M. A. Howland A.E.









**THE WESTERN UNION TELEGRAPH COMPANY.****24,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.**

This Company TRANSMITS and DELIVERS messages only on conditions limiting its liability, which have been assented to by the sender of the following message. Errors can be guarded against only by repeating a message back to the sending station for comparison, and the Company will not be itself liable for errors or delays in transmission or delivery of Unrepeated Messages, beyond the amount of tolls paid thereon, nor in any case where the claim is not presented in writing within sixty days after the message is filed with the Company for transmission.

This is an UNREPEATED MESSAGE, and is delivered by request of the sender, under the conditions named above.

ROBERT C. CLOWRY, President and General Manager.

NUMBER	SENT BY	REC'D BY	CHECK
609, Un. Tr.	6 Paid	via Ellensburg	

**RECEIVED** at \_\_\_\_\_ 19

Dated Beverly, Wash., Mar. 25, '10.

To W.L. Darling,  
Chief Engineer,

St. Paul, Minn.

Three weeks time to finish location.

M.W. Howland

6:07 p.m.

**THE WESTERN UNION TELEGRAPH COMPANY.****24,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.****ROBERT C. CLOWRY, President and General Manager.**

Receiver's No.

Time Filed

Check

Frank 8947.

**COPY.****SEND** the following message subject to the terms  
on back hereof, which are hereby agreed to.

St. Paul, March 24th, 1910.

M. W. Howland, Asst. Engineer, N P Ry.,

Beverly, Washington.

Your wire 23rd about going to Ritzville. Take up with  
Krumm and see when he is ready. Wire me when you expect  
to get your location completed from Connell Junction to  
River.

W L Darling.

WLD R READ THE NOTICE AND AGREEMENT ON BACK.

# THE WESTERN UNION TELEGRAPH COMPANY.

INCORPORATED

24,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.

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This is an UNREPEATED MESSAGE, and is delivered by request of the sender, under the conditions named above.

ROBERT C. CLOWRY, President and General Manager.

RECEIVED at

948

305 UN JM ER 13 paid via Ellensburg

Beverly, Wn. Mar. 23, 1910.

W.L. Darling,

Chief Engineer N.P. Ry.,  
St Paul, Minn.

Nothing from Krumm yet advise when you want me to  
take ritzville work.

M.W. Howland.

921 P.M.

3127

Beverly, Wash. May. 26<sup>th</sup> '10.  
 Mrs. H. L. Darling, Chief Engr.,  
 St. Paul, Minn.

Dear Sir: -

Herewith sketch report for week ending May. 26<sup>th</sup> '10, also estimate of 0.8% line from Jct. Cornell Northern via "B" line through Sand Hollow to C. M. & St. P. bridge at Beverly.

Comparison of the two 0.8% lines, one of which runs north from Sand Hollow to Skookimchuck crossing and the other south to C. M. & St. P. Bridge at Beverly as follows:-  
 North line - 52.8 miles long, 1010° curvature, cost per mile \$38800  
 South line - 51.2 " " 1039° " " " \$36900

Stendahl has been locating a portion of the 0.8% line to Beverly to enable moving back to his present camp. He will move camp first of the week to point shown in sketch and finish the B line back to the Summit. This work will not take more than ten days time and he will then move to Beverly and finish 0.8% line to C. M. & St. P. bridge. This party will be through in three weeks at the outside and probably less time.



OFFICE OF  
CHIEF ENGINEER  
MAR  
30  
1910  
NOR. PAC. RY.  
ST. PAUL, MINN.

Anderson moved Friday to point shown and will carry the "B" line location from Frenchman Hill back to Jct. Cornell Northern. Three weeks time will finish the "B" line locations. Will make tracings of maps and profiles in 20 mile sections and forward to you as fast as we can finish up the work.

I have taken matter of a line crossing the Columbia River either just to North or to the south of Sand Hollow with Mr. Stoner some weeks since, but at that time he did not favor these crossings as he said that it would require 3% grade to get down to them. However he advised me a few days ago that he was making a projection over this route and as soon as he advises me where he can get down to the river we will figure on the best route for this side of the river. We have good crossings both to the north and south of Sand Hollow as shown on sketch, and can get very good 2% lines to either of these points, estimates and profiles of which were handed you in my report of Mar. 5. The line to the south crossing is the cheaper and better construction of the two.

Have shown on sketch report a possible  
0.80% grade from "C" line to south crossing  
which line compares favorably with other  
other 0.80% lines for distance and cost  
of construction.

Yours Truly,  
M. W. Howland



Beverly, Wash. Mar. 26" '10.

Estimate on "B" line projection to C.M. & St. P.  
Bridge at Beverly, via Sand Hollow, Distance  
51.2 miles main track, 6 miles sidings,  
Total Angle 1039°00', Grade 0.8%, Max Curve 5° on  
cliff along river, balance of line 3° Max.

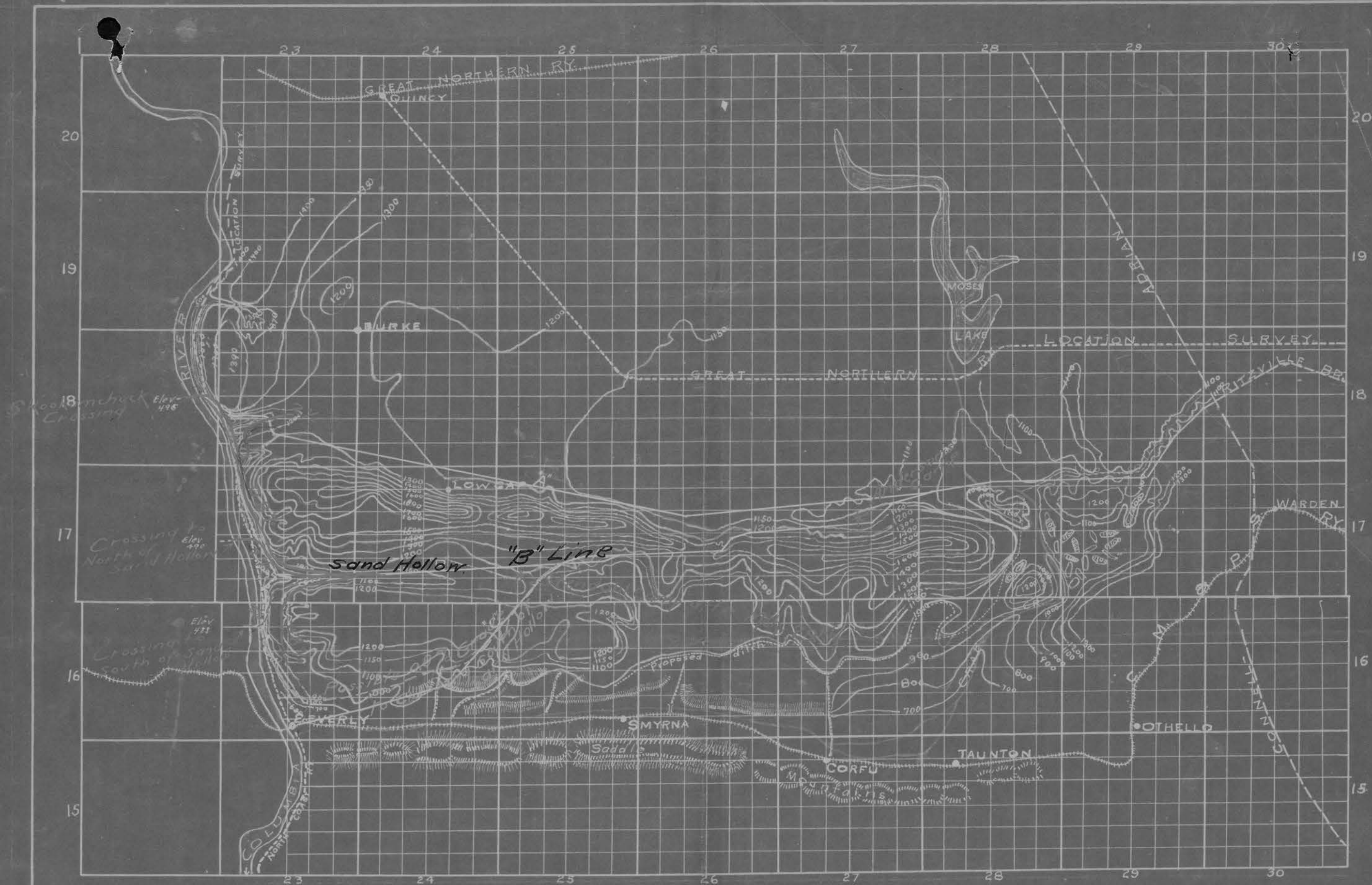
Earth	{ A-42720 cu. yds. @ .18¢ -	25689.60
	{ B-442420 " " @ .22¢ -	97332.40
Hardpan	-240470 " " @ .33 1/2¢ -	80557.45
Loose Rock	-72000 " " @ .40¢ -	28800.00
Solid Rock	-590540 " " @ .85¢ -	500959.00
Overhaul	-2,974,350 " " @ 1¢ -	29743.50
	{ E-307000 " " @ .22¢ -	67540.00
Borrow	{ F-49130 " " @ .33 1/2¢ -	16458.55
	{ G-26200 " " @ .55¢ -	14410.00
Piling	7220 Lin. ft. " @ .35¢ -	2527.00
Timber	ft. B.M. 171588 @ 23 1/2¢ -	3946.52
Cast Iron	6700 # @ 3¢ -	201.00
Iron	" 19646 # @ 3¢ -	589.38
Galv.	" 8970 # @ 3¢ -	269.10
C. & P.	{ 36"-382' tons @ 40¢ -	3488.40
	{ 24"-1300' @ 1.50 -	1950.00
C. P. C.	{ 36"-36 @ 2.50 -	90.00
R/M	-750 acres @ 30¢ -	22500.00
Clearing	440 " @ 5¢ -	2200.00
Rip Rap	1025 yds. @ 1.25¢ -	1281.25
Deck Board	491 ft. @ 75¢ -	368.25
Total for 51.2 miles		\$900901.40

per mile.

Grading, bridging R/M -  
Track ballast etc -  
Transportation chgs -  
Buildings, Fencing etc -  
5% for Engineering -

\$17600.00  
8000.00  
8000.00  
1800.00  
1750.00  
\$36850.00





Sketch Report

Week ending Mch 26-30

Located Lines

Projections

Possible Route

M. W. Howland  
A.E.

N. P. Ry.

Ritzville-Ellensburg Survey

Reconnaissance Map

of  
country between

Connell-Adrian Ry. and Columbia River

scale 1" = 4 miles

Beverly Wash, March 3, 1910.

M. W. Howland A.E.

WLD R

March 26th, 1910..

P. 3127

Mr. John A. Parker, Attorney,

505-6-7-9 Equitable Building, Tacoma, Wash.

Dear Sir:-

I beg to acknowledge receipt of your letter of the 22nd inst. It is true that the Northern Pacific are making surveys in that part of the district in Grant County, which you mention, but our surveys are not yet in shape to determine what location will be finally adopted. Our men are still working there and will not be through for several weeks.

Yours truly,

Chief Engineer.



Form 1283

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. At long, or omitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.				

COPY

FROM

St. Paul

TO

H. B. Stoner

DATED

March 24th, 1910.

Ellensburg. Wn.

Magoffin left twenty-first to report to you.

W. L. Darling.





# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

31 a om an

FROM

Mandan March 24, 1910

TO

H. B. Stoner,

DATED

ST. PAUL.

Magoffin left twenty first to report to you.

P. E. Thian

3:40PM



WLD R

3127  
St. Paul, March 24th, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

I beg to acknowledge receipt of your report of the 20th inst. together with sketch showing different lines run. I am not quite clear from your report just what is the condition of your work east of Summit. I understand in a general way that location of 2.2 line to the mouth of the Skookumchuck has been completed, but I have no idea of the condition the rest of your work is in.

I understand that the 1.6 location has been completed, the 0.8 preliminary has been completed and that Mr. Tate is now at work locating it.

In checking over the distance between the 1.6 and 0.8 lines west of the Summit there is apparently no difference in the operating distance, yet you state that the 0.8 line is one and one half miles longer than the 1.6 line through Ellensburg. Before you get through there I would like to get information enough to see whether it is possible to connect up your 0.8 line with the west end of the yard in Ellensburg so as to avoid

H B S -- 2.

3 24 10..

long backup movement from the Milwaukee crossing south  
of Ellensburg.

It looks from the map as if you could leave the  
0.8 preliminary not far from Section 29 or 30, Township  
18, Range 19, and maybe still farther east than that.

I wish you would write me and let me know  
when you expect to get location completed.

Yours truly,

Chief Engineer.

3127

✓ Ellensburg Wash 2/20/10

Mr. W. Darling Chas. Enger  
St. Paul Minn.

Dear Sir

Herewith sketch with report  
of this date.

Vate's party has completed preliminary  
lines for a location north of Ellensburg.  
Am sending you estimate of cost  
of this line and projected profile.  
I shall move Vate's party east  
to summit and start location  
of this line at once.

Moved Kinney's party from  
the mouth of the Shuswap River to Johnson  
Cr. so as to start location of Beverly line.  
It took them all week to move as  
the roads were so badly washed out  
that it was necessary to construct new  
roads and build numerous bridges.

Mayer's party has been working on  
3 1/2 line. There is 2 mi of bad bluffs where  
it was slow getting around. Otherwise  
the 3 1/2 line looks very good. Shall send projected  
profile as soon as topography is completed.

JNP please note survey reference  
of profile on p. 3127  
Profile filed - #477-7

By putting in about  $3\frac{1}{2}$  mi of slack  
grade at bottom of 37 line I can  
get a good crossing of the river  
and meet one of Howlands lines.  
Lines "C" and "D" (see sketch) have not  
been completed but I hardly  
think they will compare favorably  
with line "E".

The object in running lines "C" & "D"  
was to cut out the slack grade  
at summit of Line E.

I wish to try one other solution  
of the Beverly line. which is shown  
by green line on sketch at Summit  
of Saddle Mts. This will necessitate  
a longer tunnel but it may possibly  
pay on account of shortening the distance  
and cutting out some heavy work on  
east side of summit. I shall push  
the preliminaries in order to determine  
which one of the Beverly lines will be  
best to locate over.

Yours truly  
H. B. Foster C.E.



3/20 '10

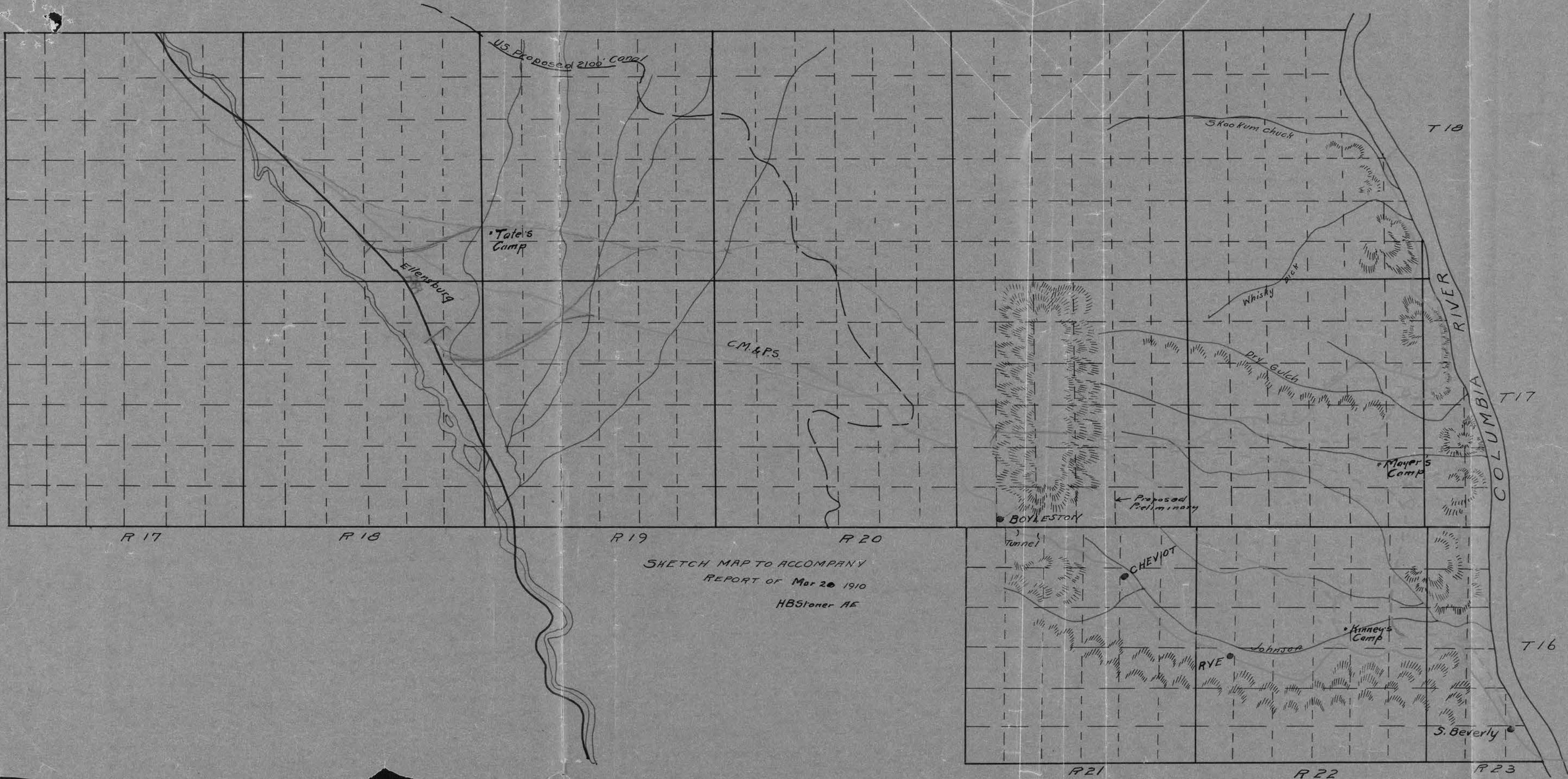
Estimate "E" of line north of Ellensburg  
from connection west of Ellensburg  
M.P. 119 + 2730 to summit of hill 25.6 mi

334569 yds S.R.	@ .85	284383
149482 H.P.	@ .35	52319
149482 E.	@ .20	29896
2000000 OH	@ .01	20000
900 tunnel	@ 75 <sup>00</sup>	67500
841000 F.B.M.	@ 28 <sup>00</sup>	23548
840 tons bradue steel	@ 100 <sup>00</sup>	84000
900 yds concrete	@ 10 <sup>00</sup>	9000
330 tons C.P.	@ 60 <sup>00</sup>	19800
206 acres Rtl Hay Dry land	@ 300 <sup>00</sup>	61800
104 " " " " Hay Dry land	@ 30 <sup>00</sup>	3120
9 tons old rails	@ 20 <sup>00</sup>	180
27 tons bridge iron	@ 60 <sup>00</sup>	1620
Gravel over material 25.6 mi @ 8000 <sup>00</sup>		204800
Track, ballast, ties from to line 25.6 mi @ 10000 <sup>00</sup>		256000
		<hr/> 1117966
Add 5% Eng. Incidentals		55898
		<hr/> 26.6 ) 1173864
Cost per mi		45860

This line is 1.4 mi longer than to go through  
Ellensburg and out over 1.6 location.

See Estimate A Feb 27 for Comparative Cost.





SKETCH MAP TO ACCOMPANY  
REPORT OF Mar 20 1910  
HB Stoner AE



JOHN A. PARKER  
ATTORNEY AND COUNSELLOR AT LAW  
505-6-7-9 EQUITABLE BUILDING  
TACOMA, WASH.

TELEPHONE MAIN 6034

NOTARIES IN OFFICE

Tacoma, Wash., March 22d, 1910.

Mr. W. L. Darling,

Chief Engineer of the N. P. R. R.

St. Paul, Minn.

Dear Sir:-

Some years ago I purchased from the Northern Pacific Railway all of the odd numbered sections of land in townships N. R. 18-24 and 25, being in Grant County, some ten or fifteen miles south of Quincy, on the Great Northern Ry. and I still own sixteen sections in those two townships, and among them are: 21, 29, 23, 27, 25 in 18-24, and 21, 29, 27, 33, 35 and 25 in 18-25.

I have just returned from that portion of the State, where I am preparing for fall seeding to wheat 1000 acres. I have also about 1200 acres to wheat and it is looking very good.

While over there, the farmers informed me that you would probably locate the cut-off through or near some of the above described land, and of course this would please me very much, for it would place my land close to transportation. I have just this moment received a report from an engineer to the effect that all of the land north of the Frenchman Hills can be irrigated by the gravity system. But I have made arrangements and will, as soon as the line is located, put wells down and irrigate by pumping the water. I think it is feasible and fully as cheap as the gravity system. There are many wells north of the Hills and but few of them exceed 100 feet, and some are as low as 60 feet, and the supply of water is inexhaustible. Locating the line of road north of the Hills will put all of that land close to railroad trans-

JOHN A. PARKER  
ATTORNEY AND COUNSELLOR AT LAW  
505-6-7-8 EQUITABLE BUILDING  
TACOMA, WASH.

TELEPHONE MAIN 6034  
NOTARIES IN OFFICE

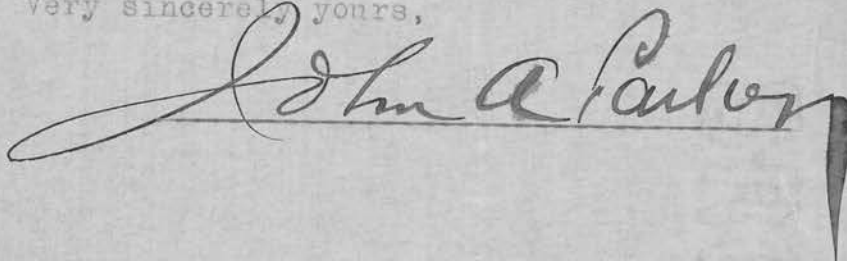
W.L.D.#2.

portation, which is very much desired, and there is no one of course, so anxious as I am to have the railroad built north of the hills.

It may be that I haven't any right to ask this information from you, and being a stranger as I am, you may not feel like answering me, but I am very well acquainted with Mr. Cooper or Mr. Plummer or your counsel at this end of the line, and I think they will tell you that if it is proper at all to give out information, that you will be safe in telling me where the line is to be located. I will greatly appreciate the information, and I assure you that if you desire it, it will be in absolute confidence.

I am,

Very sincerely yours,

A handwritten signature in cursive script, reading "John A. Parker". The signature is written in dark ink and is positioned below the typed name "John A. Parker".

JAP/RB



3127

WLD R

St. Paul, March 21st, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

Please note attached report from Mr. Howland with blueprints showing Columbia River crossing at Skookumchuck Creek about two miles north of Sand Hollow.

The Sand Hollow crossing seems to be a very favorable one, and I wish you would discuss with Mr. Howland with a view of determining the best line to use and let me have your recommendations.

Yours truly,

Chief Engineer.

Encl.

*Please return the blue prints.*

3127

WLD R

St. Paul, March 21st, 1910..

Mr. M. W. Howland,  
Assistant Engineer,  
Beverly, Washington.

Dear Sir:-

I beg to acknowledge receipt of your report of the 15th inst. with profiles attached showing crossing of located line at Skookumchuck on A line route, and crossing Columbia River on B line route, 2 $\frac{1}{2}$  line 2 miles north of Sand Hollow.

Apparently the latter location, as far as the Columbia River crossing is concerned is the far better one, and I wish you would discuss this with Mr. Stoner with a view of locating the best line for that crossing.

Yours truly,

Chief Engineer.

Beverly, Wash. Mar. 21<sup>st</sup> '10.

Mr. H. L. Darling, Chief Engr.,  
St. Paul, Minn.

Dear Sir, -

Herewith sketch report for week ending Mar. 19<sup>th</sup> - '10, which shows located line to date.

Anderson has some section ties to make and will then move over to Frenchman Hill Summit and locate "B" line East from the Summit. He expects to move Wednesday of next week.

Stendahl will continue the "B" location back to Frenchman Hill Summit and make 0.8% location to C.M. & St.P. bridge at Beverly.

Have made projection on 0.8% line from Sand Hollow down to Beverly and can get down on 0.8% by putting in a summit cut about 2 miles long of about 300,000 yds. material probably 75% earth. This line is at least 2 miles shorter than any other 0.8% that we can get from Frenchman Hill Summit to C.M. & St.P. Bridge.

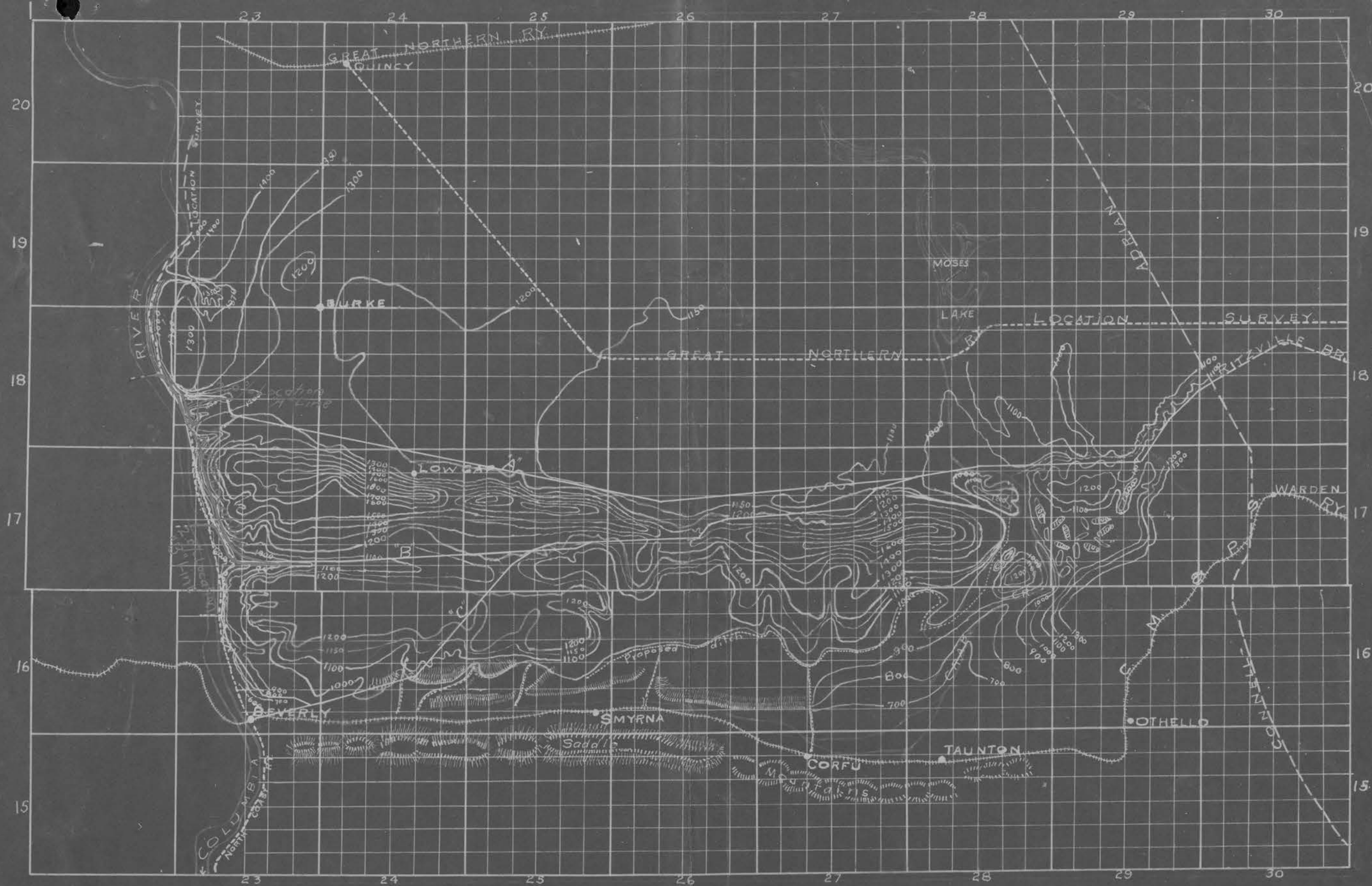
NOV 18 1964  
OFFICE OF THE  
DIRECTOR



I intend to look over the ground the  
first of next week and will report  
more fully within a few days.

Yours Truly,

M. W. Howland



Sketch Report

Week ending Mch 19<sup>th</sup> 1910

M. W. Howland  
A.E.

N. P. Ry.

Ritzville - Ellensburg Survey

Reconnaissance Map

of  
country between

Connell-Adrian Ry. and Columbia River

scale 1" = 4 miles

Beverly, Wash, March 3, 1910.

M. W. Howland, A.E.



Beverly Wash. Mar. 15<sup>th</sup> 1910.

Mr. H. L. Darling, Chief Engr.,  
St. Paul, Minn.

Dear Sir:-

Herewith sketch  
report week ending Mar. 12<sup>th</sup> also projected  
profile and estimate of 0.8% line from  
summit Sand Hollow to Skookumchuck Crossing.  
Comparison of B 0.8% with "A" 2%

	<u>B 0.8%</u>	<u>"A" 2%</u>
cost per mile	\$38800	\$34300
Distance	52.8 miles	50 miles
Curvature	1010 degrees	873 degrees

The "B" line lies along the cliffs for nearly  
four miles and a projection over this  
portion is not a ~~safe~~ basis for an estimate.  
However our location of 2% "A" line, did  
not differ materially from the projection.  
We have nearly 2 miles of slack grade on  
the 0.8% line but cannot save any distance  
over the 52.8 miles because we cannot turn  
on to a bridge farther down stream and also  
because Stones informs us that he cannot  
cross any farther down stream.



Handwritten text, likely a signature or date, oriented diagonally at the bottom left of the page. The text is difficult to decipher but appears to include "1947" and "July 17-18".



Will try projection over proposed 0.8%  
line from Sand Hollow to Beverly  
this coming week.

It may be that we can not get  
sufficient distance via Sand Hollow  
route in which case we will have to  
take a route shown on sketch which  
is about 2 miles longer than Sand  
Hollow route.

The location of 0.8% from summit of  
Sand Hollow to Skookum chuck,  
15 miles, is half made and will be  
finished next week, after which I expect  
to have Anderson locate East on B line  
from Summit of Frenchman Hill to  
Bonnell Northey and Stendahl locate  
back to the Summit of Frenchman Hill  
and also 0.8% line to Beverly.

Yours Truly  
M. H. Howland.

P.S. Am sending blueprint showing  
located crossings of Colman  
River. I should say that bed rock is  
very close to profile of river bottom but  
no borings have been made.  
M. H. H.

Beverly, Wash. Mar. 15 "10.

Estimate of Projection 0.8% Line via  
Sand Hollow - crossing Columbia at  
Skookumchuck Creek. Distance from Junction  
Connell Northern to Columbia River 52.8 miles,

Total Excavation	1010'		per mile
Earth (A. haul)	81940 @ .18¢	14749.20	
Earth (B. haul)	253020 @ .22¢	55664.40	
Cardpan	215245 @ 33 1/4¢	72107.10	
Loose Rock	53670 @ 40 3/4¢	21468.00	
Solid Rock	567655 @ 85¢	482506.75	
Overhaul	3670040 @ .01¢	36700.40	
Borrow (Earth)	494080 @ 22¢	108686.60	
Borrow (S.R.)	62000 @ 55¢	34100.00	
Tunnel	500 ft. @ \$50	25000.00	
Viaducts	14270 ft. @ 75¢	107025.00	
Masonry	2560 cu. yd. @ \$11	28160.00	
Piling	7220 ft. @ 35¢	2527.00	
Timber (F.B.M.)	171588 # @ 23¢	3946.50	
Cast Iron	6700 # @ .03¢	201.00	
Art. Iron	19646 # @ .03¢	589.40	
Galvanized Iron	8970 # @ .03¢	269.10	
2" I. Pipe (36"-36")	255 T @ \$40	10200.00	
2" I. Pipe (26"-24")		2055.00	
4" I. Pipe (36"-36")	1370' 24" @ 1.50	90.00	
4" I. Pipe (36"-36")	@ 2.50		
Rip Rap	1025 cu. yd. @ 1.25	1281.25	
Clearing	441 ac. @ \$5	2205.00	
Total for 52.8 miles - 10239.88			

Grading, Bridging etc -	\$19412
Track Laying & Ballasting	8000.
Transportation Charges	8000.
Fencing, Tele Buildings etc	1800
5% Engineering	36912
Total for 1 mile =	\$38757

Ellensburg Wash 8/12 10  
 Mr. M. Darling Chas. Eng  
 St. Paul  
 Dear Sir:

Herewith sketch to accompany  
 report of this date.  
 On my next report I will give  
 you preliminary estimate on  
 0.8 and 3.0 lines. Shall complete  
 preliminaries for these lines in a few days.  
 As close as I can figure it now the  
 0.8 line which will join with present  
 line near C.M.O.P.S. Crossing will be  
 1.5 longer than to go through Ellensburg  
 and out over the 1.6 location.  
 East of the summit lines shown in  
 burnt scumma are proposed lines not run  
 yet.

Expect the 3.0 line to run about \$75000 per  
 mi completed but as the cliffs are so  
 bad on last 2 mi over which I have no  
 preliminary that I shall not be able  
 to give you a close estimate until next week  
 location on Whiskey Dick line is completed.

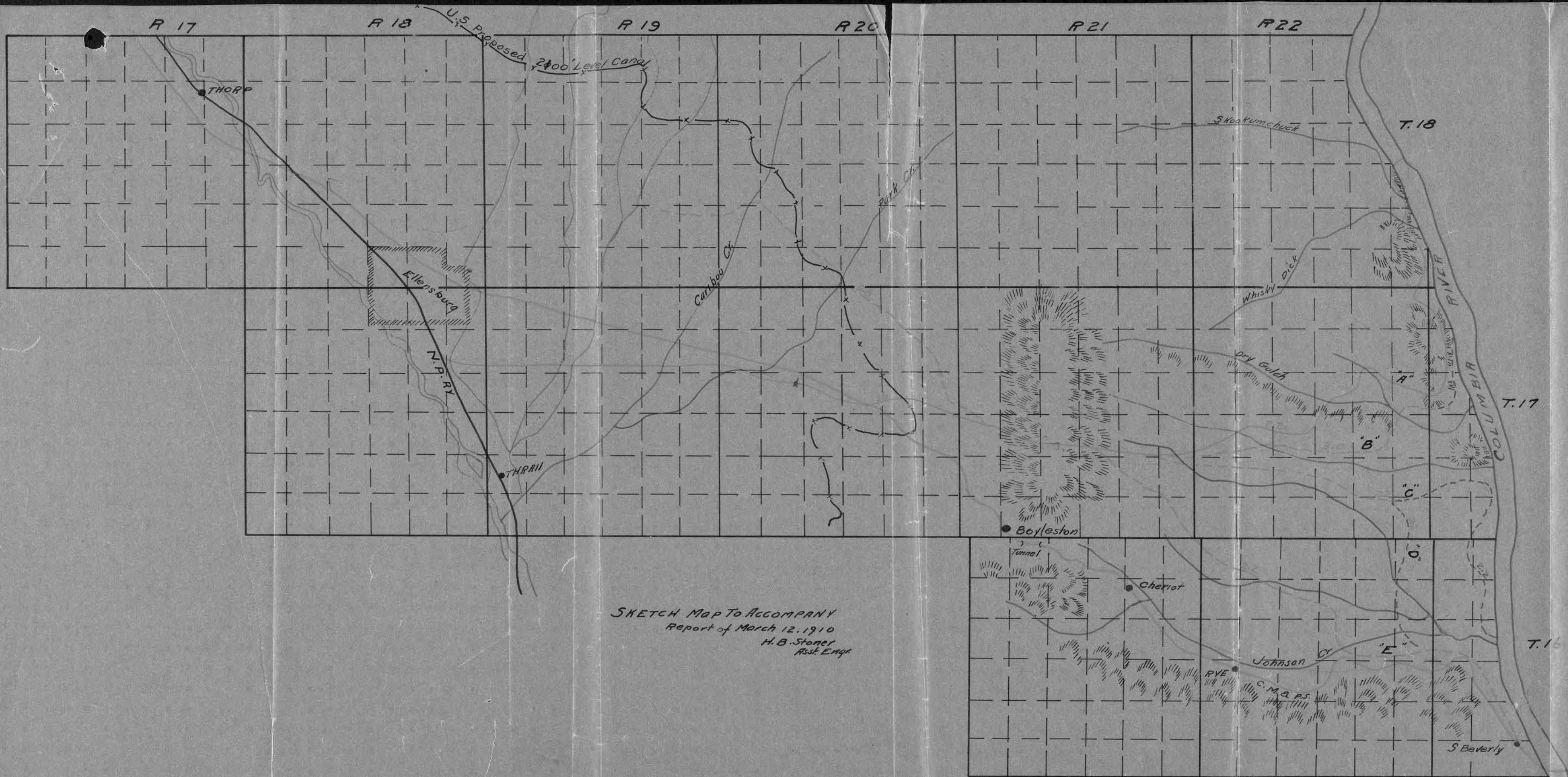
Yours truly D. B. Stewart



10-1-01  
10-1-01  
10-1-01

C





3127

WLD R

St. Paul, March 11th, 1910..

Mr. M. W. Howland,  
Assistant Engineer,  
Beverly, Washington.

Dear Sir:-

I beg to acknowledge receipt of your report of the first, together with profile and blueprint attached.

I am very much pleased with the manner in which they have been submitted, but would like to call your attention to the lack of information on the profile and map, in that it is impossible to tell just where the connections are for the different lines: in other words, I am unable to tell in what part of "A" Line, "B" Line diverges. Nor was I able to tell from the profile just where the helper grades were - whether north or south from "B" Line.

Please have your engineers put in detail as instructed on Form 118.

Yours truly,

Chief Engineer.



REG-S

3127

Saint Paul, Minnesota, March 10th, 1910.

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

Pursuant to your request of the 6th I am  
sending you box of 500 small envelopes.

Yours truly,

Enc.

Chief Engineer.

WLD R

St. Paul, March 10th, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

Referring to your weekly report of the 5th inst. I hand you herewith copy of report made by Mr. Howland under date of February 19th showing various lines which he has under consideration. By the time you will get this you will probably have completed your 2.2% locations, but I would like to get another location made on a 3% grade, and from your sketches I should judge that line could be run from Dry Gulch, or the gulch immediately south passing through sections 19, 20, 21, 27, 26 and 25, Township 17, Range 22, intersecting Mr. Howland's 2.2% line not far north from what he calls Ryeck Creek or the creek emptying into the Columbia River near the range line between sections 16 and 17, Township 23.

If there any other lines that you and Mr. Howland would suggest I wish you would write me about it.

Yours truly,

Encl.

Chief Engineer.



REG-S

3127  
*Not in*  
Saint Paul, Minnesota, March 8th, 1910.

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

Dear Sir:-

I return bill of Carscadden Grocery Company for \$321.15. Please advise necessity for such a large purchase without requisition. I note a great many items that are not included in our list of necessary supplies in Form 118 are purchased. I also note butter is charged at 75 cents per pound Jan 8th and in another place butter \$3.00 no weight given. Unit prices and weights should be given in all cases so that prices may be checked, I also note on December 31st sixty pounds butter \$25.50 was purchased which would indicate a price of  $42\frac{1}{2}$ ¢ per pound. Please explain reason for paying 75 cents per pound, also advise necessity for purchase without requisition and reason for not adhering to our schedule.

Yours truly,

Chief Engineer.



Form 1386

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train-mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
80	SF N J			M.		M.			M.		

FROM

LIND March 8 th, 1910.

TO L. Darling

DATED

AT

St. Paul.

Small scale maps profiles and estimates to you express today.

Howland.

135 P.M.

Beverly, Wash. Mar. 7<sup>th</sup> 1910.

Mr. H. L. Darling, Chief Engr.

St. Paul, Minn.

Dear Sir:-

Herewith sketch report  
for week ending Mch. 5-1910-also tracing of  
Reconnaissance sketch <sup>#215-10</sup> on scale 1" = 4 miles,  
Blue print map <sup>#363-2</sup> scale 1" = 4000' showing  
preliminaries, projections & General topography,  
and estimates on A, B & C. lines, using  
pusher grades to get down to the river.  
The 0.5% lines from Sand Hollow to  
S Hookmehuck crossing and to Beverly  
will follow same as completed.

Following is comparisons of the line

"A" line - 50 miles,	Total angle 87°	Pusher grade 7 miles 2%	\$34252 per mile
"B" north line 46 "	" 534°	" 4 " 2%	\$30529 "
"B" south line 46 "	" 763°	" 4 " 2%	\$28577 "
"C" " 46.35 "	" 651°	" 10 " 1.3%	\$39782 "

The location will shorten the "A" line to 49.25  
miles as shown on 4000' scale map.

These estimates do not include the river crossing.  
I expect to have work of rounding  
finished within a few days and will  
give you definite information regarding

[illegible]



the crossings. Have been ready to do this work for past ten days, but floating ice and drift wood made such work dangerous.

( ) Yours letter of instructions of Feb. 25 was evidently delayed enroute as I received it last evening. Will put both parties on the 0.8% lines from Sand Hollow at once as those routes now appear to be very much the best propositions we have.

Anderson has completed location of pusher grade on A line and Stendahl has located pusher grade on B lines. Do not intend locating on "C" line as the projection and estimate shows that up.

Yours Truly,  
M. W. Holland

Tracing of 4000 scale map not complete. Will forward to you as soon as all information required upon it.  
M. W. H.

Beverly, Wash. Mar. 7<sup>th</sup> 1916

Estimate "A" Line Projection - Distance 50 miles main track  
6 miles sidings - Total curvature =  $873^{\circ}$  - Max. grade 0.8% and  
max curvature  $3^{\circ}$  - Pusher grade 2.0% for 7 miles with  
8 $^{\circ}$  max curvature.

Cuts 18' Rock  
Emf. 24' Earth  
18' Earth

Earth { 300' 121,831 cu yds. @ 18 $^{\circ}$	21929.58
Earth { 300' to 1000' 345,608 "	@ 22 $^{\circ}$ 76011.76
Hard Pan 200 827 "	@ 33 $^{\circ}$ - 67277.05
Loose Rock 29 296 "	@ 40 $^{\circ}$ - 11718.40
Solid Rock 391 385 "	@ 85 $^{\circ}$ - 264677.25
Overhaul 2 567,671 "	@ 1 $^{\circ}$ - 25676.71
Borrow 918 473 { 308 121 "	@ 22 $^{\circ}$ - 67786.62
	{ 610 352 " @ 30 $^{\circ}$ - 183105.60
Piling, Lin. Fk. 7,220 Lin. Fk.	@ 35 $^{\circ}$ - 2527.00
Timber T.B.M. 171,585	@ 23 $^{\circ}$ - 3946.52
Cast Iron 6700 lbs.	@ .03 $^{\circ}$ - 201.00
Brought Iron 19,646 lbs.	@ .03 $^{\circ}$ - 589.38
Salvaged Iron 8970 lbs.	@ .03 $^{\circ}$ - 269.10
Cast Iron Pipe { 36' 72' = 19728'	
	{ 24' 216' = 33048' = 2640 @ 40 $^{\circ}$ = 1040.00
Vitrified Pipe { 24" 574' "	@ 1.50 - 861.00
Right of Way 731.8 ac.	@ 30 $^{\circ}$ 1954.00
Clearing 444.96 cc	@ 5 $^{\circ}$ 2225.00
Rip Rap 1,025 cu yds.	@ 1.25 1281.25
Tunnel 560 Line Fk.	@ 50 $^{\circ}$ 28000.00

Total for 50 miles - 781077.22

	per mile
Grading Bridging R. of W. Clearing etc.	- 15621.50
Track Laying & Ballasting	- 8000.00
Transportation Exp. per mile	- 7500.00
Signaling, Telegraphs, Buildings, etc.	- 1500.00
	<u>32621.50</u>
5% For Engineering	1631.07
Total,	<u>34252.00</u>

Beverly, Wash. Mar. 7 1910.

Estimate "B" line projection (Crossing to north of Sand Hollow) from Cornell Northern to Columbia River 46 miles main track and 6 miles siding  
Total angle  $534^{\circ}$  - Max Grades 0.8% and curve three  $3^{\circ}$   
Pushers Grade 4 miles 2%  $8^{\circ}$  curvature.

Earth (300' 75831 cu. yds. @ 18 -	13649.58
Gravel (Bhach 343904 " " @ 22 -	76198.88
Hardpan 187115 cu. yds. @ 33 1/2 -	62683.63
Loose Rock 7700 " " @ 40 -	3080.00
Solid Rock 220950 " " @ 85 -	187807.50
Overhaul 2,742,243 " " @ 14 -	37422.43
Borrow (Beret 318901 " " @ 22 1/2 -	70158.22
S.P. 121,000 " " @ 55 -	66550.00
Piling 7320 Lin. ft. @ 35 -	2527.00
Timber S.P.M. 1711,588 @ 23 1/2 -	3946.62
Cast Iron 6700 lbs. @ .03	201.00
Spnt. Iron 19646 lbs. @ .03	589.38
Steel Iron 8970 " @ .03	269.10
Cast Iron pipe (36" 36' - 25 1/2 -	1020.00
(24" 168' @ 40 -	
Vit. Pipe (24" 1370' ft. @ 150	2055.00
(36" 36 ft. @ 250	90.00
Ry 628 ac @ \$30	18840.00
Clearing 442 @ \$5	2210.00
Rip Rock 1025 cu. yds. @ 125	1281.25
Tunnel 300 ft. @ \$50	15000.00

Total for 46 miles - 555479.39

Grading Bridging R of M. etc -	12075.00
Tracks Laying & ballasting -	5000.00
Transportation chgs. -	7500.00
Fencing Tele Buildings etc	1500.00
	<u>19075.00</u>
5% for Engineering	1454.
Total per mile	30529.00

per mile

Cuts 18' Rock  
Emb. 24' Earth  
18'



Beverly, Wash. Mar. 7<sup>th</sup> 1910.

Estimate "B" line projection (crossing to south of Grand Hollow)  
from Bonnell No. 1 station to Columbia River 46 miles  
train track and 6 miles sidings. Total curvatures 763°  
Grade Max 0.8% and curvature 3° Pusher Grade

4 miles 2% curvature 6°.

per mile

Earth {	Embank	78291 cu. yds.	@ 18¢	- 14092.38
Earth {	"	346767 "	@ 22¢	- 76288.74
Hardpan		233259 "	@ 33½¢	- 78141.77
Loose Rock		14070 "	@ 40¢	5628.00
Solid Rock		190526 "	@ 85¢	- 161947.10
Overhaul		2,595,523 "	@ 1¢	- 25955.23
Borrow		333,244 "	@ 22¢	- 73324.68
Piling		7220 lin. ft.	@ 35¢	- 2527.00
Timber T. B. M.		171,585	@ 13¢	- 22306.05
Cast Iron		6700 lbs.	@ .03	- 201.00
St. Iron		19646 "	@ .03	- 589.38
Galv.		8970 "	@ .03	- 269.10
C. I. P.	{	36" 138 ft.	Iron @ 39¢	40 - 1576.00
	{	24" 2680 "	ft. @ 1.50	2055.00
V. P.	{	24" 1370 "		
	{	36" 36 "	@ 2.50	90.00
R/W		633 ac	@ \$30	18990.00
Clearing		404 "	@ \$5	2020.00
Rip Rap		1025 cu. yds.	@ \$1.25	1281.25
Deck Siding		4.91 Tons	@ \$75	368.25

Total for 46 miles - 469821.40

Grading, Bridging C. of M. etc -	\$ 10216.
Track Laying & Ballasting -	8000
Transportation charges	7500
Fencing, Telegraph Buildings etc.	1500
	<u>27216</u>
5% for Engineering	1361
Total per mile	\$ 28577

Cuts 18' Rock  
24' Earth  
Embank 18'



Beverly, Wash. Mar. 7<sup>th</sup> 1910.

Estimate "C" Line proj. From Connell Northern to  
Columbia River 46.35 miles main track and  
5 1/2 miles sidings. Total curvature 651° Max. grade 0.8%  
and Max curvature 3° - pusher grade for 10 miles 1.3%  
with 5° curvatures.

Earth { A haul 69376 cu yds. @ .18 - 12487.68  
B haul 343397 " " @ .22 - 75547.34

per mile

Hardpan 283445 " " @ .33 1/2 - 94954.07

Loose Rock 40170 " " @ .40 - 16068.00

Solid Rock 152980 " " @ .55 - 155533.00

Overhaul 3,256,667 " " @ .14 - 32566.67

Borrow { E 233181 " " @ .18 - 41972.58

Sub 100000 " " @ .33 1/2 - 33500.00

Overhaul 252820 " " @ .30 1/2 - 75846.00

Piling 7220 Lin. ft. @ .35 - 2527.00

Timber 171575 S. ft. @ .23 - 3946.52

Cast Iron 6700 " " @ .03 - 201.00

Art. Iron 19646 " " @ .03 - 589.38

Gal. Iron 8970 " " @ .03 - 269.10

Cast Iron Pipe { 18" 32  
24" 200 17.6 Tons @ 4 1/2 - 704.00

Vit. Pipe { 24" 1265' - - - - - @ 1.50 - 1897.50

36" 100' - - - - - @ 2.50 - 250.00

R/W. 633.42 ac. @ \$30 - 19002.60

Clearing 462.72 ac. @ \$5 - 2313.60

Steel 3480.4 T @ \$75 1/2 - 261030.00

Concrete 1800 cu yds. @ \$11.50 - 19500.00

Rope Rope 1025 cu yds. @ \$1.25 - 1281.25

Total for 46.35 miles - 552257.29

Grading, bridging, Blk. of Way, etc

Track Laying & Ballasting

Transportation chgs. per mile

Fencing Fels. Buildings etc

5% for Engineering

Total per mile

Cuts 18' Rock  
Embank 24' Earth  
18'

\$ 18355.00

8000.00

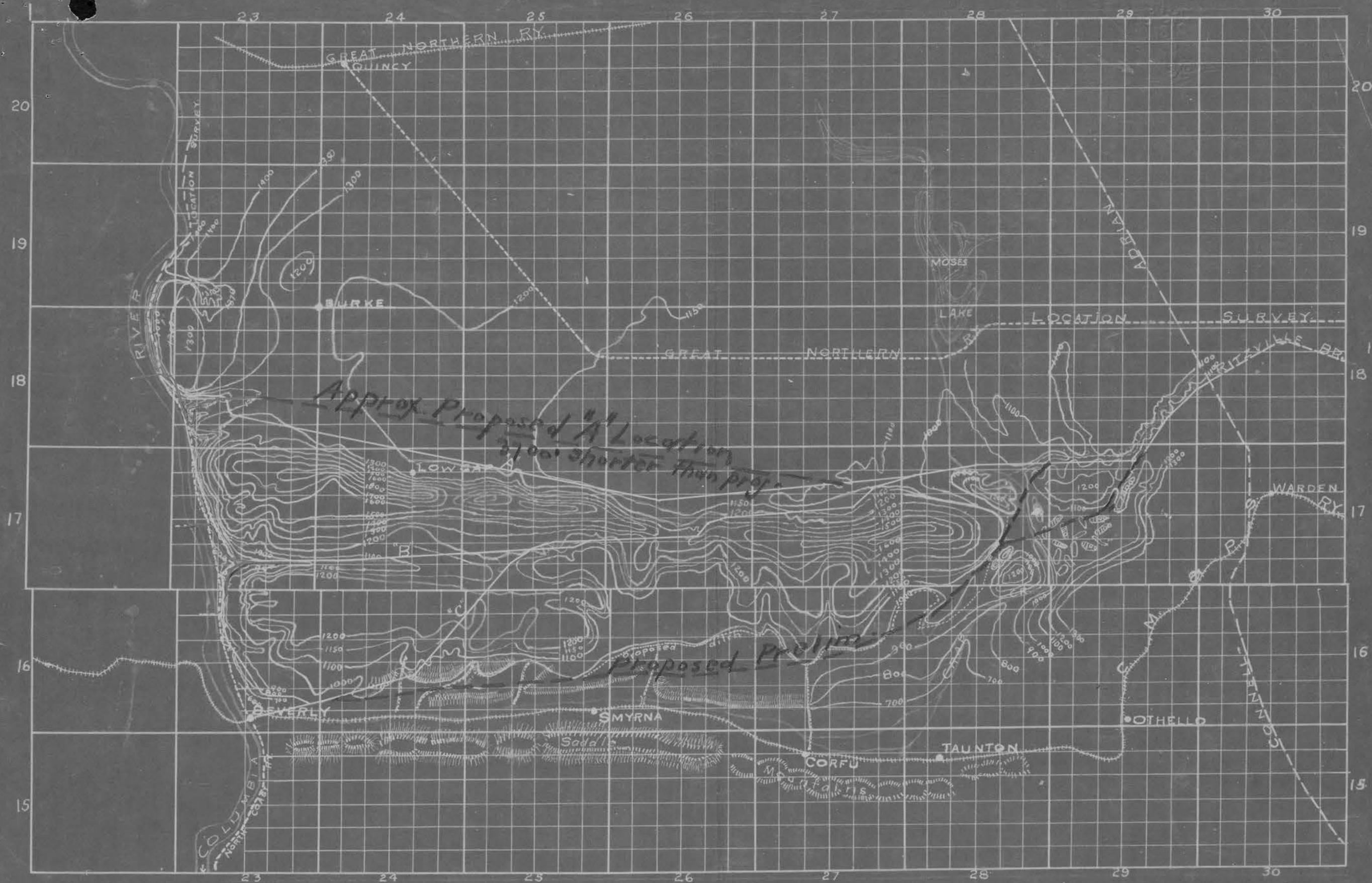
10000.00

1500.00

37585.00

1894.44

39752.00



N. P. Ry.

Ritzville-Ellensburg Survey.

Reconnaissance Map

of

country between

Connell-Adrian Ry. and Columbia River.

scale, 1" = 4 miles.

Beverly, Wash, March 3, 1910.

M. W. Howland, A.E.

Progress sketch  
Weekended March 3, 1910



## Northern Pacific Railway Company

Minsting Wash 2/6 10

Mr W Darling Chief Eng  
St Paul Minn

Dear Sir:

Please send me box  
500 Small envelopesYours truly  
H.B. Storer  
A.E.

COPY.

Ellensburg, Wash. March 5th, 1910..

Mr. W. L. Darling,

Chief Engineer, St. Paul.

Dear Sir:-

Enclosed find sketch to accompany this report .  
Sent profiles and estimates last week.

Whiskey Dick line is located with exception  
of 2 miles at Columbia River and 7 miles out of Ellensburg  
along section line.

The section line along which it is proposed  
to run into wire zigzags so much that it will be  
impossible with a straight line to keep within 100  
foot strip along section line.

Run 2 miles of 0.8 preliminary and expect  
to put Kenneys party on this line also about the last  
of the week.

Yours truly,

(Signed) H. B. Stoner,

Assistant Engineer.



Ellensburg Wash 3/5 10  
Mr H L Darling Chief Engr  
St Paul & Northern  
Pacfic.

Enclosed find sketch  
to accompany this report  
sent profiles and estimates  
last week.

Whiskey Creek line is located with  
exception of 2 mi at Columbia  
river and 7 mi out of Ellensburg  
along section line.

The section line along which it  
is proposed to run into town  
zigzags so much that it will  
be impossible with a straight line  
to keep within 100 ft strip along  
section line.

Run 2 mi of 0.8 preliminary  
and expect to put Kenners party  
on this line also about the  
last of the week.

Yours truly  
D. B. Jones  
Engr



FOR PUBLICATION  
JAN 19 1961  
FBI - NEW YORK





Sketch Map to Accompany Report  
of March 5 1910 H.B. Stoner  
Asst Engr.



3127

St. Paul, March 4th, 1910..

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington.

*For  
please note  
reference to  
proposals  
11/17/10*

Dear Sir:-

I beg to acknowledge receipt of your weekly report February 27th, together with estimates and information relative to the cost of line from Ellensburg east to the Columbia River.

While it is surprising that the Beverly Line is costing less than the Skookumchuck Line, yet both estimates are coming out a little higher than I expected I would like to have both the Beverly and Skookumchuck 2% lines located and also a preliminary run from the summit down the east side to the river on a 3% grade.

If possible the 3% grade should come up to Skookumchuck so as to cut off as much distance as possible.

Please look this up thoroughly and run preliminaries enough to determine what the approximate cost will be. It is reasonably certain that the lines will either have to cross at Beverly or at the mouth of the Skookumchuck. I want to be sure how much we can gain in distance and save in cost by putting in a 3% grade.

Yours truly,

*Profile filed  
11/17/10  
J. H. B.  
J. H. B.*

Chief Engineer.



## Northern Pacific Railway Company

			Living Lake	- John
		1.6.	1.7.	2.2
17.	265.845		1.118.508	
17.5	85225	966638		
18.2	127.100		2.203.847	
18.6	98.330			1.828.932

	miles			
1.6 Lehigh Valley - @	35.7 @	88.800		3.170.580 -
1.7 " "	35.2	94400		3.322.455 -
1.6 - John	36.1	77400		2.795.570
1.7 "	35.6	82800		2.947.440

706

Ellensburg Wash Feb 27 10  
Mr Chas Darling Chaffin  
St Paul Minn  
Dear Sir -

Herewith blue print of  
4000' map also profile of  
Whiskey Dick line and Beverly  
line with estimates on  
each. Expect to complete  
the Whiskey Dick location in  
one week.

The first 7 miles out of Ellensburg  
as shown by projected profile is  
very light work running 10000 yds  
east to the river. Rt of way  
on this 7 miles I have figured at  
\$300 per acre. On the remainder of the  
line I have figured Rt of way at \$30  
per acre. This first 7 miles can  
be built for \$2000 per mi including everything.  
In regard to the 1.7 and 1.6 lines on  
the west side of the summit the 1.6 line  
although  $\frac{1}{2}$  mi longer than the 1.7 figures  
as the best line. On east side of  
summit the Beverly line would be cheaper  
than the Whiskey Dick line to construct.



MAILED  
MAY 1910  
JUN 1910  
JUL 1910  
AUG 1910  
SEP 1910  
OCT 1910  
NOV 1910  
DEC 1910

as you will note from attached estimates but the distance from Ellensburg to the east end of the ~~Cross~~ bridge at Beverly is 37.1 mi as against 36.0 mi over the ~~Whiskey~~ Deck line from Ellensburg to east bank of Columbia river (see blue print attached)

If you decide to have the Beverly line located there are a few changes which I would make in the accompanying profile as sent in by Mr. Mayer. These revisions would merely cut out considerable curvature and not decrease the pay quantities so I have not indicated them on profile. At M.P. 25 it will probably be best to tunnel instead of looping around point. In estimates attached 15% has been added to solid rock original quantities in order to take care of the overbreak which will occur and which we shall be able to use.

Yours truly W.B. Snow



Estimate "B" Ellensburg to Summit over 17 mi 17.0 mi

1400'	Tunnel	@ \$75	105,000
254131	Cu yds S.R. Exc	@ 85¢	216011
14212	Cu yds Earth Exc	@ 20¢	2842
94221	" " S.R. Bor	@ 55¢	51821
91116	" " Earth Bor	@ 20¢	18223
50179	" " Train Haul Earth	@ 25¢	12545
1446600	" " O.H.	@ 0¢	14466
1276,000	FB.M. trestle	@ \$28	35728
47	Tons iron in trestle	@ \$65	3055
2473	" broadest steel	@ \$100	247300
53	" C.W.	@ \$60	3180
2610	Cu yd Concrete	@ \$10	26100
7½	Tons D.P.G.	@ \$90	675
3	Tons old rails for box Culvert	@ \$20	60
122	Acres Rt Way	@ \$300	36600
88	" " "	@ \$30	2640
Track, ballast, ties, fence, tel line etc 17 mi			@ \$10,000 / 170000
Transportation men & materials 17 mi.			@ 7000 / 119000
			11065246
Add 5% Engg. & Inspectors			53262
			17) 1118508
Per mi Complete			\$65825

Estimate "A" Ellensburg to summit over 16 Line 17.5 mi

1400 ft tunnel	@ \$75	105000
282822 cu yds SR Exc	@ \$85	240398
10014 " " Earth Exc	@ \$20	2003
50832 " " SR Bor	@ \$55	27958
97542 " " Earth Bor	@ \$20	19508
54944 " " Train haul Bor	@ \$25	13736
910957 " " O.K.	@ \$01	9109
1,005,234 F.B.M. trestle	@ \$28	28146
22 tons iron in trestle	@ \$65	1430
1199 tons viaduct steel	@ \$100	119900
24 tons C.M.P.	@ \$60	1440
1440 yds concrete	@ \$10	14400
7 1/2 tons D.P. & G.	@ \$90	675
3 tons old rails for box culvert	@ \$20	60
122 A. Rt Way	@ \$300	36600
91.5 A. Rt Way	@ \$30	2745
Track, ballast, fencing, tel line etc 17.5 mi	@ \$10,000	175000
Trans. men & material 17.5 mi	@ \$7000	122500

920608

Add 5% Engrs & Incidentals 46030

17.5 1966638

Per mi complete \$55235

Note: Price of \$100 on viaduct steel includes freight charges.

Estimate "C" Whiskey Deck from  
Summit to Columbia River 18<sup>2</sup> mi

6080 ft Tunnel	@ \$75	456000
790460 cu yd STR	@ \$80	671891
37750 " " earth train sand	@ \$25	9437
1820000 " " O.H.	@ \$01	18200
848221 F.B.M. bottle	@ \$30	25440
50892 Tons road metal	@ \$100	508920
3750 cu yds Concrete	@ \$10	37500
81 tons C.P.	@ \$60	4860
225 Acres R.R. way	@ \$30	6750
Steel ties, ballast frame, til. line etc	@ \$1000	182000
Trains, men material	@ \$1000	182000
		<hr/> 2098998

Add 5% Engr & incidentals 104849

Per mi Complete  $\frac{182}{2203947}$  \$121,100

Note This Estimate 2203947

Estimate "A" 1/6 Line 920608

357 ) 3124545

Per mi comp. Ellensburg to Columbia River 87500



Estimate "D" Summit to connection  
with C.M. & P.S.  $1\frac{1}{2}$  mi west of east  
end of Beverly bridge 18.6 mi.

860900 cu yds SR. @ 85¢	731765
44000 " " SR Br 55¢	24200
179000 " " Train haul earth + loose rock @ 30¢	53700
4500 cu yds concrete @ 10	45000
3968 Tons bridge steel @ 100	396800
2387500 FB.M. trestle @ 30	71625
250 Tons C.P. @ 60	15000
2500000 cu yds O.H. @ 1	25000
225 Acres R.R. Way @ 30	6750
Steel, ties, ballast, fence, telephone etc 18¢ @ 10,000	186000
Trans. men + materials 18¢ @ 10,000	186000
	<hr/> 1741840
Add 5% Engrs + Incidentals	87092
	<hr/> 186 ) 1828932
Per mi complete	<hr/> 98330

Note: This estimate 1828932

Estimate "A" 1.6 line to summit 920608

36.1 ) 2749540

Per mi complete Ellensburg to C.M. & P.S. connection 76165

H.B. Stoner



WLD\*G

3127  
Saint Paul, March 3, 1910.

Mr. M. W. Howland,  
Assistant Engineer,  
Beverly, Washington.

Dear Sir:-

Referring to your weekly report of the twenty-seventh instant.

Please be sure and run the 0.8% grades from Line "B" both ways before leaving there, because certainly the choice is between three lines,- Line "B" with 0.8% grades to Beverly or to the Mouth of Skookumchuck, or Line "A" with 2.0% grades to Skookumchuck.

You refer in each one of your reports to 1.6% grade that Mr. Stoner is locating. I know of no such location. There is a 2.2% down to the Mouth of Skookumchuck and 2.2% to Beverly. The 1.6% grade was given up.

Yours truly,

Chief Engineer.

Beverly, Wash. Feb. 27-10  
Mr. W. S. Darling, Chief Eng.  
St. Paul, Minn.

Dear Sir:-

✓  
Herewith sketch  
report for week ending Feb. 26-10.

Anderson began locating on the  
A. line Wednesday. Grade 2%, max  
curvature 8° from summit down  
to the river. River crossing approx.  
1650 feet long and 50 feet above present  
low water. This line connects with  
Stones 1.6% grade which he has been  
locating for past 10 days.

Stendahl party began locating on  
the B. line down Sand Hollow Friday  
A.M. Grade 2% and curvature 8° max  
from the summit down to the river.  
This line connects with Stones 2.7%  
line. The B line compares very  
favorably with the A line from my  
view point and it is my judgement  
that we should have a location over it.

Stendahl will back up the location  
to the A line connection and then

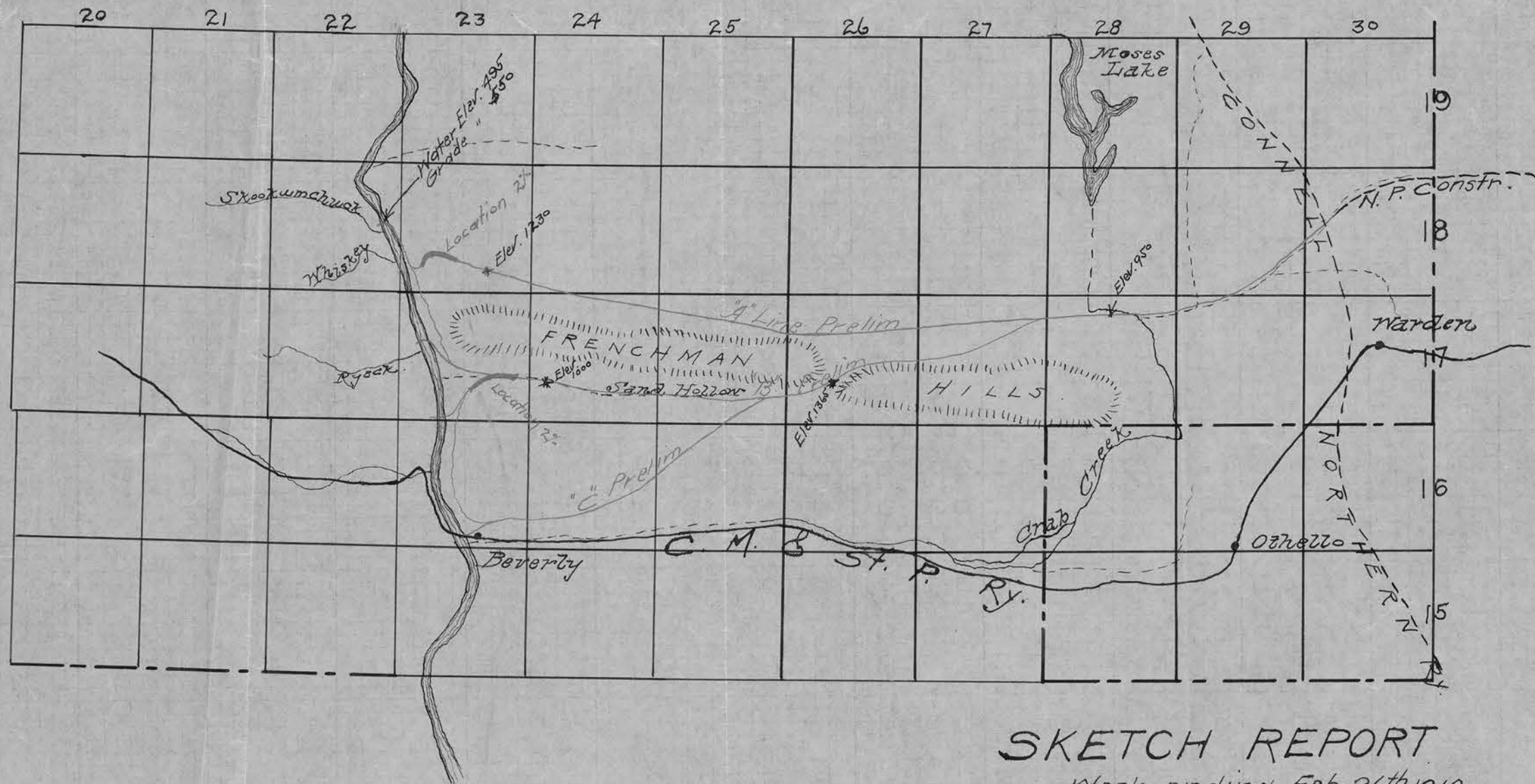
FOR INFO  
MA R 1970  
CIVILIAN



work east on "A" location .

Yours truly  
M.W. Holland.





# SKETCH REPORT

Week ending Feb 26<sup>th</sup> 1910

M. W. Howland.  
A. E.



3127

WLB\*G

Saint Paul, February 28, 1910.

Mr. M. W. Howland,  
Assistant Engineer,  
Beverly, Washington.


Dear Sir:-

Referring to your weekly report of the twenty-first instant.

I am very much in favor of the line "B". It certainly looks to me as the proper thing to use, either using the Milwaukee bridge at Beverly or the bridge at the mouth of Skookumchuck. I would not go much on the "C" line as that requires a helper grade out of Beverly: but I believe that the "B" line should be located using 0.8% up to the mouth of Skookumchuck and 0.8% down to the Milwaukee crossing at Beverly. I would not try to locate the "A" line until the "B" line with both 0.8% approaches has been located.

The lines first to locate, therefore, are "B" with 0.8% connection towards Skookumchuck and the 0.8% connection towards Beverly: then run preliminary from Beverly up Crab Creek as referred to, to avoid the rise at Frenchman Hills, unless it is possible to get an 0.8% mine from the top of Frenchman Hills, where it is elevation 1365, to Beverly.

From Mr. Stoner's report it is apparently evident that



Mr. M. W. Howland:

-2-

we will either have to use the Beverly bridge or the one  
near the mouth of Skookumchuck.

Yours truly,

Chief Engineer.

REG-S

3127

Saint Paul, Minnesota, Feb 24th, 1910.

Mr. M. W. Howland,  
Assistant Engineer,  
Beverly, Washington.

Dear Sir:-

I return bill of Carscadden Grocery Company for \$321.15. Please advise necessity for such a large purchase without requisition. I note a great many items that are not included in our list of necessary supplies in Form 118 are purchased. I also note butter is charged at 75 cents per pound Jan'y 8th and in another place butter \$3.00 no weight given, also items of ham and bacon for which no weights are given. Unit prices and weights should be given in all cases so that prices may be checked, I also note on December 31st sixty pounds butter \$25.50 was purchased which would indicate a price of 42 $\frac{1}{2}$ ¢ per pound. Please explain reason for paying 75 cents per pound, also advise necessity for purchase without requisition and reason for not adhering to our schedule.

Yours truly,

Chief Engineer.





R. H. RELF  
ASSISTANT SECRETARY

3177  
Northern Pacific Railway Company

Office of the Assistant Secretary

St. Paul, Minn.

Feb. 24, 1910.

NW Dec. 5125

Mr. Thomas Cooper, Ass't to the President,  
Mr. J. M. Hannaford, Second Vice President,  
Mr. Geo. T. Slade, Third Vice President,  
Mr. H. C. Hutt, Fourth Vice President,  
Mr. H. A. Gray, Comptroller,  
— Mr. W. L. Darling, Chief Engineer.

Dear Sir:

Referring to my letter of February 14th  
enclosing copy of agreement dated September 1, 1909  
between the Oregon, Washington & Idaho Railroad Company,  
Northern Pacific Railway Company and Clearwater Short  
Line Railway Company providing for joint use of line  
between Lewiston Junction and Grangeville, effective  
December 3, 1909: I now beg to hand you herewith  
copy of contract with exhibits attached.

Yours truly,

*R. H. Relf*  
Assistant Secretary.

enc.



Ellensburg Wash 2/20 '10  
 Mr. J. D. Darling Chief Engineer  
 D. D. Quinn

Dear Sir:

Herewith sketch to accompany report of this date.

Meyers and Kinney were both running a few side lines the first half of the week but they are now locating on the 2.2

Whiskey Creek line. Have made a careful projection and anticipate no trouble in joining up with grades.

Tate has been running out a 1.6 location which he should complete in about a week with section ties.

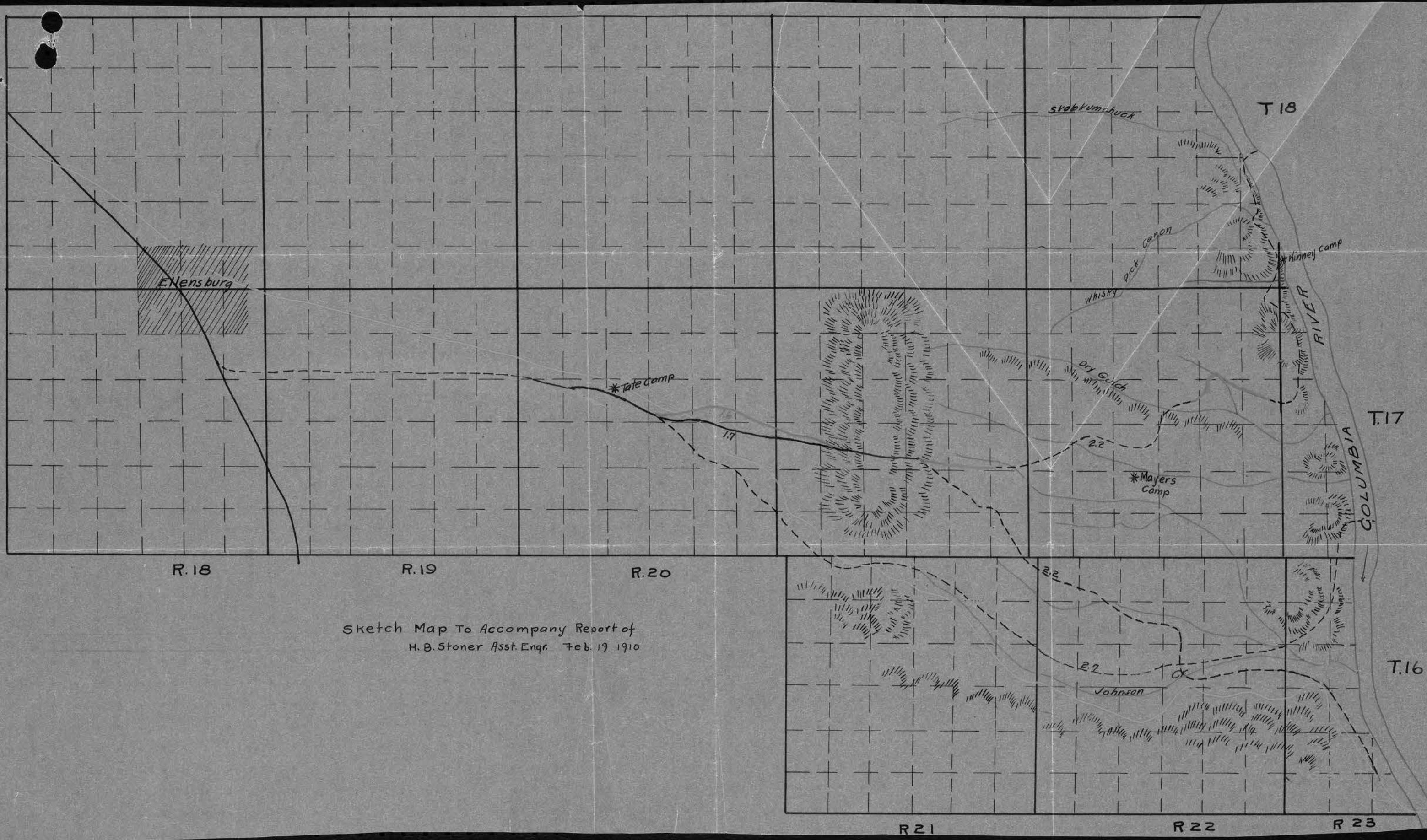
After Tate gets through with the 1.6 line I expect to move him east on the 2.2 line which joins up with the Mulvauken near their bridge.

Am making up preliminary estimates on the various lines.

Sincerely H. B. Stone &

NOT  
FOR  
PAC  
ENGINE





Sketch Map To Accompany Report of  
H.B. Stoner Asst. Engr. Feb. 19 1910



Beverly, Wash. Feb. 21-10

Mr. W. L. Darling Chief Engr.  
St. Paul Minn.

Dear Sir:-

Herewith sketch report  
for week ending Feb. 19-10.

Anderson gets a 2% to proposed "H" line crossing by running down stream until he could get support along the bluffs close to the river about as shown on sketch. This line has  $6\frac{1}{2}$  miles of 2% grade, max curvature of  $8^\circ$ , river crossing 1650 feet and 50 feet above low water. Near the summit where the line enters Box Canyon there will be  $1\frac{1}{2}$  miles of pretty heavy work, a tunnel about 1200 to 1400 feet long and some heavy daylight cuts along the edge of the cliffs but the balance of the line will be comparatively light as ~~the~~ the grade line is low enough to miss most of the cliff work along the river.

Anderson will begin locating about Tuesday of ~~this~~ next week backing up toward the Junction with Cornell Northern. Stendahl has a 2% line from Sand



1910  
FEB  
ENGINE  
PAC

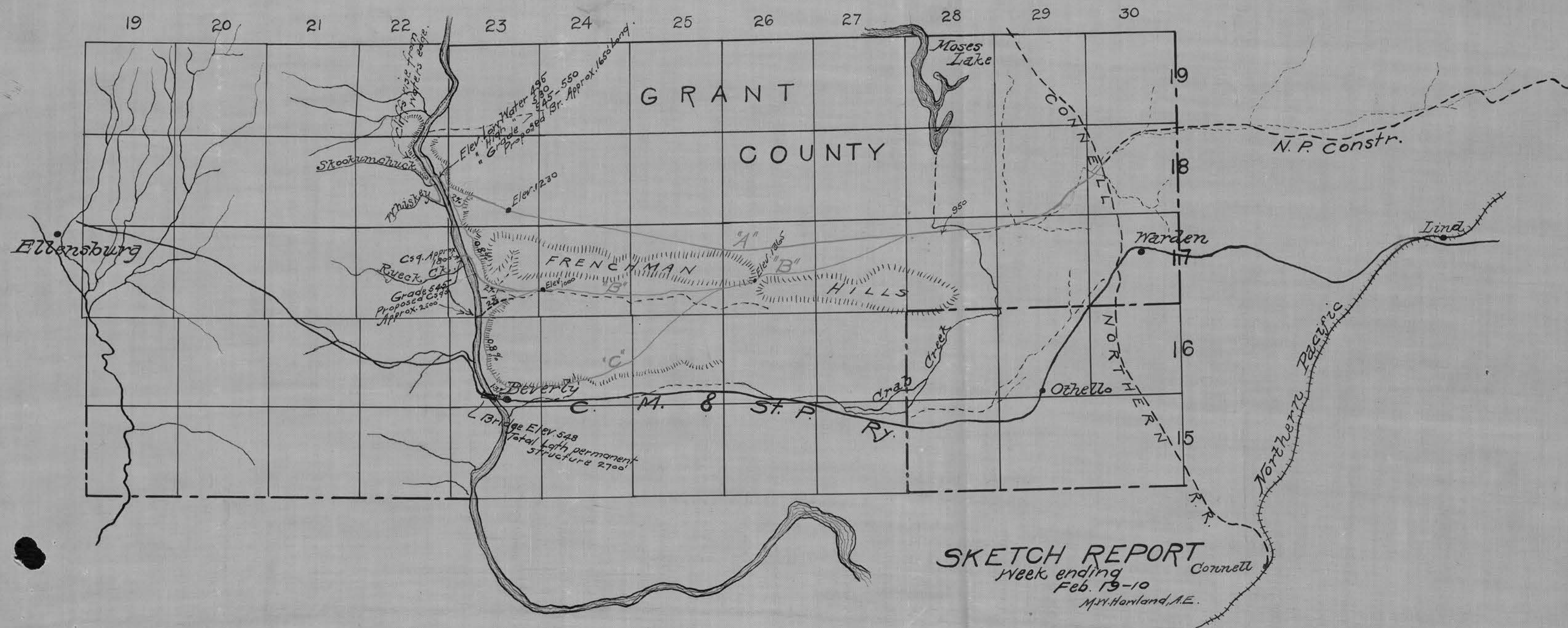
Hollow above and below the coulee. The upper crossing would be 1800 feet long, 50 feet above low water and would require a 10° curve to get on to the bridge. The lower crossing would be about 2500 feet long and 50 feet above low water. There is not to exceed a mile of heavy work on either line. Stoner has unable to say yesterday, where he could get down for crossing on this line as the preliminary has not been run. We will be ready to locate within a few days. The 0.8% line up river to "A" line csg. has not been projected but expect to make the projection this week. The value of the 0.8% line depends entirely upon how our grade line fits the benches along the cliffs.

Stoner informs me that he has reported favorably upon his line down to the C. & N. P. Co. at Beverly. We can get a line down Crat Creek on very easy grades <sup>to Beverly</sup> cutting out the rise to Frenchman's Hill Summit. However this Crat Creek line would not be as good a line from a stand point of

local business as the A B + C lines.

Yours truly  
M. W. Honland





# SKETCH REPORT

Week ending  
Feb. 19-10

Connell

Mrs. W. Howland, A.E.

3127

## Northern Pacific Railway Company

REG-S

Saint Paul, Minnesota, Feb 19th, 1910.

Mr. M. W. Howland,

Assistant Engineer,

Beverly, Washington.

Dear Sir:-

I note in your expense account for January item of \$41.60 is for hay @  $1\frac{1}{2}$ ¢ per Lb. This figures \$25.00 per ton which seem exceptionally high. Will you please explain. This hay was purchased from C. C. Elliott January 26th.

Yours truly,

*W. D. Darling*  
Chief Engineer.

*W. L. D. Feb. 23-1910.*

*This is the price of the country. Best we have been to do was \$22.00 and a poor grade at that. Hay brings an exceptionally high price as does also grain of any kind.*  
*M. W. Howland.*



8  
Insulating & Note

May at \$25 per ton

4160 ~~xx~~ @  $1\frac{1}{4}^c$  = \$52

Reg-  
Take of with Harkins and have  
him give a date of delivery after  
Harkins or at least of his  
owning every fund \$2 1/2

buy



$$\begin{array}{r} 128- \\ 2 \times 6 \\ \hline \end{array}$$

11

WLD\*G

3127  
Saint Paul, February 18, 1910.

Mr. H. B. Stoner,

Assistant Engineer,

Ellensburg, Washington.

Dear Sir:-

I hand you herewith copy of report under date of fourteenth instant made by Mr. Howland, together with blue print showing lines which he proposes to locate to the river. I am anxious to have either your line or Mr. Howland's include the distance across the river: but it appears that neither one of you have taken this into consideration.

Would also like to have your next report in as good shape as Mr. Howland's, in that it should give the comparative cost of the various lines which you have undertaken. Would like within the next ten days to be able to have a complete estimate for a line extending from Ellensburg to the Junction. Your estimates should include the cost of a projected location from Ellensburg to the river by the 2.2% line to Beverley with slack grades, and by the 2.2% Whiskey Dick Line. I think we can leave out the 1.8% and 2.7% lines on either side of Boyleston summit.

Mr. H. B. Stoner:

-2-

In addition to this wish you would have an 0.8% preliminary line run extending from the summit in Section 20-17-21 northwesterly to a connection with the Northern Pacific Main Line just west of Ellensburg. It seems to me that this 0.8% line can be located with not to exceed one mile more distance than will be needed with the 1.6% or 1.7% location: and if used in connection with the 0.8% line located by Mr. Howland it will be possible to operate this as a passenger line, with helper west bound out of the river only.

Yours truly,

Encl.

Chief Engineer.

WLD\*G

Saint Paul, February 18, 1910.

Mr. H. B. Stoner,

Assistant Engineer,

Ellensburg, Washington.

Dear Sir:-

I hand you herewith copy of report under date of fourteenth instant made by Mr. Howland, together with blue print showing lines which he proposes to locate to the river. I am anxious to have either your line or Mr. Howland's include the distance across the river: but it appears that neither one of you have taken this into consideration.

Would also like to have your next report in as good shape as Mr. Howland's, in that it should give the comparative cost of the various lines which you have undertaken. Would like within the next ten days to be able to have a complete estimate for a line extending from Ellensburg to the Junction. Your estimates should include the cost of a projected location from Ellensburg to the river by the 2.2% line to Beverley with slack grades, and by the 2.2% Whiskey Dick Line. I think we can leave out the 1.8% and 2.7% lines on either side of Boyleston summit.



Mr. H. B. Stoner:

-2-

In addition to this wish you would have an 0.8% preliminary line run extending from the summit in Section 20-17-21 northwesterly to a connection with the Northern Pacific Main Line just west of Ellensburg. It seems to me that this 0.8% line can be located with not to exceed one mile more distance than will be needed with the 1.6% or 1.7% location: and if used in connection with the 0.8% line located by Mr. Howland it will be possible to operate this as a passenger line, with helper west bound out of the river only.

Yours truly,

Encl.

Chief Engineer.

(copy)

Beverly, Wash. Feb.14, 1910.

Mr. W. L. Darling,

Chief Engineer, St.Paul.

Dear Sir:-

Herewith sketch report for week ending Feb.12, 1910.

The projections on A. B. and C. lines have been completed to within five miles of the river and we can get at distances closely,-  
Distance Connell Northern to river via A Line, 48 miles.

" " " " " via B " 46.5 "

" " " " " via C " 46.5 "

Grading, bridging and right of way for first 42 miles of the "A" and "B" lines will cost \$7500 per mile, or \$27,000 per mile complete.

The supported line to river (about 5 miles) will be heavy work on all three lines, but the average cost per mile will not exceed \$35,000. I am enclosing some photos which show the character of the support along the cliffs near the river. The "A" line hits along the face of these cliffs for about 3/4 mile in Box Canyon and about the same distance along the river.

The "B" line 2% lies along such cliffs for about 1/2 mile and the "B" line 0.8% for nearly two miles. The rock is of basaltic formation and very similar in character to that along the Snake River. We are projecting lines as follows from summit down to the river,

"A" Line  $\begin{cases} 2\% \\ 2.5\% \end{cases}$

"B" Line (2.0% to crossing 2 miles above Sand Hollow,  
(1.8% " " 3 " below " "  
(0.8% " " reached by "A" line.

"C" Line (1.3% to C.M.& St.P.Br.  
(1.3% to csg.about 1 mile above C.M.& St.P.Br.  
(0.8% " " reached by "B" line 1.8%.

I expect to have projections and comparative estimate practically completed about end of next week and start locating. The "B" line will probably prove our best line. Will send you 4000' scale showing all lines and comparative estimates as soon as this work is finished.

If it should finally be decided to use the C.M.& St.P. Br.at Beverly we can get a much better grade than our "C" line by following Crab Creek about as shown on sketch. I think that we could get a 0.5% line. Will report more fully upon this matter as soon as I have an opportunity to go over it thoroughly.

Yours truly,

(signed) M. W. HOWLAND,

Beverly, Wash

Feb. 14 - 1910

Mr. W. L. Darling, Chief Engr.  
St. Paul, Minn.

✓

Dear Sir:-

Herewith sketch report  
for week ending Feb. 12 - 1910

The projections on A, B and C lines  
have been completed to within five  
miles of the river and we can get at  
distances closely

Distance Connell-Northwest River via "A" line	48 miles
" " " " " via "B" "	46.5 "
" " " " " " "C" "	46.5 "

Grading, bridging and right of way for first  
42 miles of the "A" & "B" lines will cost  
\$7500 per mile or \$27000 per mile complete.

The supported line <sup>to river</sup> [about 5 miles] will  
be heavy work on all three lines but the  
average cost per mile will not exceed  
\$35000. I am enclosing some photos

which show the character of the support  
along the cliffs near the river. The  
A line hits along the face of these cliffs  
for about  $\frac{3}{4}$  mile in Box Canyon and



about the same distance along the river.

The "B" line 2% lies along such cliffs for about  $\frac{1}{2}$  mile and the "B" line 0.8% for nearly two miles. The rock is of basaltic formation and very similar in character to that along the Snake River.

We are projecting lines as follows from summit down to the river

"A" line -  $\begin{cases} 2\% \\ 2.5\% \end{cases}$

"B" line  $\begin{cases} 2\% - \text{to crossing 2 miles above Sand Hollow} \\ 1.8\% - \text{" " " " below " " " " } \\ 0.8\% - \text{" " " reached by "A" line} \end{cases}$

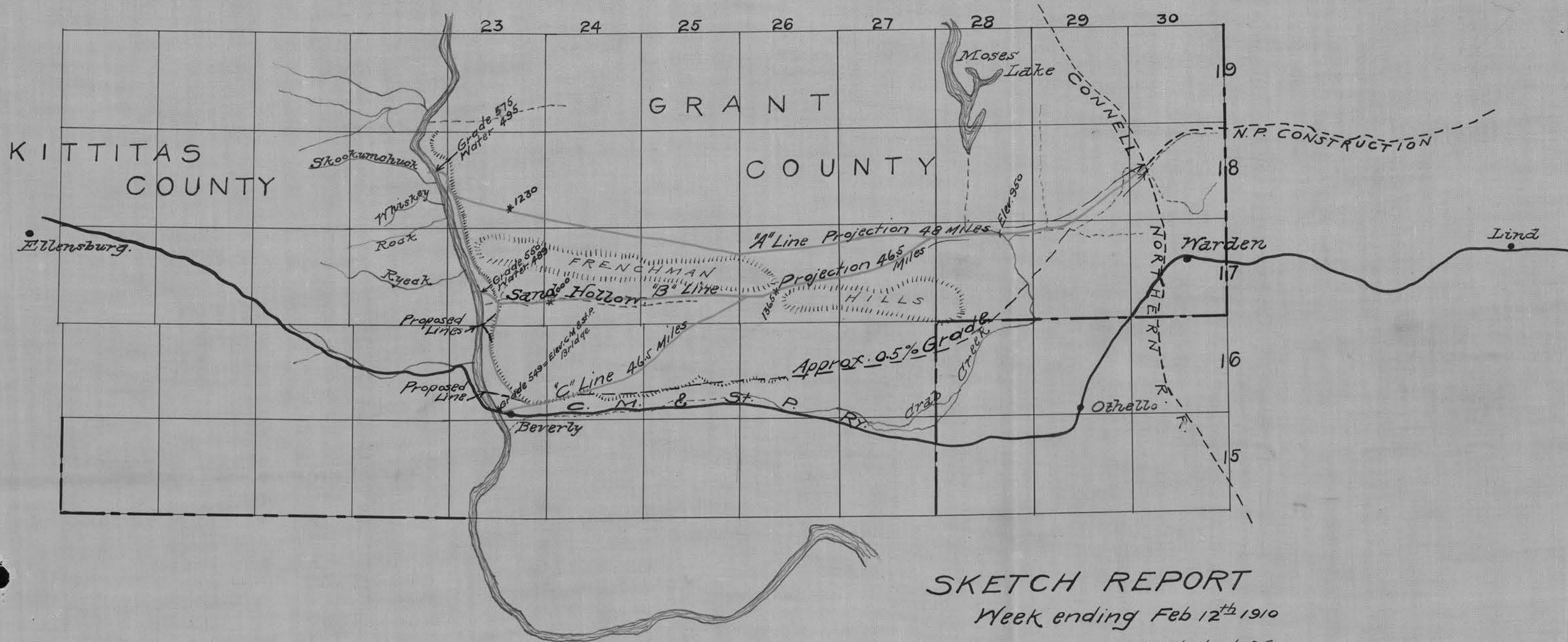
"C" line  $\begin{cases} 1.3\% \text{ to C M + St. P. Rv. } \\ 1.3\% - \text{" " " " " " " " } \\ 0.8\% - \text{" " " reached by "B" line 1.8\%} \end{cases}$

I expect to have projections and comparative estimates practically completed about end of next week and start locating. The "B" line will probably prove our best line. Will send you 4000' scale showing all lines and comparative estimates as soon as this work is finished.

If it should finally be decided to use the C M + St. P. Rv. at Beverly, we can get a much better grade than our "C" line by following Crab Creek about

as shown on sketch. I think that  
we could get a 5% rise. Will report more  
fully upon this matter as soon as I  
have an opportunity to go over it thoroughly.

Yours truly  
M. W. Howland



SKETCH REPORT  
 Week ending Feb 12<sup>th</sup> 1910

M.W. Howland, A.E.



3127

Ellensburg Wash 2/10 10  
Mr. C. L. Darling Chief Engs  
Mr. Paul Miner

Dear Sir:

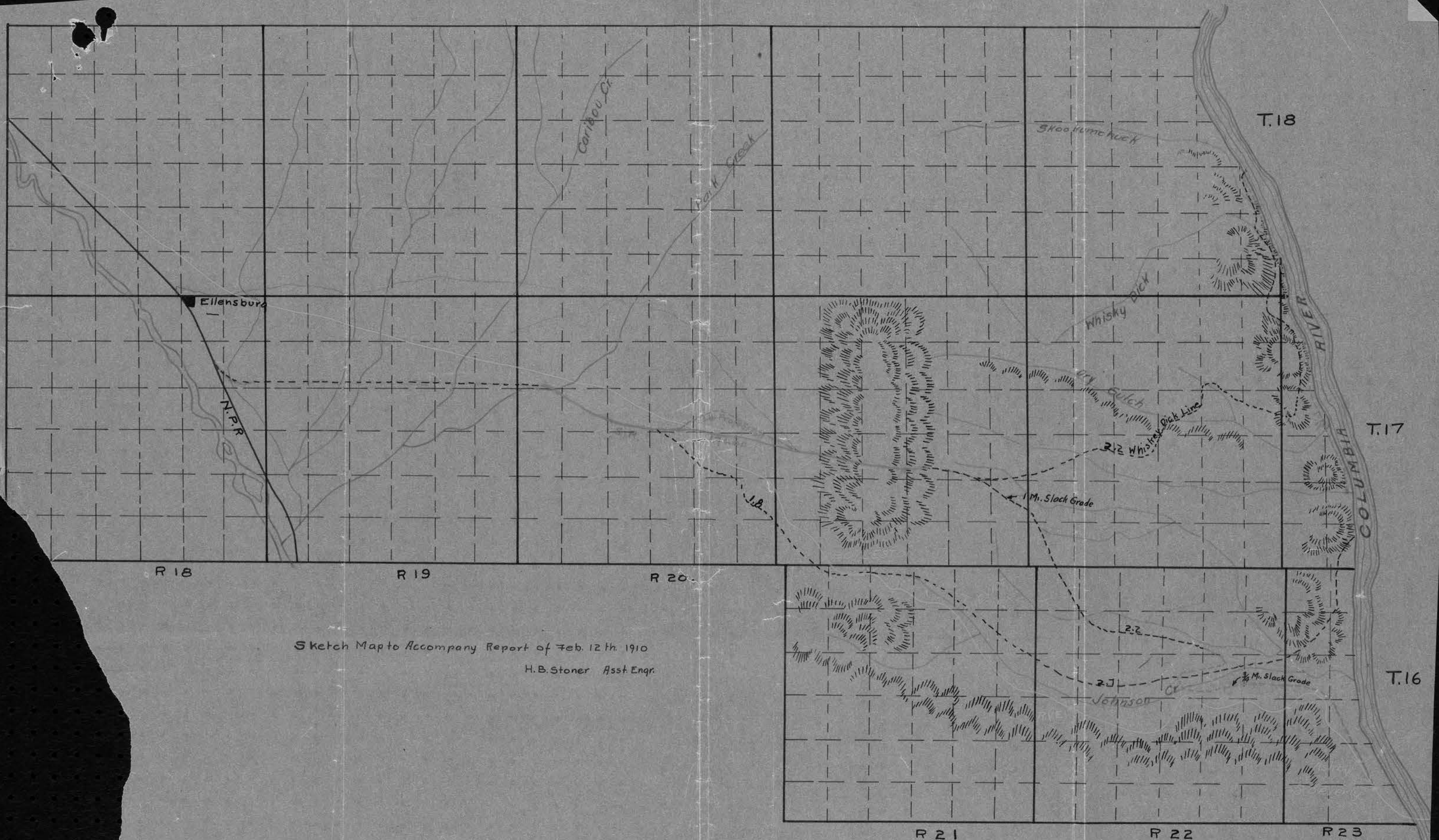
Herewith sketch to accompany  
report of this date.

Have the 1.7% line located from summit  
to the flat but by the introduction  
of 2300 ft of distance and 120° of  
curvature I can get a 1.6 line.

Shall start location on this line at  
once as it will put out one high bridge.  
On the 2.2 line east of the summit to  
the connection with the C.M.P.S. near  
their bridge it was necessary to  
introduce slack grade at two points  
shown on sketch. This was done to  
shorten line and avoid very heavy  
work. The bridge on Johnson Cr would be  
150' high. The work on this line would be  
about 25% less than on the Whiskey Dick 2.2 line.  
Expect to start locating the Whiskey Dick  
line with two parties in a few days.

Yours truly  
O. B. Smith AS





Sketch Map to Accompany Report of Feb. 12th. 1910

H.B. Stoner Asst. Engr.

Beverly, Wash. Feb. 7-10  
Mr. W. L. Darling, Chief Eng.  
St. Paul, Minn.

Dear Sir:—

Herewith sketch  
report for work ending Feb. 5-1910.

Anderson has run the "A" line down  
to the river and backed up on 0.8% nearly  
to connection with "B" line.

The "A" line was run down on a 2.0%  
but we would require a 2.5% to get down  
to the proposed crossing and Anderson will  
endeavor to develop sufficient distance  
to get down with a 2%. Stoner and I  
looked over the ground at proposed  
crossing Sunday and decided that it is  
the best point. To put the crossing  
farther up stream throws his line along  
a perpendicular cliff and no room to  
swing on to the bridge and if we can  
develop <sup>sufficient</sup> distance to get down with a 2%  
our line will be lowered to something  
like practicable construction along the  
perpendicular cliffs just south of our  
crossing.



The <sup>present</sup> water elevation at crossing is 498.0 according to our levels (Gorham) and 512.0 by Stoner's levels carried from N.P. at Ellensburg. The extreme high water mark is 34 feet higher or 532 (Anderson's levels).

We figure on the crossing 75 to 100' above the present low water. Stoner's men triangulated the distance Saturday and reported 1100 feet.

Stendahl has carried the C line down to Beverly on 1.3% max and run an 0.5% line around on the support and up river <sup>nearly</sup> to Sand Hollow. He will move up river the first of the week and finish the preliminary.

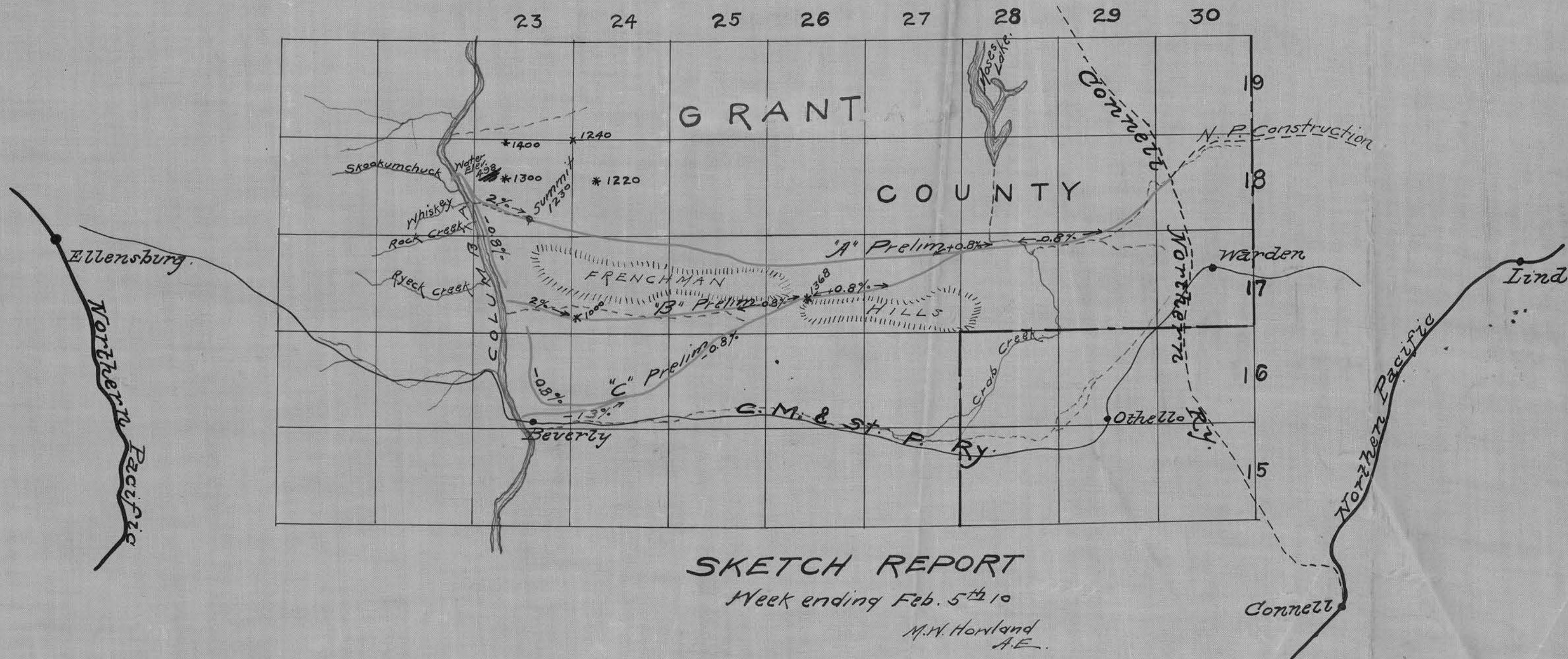
We are carrying projections and estimating along as fast as field work will permit and expect to have comparative estimate by Sunday of next week.

Feb. 13 and divide on location. The "A" and "B" lines are both easy construction from Crab Creek to the Cliffs at the river. This portion of the line complete would cost about \$2500 per mile. As a rough estimate on the line from Crinell

Northern to the river, I would estimate  
\$35000 per mile. Will be able to give  
you figures and distances from estimate  
in my next report.

Yours truly,  
M. W. Howard





# SKETCH REPORT

Week ending Feb. 5<sup>th</sup> 10

M.W. Howland  
A.E.

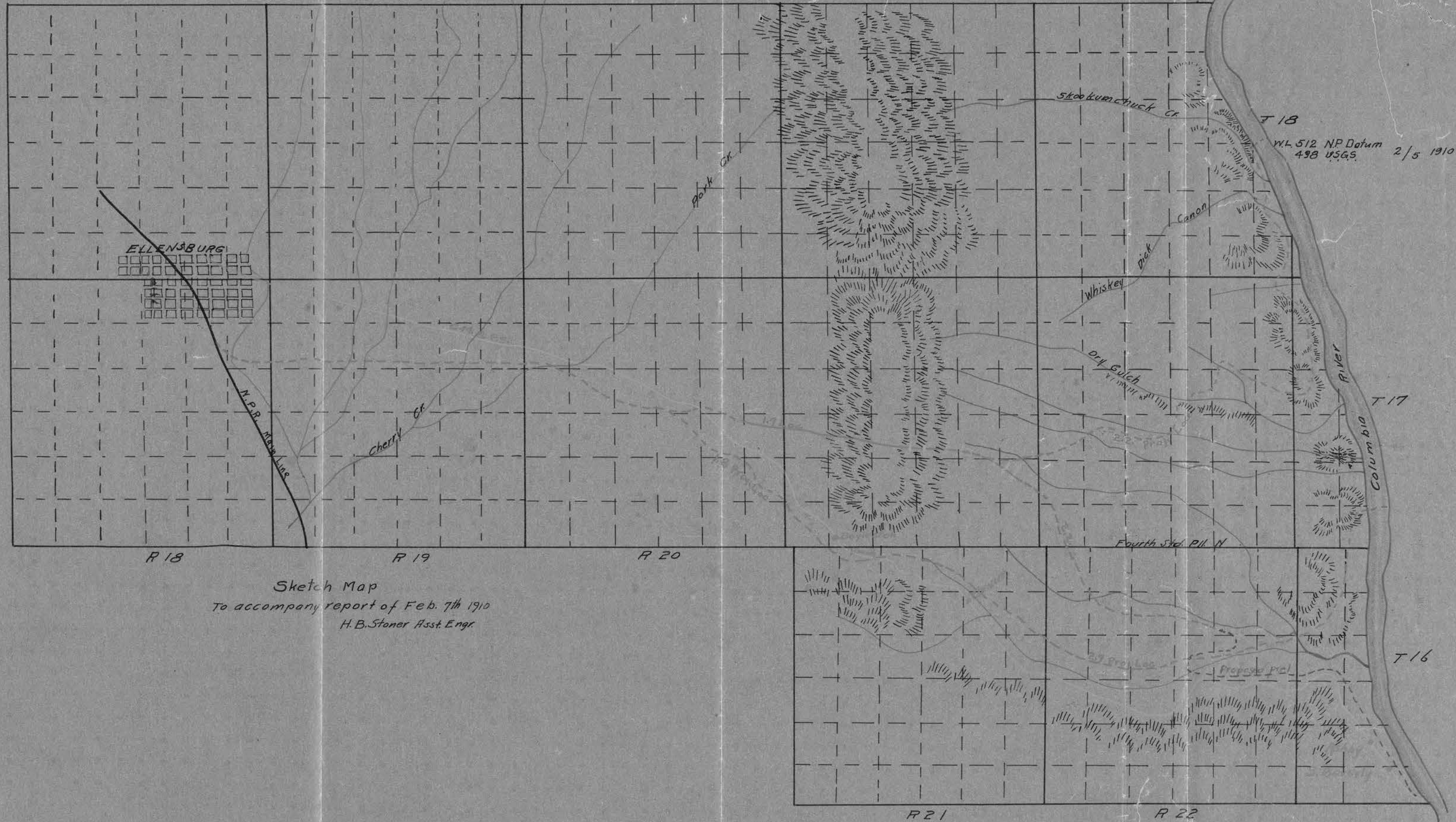
Ellensburg Wash 2/7 10.  
 Mr W L Darling Chief Eng  
 St Paul Minn

Dear Sir -

Herewith sketch to  
 accompany report of this date.  
 Have started location on west side  
 of summit on 1.7% grade  $3\frac{1}{2}$  mi located.  
 On east side of summit I have  
 a projected location on 2.2 grade  
 to mouth of the Skookumchuck over line  
 shown dotted red. Can take a bridge  
 60 ft above present water level at this  
 point. High water is 35 ft higher than  
 present water level. This is a fine  
 location for bridge 1500 ft in length.  
 There is a point of rock bluff extending  
 into the river on the west side and a bar  
 60 ft above the water on the east side.

I have looked over this bridge site with Howland.  
 Am also working on a 2.2 line to connect  
 with the C.M. & P.S. near their Columbia River bridge.  
 but have not completed the preliminary as yet.  
 Country between summit and the Columbia is very rough  
 which necessitates slow running of levels.  
 Yours truly W L Darling





Sketch Map  
To accompany report of Feb. 7th 1910  
H. B. Stoner Asst. Engr.



~~3127~~ 3127

Beverly, Wash. Jan. 30-10

Mr. W.D. Darling, Chief Engr.

St. Paul, Minn.

Dear Sir:-

J

Herewith sketch report showing preliminary lines run to date with controlling elevations shown.

Anderson has been working out the "A" lines. Our elevation at Goat Creek is 940. Grade both ways 0.8%. Three miles of 0.8% getting down to the Creek from the east and two miles of 0.8% getting out on the west. The summit of the 0.8% grade on the west of Goat Creek is about at Range line between 27+28 and from this point the country rises, on about 0.2% to 0.3% to an elevation of 1230, to a point about 4 miles, on a direct line, from the Columbia River.

The country directly north of this summit for nearly five miles reaches an elevation of from 1300 to 1400 with no opening to the river. There is a coulee about six miles to the north of our line



as shown on sketch but it does not look any better than the one Anderson is using and it would give us a longer line with but little if any difference in elevation of summit. This course might be of use to us in connection with a line farther to the north than our "A" line and I expect to cover this country in the near future. Anderson is running down to the river on 2% from the summit and his line is down to an elevation of 800. He will continue the 2% up river for about  $2\frac{1}{2}$  miles the first of next week. The water elevation is about 500.

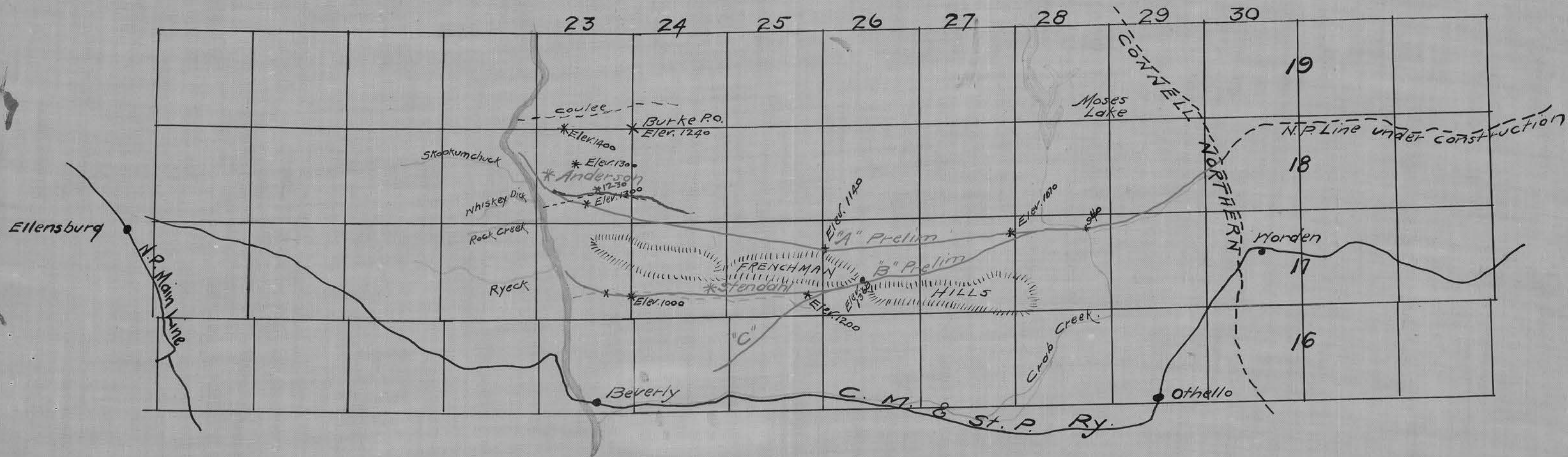
Stendahl is running out "B" and "C" Preliminaries using an 0.8% grade both ways from summit of Frenchman Hill. Controlling elevations on T. 17 R. 25 of 1200' and on Range line between 23<sup>rd</sup> & 24<sup>th</sup> of 1000'. The grade down to the river is 2%. Stendahl will move Monday to near Bejarby and carry the "C" line down to the Milwaukee Bridge and

and make survey up the river before  
going farther with the "B" line.

Yours truly  
M.W. Howland.

P.S.

In conversation at Spokane, I gave  
you elevation of summit on "A" line  
as 1300, Anderson found a gap  
through the ridge with a summit  
of 1230. M.W.H.



# SKETCH REPORT

Week ending Jan. 29-1910

M. N. Howland  
A.E.



3004  
3127

X

1910  
UR. PAC

Lm Sup. Jan 28-1910

W. L. Darling Chf. Engr.  
St. Paul. Minn.

M. W. Howland. Asst Engr.  
Berkeley, Wash.

Dear Sirs:- Following is progress of surveys  
on North Side Frenchman Hill.

A line ran from Sta 1496 (Sec 34 R 24 T 18)  
to Sta 2000 (Sec 21 R 23 T 18). Ran P line  
from Sta. A 1875 east 206 Sta's, B line from  
Sta P 36+00 122 Sta west and B' line  
from Sta P 13+00 315 Sta east.

The A line crosses coulee and enters  
what we know a "Hole in Wall Canyon" at  
Sta 1875 and at elevation 1177 and follows  
a course on North wall of canyon coming  
down onto 1st Bench at an elevation of  
approx 950 at Sta 2000.

The P line runs east from mouth of canyon  
crosses coulee and takes in small  
draw 1/2 mile north of A line.

B' line also starts near mouth of  
canyon and follows course on North  
side of coulee and onto flat 1 mile  
north of A line. I think this



will prove the best of the two feasible  
lines entering Coulee as the highest  
point reached by this line is 1228  
where as on A line we reach elevation  
of 1310 and on P line we reach 1250  
A location following the B' line will  
give us. at max 0.8 grade coming down  
from flat thro the Coulee and breaking  
to a 2.0% at mouth of "Hole in the Wall"  
canyon.

A B line was run down the coulee  
starting at a point nearly opposite the  
Hole in Wall and entering small canyon  
1 mile ~~west~~ <sup>South</sup> of it but level shows only a  
drop of 40 feet in 120 sta. This line  
when developed further may give a cheaper  
but slightly longer line than the A line.

However surveys have not progressed <sup>far enough,</sup> in  
either case to say anything definite  
concerning them.

Yours truly  
R. S. Anderson  
Asst. Engr.

Jan 28 1940



R.P. Anderson  
Jan. 28-10



Northern Pacific Railway Company

3127  
3004Spokane, Wash  
Jan. 27-10Mr. W. L. Darling Chief Eng  
St. Paul, Minn.Dear Sir:- My post  
office will be Beverly, Wash.  
from date

Yours truly

M. W. Howland

V



KEG-S

3127

Saint Paul, Minnesota, Jan 27th, 1910.

Mr. H. B. Stoner,  
Assistant Engineer,  
Ellensburg, Washington

Dear Sir:-

Referring to your letter of the 24th attached to bill for \$444.15 for transportation charges ~~are~~ returned herewith.

I note you state that bill was sent you by mistake. You will note charges cover transportation against the Ritzville to Ellensburg Cut Off, the work on which you are now engaged and cover transportation of Engineering crews which is a proper charge to the work. It is returned for your O.K. and distribution if correct.

Yours truly,

Enc.

Chief Engineer.

## Northern Pacific Railway Company

3127

REG-S

Saint Paul, Minnesota, Jan 22nd, 1910.

Mr. H. B. Stoner,  
 Assistant Engineer,  
 Ellensburg, Washington.

Dear Sir:-

I hand you herewith the following bills for  
 supplies shipped by Assistant Engineer Ray:

Supplies Shipped to L. Tate,	\$267.04
" " "	452.92

Will you please have these bills certified distributed  
 and returned promptly.

Yours truly,

Enc.

*W. D. Darling*  
 Chief Engineer.

*MMH 1/2*  
*and forward to St Paul would you please certify to bill 452.92*

## Chicago, Milwaukee and Puget Sound Railway Co.

**RECEIVED TELEGRAM.**

At

3004

3127

CONTINENTAL TELEGRAPH CO.

15 paid. Warden, Wash. Jan. 19th, 1910.

W L Darling

Chief Engineer, N P Ry. Tacoma

My Post office Warden here tomorrow following four days, at  
camp twenty five miles out.

M W Howland.

*Beverly Wash**Continental Telegraph*





Form 1636

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	READ FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO H. C. Westfall,

DATED

January 18-10.

AT

Connell, Wash.

COPY

Howland is making some surveys West from Junction with Ritzville Branch. Send messenger to him and have him wire us Tacoma his address. We don't know how to reach him.

W. L. Barling,

4p

WLD\*G

Ellensburg Wash Jan 10, 10  
 Mr W L Darling Chief Engr  
 St Paul Minn

Dear Sir

Herewith sketch showing preliminary  
 lines run to date

Have two lines through the Rattlesnake  
 Mts north of the C.M. & P.S. Ry Co tunnel  
 The south pass being 40 the lower  
 expect to use it for location.

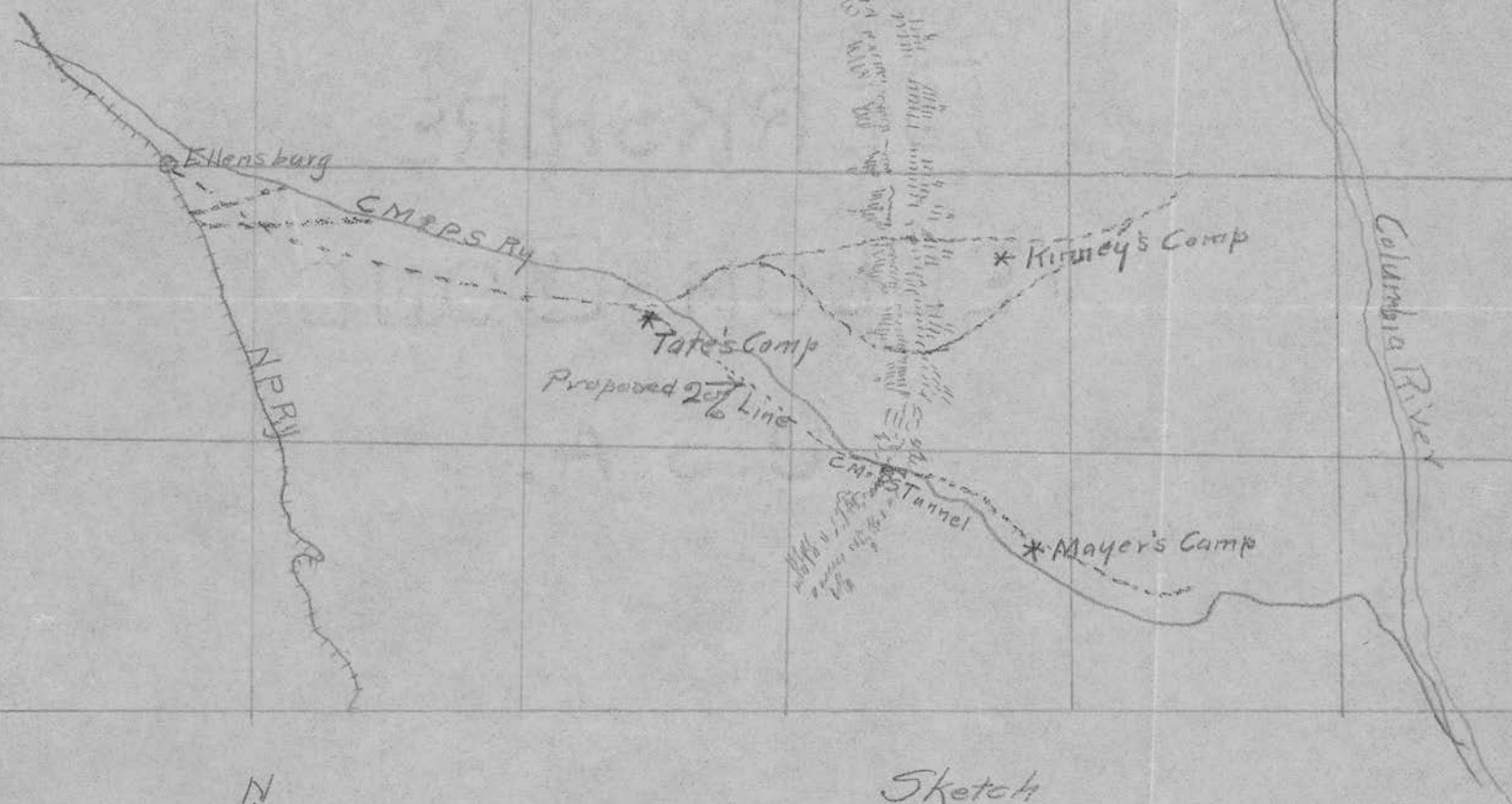
Kenney is running a 2.2% line east  
 from this pass.

Tate will work on a 1.6 line west from  
 this pass but as Tate's preliminary is  
 not in the right place as run I am  
 not sure whether a 1.6 or a 2.0 line  
 will give the best location.

Mayer is running down Johnson  
 Gulch on a 3.0% line.

The controlling point on Mayer's line  
 is 2 miles east of the C.M. & P.S. tunnel  
 where the C.M. & P.S. crosses to the north side  
 of the gulch and back again taking heavy work  
 Producing 3.0% line west from this controlling point  
 it is possible to cut out tunnel and get down  
 on the west side with 2.0% line

Yours truly  
 W L Darling



Sketch  
 To Accompany Report  
 Week Ending Jan 8 '10  
 HB Stoner AE





Form 1836

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO J. D. Koren,

DATED

St. Paul, January 9-10.

AT

Spokane, Wash.

Your wire eighth. Have mayer report at once to Stoner at Ellensburg.

W. L. Darling,  
12a

WLD-G

COPY



Form 1250

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO

H. B. Stoner,

DATED

St. Paul, January 9-10.

AT

Ellensburg, Wash.

Mayer will report to you at once from Spokane.

W. L. Darling,

12a

WLD\*G



Form 1356

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After writing telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
92				340	8						

FROM

Spokane

TO

W L Darling

DATED

1/8

AT

Can release mayer tomorrow shall  
he join Party at Ellensburg

J L Koren

✓

✓





# TELEGRAM.

Form 1536

3127

8

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces. In any instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well as sent by their mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM Saint Paul, Minn. TO H. B. Stoner,  
DATED Jan 5th, 1910. AT Ellensburg, Wash.

Solomon 3rd. Think better send requisitions for supplies through A.R.Cook's office for handling by Purchasing Agent on the west end to avoid delay.

W. L. Darling.

3127

## Northern Pacific Railway Company.

Ritzville, January, 4, 1910.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

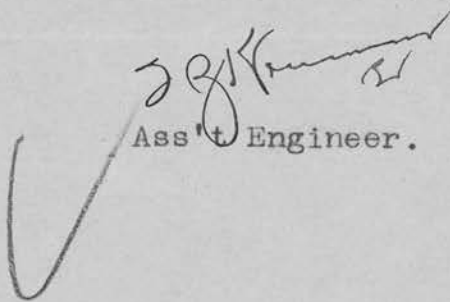
Dear Sir:

We started running preliminary lines on December 30th and have necessary data to make final location for separation of grades at the junction. I expect to have maps and profiles of the final location of lines at the junction in your office the eleventh or twelfth of this month.

We were considerably delayed in getting our outfit from Lo Lo and did not get started from here until the 27th.

Yours truly,

TZK-L

  
Ass't Engineer.



Form 138A

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender, receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. When transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
34	St Paul										

FROM

Attnville Jan 4

TO

W E Darling

DATED

AT

St Paul

Your wife also re ~~separation~~ of ~~Grade~~ Preliminary line  
Run and have data for final location maps & Profiles to  
you about eleventh

J G Krumm  
2290

L





# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. Also, in transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

TO

T. Z. Krumm,

DATED

St. Paul, January 4-09.

AT

Ritzville, Wash.

See my wire twenty-third December.' Have you yet agreed on location at crossing of Connell Northern with Ritzville Branch.

W. L. Darling,

5.30p

WLD-G



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. Transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
	185 BY. W.	KA.									

FROM

Ellensburg, January 3rd,  
1910

TO

SW. L. Darling,  
St. Paul

DATED

Shall I send req'n for supplies through A R Cobk's office?

H. B. Stoner

3 48 PM

*Mr. L. / What do you want?*

*Mr. Darling I think he showed me the place then I went down to the depot*

*Coy (W)*

Ellensburg Wash

Mr W. Darling Chief Eng.  
St Paul Minn

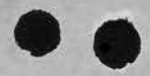
Dear Sir, I have been looking  
over the country and  
getting parties up to the  
field

Kennedy's party is camped  
on Huskey Reef and will  
start working from summit  
of the Rattlesnake Mts towards  
the Columbia on a 2.2% grade  
Mayers party will go into  
camp tomorrow 3 mi east  
of the Milwaukee tunnel and  
will work towards the  
Columbia on a 3% grade.

Tate's party will go into camp  
as soon as they arrive. He will  
be located 12 mi east of  
Ellensburg and will connect with  
both Kennedy's line and Mayers line  
Yours truly W B Storer



CHIEF ENGINEER  
JAN 11 1910  
DEPT. OF THE INTERIOR  
WASHINGTON, D.C.



3127  
LAM-S

Saint Paul, Minnesota, Dec 31st, 1909.

Mr. H. B. Stoner,

Assistant Engineer,

Ellensburg, Washington.

Dear Sir:-

Replying to your letter of December 26th  
regarding distribution of expenses on your new work.

Wish to advise that charges should be as follows,

Charge File none,  
Ritzville-Ellensburg Cut out.

Yours truly,

Chief Engineer.



Form 1386

3127

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
114	sf	n	f								
				M.		M.			M.		

FROM

Spokane Dec. 30-09

TO

W.L.Darling,

DATED


AT

StPaul.

Solomon 28th. Mayers outfit shipped today. Party leaves tonight

Will need Mayer and draftsman here about two weeks to finish estimates maps Etc.

J.D.Koren. 523 pm







Form 1000

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Route From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

TO J. D. Koren,

DATED

St. Paul, December 28-09.

AT

Spokane, Wash.

Send Mayer's party to report to Stoner at Ellensburg at once.

Wire me when Mayer will be available to take charge of his party.

W. L. Darling,  
11a

WLD-G



Form 1350

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO H. B. Stoner,

DATED

St. Paul, December 28-09.

AT

Ellensburg, Wash.

Mayer's party now at Spokane will report to you immediately at Ellensburg. Mr. Mayer, his draftsman and topographer will have to remain at Spokane for a few days to finish up estimates.

W. L. Darling,  
11a

WLD\*G



Form 1384

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
124	of an			7:15 P.M.							

FROM Spokane TO Charing  
DATED Dec 27 09 AT NP

Mayers party will finish field work tomorrow. We have to keep Mayer this draftsman and topographer to plat cross sections and make estimate. Please wire dispm of Balance of party  
J. Keren





Form 1850

3127

2

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender, and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interests as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraphs.

NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO Ed. Kinney,

DATED

St. Paul, December 28-09.

AT

Ellensburg, Wash.

Stoner will be in Ellensburg Wednesday, twenty-ninth. Advise me if he is not there at that time.

W. L. Darling,  
10:45a

WLD-G



Form 1385

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

213 BY.SC.K.

FROM

Ellensburg Dec 27-09

TO

W.L.Darling,

DATED

AT

Saint Paul.

Kinneys and Tates parties here with all equipt Mr Stoner not arrived yet send instructions.

Ed Kinney

655 Pm.

## Northern Pacific Railway Company.

Miles City Mont 12/24

Mr W. L. Darling Chief Eng'r  
St Paul Minn.

Dear Sir,

Please write me at Ellensburg  
as to what is proper charge for that work  
To whom shall I send requisitions for  
supplies and applications for time checks?

Yours Truly

W. D. Stones P.E.

Acty-Exchmty sent off

NOV 28 1924  
ST. PAUL, MINN.  
RECEIVED





Form 1386

3127

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
15 miles of											

FROM

DATED

TO

AT

L. Date and Party Leave  
Missoula for Ellensburg tomorrow  
eve 25th have provided them  
with one month's provisions.

L. W. Ray



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
68	sf	n	f								

FROM Oro Fino Dec. 24-09 TO W.L.Darling  
DATED AT StPaul

Kinneys party enroute Ellensburg this morning.

M.W.Howland. 1153 am

WLD-G

Saint Paul, December 24, 1909.

Mr. H. B. Stoner,

Assistant Engineer,

c/o P. E. Thian, Mandan, N.D.

Dear Sir:-

Please note the attached copy of message from Mr. Ray relative to man in charge of party on account of Mr. Lownesbury leaving due to sickness of his mother. I do not know Mr. Tate, but the whole matter is referred to you as per Mr. Ray's message.

Yours truly,

Encl.

Chief Engineer.

COPY.

**Northern Pacific Railway Company.**

LAM-S

Saint Paul, Minnesota, Dec 24th, 1909.

Mr. I. B. Richards,

Will you please rush N.P. car 25273  
from LoLo to Ritzville, for work on the Ritzville Branch which  
they are holding upon the arrival of this car.

W. L. Darling.





Form 133A

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
98	ms	E2	an	508 pm							

FROM Lo Lo Mont TO W L DarlingDATED Dec 23 09 AT St Paul

Acct of Continued illness of Mother  
J. M. Leonsbury Cannot accompany party to  
Ellensburg Have put L. Tate his transit man  
in charge He is Competent to handle  
party J. L. Dow who has been Draftsman  
for Leonsbury for the past three months is a Capable  
transit man & will Succeed Mr Tate and I will furnish



Form 138A

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM \_\_\_\_\_ TO \_\_\_\_\_

DATED \_\_\_\_\_ AT \_\_\_\_\_

Mr Tate with Draftsman from my office.  
Mr Leonesbury will write you regarding his  
leaving Party  
E W Ray



## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. All transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
76	Mo E2 an		406 P	M.		M.			M.		

FROM Lo Lo Mont TO W L Darling  
DATED Dec 23 09 AT St Paul

Your wire 22<sup>nd</sup> Leonsburgs party here  
today. Camp equipment here tomorrow  
will try to get party and outfit  
out by tomorrow night for Ellensburg  
Advise to whom to report.  
E W Ray







Form 1536

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	Route From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

TO E. W. Ray,

DATED

St. Paul, December 23-09.

AT

LoLo, Montana.

Want to have Lownesbury's party report to Stoner at Ellensburg.

When will Archer be ready for other work.

W. L. Darling,  
lp

WLD-G

WLD-G

Saint Paul, December 23, 1909.

Mr. H. B. Stoner,

c/o P. E. Thian, Assistant Engineer,

Mandan, North Dakota.

Dear Sir:-

Have arranged for Lownesbury's party, now at LoLo, to report to you at Ellensburg. This makes two parties which you will have,- Mr. Kinney's party, which will be there some time this week, and Lownesbury's party, which will leave LoLo Station about December twenty-fourth.

Yours truly,

Chief Engineer



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, person sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgement would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
100	md es	X									

FROM

TO

DATED 1010 Mont Dec 22

AT

W.L. Darling  
St Paul

Lounsbury's party will be ready to leave here a bout Friday  
Dec 24th advise where you wish them to go

E.W. Ray 7pm

TELEGRAM



RECEIVED  
JAN 10 1900  
U.S. DEPT. OF AGRICULTURE  
WASHINGTON, D.C.





Form 1436

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 223, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM \_\_\_\_\_ TO E. W. Ray,  
DATED St. Paul, December 22-09. 47 LoLo, Montana.

Advise me when Archer or Lownesbury can go to Ellensburg.

W. L. Darling,  
12a

WLD-G



Form 1890

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Route From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO P. E. Thian,

DATED

St. Paul, December 22-09.

AT

Mandan, N.D.

I sent letter to Mr. Stoner at Baker yesterday. He is wanted badly at Ellensburg. Advise me when he can go there.

W. L. Darling,  
12p

WLD-G



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signature of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
49	sf n f										

FROM Ritzville Dec 22-09 TO W.L. Darling,  
DATED AT StPaul.

NP 25273 out-fit for Ritzville Branch have car hurried forward from  
Lolo. Advise.

T.Z. Krumm. 120 pm



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signature of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgement would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
13 sf sn p				M.		M.			M.		

FROM

Ritzville, Dec. 23, 1909.

TO

W. L. Darling,

DATED

AT

St. Paul.

Your wire 23rd regarding separation of grades Ritzville branch, party arrived here yesterday but cannot locate outfit. Will have line located so as not to delay contractors. Please see my wire 22nd regarding rushing carx.

T. Z. Krumm.

215am 24



WLD-G

Saint Paul, December 21, 1909.

Mr. H. B. Stoner,  
Assistant Engineer,  
Baker, Montana.

Dear Sir:-

Mr. Kinney's party has been ordered to report to you at Ellensburg. Presume they will be there within the next few days. Advise Mr. Howland at Oro Fino, Idaho, when you will see them.

Yours truly,

Chief Engineer.



Form 1229

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those to passers on trains except trainmen, enclosed in sealed envelopes. The exact time sent, time received, personal signal of sender and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegram which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 1229, and forward same to Superintendent of Telegraph.

NUMBER	RECEIVED	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

DATED

St. Paul, December 21-09.

TO M. W. Howland,

Oro Fino, Idaho.

Your wire twenty-first.

Send Kinney's party to Ellensburg to

report to H. B. Stoner.

W. L. Darling,  
4p

WLD-G

COPY



# TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and the parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal sign sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessary, long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
60	sf n f										

FROM Oro Fino Dec. 21-09 TO W.L. Darling,  
 DATED AT StPaul.

Kinneys party at Kooskia running out Tunnel Line and retracing  
 OR&N line just below town while awaiting orders. If we dont hear from  
 you when that work finished will put them locating on Merriams  
 preliminary up Jim Ford Creek.

M.W.Howland. 1129 am ✓



Form 1336

## TELEGRAM.

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 228, and forward same to Superintendent of Telegraph.

NUMBER	Radio FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM  
DATED  
St. Paul, December 23-09.  
TO  
T. Z. Krumm,  
Ritzville, Wash.

See my letter to you December eighth about separation of grades at Ritzville Junction with the Connell Line. Has that yet been worked out. Understand contractors will be through there by the fifteenth and want to get away. Answer what you have done.

W. L. Darling,  
5p

WLD-G



REG-S

Saint Paul, Minnesota, Dec 20th, 1909.

F

Mr. T. Z. Krumm,

Assistant Engineer,

Ritzville, Washington.

Dear Sir:-

Replying to your letter of the 17th .

The account to which the survey to the Columbia River  
should be charged "Ritzville - Ellensburg Cut-off".

Yours truly,

Chief Engineer.

WLD-G

Saint Paul, December 18, 1909.

Mr. H. B. Stoner,  
Assistant Engineer,  
Baker, Montana.

Dear Sir:-

As soon as Mr. Thian can relieve you at Baker wish you would go to Ellensburg and look over the situation between Ellensburg and the Columbia River with a view of starting location of the lines referred to on attached print, and shown in red thereon. There is a quadrangle map of this district, which you can obtain I presume at North Yakima, and which will give you a good idea of the country and the slopes on which this location is to be made.

I am handing you herewith a copy of reconnaissance report and map made by Mr. Nutting, showing the various lines and method of development. Would like to get both the 0.3% and 2.2% lines run up Whiskey Dick Creek and the 3.0% line run up Johnson Creek, on the other side of the Creek from the Saint Paul Line. Would also like to have a short line run from a connection with the Saint Paul Company's line just East of Ellensburg through to a connection with the Northern Pacific Main Line just South of the yard, so that in case the Northern

Mr. H. B. Stoner:

-2-

Pacific should use the Saint Paul Company's line they could connect up with the Northern Pacific and use the tracks through Ellensburg yard.

I will have either two or three parties report to you there in the near future. Mr. Howland will send one party some time this week, and I will have either one or two other parties report to you before January first, so would like to have you get over the country pretty much in detail so as to be ready to put the parties to work as soon as they reach there.

Yours truly,

Encl.

Chief Engineer.

WLD-6

Saint Paul, December 18, 1909.

Mr. H. B. Stoner,  
Assistant Engineer,  
Baker, Montana.

Dear Sir:-

As soon as Mr. Thian can relieve you at Baker wish you would go to Ellensburg and look over the situation between Ellensburg and the Columbia River with a view of starting location of the lines referred to on attached print, and shown in red thereon. There is a quadrangle map of this district, which you can obtain I presume at North Yakima, and which will give you a good idea of the country and the slopes on which this location is to be made.

I am handing you herewith a copy of reconnaissance report and map made by Mr. Nutting, showing the various lines and method of development. Would like to get both the 0.3% and 2.2% lines run up Whiskey Dick Creek and the 3.0% line run up Johnson Creek, on the other side of the Creek from the Saint Paul Line. Would also like to have a short line run from a connection with the Saint Paul Company's line just East of Ellensburg through to a connection with the Northern Pacific Main Line just South of the yard, so that in case the Northern



Mr. H. B. Stoner:

-2-

Pacific should use the Saint Paul Company's line they could connect up with the Northern Pacific and use the tracks through Ellensburg yard.

I will have either two or three parties report to you there in the near future. Mr. Howland will send one party some time this week, and I will have either one or two other parties report to you before January first, so would like to have you get over the country pretty much in detail so as to be ready to put the parties to work as soon as they reach there.

Yours truly,

Encl.

Chief Engineer.

Northern Pacific Railway Company.

Ritzville, December 17, 1909.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Dear Sir:

Please advise me as to what account, the continuation of the Ritzville Branch to the Columbia River will be charged to.

Yours truly,



Ass't Engineer.

TZK-L

WLD-G

Saint Paul, December 16, 1909.

Mr. T. Z. Krumm,

Assistant Engineer,

Ritzville, Washington.

Dear Sir:-

Referring to your letter of the thirteenth instant relative to location from the Ritzville Branch to the Columbia River.

I believe the ruling grade should be 0.8% maximum, and 3° maximum curves, until within a short distance of the river, where you will probably have to drop down on 2.0% grade, although it will depend a great deal on what your preliminary shows.

Yours truly,

Chief Engineer.

# Northern Pacific Railway Company.

Ritzville, December 13, 1909.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Déar Sir:

Your letter December 8th, relative to locating  
Ritzville Branch to Columbia River.

Please advise me as to maximum grade and curvature  
to be used on this line; or will the ruling grades and curvature  
on the Ritzville Branch now being constructed be the maximum.

Yours truly,



Ass't Engineer.

TZK-L





WLD-G

#119-33  
4-5-09  
Saint Paul, December 8, 1909.

Mr. T. Z. Krumm,  
Assistant Engineer,  
Ritzville, Washington.

Dear Sir:-

I am going to send you a locating party within the next few days to locate an extension of the Ritzville Branch through to the Columbia River, and would like to have three lines run and located about as shown on attached print,- one running to a connection with the Puget Sound Company's line just East of the bridge so as to use their bridge: other lines to be located as shown.

Would first like to have you take up with Mr. Westfall and work out a separation of grades at the junction point. I believe it is possible during construction to separate these grades, probably raising the Connell-Adrian Line a little and going under with the Ritzville Branch. The Connell-Adrian Line is now about 31 feet above the creek, and by raising it from 6 to 10 feet at the point of crossing I believe you will find sufficient clearance for the crossing. I presume the mile and a half which you have left ungraded on the Ritzville

Mr. T. Z. Krumm:

-2-

Branch will be sufficient in which to sink your grade line. Be sure and run your line far enough past the Connell-Adrian Line so that you will know that your proposed crossing is all right.

As soon as you have agreed on the proposed separation wish you would send me plan and profile, and estimate, as would like to do the grading while the contractors are on the ground.

The Ritzville Branch should have a double wye connection at the junction with the Connell-Adrian Line.

Yours truly,

Encl.

Chief Engineer.

WLD-G

Saint Paul, December 8, 1909.

Mr. T. Z. Krumm,  
Assistant Engineer,  
Ritzville, Washington.

Dear Sir:-

I am going to send you a locating party within the next few days to locate an extension of the Ritzville Branch through to the Columbia River, and would like to have three lines run and located about as shown on attached print,- one running to a connection with the Puget Sound Company's line just East of the bridge so as to use their bridge: other lines to be located as shown.

Would first like to have you take up with Mr. Westfall and work out a separation of grades at the junction point. I believe it is possible during construction to separate these grades, probably raising the Connell-Adrian Line a little and going under with the Ritzville Branch. The Connell-Adrian Line is now about 31 feet above the creek, and by raising it from 6 to 10 feet at the point of crossing I believe you will find sufficient clearance for the crossing. I presume the mile and a half which you have left ungraded on the Ritzville

Mr. T. Z. Krumba:

-2-

Branch will be sufficient in which to sink your grade line. Be sure and run your line far enough past the Connell-Adrian Line so that you will know that your proposed crossing is all right.

As soon as you have agreed on the proposed separation wish you would send me plan and profile, and estimate, as would like to do the grading while the contractors are on the ground.

The Ritzville Branch should have a double wye connection at the junction with the Connell-Adrian Line.

Yours truly,

Encl.

Chief Engineer.



COPY.

Saint Paul, Minnesota, Dec 5th, 1909.

Mr. W. L. Darling,  
Chief Engineer,

Dear Sir:-

Referring to your letter of November twenty-ninth about a possible line between Ritzville and Ellensburg, also to our conversation about the same subject on Saturday afternoon: in accordance with that talk, you will please arrange to put on a surveying party and make a complete and definite study of that whole situation so that we may determine exactly what kind we can get, and the relative merits of the lines. All expenses heretofore incurred in the examination of the line, and all future expenses, should be charged to a new account known as "Ritzville-Ellensburg Cut-off".

I should like to have this work pressed as rapidly as possible so we may get an early report and be in a position to recommend to our Board the building of this line in order to shorten the distance between Spokane and Puget Sound, and between Saint Paul and Puget Sound. I enclose for your information, copy of letter sent to Mr. Gray today.

Yours truly,

(Signed) Howard Elliott.

President.

3127

# Northern Pacific Railway Company.

REG-S

Sant Paul, Minnesota, Dec 2, 1909.

45

Mr. H. B. Stoner,  
Assistant Engineer,  
Miles City, Montana.

Dear Sir:-

Referring to attached bill of Longs Feed and Sales Barn. Please explain the charges. As you will note the same services are not uniform varying from 50 cents to one dollar and two dollars per day. I also enclose bill of F. J. Murphy. You will note hay is charged at a rate of 50 cents per day in the first and third items, and at 75 cents in the second item. Also bread is charged for at 60 cents for four loaves on the 11th, and 60 cents for six loaves on the 12th,

Please explain charge of five dollars per day for stable rent. Item seems to be quite high.

Yours truly,

Enc.

*W. L. Darling*  
Chief Engineer.

*Mr. W. L. Darling Chief Engineer*

Dear Sir

In regard to price of bread. My cook quit and I had to get Mrs. Murphy to bake bread. Where she furnished flour she charged 15¢ per loaf. I furnished flour on 12th price was 10¢ per loaf. ~~Stable rent~~ Stable rent @ \$5 per day is high but correct. I had 14 head of horses in stable. *H.B.*



7

2

1

1

3