Northern Pacific Railway Company. Engineering Department Records.

Copyright Notice:

Version 3
August 20, 2018

Form 290 TW

Northern Pacific Railway Company

MEMO

SAINT PAUL, January 31, 1911.

HES.

Mr. W. L. Darling,

Chief Engineer.

I hand you herewith to complete your file copy of detailed estimated cost of Columbia River Bridge near Sand Hollow, Ritzville to Ellensburg Line, this estimate being the one furnished Mr. Bratager for use in making up the A.F.E.

H. E. Stevens.

B

Tie plates, 2.8 miles,		60.00		168.00	8804.00
Putting in 2 switches,		30.00		60.00	2566.00
Ballasting: 3680			35		
2.8 miles @ 2500 cu.yds. 10300	7000 cu.yds.	.32	3605	2240.00	
Train service & transp.	7000 cu.yds.	.21	4738	1470.00	8343
Rent of equipment, 10300	7000 " "	.13		910.00	4620.00
Fencing Right-of-way:		350.00			1925.00
5.5 miles fence		175.00			962.50
	Carried For'd				62594.82

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

Estimated Cost of a Proposed Connection Between the Main Line of the Northern Pacific Railway Company and the Main Line of the C.M.& P.S.Ry.Co. at Ellensburg.

Length of Proposed Line - 2.8 miles.

Right-of-Way & Station Grounds:						
Right-of-way,	33 acres		800.00			26400.00
Grading:						
Earth,	25000	cu.yds.	.20		5000.00	
Hard pan,	8500	" "	.32		2720.00	7720.00
Bridges, Trestles & Culverts:						
Piling,	1000	l.ft.	.30		300.00	
Timber,	7000	FBM	23.00		161.00	
Iron,	1200	lbs.	.03		36.00	
Cast iron pipe culvert 24"	196	l.ft.				
" " 36"	78	"				
Total weight,	26	T.	25.00		650.00	
Hauling piling and bridge timber,					25.00	
Hauling C.I. pipe,					50.00	
Laying C.I. pipe,					75.00	1297.00
Ties:						
2.8 miles @ 2880	8064		.38	10,725.	3064.32	
2 sets switch ties			38.00	148.	76.00	10958.00
Inspection and handling,			73.80	85.	85.00	3225.32
Rails:						
2.8 miles 90# steel,	395 T		30.00		11850.00	17380.
Inspection and handling,					395.00	12245.00
Track Fastenings:						
Track spikes,	112	kegs.	4.00	737.00	448.00	
Track bolts	40	"	5.00	358.00	200.00	
Angle bars,	500	cwt.	1.75	1525.00	875.00	
Tie plates,	16200		.10	4517.00	1620.00	8364
Inspection and handling	147	T	1 00	147.00	96.00	3239.00
Rail anchors	3660		30¢	1080.00		
Frogs & Switches:						
90# turnouts complete ex. ties	2		160.00			320.00
Tracklaying & Surfacing:						
Laying 2.8 miles			300.00		840.00	
Rent of equipment 2.8 miles			200.00		560.00	
Train service & Transportation 2.8 miles			335.00		938.00	
Tie plates, 2.8 miles,			60.00		168.00	8804.00
Putting in 2 switches,			30.00		60.00	2566.00
Ballasting:						
2.8 miles @ 2500 cu.yds.	7000	cu.yds.	.32	3605	2240.00	
Train service & transp.	7000	cu.yds.	.21	4738	1470.00	8343
Rent of equipment,	7000	" "	.13		910.00	4620.00
Fencing Right-of-way:						
5.5 miles fence			175.00			962.50
Carried For'd						62594.82

		Brought For'd,			62594.82
Crossings, Cattle Guards & Signs:					
2.8 miles,			150.00 75.00	210.00	420 210.00
Transportation Charges:					
Steel rails,	395	T.	17° 16.00	6320.00	4740.00
Track fastenings,	147 ~~96~~	"	12° 16.00	1536.00	1764.00
Frogs & Switches,	5.5	"	12° 16.00	88.00	72.00
Cast Iron pipe,	26	"	22.00	572.00	
Piling,	350	cwt.	.14	49.00	
Timber,	231	"	.14	32.34	
Cross ties & Switch ties,	10200	"	11¢ .14	1428.00	1122.00
Freight on contractor's plant, transportation of men, etc., 33,500 cu.yds. grading,			.05	1675.00	11700.34
					74505.16
Engineering & Incidentals, 10%					7450.52
					$81955.68

Office of
Prin. Asst. Engineer,
St. Paul,
Jan. 28, 1911.

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

-RITZVILLE TO ELLENSBURG LINE-
COLUMBIA RIVER BRIDGE NEAR SAND HOLLOW

Route "B", Line "L".

Map dated October 15th, 1910,-Vault Files 365-10 & 203-23.

----oOo----

SUBSTRUCTURE			
12,000 Cu.Yds Concrete L$2.50 M$4.50	$30000	$54000	$84000
Forms L 50¢ M 25¢	6000	3000	9000
160000# Reinforcing rods L 2¢ M1½¢	3200	2400	5600
520 Cu.Yds. Wet Exc. L $3.50 M $2.50	1820	1300	3120
1200 Cu. Yds.Dry. Exc. L $1.00	1200		1200
168000 Cu. Ft. Caisson sunk L10¢M4¢	16800	6720	23520
3000 Lin. Ft. Foundation piling L 50¢ M 10¢	1500	300	1800
1500 Lin. ft. Concrete piling L 75¢ M $1.25	1125	1875	3000
Air Plant & floating equipment		56100	56100
3000 Cu. yds. Rip Rap L $1.00 M 50¢	3000	1500	4500
Borings & Soundings	8860		8860
Engineering & Incidentals	7350		7350
Total	$80855	$127195	$208050
SUPERSTRUCTURE			
2875 Tons Steel L $12.00 M $60.00	34500	172500	207000
2875 Tons Painting L $1.00 M 50¢	2875	1438	4313
175000 F.B.M. Timber deck M $14.00		2450	2450
60 Tons Guard rail L $10.00 M $22.50	600	1350	1950
500,000F.B.M. Falsework L $14.00 M $14.00	7000	7000	14000
20000' Falsework piling L 30¢ M 10¢	6000	2000	8000
Engineering & Incidentals 10% L	5097		5097
Total	$56072	$186738	$242810

Office of Bridge Engineer,
St. Paul, Minn.,
January 28, 1911.

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

-RITZVILLE TO ELLENSBURG LINE-
COLUMBIA RIVER BRIDGE NEAR SAND HOLLOW

Route "B", Line "L".

Map dated October 15th, 1910,-Vault Files 365-10 & 203-23.

----oOo----

S U M M A R Y

Substructure	$208050	
Freight and Passenger transportation	78381	
Team Haul and boat haul	23450	
		$309881
Superstructure	$242810	
Freight and passenger transportation	93397	$336207
Grand Total		$646088

Office of Bridge Engineer,
St. Paul, Minn.,
January 26, 1911.

X

3127

WLD

St. Paul, Jan. 14th, 1911..

Mr. Howard Elliott,

President.

Dear Sir:-

I hand you herewith for your information copy of letter just received from Mr. P. Gibbons together with copy of my reply relative to construction of the Ellensburg Line.

Yours truly,

Chief Engineer.

Encl.

WLD Jan. 14th, 1911..

Mr. P. Gibbons,
Occidental Coal Mines,
Renton, Washington.

Dear Sir:-

I beg to acknowledge receipt of your letter of the seventh instant containing bid for work on the Ellensburg-Lind cut-off.

We have no authority to construct this line and under existing conditions it does not look as if it would go ahead very soon. However, will be very glad to keep your letter for reference when it does come up and am much obliged to you for submitting proposition.

Yours truly,

Chief Engineer.

OCCIDENTAL COAL MINES
P. GIBBONS, PROPRIETOR

MINES AT PALMER, WASH.

RENTON, WASHINGTON, Jan 7 1900

W L Darling
Chief Engineer NPRR
St Paul Minn

Dear Sir

I have understood for some time that the Ellensburg and Lind Cut off Branch of the NP would be constructed this year & would like to build that branch and construct our line following are the figures

Earth	23¢ per Yard
Hard Pan	40¢ " "
Loose Rock	45¢ " "
Solid Rock	90¢ " "
Tunnels 500 per Long	48.00 per foot
" over " "	65.00 " "
Extra Excavation	30¢ per Yard
Timber in Tunnels	1200 " M
" " Trestles	1050 " M
Haul on Timber	75¢ M
Piles furnished & driven	28¢ per foot
Haul on same	1¢ " "

Price of Timber to be added to above and Rail Road over NP furnished by the co all Iron for Tunnels & Trestles & culverts 6¢ per pound

OCCIDENTAL COAL MINES
P. GIBBONS, PROPRIETOR

MINES AT PALMER, WASH.

RENTON, WASHINGTON, _____ 190__

I see Mr Howard Elliott when he was here and from what I understood it was possible the work must be started this year I have Leased my Coal Mines to the Mendota Coal and Coke co of Centralia and I want go back Rail Road Contracting I have plenty of outfit that can be put on this work to cover it all at once and build it with dispatch

yours truly

P. Gibbons

Form 290 TW

Northern Pacific Railway Company

Saint Paul, December 16, 1910.

HES.

Mr. W. L. Darling,

Chief Engineer.

Dear Sir:-

I am handing you herewith for your file copy of Mr. E. A. Howland's final report on the borings at the proposed Sand Hollow crossing of the Columbia River.

Mr. Howland is unable to give me total cost of the work and I have therefore written Mr. Westfall, asking him to get up this information. Account of the great difficulty in making these boring the cost per lineal foot will be very high.

You will note that the rock line as determined on the East side of the river is considerably lower than we had previously assumed.

Yours truly,

Bridge Engineer.

B

Final Report on Soundings of Columbia River, at Sand Hollow Crossing- Ritzville Ellensburg Cut-off on Line L1. Map dated October 15, 1910. Profile dated Sept. 18, 1910. Sounding Records dated December 13, 1910.

Hole #1-Sta. 1639 + 60-East Bank.

This hole was put down with a #4 Sparta steam drill using 6" drills. The material encountered was 75 feet of gravel and boulders mixed with sand . Rock was found at an elevation of #### 434.9 and penetrated 3'. No samples secured of material encountered in this hole.

Hole #2 Sta. 1655 + 52.7-West Bank.

The first boring was started on the center line, but was lost on account of hitting a boulder at a depth of 15 feet and not being able to penetrate , it with the 2" drill.

The next boring was put down 6' to the right of the center line, and put down 75' to rock. The material passed through was 16½' of volcanic ash, 17' of cement gravel, 29' of a very soft material which resembles basalt rock dust, after drilling also the volcanic ash, 12' of black sand and striking rock at an elevation of 440.1. We drilled two days on the rock with the 2" drills and penetrated it 0.1.

Hole #3,Sta. 1647 +50

The C.W.& P. S. Co. barge arrived on Line, July 16th, but could not get the power boats until July 24th. In the meantime we set deadmen for three cables and rigged up the barge.

On July 24th, the power boats strung the three cables across the river. It took until August 3rd to stretch the cables and move barge across the river, load the drill and get anchored at Sta 1647 + 50, so it could be used to drill from.

The current is so strong at this point that a 6" casing had to be used to protect the 2" casing. We started using the 2" drilling outfit, using 1" pipe for drill stem. We passed through 4' of gravel and boulders and struck rock at an elevation of 455.5, but took it to be a large bouder. Not being able to penetrate it, we moved drill up and down the river starting five

holes down stream and three up stream from the c enter line, drilling about 1½ days on each hole. In pulling the casing, on the last hole down stream, the leads broke off about half way up, causing a delay of three days.

On August 16th, I rented three drills and heavy drill stems from H. W. Dunton of the Colonial Land Co., and moved back to center line. This time finishing the hole. The material passed through was four feet of gravel and boulders, finding rock at an elevation of 455.5 and penetrating it 10' , averaging 8" per day in rock. When at a depth of 8', we broke both 3" drills and had to rig up the 2" drills by using reducers on heavy drill stems to fit the 2" drills. Finished up the hole this way.

Hole #4,-Sta. 1644 + 00.

The water was 23 feet deep and had to use the 6" casing again for protection. First boring was started on the center line, but encountered so many boulders that after two trials and losing a drill bit 24' down, we moved drill five feet up stream. In this hole we made 8 trials getting down from 16 to 30' before reaching rock. Each time bending the casing about 5' from the end by having it slip by a boulder. We used dynamite to clear the way and on the 9th trial reached rock after going through 25' of gravel and boulders, 11' of black sand, 7' of cement gravel and 6' of quick sand. The drill struck a crevice and we were unable to get a seat for 3" casing, so put in a stick of dynamite which blew off the end of the casing, compelling us to pull up again and start over. On the tenth trial, we got down 2½' in rock, when quick sand started to run in and acting as a cushion kept the drill about 2' from the bottom. Worked three days trying to exhaust the sand and get back, but had to give it up, and move 5' below the center line where we struck rock at an elevation of 418.0 and drilled down 7', averaging 8" per day in the rock.

Hole #5 Sta. 1650 + 00

Started first boring on center line. Went through 14½' of gravel and boulders, and struck a rotten rock formation which was supposed to be a large boulder. After trying to shoot it with dynamite, we gave up and moved 4½' up stream and struck the same material. In attempting to put off a shot, the dynamite lodged in the casing 5' from the end and blew off 5'. We gave this hole up and moved 3' below the center line striking the rotten rock formation at the same depth. Drilled 3½' through this and struck solid rock at an elevation of 466.4 and drilled 6½' into it.

After finishing this hole the barge was moved to the East side of the River and the cables released and reeled up. We broke camp placing everything on board and floated to Beverly. Anchored barge in eddy about 1000' above C.M.&P.S. Ry. bridge with two 1" ropes and turned it over to the Agent.

Drill outfit with all tools and camp equipment were shipped to Tacoma, Care A.R. Cook, in C.M.&P.S. Car 65246.

The drill was a company machine equiped with 8H.P. gasoline Engine & pump, ans was shipped from Glendive.

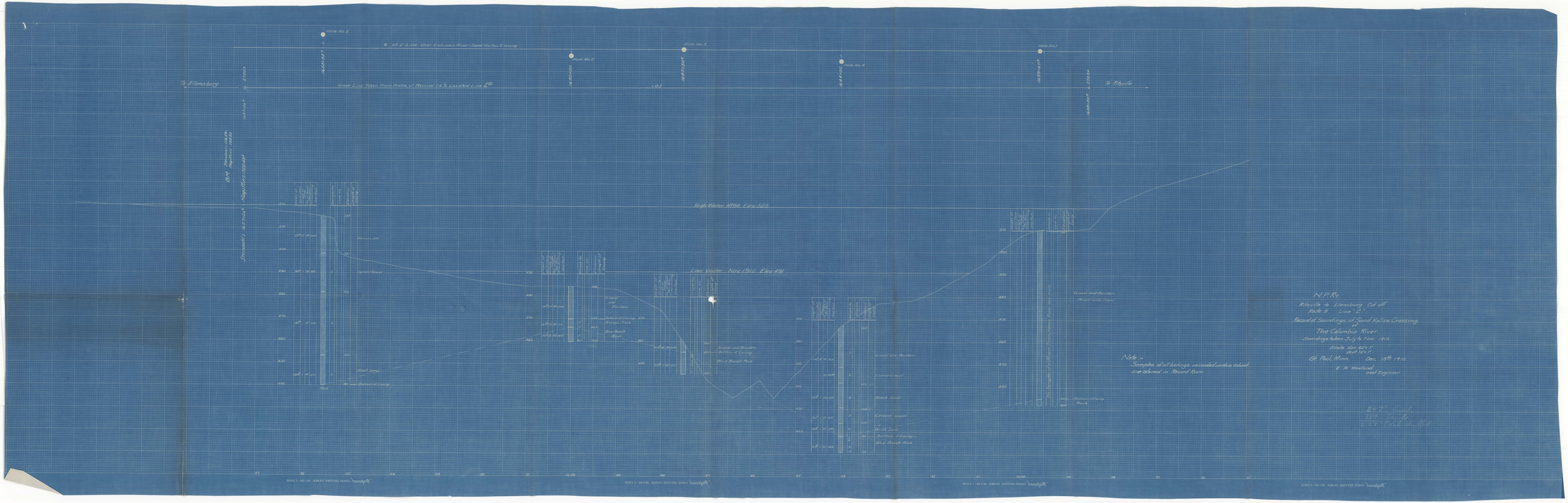
The time consumed was from July 27th to November 25th on Barge drilling holes #3,4&5.

The average crew consisted of driller at $100.00 per mo., blacksmith at $3.50 per day for 3 mo., two laborers at $2.00 per day and watchman at $2.00 per day.

The total cost of both labor and material may be obtained from the records of the Assistant Engineer's office at Ritzville, Wash.

E. A. Howland.

St. Paul, Minn.,
December 13, 1910.


Hole No 2
Hole No 5
Hole No 3
Hole No 4
Hole No 1
To Ellensburg
To Ritzville
Grade Line Taken From Profile of Revised Location Line 1
High Water 1894 Elev 520
Low Water Nov 1910 Elev 491
Gravel and Boulders
Bottom of Casing
Blue Basalt Rock
Black Sand
Gravel and Boulders Mixed with Sand
Note :- Samples of all borings as noted on this sheet are stored in Record Room.
N.P.Ry.
Ritzville to Ellensburg Cut off
Route B Line 1
Record of Soundings at Sand Hollow Crossing
of
The Columbia River
Soundings taken July & Nov. 1910.
Scale Hor. 50' = 1"
Vert 10' = 1"
St. Paul, Minn. Dec. 13th 1910.
E. A. Hoelscher
Asst Engineer

Form 290 TW

Northern Pacific Railway Company

WLD-Q

IN YOUR REPLY PLEASE
REFER TO FILE

Saint Paul, November 13, 1910.

Mr. S. J. Bratager:-

Referring to Mr. Howland's 3 letters of November 8th attached, giving list of maps, profiles, etc. of preliminary and located lines between Ritzville and Ellensburg:

I wish you would have these looked over and see that they are in proper shape before filing.

W. L. Darling.

Encl.

Mr. Stuart. Pls check carefully. 11/14 SJB.

S.J.B. Think these maps and profiles are now in good shape for filing. H.W.H. 12/6/10

Mr. Darling. Pls. note. SJB. 12/7

Form 290 TW

Northern Pacific Railway Company

3127

St.Paul,Minn.,November 8,IO.

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

The following maps turned over to Mr. Parseau November 4th,IO. The maps are all hard copy except where marked tracing.

Ritzville-Ellensburg Survey---Prelim.Lines

A Line From Jct.C.N.Ry.along North side Frenchman Hill to River I"-4000' ← destroyed. Tracing # 363-2.
A Line Sta.0-600 From Jct.C.N.Ry. to Crab Creek Scale I"-400' In record room.
A Line Sta.600-2II5 From Crab Creek along north side Frenchman Hill to River
A3 and A4 Prelim Lines along the Columbia River East Bank. In record room
X and P Sta.0-490 From Jct.C.N.Ry.to Vicinity Crab Creek In record room.
Prelim & Proj.of Wye & Connection Jct.C.N.Ry. # 203-20
Topog.along the Columbia River and Cliffs vicinity Snookumchuck Crossing on Tracing # 365-12

C Line Vicinity Frenchman Hill to Beverly In record room
B2 and 3 Along south side Frenchman Hill to Columbia River--Sand Hollow Route
B8 Sand Hollow to Beverly In record room.
B Vicinity of Crab Creek to Summit Frenchman Hill In record room
Prelim along Columbia River Beverly North In record room.
B and C Lines on Scale I2-4000' destroyed. Tracing on file # 363-2

Located Lines

L2 Line Final Location Jct.C.N.Ry to Summit Frenchman Hill } In record room # 215-12+13. Tracing # 365-9.
A Line 2% Snookumchuck Crossing to summit East about 5 miles
(L) 0.8% Snookumchuck Csg.down River to Sand Hollow Scale I"-200' } In record room Tracing # 203-22
(L) 0.8% " " " " " " " " I"-400' } In record room Tracing # 215-14.
(L) 0.8% " " " " " " " " I"-200' Tracing # 203-22
L,L',L2,L3,L5,L6 Summit Frenchman Hill to Columbia River via Sand Hollow
L,L',L2,L3 Head of Sand Hollow to Columbia River ~~In record room~~ Tracing # 363-3.
L3 Sta.236 -2707 Sand Hollow to Beverly In record room. Tracings # 215-13+363-4 Tracing on file # 215-26

Projected Line Change L5 Sta 2290-2365 # 203-18.
Located Line Sand Hollow Csg. showing contours River Bed I I/2 miles above to I/2 Mile below csg. → # 365-10.

Connell Northern Ry.--Ritzville Branch

3L Sta.0-890 Westfall's Line down Third Coulee } In record room.
3L Sta.884-I530 Westfall's Line Second Coulee } Tracings on file # 367-12,13,14+15
Prelim & Location Tokio Line Westfall }

Ritzville to Ellensburg..

Form 290 TW

Northern Pacific Railway Company

Sunnyside Extension--Grand View to Gibbons
Location Sta. 0-510 Contour Map
Location Sta.0-636 Map showing Land Owners } In record room.

Reconnaisance Pendleton Krumm. # 244-25.

Yours truly,

M W. Howland

Asst. ngineer.

Form 290 TW

Northern Pacific Railway Company

St.Paul,Minn.,November 8,1910.

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

The following is a list of profiles turned over to Mr.Parseau November 4th.,10. These profiles are hard copies unless marked tracing:

Ritzville-Ellensburg Survey---Prelim Lines

A Line Along the North side of Frenchman Hill Tracing #477-3. In record room.
A Line Projection along North side Frenchman Hill Tracing #477-3 " "
A Line Projection 2% Summit down to Snookumchuck Crossing #477-3 Tracing.
B Line Vicinity Crab Creek over Frenchman Hill to Columbia River #477-4. Tracing.
~~C Line Frenchman Hill to Beverly~~
C Line Projection Frenchman Hill to Beverly #477-5 Tracing.
B Line Projection I.9% Down Sand Hollow to River #477-8.
B Line " I.7% " " " " " #477-27
B Line " I.6% " " " " " #477-27
L5 Projected Line Change Sta 2290-2365 North side Sand Hollow 477-29
L5 Projected Line Change Sta 2290-2365 South side Sand Hollow 477-29

Located Lines

L3 Sta.1757-2707 Sand Hollow to Beverly In record room. (Tracing #477-17)
L2 and (L) 0.8% Line via Sand Hollow to Snookumchuck Csg #477-11 Tracing #477-11
(L) 0.8% Line from Connection with above Line on up River to Snookumchuck
L2 Line Final Location Jct.with Connell Northern to Summit Frenchman Hill
L2 Line Final Location Summit Frenchman Hill to M.P.40 at Head Sand Hollow
L2 Line From M.P.40 down Sand Hollow to Columbia River In record room. Tracing #477-11.
L and L' M.P.40 to Columbia River (Tracing #477-12) Paper profile in record room.
L Line 2% Snookumchuck Csg. to summit east of the River #477-28.
L6 Sta 2205-2434 and L6 Sta 2104-2267 I.6% Final Location From M.P.40 to Columbia River.
(In record room) Tracing #477-13

19. 7 8 10 + 11.

Yours truly,

M.W. Hoeland.

Form 290 TW

Northern Pacific Railway Company

St.Paul,Minn.,November 8 1910

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

The following list of field books were turned over to Mr.Parseau ,November 4th.10.

Ritzville- Ellensburg Survey
Prelim. Topog Notes--Stendahl B and C lines
Location Topog Notes-- Stendahl L,L',L2,L3,L5 and L6 Lines
Level Notes--Stendahl's Prelim and location
Transit Notes " " " "

Prelim Level Notes--Anderson A Lines
Topog Notes " " "
Location Level Notes "
Transit Notes "
Topog Sheets "

Revision Notes Sand Hollow--Howland

(A Lines from Jct. with Connel Northern along North side of Frenchma Hill to River.
B.Lines from Vicinity of Crab Creek over Frenchman Hill and down Sand Hollow to River
C.Lines from near head of Sand Hollow to Beverly.)

Reconnaisance Notes Pendleton to Killrain Jct.--Krumm
Location Notes Sunnyside Ext.Gibbons to Grand View---Krumm
Topog Sheets Sunnyside Ext.---Krumm

Connell Northern--Ritzville Branch
Original Location Notes--Westfall and Krumm
Construction Notes,Residencies 1,2,3,4 and 5.

Yours truly,

Asst.Engineer.

Form 290 TW

Northern Pacific Railway Company

St.Paul,Minn.,November 8,IO.

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

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Ritzville-Ellensburg Survey---Prelim.Lines

A Line From Jct.C.N.Ry.along North side Frenchman Hill to River I"-4000'
A Line Sta.0-600 From Jct.C.N.Ry. to Crab Creek Scale I"-400'
A Line Sta.600-2II5 From Crab Creek along north side Frenchman Hill to River 1"=400'
A3and A4 Prelim Lines along the Columbia River East Bank.
X and P Sta.0-490 From Jct.C.N.Ry.to Vicinity Crab Creek 1"=400'
Prelim & Proj.of Wye & Connection Jct.C.N.Ry.
Topog.along the Columbia River and Cliffs vicinity Snookumchuck Crossing on C. Tracing.
C Line Vicinity Frenchman Hill to Beverly 1"=400'
B2and3 Along south side Frenchman Hill to Columbia River--Sand Hollow Route 1"=400'
B8 Sand Hollow to Beverly
B Vicinity of Crab Creek to Summit Frenchman Hill 1"=400'
Prelim along Columbia River Beverly North 1"=200'
B and C Lines on Scale I2-4000'

Located Lines

L2 Line Final Location Jct.C.N.Ry to Summit Frenchman Hill 1"=400'
A Line 2% Snookumchuck Crossing to summit East about 5 miles 1"=200'
(L) 0.8% Snookumchuck Csg.down River to Sand Hollow Scale I"-200'
(L) 0.8% " " " " " " " I"-400'
(L) 0.8% " " " " " " " I"-200' Tracing 203-22
L,L',L2,L3,L5,L6 Summit Frenchman Hill to Columbia River via Sand Hollow 1"=400'
L,L',L2,L3 Head of Sand Hollow to Columbia River Scale 1"=400'
L3 Sta.2365-2707 Sand Hollow to Beverly 1"=400'

Projected Line Change L5 Sta 2290-2365 (tracing)
Located Line Sand Hollow Csg.showing contours River Bed I I/2 miles above to I/2 Mile below csg. (tracing)

Connell Northern Ry.--Ritzville Branch

3L Sta.0-890 Westfall's Line down Third Coulee
3L Sta.884-I530 Westfall's Line Second Coulee
Prelim & Location Tokio Line Westfall

Form 290 TW

Northern Pacific Railway Company

Sunnyside Extension--Grand View to Gibbons
Location Sta. 0-510 Contour Map
Location Sta.0-636 Map showing Land Owners

Reconnaisance Pendleton Krumm.

Yours truly,

M W. Howland

Asst. Engineer.

Form 290 TW

Northern Pacific Railway Company

St.Paul,Minn.,November 8,1910.

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

The following is a list of profiles turned over to Mr.Parseau November 4th.,10. These profiles are hard copies unless marked tracing:

Ritzville-Ellensburg Survey---Prelim Lines

A Line Along the North side of Frenchman Hill
A Line Projection along North side Frenchman Hill
A Line Projection 2% Summit down to Snookumchuck Crossing
B Line Vicinity Crab Creek over Frenchman Hill to Columbia River
C Line Frenchman Hill to Beverly
C Line Projection Frenchman Hill to Beverly
B Line Projection I.9% Down Sand Hollow to River
B Line " I.7% " " " " "
B Line " I.6% " " " " "
L5 Projected Line Change Sta 2290-2365 North side Sand Hollow
L5 Projested Line Change Sta 2290-2365 South side Sand Hollow

Located Lines

L3 Sta.1757-2707 Sand Hollow to Beverly
L2 and (L) 0.8% Line via Sand Hollow to Snookumchuck Csg
(L) 0.8% Line from Connection with above Line on up River to Snookumchuck
L2 Line Final Location Jct.with Connell Northern to Summit Frenchman Hill
L2 Line Final Location Summit Frenchman Hill to M.P.40 at Head Sand Hollow
L2 Line From M.P.40 down Sand Hollow to Columbia River
L and L' M.P.40 to Columbia River
L Line 2% Snookumchuck Csg. to summit east of the River
L5 Sta 2205-2434 and L6 Sta 2104-2267 I.6% Final Location From M.P.40 to Columbia River.

Yours truly,

M.W. Howland.

Asst.Engineer.

Form 290 TW

Northern Pacific Railway Company

St.Paul,Minn.,November 8 1910

Mr.W.L.Darling,Chief Engineer,

St.Paul,Minn.

Dear Sir:-

The following list of field books were turned over to Mr.Parseau,,November 4th.10.

Ritzville- Ellensburg Survey
Prelim. Topog Notes--Stendahl B and C lines
Location Topog Notes-- Stendahl L,L',L2,L3,L5 and L6 Lines
Level Notes--Stendahl's Prelim and location
Transit Notes " " " "

Prelim Level Notes--Anderson A Lines
Topog Notes " " "
Location Level Notes "
Transit Notes "
Topog Sheets "

Revision Notes Sand Hollow--Howland

(A Lines from Jct. with Connel Northern along North side of Frenchman Hill to River.
B.Lines from Vicinity of Crab Creek over Frenchman Hill and down Sand Hollow to River
C.Lines from near head of Sand Hollow to Beverly.)

Reconnaisance Notes Pendleton to Killrain Jct.--Krumm
Location Notes Sunnyside Ext.Gibbons to Grand View---Krumm
Topog Sheets Sunnyside Ext.---Krumm

Connell Northern--Ritzville Branch
Original Location Notes--Westfall and Krumm
Construction Notes,Residencies I,2,3,4 and 5.

Yours truly,

M.W. Houlaird

Asst.Engineer.

Form 1380

3127

NORTHERN PACIFIC

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 Gate, Wash., November 25, 1910. AT R. E. Gemmell,
St. Paul

~~Browning~~,

Buff, ABOUT SOUNDING AOUTFIT ON COLUMBIA RIVER ABOVE BEVERLY: TAKE UP WITH STEVENS AND HAVE HIM ADVISE DISPOSITION OF MATERIAL.

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.

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NUMBER	FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
	[redacted]	B	W	925 M.		M.			M.		

FROM St Paul 11/24 TO W L Darling

DATED AT Co G I Shade Car 11 on line

West fall wires Bluff Basset Found at Elevation 470 Station 1650 Fourteen and one half feet higher than Station 167 plus 50 in center of river have drilled eight feet into this rock Now I have Ordered them to Stop and move to Beverly please advise and also disposition of Company Material and Supplies

R E Gemmel

Form 290 TW

Northern Pacific Railway Company

OFFICE OF CHIEF ENGINEER NOV 30 19 NOR. PAC. RY. ST. PAUL, MINN.

Connell, Wash. Nov. 27, 1910.

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

Dear Sir;-

Following is a report of soundings at Sand Hollow Crossing at the Columbia River for week ending Nov. 26th 1910.

Bed rock was reached at Station 1650 plus 00 at elevation 469.9 and drilled into 10 feet. The rock is hard blue bassalt. Work has been stopped and they started to tear up the 24th. As soon as Mr. Howland gets in will make up record for your file.

Yours truly,

H C Westfall
Assistant Engineer.

dict
HCW
Copy HES.

10

Form 290 TW

Northern Pacific Railway Company

3127

Connell, Wash. Nov. 20, 1910.

Mr. W. L. Darling,

Chief Engineer.

St.Paul, Minn.

Dear Sir;-

Following is a report of soundings for bed rock at Sand Hollow Crossing of Columbia River for week ending Nov.19th.

Hole at Station 1650 was down 24 feet in cement gravel or soft rock the 14th but 8 sticks of dynamite failed to explod and in exploding this lost the hole and had to start over again. They were down 18 feet again the 16th, 3½ feet being either cement gravel or rock. If this turns out to be rock they will be thru by the 25th. I have written Mr.Howland that this work will not be carried over into another month and that he should get thru by the 25th if possible.

I haven't a profile so don't know how this hole compares with rock struck in the centre of the river.

Yours truly,

H C Westfall

Assistant Engineer.

HCW
Copy H.E.S.

Form 290 TW

4

3127

Northern Pacific Railway Company

Connell, Wash. Nov. 13, 1910;

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

Dear Sir;-

Following is a report of soundings for bed rock at Sand Hollow Crossing of Columbia River for week ending Nov. 12th.

Last report I have from River dated Nov. 9th states they are at 18 feet at Station 1650 and working in what they think is cemented gravel. After I left them last week they struck a large boulder and drilled thru it.

They had snow there Wednesday as we were having rain.

Yours truly,

H. C. Wetherell

Assistant Engineer.

HCW
Copy Mr. H. E. Stevens.

3127

WLD-Q

Saint Paul, November 13, 1910.

Mr. S. J. Bratager:-

Referring to Mr. Howland's 3 letters of November 8th attached, giving list of maps, profiles, etc. of preliminary and located lines between Ritzville and Ellensburg:

I wish you would have these looked over and see that they are in proper shape before filing.

W. L. Darling.

Encl.

Form 290 TW

Northern Pacific Railway Company.

3127

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

St.Paul,Minn.,November,II,IO.

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

Dear Sir:-

Herewith two tracings of map showing topography of bank and elevations of river bedfor a distance of one and one half miles above crossing and one half mile below ---Sand Hollow Crossing of the Columbia River--Ritzville Ellensburg Survey.

On one of these tracings I have shown the contours of the river bed and on the other the elevations,only,at points where the soundings were taken.

Direction and velocity of low water current has been shown and approximate direction and velocity of high water current. At the time of high water,we had no means of anchoring out in the channel and for that reason can give only approximate direction and strength of the flood water.

Yours truly,

M.W.Haviland.

Asst.Engineer.

WLP
Res file and note under number on letter
11/12

Maps filed #365-10.8.

WLD
Prints and filed
11/12

Form 290 TW

3127

Northern Pacific Railway Company

Connell, Wash. November 6, 1910.

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

Dear Sir;-

Following is report of work at Columbia River and Sand Hollow Crossing sounding for bed rock for week ending November 5th 1910.

Barge was moved to Station 1650 Thursday. Sounding started Friday but hole was lost account blasting large boulder about four feet down. Drill was moved few feet Saturday morning and was down 16 feet in boulder gravel when I left there Saturday noon.

They should be done there in about a week if they have no bad luck but it is a hard thing to figure on.

Yours truly,

H C Seidell

Assistant Engineer.

HCW
Copy H. E. Stevens.

Form 1366

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) must be inclosed 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 serv[illegible] 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 [illegible] 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.		

COPY.

FROM St. Paul, TO H. C. Westfall,

Nov. 7th, 1910.. Connell.

Your wire 6th about rope, wooden blocks, etd. Why not purchase this ~~xx~~ at Ritzville or Beverly. There is less than fifty dollars involved and think you should make purchase locally to avoid delays.

W. L. Darling.

WLD R

Form 1236

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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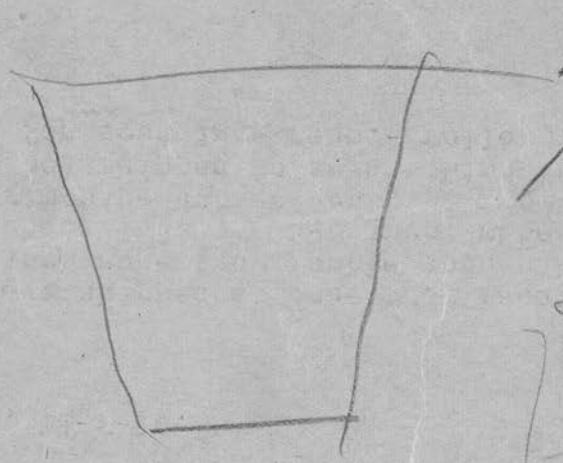
NUMBER	Rec'd From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
78	sf	on	hn	945pm							

FROM Connel, 11-6-10.

TO W.J.Darling,
ST Paul,

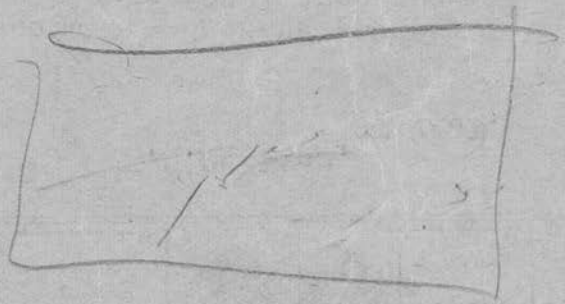
Please have shipped at once from Tacoma or Spokane stores 3 oo feet 1 inch rope two double wooden blocks for 1 inch rope 8 ft of log chain made of 3-8 inch material and one cutter wheel for No 2 trimopipe cutter cutting from one half to 2 inches this should be shipped to me at Lind Wn by express as it is needed at the river for soundings reqn.- follows.

H.C.Westfall.



1000 — 1500

1000 — 2000



10M RP

Supply Agent's Reqn. No.....
Division "A.E." " 58
Sheet " "

Form 1018

Northern Pacific Railway Company.

Connell, Wash. Nov. 6, 1910 190

To the PURCHASING AGENT,

The following articles are required for the Company's use, and should be delivered

to N.P.Ry. C/o H.C.Westfall, Asst. Engr. at Lind, Wash.

QUANTITY	DESCRIPTION OF ARTICLES	Estimated Cost	For What Purpose Ordered	Supplies will be furnished only upon the written requisition of the heads of Departments, and the officer making the requisition must state fully and minutely where and for what purpose the articles ordered are to be used. If this is not done the requisition must be returned for the information.	ON HAND
300	Ft. 1" Rope,				
2	Double wooden blocks for 1" rope,		Soundings at		
8	Ft. log chain made of 3/8" material.		Columbia River		
1	Cutter wheel for No.2 Trimo Pipe Cutter, cutting from ½ to 2"		Ritzville – Ellensburg Line.		
	Immediate Delivery.				
	(Confirming wire Nov.6th 1910.)				

Approved.....

" .....

" .....

" .....

H.C.Westfall (Sign Here.)
Assistant Engineer.
(Title)

Supply Agent.

10M RP

Supply Agent's Reqn. No.....

Division "A.E." " 58

Sheet " "

Form 1018

Northern Pacific Railway Company.

Connell, Wash. Nov. 6, 1910 190

To the PURCHASING AGENT,

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300	Ft. 1" Rope,				
2	Double wooden blocks for 1" rope,		Soundings at		
8	Ft. log chain made of 3/8" material.		Columbia River		
1	Cutter wheel for No.2 Trimo Pipe Cutter, cutting from ½ to 2"		Ritzville - Ellensburg Line.		
	Immediate Delivery.				
	(Confirming wire Nov.6th 1910.)				

Approved.....

"

"

"

H C Westfall (Sign Here.)

Assistant Engineer. (Title)

Supply Agent.

10M RP

Supply Agent's Reqn. No.....
Division A.E. " " 57
Sheet 1 "

Form 1018

Northern Pacific Railway Company.

Connell, Wash. Nov. 3, 1910. 190

To the PURCHASING AGENT,

The following articles are required for the Company's use, and should be delivered

to C.N.Ry. C/o H.C.Westfall, Asst. Engr. *at* Connell, Wash.

QUANTITY	DESCRIPTION OF ARTICLES	Estimated Cost	For What Purpose Ordered	ON HAND
	One Cast Iron reducer, 12"x 14" Three feet long.		CONSTRUCTION. Stand Pipe Connection at Schrag on C.N.Ry. Ritzville Brch.	
2	Immediate Delivery.			

Supplies will be furnished only upon the written requisition of the heads of Departments, and the officer making the requisition must state fully and minutely where and for what purpose the articles ordered are to be used. If this is not done the requisition must be returned for the information.

Approved.....
Principal Assistant Engineer.

" .....

" .....
Chief Engineer.

H.C. Westfall (Sign Here.)
Assistant Engineer.

(Title)

Supply Agent.

10M RP

Supply Agent's Reqn. No. .....
Division A. E. " " 57
Sheet " "

Form 1018

Northern Pacific Railway Company.

Connell, Wash. Nov. 3, 1910. 190

To the PURCHASING AGENT,

The following articles are required for the Company's use, and should be delivered

to C.N.Ry. C/o H.C.Westfall, Asst. Engr. *at* Connell, Wash.

QUANTITY	DESCRIPTION OF ARTICLES	Estimated Cost	For What Purpose Ordered	ON HAND
	One Cast Iron reducer, 12"x 14" Three feet long. Immediate Delivery.		CONSTRUCTION. Stand Pipe Connection at Schrag on C.N.Ry. Ritzville Brch.	

Supplies will be furnished only upon the written requisition of the heads of Departments, and the officer making the requisition must state fully and minutely where and for what purpose the articles ordered are to be used. If this is not done the requisition must be returned for the information.

Approved .....

" .....

" .....

H.C. Westfall (Sign Here.)
Assistant Engineer.
(Title)

Supply Agent.

Form 290 TW

3177

Northern Pacific Railway Company

Ritzville, Wash., Oct. 29, 1910.

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of sounding the Columbia River at Sand Hollow Crossing for bed rock.

Struck bed rock at 1644 at elevation 421 second hole and drilled several feet down into it. The first hole was lost while working in the bed rock but we could not be sure at that time that it was bed rock and put down second hole. Expect to move the barge to Station 1650 the first part of next week.

This work has been turned over to Mr. Westfall but as this weeks report came to me, have made report to you and furnis copy to Mr. Westfall.

Yours truly,

M. W. Howland

Asst. Engineer,

Copy to Mr. Stevens.

Form 290 TW

Northern Pacific Railway Company

3127

Ritzville, Wash., Oct. 24, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of work done sounding the Columbia River at Sand Hollow Crossing for bed rock. We lost the hole at Station 1644 at an elevation of about 418 and started a new hole the first of the past week. The new hole is down to an elevatio of about 422 at which depth we thought we had struck bed rock in the first hole.

Yours truly,

M. W. Haviland

Asst. Engineer.

Copy to Mr. Stevens.

3127

WLD R

Saint Paul, October 22nd, 1910..

Mr. H. C. Westfall,
Assistant Engineer,
Connell, Washington.

Dear Sir:-

I have arranged with Mr. Howland to turn over to you the work at the Columbia River and the finishing up of the well at Schrag which I understand is the only thing remaining to be done there. It will not be practicable to hold Kerrick's outfit until the well is completed. The material will be left on the ground and we will have to arrange, after the well is completed, to do the work ourselves as it would be hardly fair to call on Mr. Kerrick to maintain a force there untilthat time or to reorganize a force after well is completed. I understand that the outfit at the river has but one more hole left to drill and as soon as this is done we want to let that outfit go and release plant taking pains to carry out Mr. Howland's program in connection with the distribution of the plant after finishing.

Yours truly,

Chief Engineer.

Copy on file 1871

3127

REG-A

Saint Paul, October 18, 1910..

Mr. R. H. Relf,
Assistant Engineer.

Dear Sir:-

Referring to your letter of the 14th inst. concerning bridge across the Columbia River between the counties of Grant and Kittitas Washington.

No permit has yet been asked for from the War Department as the plans of bridge have not yet been prepared.

Yours truly,

Chief Engineer.

3127

Form 290 TW

Northern Pacific Railway Company

IN YOUR REPLY PLEASE
REFER TO FILE_____

MEMO

SAINT PAUL, October 17, 1910

HES.

Mr. W. L. Darling,

Chief Engineer.

Your memo on the attached letter from Mr. Relf regarding Bridge across Columbia River, between the counties of Grant and Kittitas.

We have not asked for any permit from the War Department, nor made any plans for bridge at this point, and in fact cannot do so until Mr. Howland completes hisborings.

H. E. Stevens.

Rel-Land Legal Dept
Kan & Northwestern
1978

Form 290 TW

Northern Pacific Railway Company

St.Paul, October 14, 1910

RL

Mr. W. L. Darling,

Chief Engineer.

Dear Sir:--

Referring to Act of Congress approved June 23, 1910, entitled "An Act authorizing the castruction of a bridge across the Columbia River between the counti es of Grant and Kittitas, in the State of Washington": I beg to ask if permit has been issued by the War Department for construction of the bridge? Also please let me know the name of the corporation that intended to build it. I ask for this information simply for the records of the office.

Yours truly,

R. C. Reed

Assistant Secretary

W. L. Darling
10/15

Form 290 TW

Northern Pacific Railway Company

3/27

Ritzville, Wash., Oct. 12, 1910

r. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of work of sounding he Columbia River for bed rock at the Sand Hollow. The hole at Station 1644 is down to an elevation of about 420 and working two feet in rock but we can not be sure that it is bed rock as yet. Have drilled and blasted our way through several boulders before reaching this elevation. At an elevation of 420, quick sand begun running into the hole and seriouly interfered with thr progress this week for the reason that the sand forms a cushion between the drill bit and rock. We tried blasting with the idea of getting our casing down to good bearing on the rock so as to shut outt the flow of sand but this resulted in breaking the casing and made it n necessary to pull and replace same.

The Wilkins outfit at Scragg on the Ritzville Branch have had much the same experience with their heavy drill and have lost one hole 100 feet deep and another 50 feet .

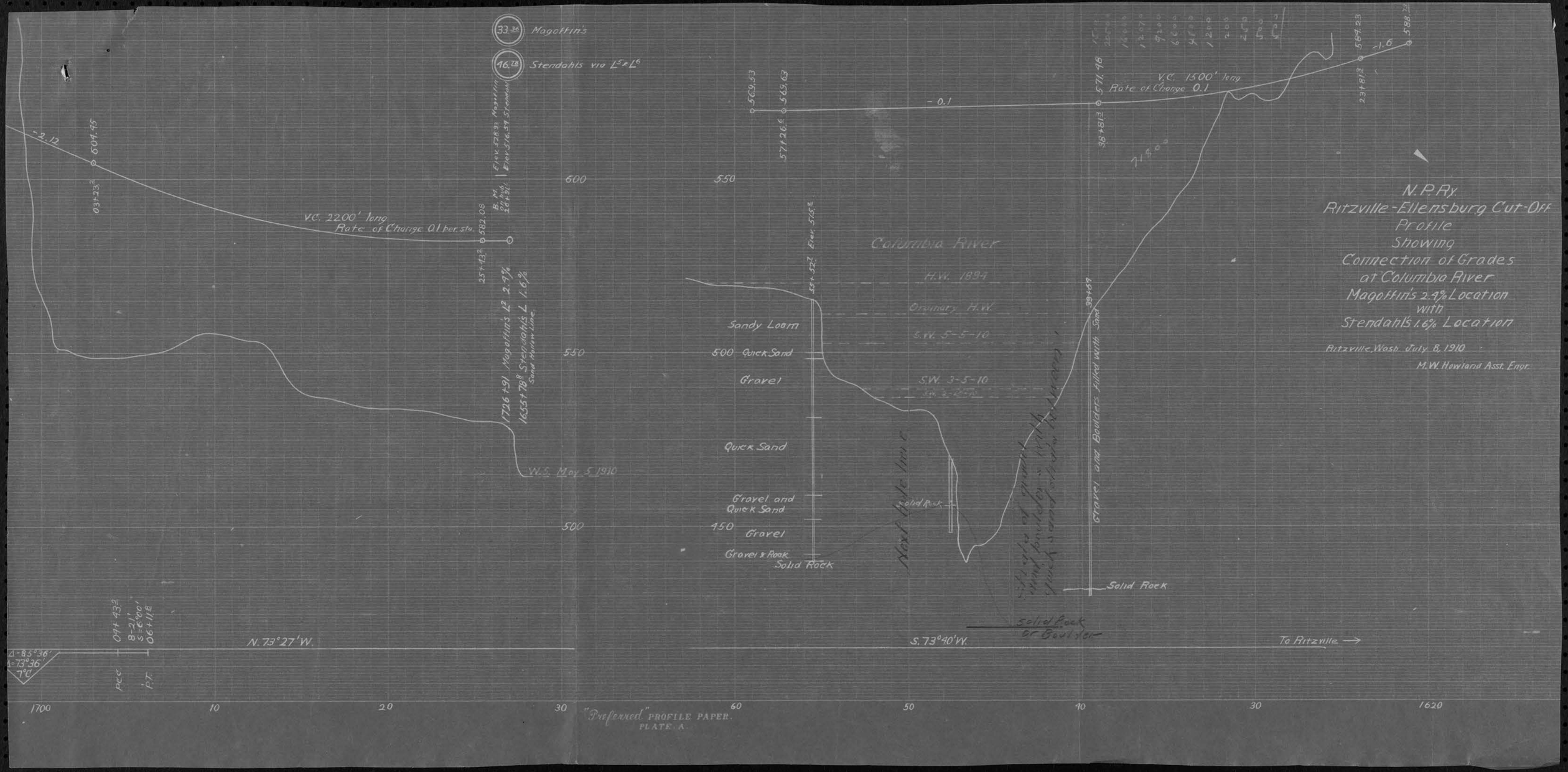
Account of the elevations at which we are finding bed rock at Stations 1644 and 1639-50, I do not think that another hole between these two is necessary and will put the next hole at Station 1650.

Yours truly,

M. W. Howland.

Asst. Engineer.

Copy to Mr. Stevens.



"Preferred" PROFILE PAPER.
PLATE A.

W.L. Darling

312

St. Paul, Minn., Oct. 10th '10.

Iron barrels.

Mr. F.G. Prest,

Purchasing Agent.

Dear Sir:-

Replying to your memorandum October 7th, desk 2, and returning letter of the Standard Oil Co., October 6th, reading as follows:-

"The CM&STP Ry.Co. have just delivered to us at Mpls. on their Sept. 17th Pro-21819, our iron bbls #24860, 45039 and 45131, billed from their agent at Seattle, Wash., as being over at that point, and have expensed on us $5.00 freight charges.

These three packages were included in shipment made to you from Mpls., May 20th 1910, your order #5-254, 60 bbls of Crown Gasoline to Spokane, Wash., and should have been returned to us without charges.

Will you kindly advise if it will be agreeable to you that we pay these charges and charge same to your account?"

I find that these tanks were returned through error by H.W. Howland, Asst. Engineer, from Beverley, Wash., to the Standard Oil Co. at Seattle on August 22nd way-bill No. 50., via the CM&PS Ry. The tanks not belonging to the Standard Oil people at Seattle, they refused to take delivery of same and requested the CM&PS to return them to Standard Oil Co., Spokane, but it would seem from the attached letter that the tanks went through to Minneapolis.

I do not know as there is anything we can do, except to authorize the Standard Oil people to pay the freight charges and render bill against this company for same.

St. Paul, Minn., Oct. 10th '10.

F.G.P. --2--

We in return, of course, will render bill against the Construction Department.

Yours truly,

Supply Agent.

N J

Copy W.L.D.
R.W.M.

21

Form 29o TW

3127

Northern Pacific Railway Company.

Ritzville, Wash, Oct.3rd, 1910

Mr.W.L.Darling, Chief Engineer,

St.Paul, Minn.

Dear Sir:-

Following is a report of work of sounding the Columbia River for bed rock at Sand Hollow Crossing.

In my last report, I reported bed rock at Station 1644 at an elevation of 433, which is not correct as we broke through the rock and through ten feet of quick sand before striking rock again. We are working in rock again at an elevation of 421 and think that this will prove to be bed rock.

The heavy drill pipe and casing have been received at Beverly and will be used on the next hole. I think that this heavy pipe will enable us to make better progress as wex have suffered numerous delays on the last two holes account of jamming casing and breaking drill rods.

Yours truly,

M.W.Howland

Asst.Engineer.

Copy to Mr.Stevens.

Form 390 TW

Northern Pacific Railway Company

3177a

IN YOUR REPLY PLEASE

REFER TO FILE_____

WLD A

Tacoma, Wash., October 2, 1910..

Incorporate on adopted maps and profiles and furnish blueprint in triplicate for Mr Cooper. SBB. 10/6

Mr. S. J. Bratager,
Principal Assistant Engineer.

Dear Sir:-

I hand you herewith letter from Mr. Howland under date of September 20th with blueprint #203-18 showing in plan and profile #203-18 some proposed lines between M.P. 43 and the Columbia River on the Ellensburg cut-off..

I think we should adopt the P L line with 6° curves and costing but $20,600 more than the line giving 8° curves.

Will you please have this incorporated on our adopted maps and profiles and furnish Mr. Cooper a copy of the right of way map to go with the letter to Mr. Cooper, which is attached to this.

Copy in file 3177a

Yours truly,

Chief Engineer.

shown on maps #215-15 & 23 profile #477-13 10/6

#215-25

P.L.B. Blprints herewith 10/7

Mr. Darling Done. SBB. 10/7

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, Sept. 20, 1910

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

Dear Sir:-

#203-18

Herewith map and profiles showing the original 1.6% Located Line L 5, Max. Curvature 8 degree, from Station 2280-2365 and Revised 1.6% Locations P.L. and L (5) (L Circle 5), Maximum curvature 6 degrees.

The map covers the alignment changes only, but as both revisions necessitate a grade change from the beginning of the revision on down to the river, I have made profiles and estimates to cover. All estimates from M.P. 43 to the River for sake of comparison.

The original location L 5 with 8 degree maximum curvature, is the cheapest construction by $21000 and the P.L. Line is by far the cheaper construction of the two 6 degree lines.

Yours truly,

M W Howland

Asst. Engineer.

Estimate Original Location "L 5" M. P. 43 to Columbia River.
1.6 % Grade, 8 Degree Maximum curvature except at Bridge.
Line on north side of Sand Hollow.

Earth	300'	haul		2800	cu yds @	.18¢	504.00
"	1000'	"		19480	"	" .22¢	4285.00
Hard pan				18560	"	" .33 1/2¢	6217.00
Loose rock				7240	"	" .40¢	2896.00
Solid "				190500	"	" .85¢	161925.00
"	"	(borrow)		21000	"	" .55¢	11550.00
Overhaul				380620	"	" .01¢	3806.00
Tunnel				185	lin ft	" 50.00	9250.00
"	timber			40000'	B.M.	" 25.00	1000.00
C.I.Pipe	36"	178'					
"	24"	264'	442'	49	tons	" 40.00	1960.00
V.T.Pipe	24"	28'		28	lin ft	" 1.50	42.00
Timber bridge				30000	B.M.	" 23.00	690.00
Bridge iron				2000	pounds	" .03¢	60.00
Clearing				14	acres	" 5.00	70.00
Right of Way				48.7	"	" 40.00	1948.00
Freight charges				3.27	miles	" 9200.00	30084.00
Track & Ballast				3.27	"	" 9615.00	31441.00
Buildings, Telegraph line & Fencing				3.27	"	" 1490.00	4872.00
							272600.00

Estimate Revised Located "P.L". Line M. P. 43 to Columbia River.
1.6 % Grade, 6 Degree Maximum curvature except at Bridge.
Line on north side of Sand Hollow.
Alignment revised station 2330-2365.
Grade revised station 2320 to west side Columbia River.

Earth	300'	haul		4188	cu yds @	.18¢	754.00
"	1000'	"		14689	"	" .22¢	3232.00
Hard pan				17847	"	" .33 1/2¢	5979.00
Loose rock				6301	"	" .40¢	2520.00
Solid "				198597	"	" .85¢	168807.00
"	"	(borrow)		29500	"	" .55¢	16225.00
Overhaul				538450	"	" .01¢	5384.00
Tunnel				350	lin ft	" 50.00	17500.00
"	timber			70000'	B.M.	" 25.00	1750.00
C.I.Pipe	36"	178'					
"	24"	341'	519'	55	tons	" 40.00	2200.00
V.T.Pipe	24"	28'		28	lin ft	" 1.50	42.00
Timber bridge				30000'	B.M.	" 23.00	690.00
Bridge iron				2000	pounds	" .03¢	60.00
Clearing				14	acres	" 5.00	70.00
Right of Way				48.7	"	" 40.00	1948.00
Freight charges				3.25	miles	" 9220.00	29965.00
Track & Ballast				3.25	"	" 9615.00	31249.00
Buildings, Telegraph line & Fencing				3.25	"	" 1490.00	4843.00
							293218.00

Estimate Revised Location "L circle 5" M. P. 43 to Columbia River.
1.6 % Grade, 6 Degree Maximum curvature except at Bridge.
Line on south side of Sand Hollow and crosses the Hollow at its mouth.
Alignment revised station 2289-2365.
Grade revised station 2289-to west side Columbia River.

Earth	300'	haul		2065	cu yds @	.18¢	372.00
"	1000'	"		9227	"	" .22¢	2030.00
Hard pan				31720	"	" .33 1/2¢	10626.00
Solid rock				224980	"	" .85¢	191233.00
Loose "				6300	"	" .40¢	2520.00
Solid "		(borrow)		30740	"	" .55¢	16907.00
Overhaul				393800	"	" .01¢	3938.00
Viaduct steel				480	tons	" 75.00	36000.00
Freight charges, steel & cement							12816.00
Concrete				1200	cu yds	" 12.00	14400.00
Abutment excavation				1500	"	" 2.00	3000.00
C.I.Pipe	36"	120'					
"	24"	289'	409'	42	tons	" 40.00	1680.00
V.T.Pipe	24"	28'		28	lin ft	" 1.50	42.00
Clearing							
Right of Way				14	acres @	5.00	70.00
Freight charges				51.7	"	" 40.00	2068.00
Track & Ballast				3.23	miles	" 9330.00	30136.00
Buildings, Telegraph line & Fencing				3.23	"	" 9615.00	31056.00
				3.23	"	" 1490.00	4813.00
							363707.00

WLD R

St. Paul, Sept. 9th, 1910..

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

Dear Sir:-

I beg to acknowledge receipt of your letter of the fifth instant with estimates, maps and profiles for various lines run between Station 2288 and the Columbia River and I am returning all herewith for more information.

You show on first sheet a difference between the L-5 Line with 8° and L-5 Line with 6° a maximum of $29,500.00. You then show PL Line with 6° to cost $287.700.00 and the L-5 Line with 8° to cost $278,000.00 a difference of only $9700.00. In other words your line with 6° of curvature costs only $9700.00 more than the line with 8° of curvature yet your first sheet shows it to cost more than $29,000.00. Again your L-5 Line with 6° a tunnel is whown in the estimate. I am unable to read the tables and statements in an intelligent way as it is not put up in good shape. Can you not put this matter on one sheet so that we can tell just what you

refer to.

Yours truly,

Chief Engineer.

Encl.

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, Sept. 5, 1910,

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Herewith tracing of map and profiles of revisions near the mouth of Sand Hollow, Ritzville-Ellensburg Cut-Off. Also estimates covering the different lines.

I have shown a comparison between the Original Location 1.6% Grade L5 Line, which had an 8 degree curve through the tunnel and the P.L.Line, which reduces the maximum curvature to 6 degrees. Note that it will cost $29000 to reduce from the 8 degree tob 6 degree curve.

Estimates covering all four lines from M.P.43 to the Columbia River are also herewith and note that the lines on the north side of the Hollow will cost $74000 less than those on the south side. The lines on the south side have a saving in angle and distance, figuring on a basis of 20 train line, of $11000 but taking this into account, the lines on north side are better bt $63000.

Yours truly,

M. W. Howland

Asst. Engineer.

Form 29o TW

Northern Pacific Railway Company.

3127

Ritzville, Wash, Sept. 28, 1910.

Mr. W. L. Darling, Chief Engineer.,

Beverly, Wash.

Dear Sir:-

Following is a report of work of sounding the Columbia River for bed rock at the Sand Hollow Crossing.

We have been drilling at Station 1644-50 for the past two weeks. Five holes have been put down at this station and the last one is down through the boulder formation . We are working in rock, which we think is bed rock. Elevation 433 or about same as elevation of bed rock on the east bank of the river. Will continue drilling on this hole for a few days to make sure of bed rock.

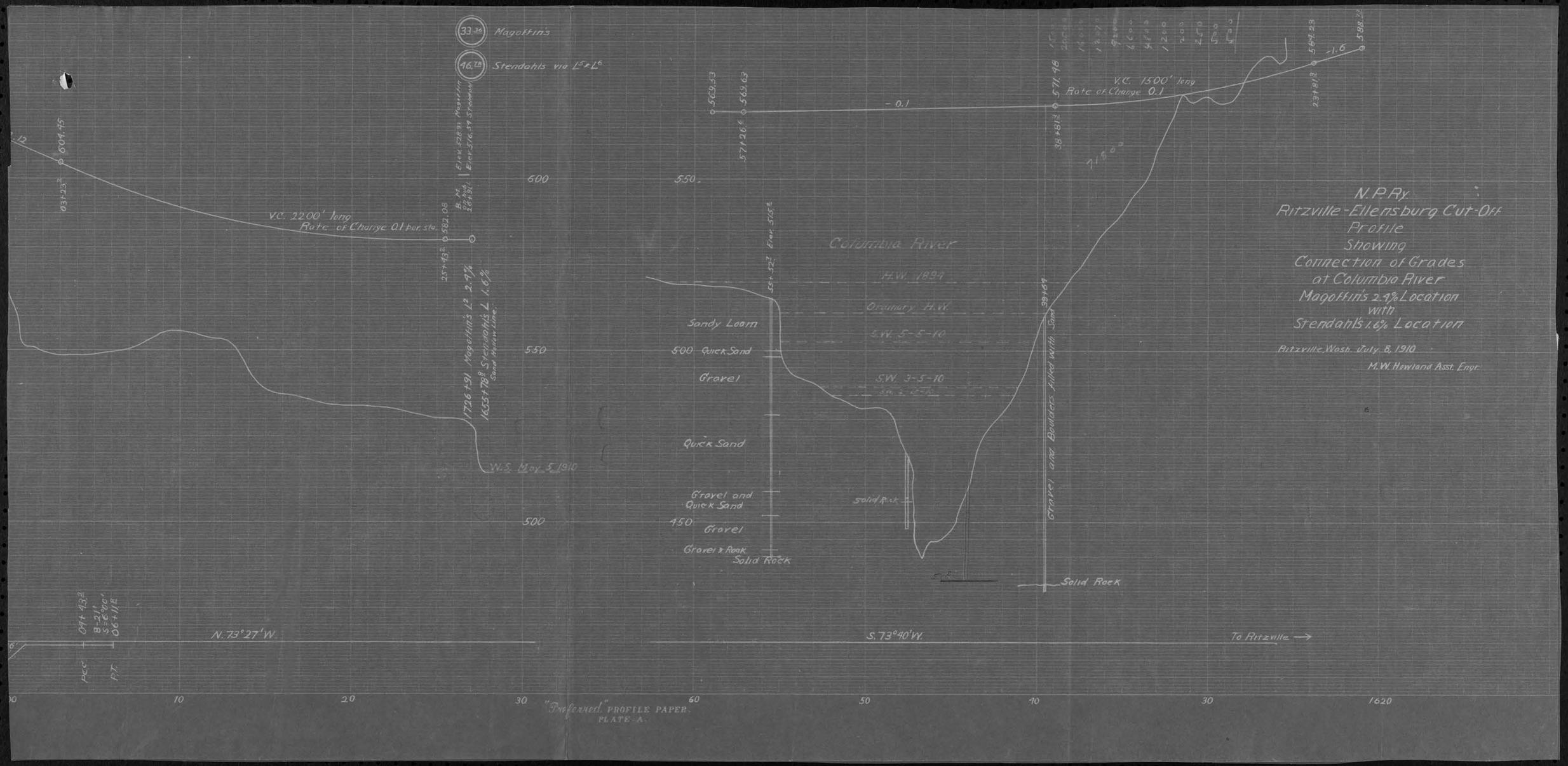
The heavy casing and pipe, dril l bits etc ordered through Mr. Stevens have been received at Ritzville and forwarded to Beverly today. This material will reach Beverly about the last of this week and we should make better headway with the next hole.

Yours truly,

M. W. Howland

Asst. Engineer.

Copy to Mr. Stevens.



N.P.Ry.
Ritzville-Ellensburg Cut-Off
Profile
Showing
Connection of Grades
at Columbia River
Magoffin's 2.9% Location
with
Stendahl's 1.6% Location

Ritzville, Wash. July 8, 1910

M.W. Howland Asst. Engr.

3177

LAM-W September 30, 1910.

Mr. N. R. Cooper,

Ellensburg, Washington.

Dear Sir:

Referring to your letter of September 6th to Assistant Engineer H. B. Stoner regarding money due you from the Railway Company.

Mr. Stoner advises that two bills were sent in; one amounting to $5.54 and the other for $117.60. The voucher for $117.60 was sent to you at Kittitas by U. S. mail on August 12th. I have no record of the billfor $5.54 and would be glad to have you furnish copy. If the voucher for $117.60 has not been received, please advise.

Yours truly,

Chief Engineer.

Form 290

Northern Pacific Railway Company

St Paul Minn 7/16 09

Mr H L Darling Chf Engr
St Paul

Dear Sir

Herewith letter from W R Cooper & Kittle Co regarding bill which he claims have not been vouched.

I sent you two bills favor W R Cooper July 23 One bill was for 5.54 and the other for 117.60 Please advise if they have been vouched.

Yours truly
A B Stover

59

Have plans look up July 9/10

5.54 = 29,454
117.60

(V 3 J)

Letter Mail Aug 12 d/l

9-6-

8-24-1910

Ellensburg

Washington

Mr. F. B. Stone

St Paul

Dear sir I am in need of money and would be glad if you would send me voucher for act you made with me at Trillitan

You can mail it to Ellensburg. I can't wait any longer it has been more than two months let me hear

from You at once
as I need money
Ref N. R. Cooper
Ellensburg
Washington
P.S. I talked to Agent
of N.P. Depot he dont
seem to know why
I cant hear from you
I will expect to hear
from you at once
Ref N.R. Cooper
Ellensburg Wash
or Kittitas
Wash

Ellensburg w&M

St. Paul, September 26, 1910.

REG-W

Mr.H. B. Stoner,
C/O Mr. J. D. Koren,
Div. Engr., Spokane, Wash.

Dear Sir:

I hand you herewith AS & MA bill No. 1975, $60.00, and 1987, $14.00, covering freight charges on coal furnished at Ellensburg.

If these are correct, will you please certify and distribute, and return?

Yours truly,

Chief Engineer.

Encl.

Rec'd back approved & voucher

Form 290 TW

Northern Pacific Railway Company

Ritzville, September 23, 1910.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Dear Sir:

I am returning AS & MA No. 1975 and 1987 covering coal furnished at Ellensburg; also freight charges.

As this coal was furnished Mr. Stoner, Assistant Engineer, who was located there, and I have been unable to find him to ascertain whether or not this coal was received and to what same should be charged.

If you wish me to certify and voucher, with return of bills please advise; also let me know distribution for same.

Yours truly,

M. W. Howlett

CWL

Assistant Engineer.

7 3127

FOUNDED 1874.

ENGINEERING NEWS

PUBLISHED WEEKLY BY THE ENGINEERING NEWS PUBLISHING COMPANY
220 BROADWAY
NEW YORK

September 20th, 1910.

Mr. W. L. Darling, Ch. Engr.,
Northern Pacific Railway Co.,
St. Paul, Minn.

Dear Sir:-

Kindly advise us if contracts have been awarded for the proposed development work in the Columbia River Valley between Beverly and Kennewick, Washington, to cost about $15,000,000.

Thanking you in advance, we remain,

Yours very truly,

THE ENGINEERING NEWS PUBLISHING CO.
Construction News Department.

A. E. Culley

AEC/AC

Form 298 TW

Northern Pacific Railway Company

3177

Ritzville, Wash, Sept. 12, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Report of sounding for bed rock at Sand Hollowing crossing of the Columbia River as follows: Hole at 1647-50 finished the first of the last week (drilled ten feet into bed rock) and the barge moved to Station 1644. Hole down 27 feet in sand and grave at 1644 Sunday evening. Expect to strike rock at this point at about 40 feet below the river bed.

Profile herewith.

Yours truly,

M. W. Howland,

Asst. Engineer.

Copy to Mr. Stevens.

Form 1386

NORTHERN PACIFIC — YELLOWSTONE PARK LINE

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.

3127. 7

COPY

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

FROM

TO J Y Edwards,

Sept. 9, 1910.

AT Agent, Ellensburg

Your wire 8th. Voucher for U R Cooper amounting $150.00 sent him by U. S. mail at Kittitas August 11th.

W. L. Darling.

7

Form 1386

NORTHERN PACIFIC — YELLOWSTONE PARK LINE

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
61	BY RT	V	234 AM	9th M.		M.			M.		

FROM Ellensburg DATED Sept 8, 1910.

TO W. L. Darling,

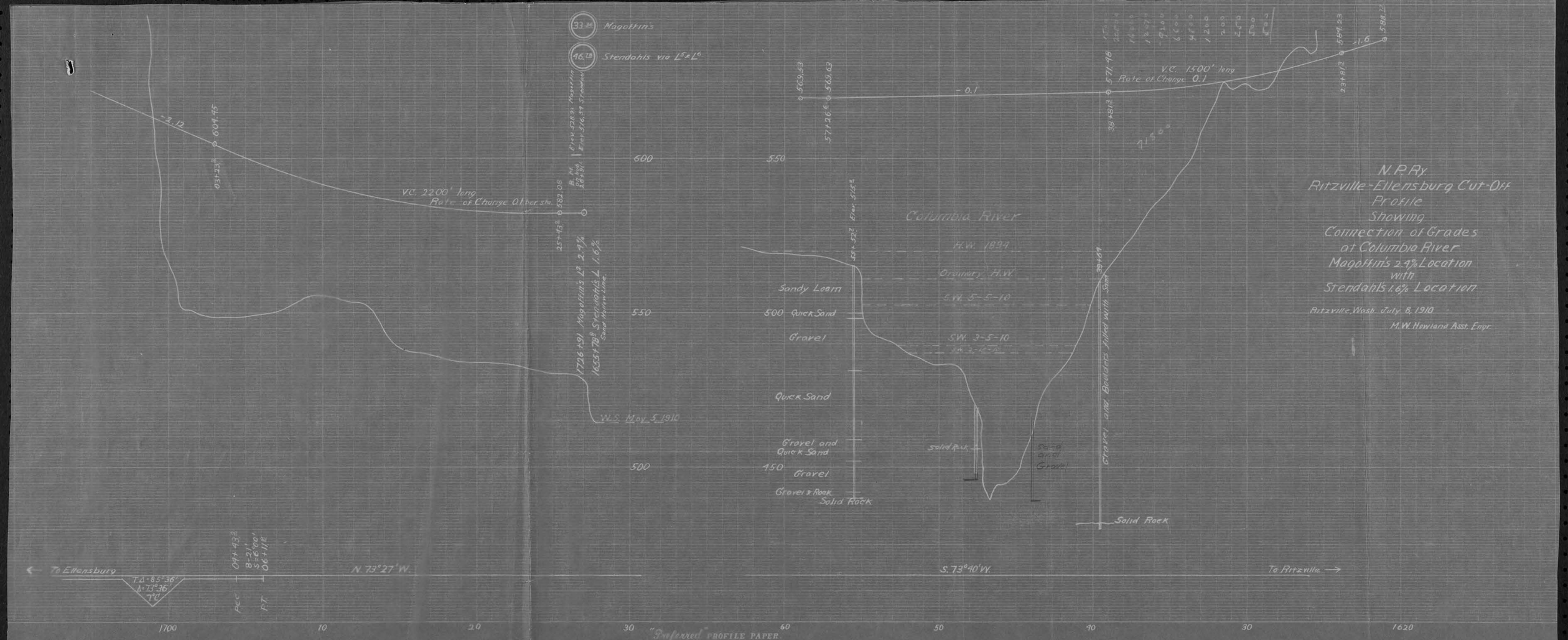
AT St Paul.

In May and June Mr. U. R. Cooper furnished H. B. Stoners crew about $150.00 worth of Supplies at Kittatas, Mr. Stoner advised Mr. Cooper his voucher would be sent through U.S. Mail to Kittatas same has not been recd. Please rush this voucher to me as Mr. Cooper figureing on suing

J Y. E.

made up by three vouchers all sent to Kittatas by U S Mail Aug 11 +

LaW



N.P.Ry.
Ritzville-Ellensburg Cut-Off
Profile
Showing
Connection of Grades
at Columbia River
Magoffin's 2.4% Location
with
Stendahl's 1.6% Location

Ritzville, Wash. July 8, 1910

M.W. Howland Asst. Engr.

"Preferred" PROFILE PAPER.
PLATE-A.

Form 290 TW

Northern Pacific Railway Company

3127

OFFICE OF CHIEF ENGINEER SEP 9 1910 NOR. PAC. RY. ST. PAUL, MINN.

Ritzville, Wash, Sept. 5, 1910

Mr. W. L. Barling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of work of sounding the Columbia River at Sand Hollow for bed rock.

Blue print profile, showing the relative elevations of bed rock, herewith. Hole at Station 1647-50 is down eight feet into the rock. I am quite certain that this is bed rock but account of rock being so much lower on each bank of the river, I have given instructions to put the hole down ten or twelve feet into the rock. The profile, at this point, is not correct as the rock has only four feet of earth covering. We will send you a corrected profile as soon as we can get accurate soundings. The work has been delayed a good part of the last week account of breaking drills. These breaks are caused account of the rock being so hard.

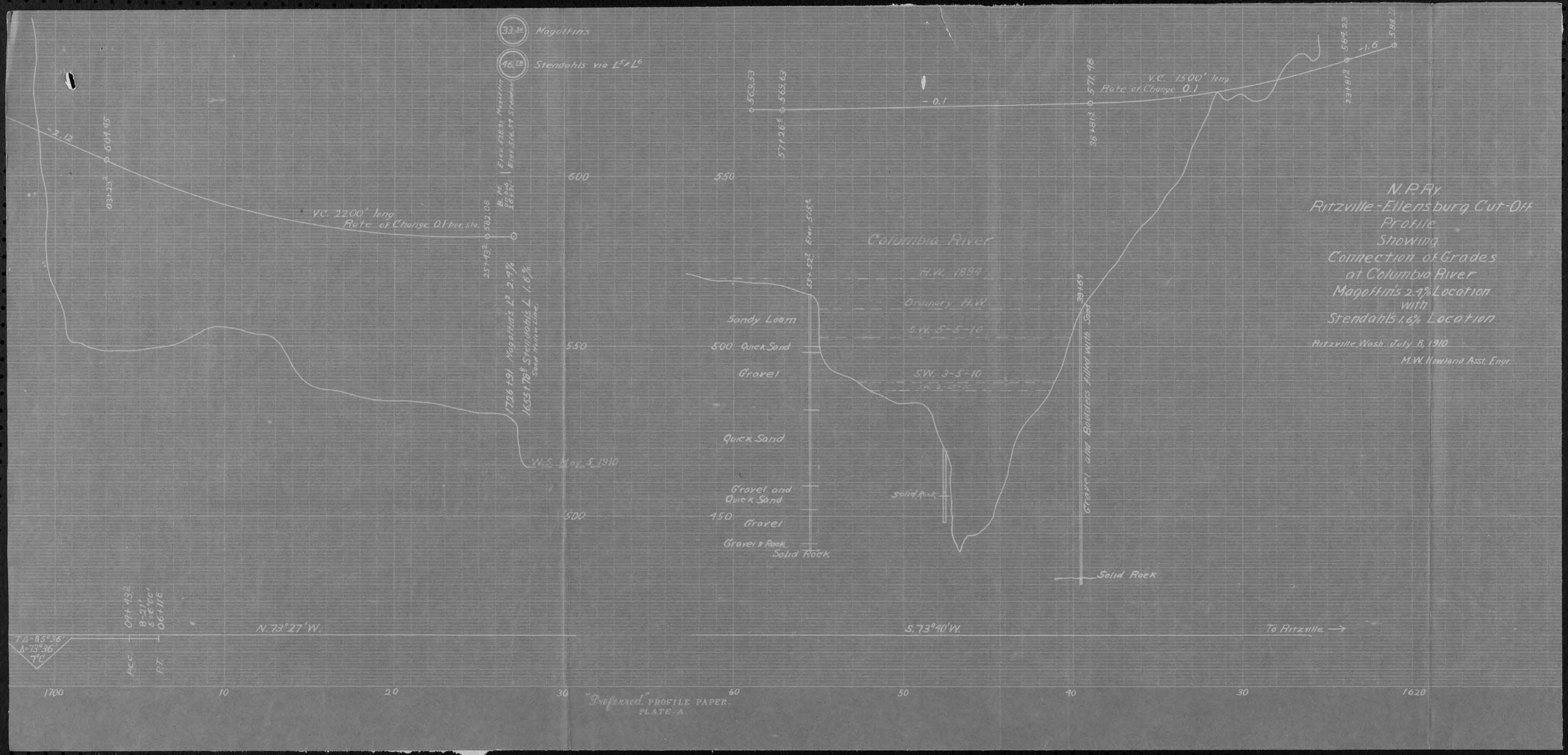
Maps, profiles and estimates of revisions near the mouth of Sand Hollow to you by express today.

Yours truly,

M. W. Haviland

Asst. Engineer.

Copy to Mr. Stevens.



N.P.Ry.
Ritzville-Ellensburg Cut-Off
Profile
Showing
Connection of Grades
at Columbia River
Magoffins 2.9% Location
with
Stendahls 1.6% Location

Ritzville, Wash. July 8, 1910

M.W. Howland Asst. Engr.

"Preferred" PROFILE PAPER.
PLATE-A.

3127

WLD R

St. Paul, Sept. 7th, 1910..

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

Dear Sir:-

Replying to your letter of August 22nd about topography along the shore at the Columbia River crossing near Sand Hollow. These soundings and topography should be taken only as far each side of the line as is necessary to cover the Government requirements which is about one mile above the crossing and one half mile below. When I wrote you on June 18th I had in mind a survey to extend a mile and a half each side to check up the practicability of ~~this~~ a location elsewhere than at point selected. I am satisfied, however, that the point selected is the proper one and that all we need now is to get soundings and topography to cover the government requirements.

Yours truly,

Chief Engineer.

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, August 22, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of sounding the Columbia River at Sand Hollow and revisions near mouth of the Hollow: The revisions have all been staked out on the ground and work of cross sectioning for estimates nearly completed.

Soundings have been made and topography along shore tajen for one mile above the crossing and one half mile below the crossing which is according to the requirements of the War Department. In your letter of instructions of June 18th, you requested me to get this information for about one and one half miles each side of the crossing and we will carry this out unless otherwise advised.

We have put down six holes at Station 1647-50 striking some kind of rock formation, which we think boulders at a depth of about four feet below the river bed. This week, Staples has been drilling on the seventh hole and has been using a 3" drill. At last report, he was drilling into the rock and I think that we will know within a few days whether boulder or bed rock. We were using the 2" drills which came with the Company outfit on the first six holes and could not drill into the rock with them.

Yours truly,

M. W. Howland

Asst. Engineer.

Copy to Mr. Stevens.

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, August 28, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of work of sounding the Columbia River for Bed Rock:

We have drill hole about seven feet down into rock at Station 1647-50. Expect to put this hole down 10 feet by Tuesday of next week and if still working in rock will consider that sufficient proof of bed rock and move drill to station 1644.

We were unable to do anything with the two inch drill as the rock is so hard that the pounding strips the threads from the pipe and bends it out of shape about as fast as we can put in new pipe. The men borrowed a 3" drill and have been making about 18" per day in rock. We could do better if we could get an extra drill bit so that there would xx be no delay account of sharpening. Have been trying to get one loosely to save delay. As soon as we get started into rock on the next hole, I intend working the drill double shift as I think that this will double the speed in rock.

Rock at 1647-50 is four feet below the river bed.

Yours truly,

M. W. Howland
A.E.

Copy to Mr. Stevens.

Form 256 TW

Northern Pacific Railway Company.

3127

SJB-A

St. Paul, Minn.
August 16,1910.

Mr. J. N. Pariseau:

Herewith for file maps pertaining to Ritzville - Ellensburg Cut off, as per list of Assistant Engineer, H. B. Stoner, attached to his letter of August 15, copies of which are attached.

S. J. Bratager.

St. Paul, Minn., 8-15-10.

Mr. W L Darling,
Chief Engineer,

Dear Sir:-

Herewith list of hard copy maps in stationery chest marked "No. 1" These are all hard copy maps pertaining to the Ritzville - Ellensburg cut-off. Tracings of the various located lines includes all the topography shown on these preliminary hard copy maps.

All the note books of the Ritzville - Ellensburg cut-off are in this same chest.

Yours truly,

H B Stoner. A E.

Form 290

Northern Pacific Railway Company

Kittitas - Ellensburg cut off
List of hard copy maps - sheet 1.
A. B. Stone Asst Engr.

#1	Yates	"G" Pre Line	Sta. 23+75	to	Sta. 500	Scale 1" = 200'
#2	"	"M" (1%) "	" 540	"	" 1004	" 1" = 400'
	"	"M1" " "	" 632	"	" 977	" " " "
	"	"M2" " "	" 650	"	" 870+13	" " " "
#3	"	"G2" (Craigs Hill) Pre Line	" 1007	"	" 1135+85	" " " "
#4	"	"O" (1%) Pre Line	" 0	"	" 458+842	" " " "
	"	"M" " " "	" 540	"	" 874	" " " "
	"	"M2" " " "	" 650	"	" 870+13	" " " "
#5	363-5 "	"L" (0.8%) Location	" 555	"	" 1355	" " " "
#6	215-19 "	"L" (1.7%) "	" 896	"	" 501+56	" " " "
	"	"L1" (1.6%) "	" 856	"	" 306+32	" " " "
#7	Stendahl's	L^B (0.8%) "	" 1162	"	" 1355	
	Stendahl's	L^H (1%) "	" 560	"	" 696	
	Stendahl's	L^E (1%) "	" 560	"	" 1123	
#8	215-30	L^E (1%) "				Scale 1" = 1000'
#9	203-1 "	L^E, L^g, L^{sg}, & $L^{\#}$, "				Scale 1" = 2000'
#10	"	Kinneys Whiskey Dick Pre Lines				" 1" = 200'
#11	"	" " " "				" 1" = 400'
#12	203-14 "	"L" Location (Whiskey Dick)	Sta 1278	to	Sta. 1818	Scale 1" = 400'
#13		General map of Kinneys Lines up to March 10, 1910				" " "4000'
#14	203-15	Kinneys Beverly Location	Sta 1101+90	to	Sta 1824	" " "400'
#15		Mayers "E" Pre Line	Sta. 450	to	Sta. 554	Scale 1" = 100'
#16	203-14 "	"L" Location (Whiskey Dick)	Sta. 896	to	1278	Scale 1" = 400'
#17	"	Beverly "	Sta. 1455	to	Sta. 1872	
#18	"	Pre. Line				Scale 1" = 2000'

Maps for which no file numbers are shown are "Preliminary lines" and are in the record room.

Form 255 TW

Northern Pacific Railway Company.

SJB-A

St. Paul, Minn.
August 16, 1910.

Mr. J. N. Pariseau:

Herewith for file maps pertaining to Ritzville - Ellensburg Cut off, as per list of Assistant Engineer, H. B. Stoner, attached to his letter of August 15, copies of which are attached.

S. J. Bratager.

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

Estimated cost of the proposed Ritzville Cut-off between the point of connection with the Ritzville Branch, just East of the crossing of the Adrian-Connell Line, and the point of connection with the Chicago, Milwaukee & Puget Sound Railway, at Beverly.

See sketch of comparative map and profile of the Ritzville-Ellensburg Cut-off dated January 21, 1911; the line covered by this estimate being that shown thereon in yellow.

Length of main track - 50.5 mi.
Length of side track, 5.0 "
Total, 55.5 "

--ooOoo--

Right-of-way:						
748 acres @ $45.00,					33660.00	
Damage to property,					6600.00	40260.00
Clearing & Grubbing:						
Sage brush clearing, 413 acres @ $5.00,						2065.00
Grading:						
Solid Rock,	527740	cu.yds.	@	.85	448579.00	
Loose Rock,	67550	"	"	.40	27020.00	
Hard Pan,	418940	"	"	.33½	140343.90	
Earth (Under 300' haul)	361050	"	"	.18	64989.00	
Earth, (300 to 1000')	299890	"	"	.22	65975.80	
Total	1675370	"	"			
Overhaul,	2367530	"	"	.01	23675.30	
Riprap,	1800	"	"	1.25	2250.00	772833.00
Bridges, Trestles & Culverts:						
Piles in place,	24960	lin.ft.		.30	7488.00	
Timber,	543440	FBM		23.00	12499.12	
Cast iron in P. & T. brgs.,	10540	lbs.		.03	316.20	
Wrought " " "	33240	"		.03	997.20	
Galv. " "+ "	15000	"		.03	450.00	
Hauling brg. timber, 543 M. avr. 10 mi.				.60	3258.00	
Hauling piling, 24960 lin.ft.			"	.01	2496.00	
Vitrified culvert pipe 2000 l.f.				1.25	2500.00	
Cast iron " "	232	tons		25.00	5800.00	
Haul'g C.I. " "	232 T.	avr. 10 mi.		.50	1160.00	
" Vit. " "	184 T.		"	.50	920.00	
Laying 232 T. C.I. pipe,				2.50	580.00	
Laying 2000 l.ft. Vit. pipe,				.25	500.00	38964.52
Ties:						
55.5 mi. @ 2880 per M.	159840			.38	60739.20	
Switch ties,	20	sets		38.00	760.00	
Inspection and handling,	161100			.01	1611.00	63110.20
Rails:						
50.5 mi. 90# steel,	7121	G.T.		30.00	213630.00	
5.0 " 72# "	565	"		30.00	16950.00	
Inspection and handling,	7686	"		1.00	7686.00	238266.00
Track Fastenings:						
Track spikes, 55.5 M. @ 40	2220	kegs		4.00	8880.00	
			Carried For'd		8880.00	1155498.72

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

Estimated cost of the proposed Ritzville Cut-off between the point of connection with the Ritzville Branch, just East of the crossing of the Adrian-Connell Line, and the point of connection with the Chicago, Milwaukee & Puget Sound Railway, at Beverly.

See sketch of comparative map and profile of the Ritzville-Ellensburg Cut-off dated January 21, 1911; the line covered by this estimate being that shown thereon in yellow.

Length of main track - 50.5 mi.
Length of side track, 5.0 "
Total, 55.5 "

--ooOoo--

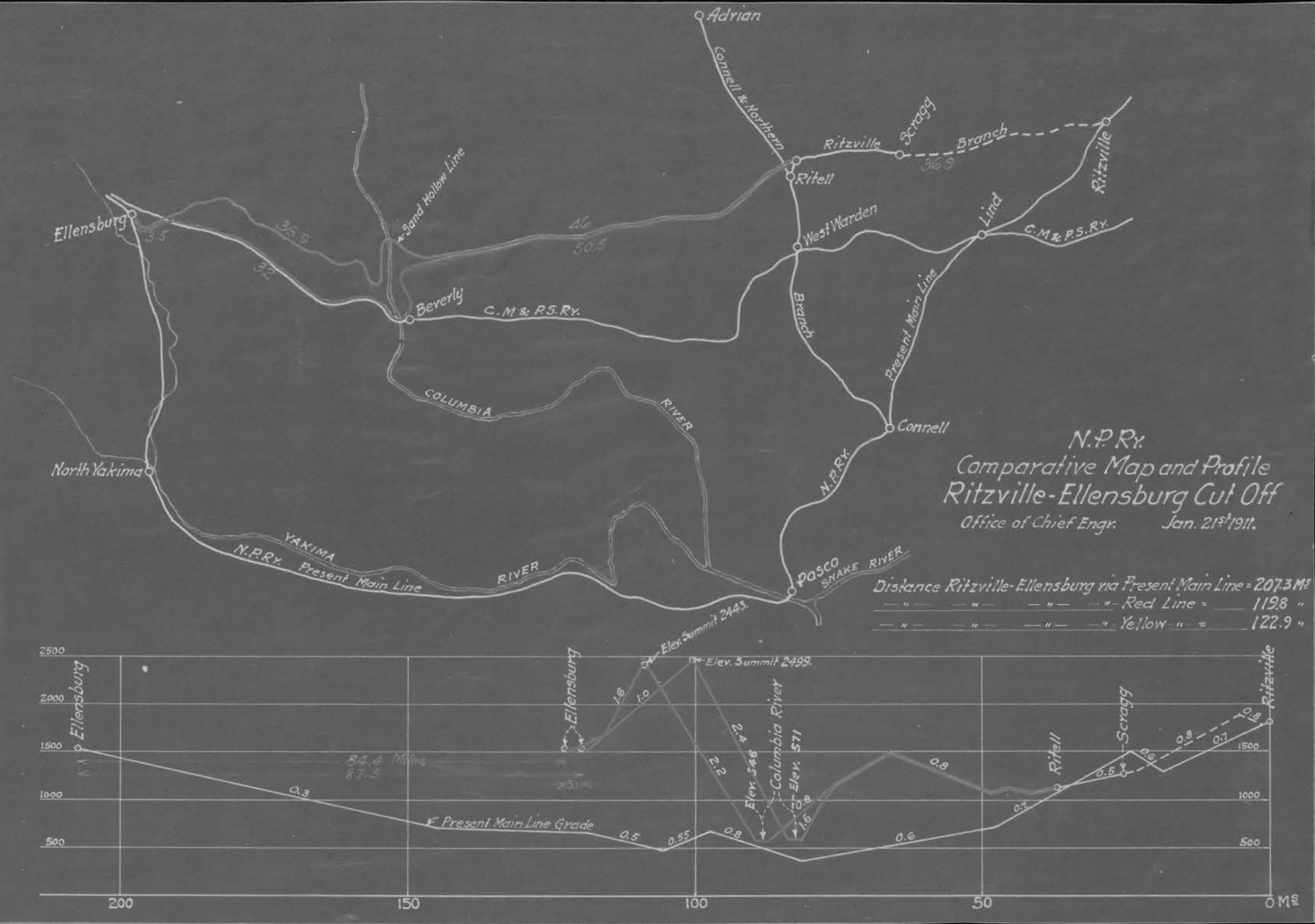
Right-of-way:						
748 acres @ $45.00,					33660.00	
Damage to property,					6600.00	40260.00
Clearing & Grubbing:						
Sage brush clearing, 413 acres @ $5.00,						2065.00
Grading:						
Solid Rock,	527740	cu.yds. @	.85		448579.00	
Loose Rock,	67550	" " "	.40		27020.00	
Hard Pan,	418940	" " "	.33⅓		140343.90	
Earth (Under 300' haul)	361050	" " "	.18		64989.00	
Earth, (300 to 1000')	299890	" " "	.22		65975.80	
Total	1675370	" "				
Overhaul,	2367530	" " "	.01		23675.30	
Riprap,	1800	" " "	1.25		2250.00	772833.00
Bridges, Trestles & Culverts:						
Piles in place,	24960	lin.ft.	.30		7488.00	
Timber,	543440	FBM	23.00		12499.12	
Cast iron in P. & T. brgs.,	10540	lbs.	.03		316.20	
Wrought " " "	33240	"	.03		997.20	
Galv. " " "	15000	"	.03		450.00	
Hauling brg. timber, 543 M. avr. 10 mi.			.60		3258.00	
Hauling piling, 24960 lin.ft. "			.01		2496.00	
Vitrified culvert pipe 2000 l.f.			1.25		2500.00	
Cast iron " "	232	tons	25.00		5800.00	
Haul'g C.I. " "	232	T. avr. 10 mi.	.50		1160.00	
" Vit. " "	184	T. "	.50		920.00	
Laying 232 T. C.I. pipe,			2.50		580.00	
Laying 2000 l.ft. Vit. pipe,			.25		500.00	38964.52
Ties:						
55.5 mi. @ 2880 per M.	159840		.38		60739.20	
Switch ties,	20	sets	38.00		760.00	
Inspection and handling,	161100		.01		1611.00	63110.20
Rails:						
50.5 mi. 90# steel,	7121	G.T.	30.00		213630.00	
5.0 " 72# "	565	"	30.00		16950.00	
Inspection and handling,	7686	"	1.00		7686.00	238266.00
Track Fastenings:						
Track spikes, 55.5 M. @ 40	2220	kegs	4.00		8880.00	
		Carried For'd			8880.00	1155498.72

	Brought For'd			8880.	1155498.72
Track Fastenings, Cont'd:					
Track bolts 50.5 M. @ 13	657	kegs	5.00	3285.00	
" " 5.0 " " 6	30	"	5.00	150.00	
Angle bars,	9530	cwt.	1.75	16677.50	
Tie plates 50.5 m.	290880	pcs.	.10	29088.00	
Inspection and handling,	1770	T.	1.00	1770.00	59850.50
Frogs & Switches:					
90# turnouts complete ex. ties 14			160.00	2240.00	
72# " " " 6			95.00	570.00	
Handling,				50.00	2860.00
Tracklaying & Surfacing:					
Tracklaying	55.5	Mi.	300.00	16650.00	
Rent of equipment,	55.5	"	200.00	11100.00	
Train service and transp.	55.5	"	335.00	18592.50	
Extra turnouts,	55.5	"	25.00	1387.50	
Tie plating,	50.5	"	60.00	3030.00	50760.00
Ballast:					
55.5 mi. @ 2500 cu.yds.	138750	cu.yds.	.32	44400.00	
Train service & transp.	138750	" "	.21	29137.50	
Rent of equipment,	138750	" "	.13	18037.50	91575.00
Station Buildings & Fixtures:					
3 station buildings			1600.00	4800.00	
3 privies,			35.00	105.00	
Furniture and fixtures for 3 stations			200.00	600.00	
Water supply for 3 stations			300.00	900.00	6405.00
Engine Houses & Turntables:					
1 - 2 stall frame enginehouse,				3600.00	
1 - 85' turntable pit,				2600.00	
1 - 85' turntable in place,				4600.00	
1 - 100' ash pit,				3000.00	13800.00
Water Stations:					
2 water stations complete			7500.00		15000.00
Coaling Stations:					
1 Coaling station complete,					10000.00
Fencing Right-of-way:					
80 miles fence			175.00		14000.00
Stock yards:					
2 stock yards			600.00		1200.00
Crossings, Cattle Guards & Signs:					
50.5 miles			50.00		2525.00
Section & Tool Houses:					
4 section houses			800.00	3200.00	
4 Tool houses,			50.00	200.00	
4 Privies,			25.00	100.00	
Water supply for section houses,				800.00	
4 portable bunk houses			160.00	640.00	4940.00
Miscellaneous Buildings:					
1 - 1000 ton icehouse,					1000.00
Telegraph Lines:					
50.5 miles			150.00		7575.00
	Carried For'd				1436989.22

		Brought For'd		1436989.22
Transportation Charges:				
Steel rails,	7686 T.	16.00	122976.00	
Track fastenings,	1570 "	16.00	25120.00	
Frogs & Switches,	46 "	16.00	736.00	
Bridge steel	30 "	25.60	768.00	
Piling,	8736 cwt.	.19	1659.84	
Timber,	17900 cwt.	.19	3401.00	
Cast iron culvert pipe	232 T.	22.00	5104.00	
Vitrified culvert piep,	184 "	13.50	2484.00	
Ties,	198980 cwt.	.19	37806.20	
Building timber,	52000 cwt.	.19	9880.00	
Steel in buildings & turntable,	136 T.	25.60	3481.60	
Freight on contractor's plant, miscellaneous freight charges, express charges, transportation of men, etc.	1675370 cu.yds. grad'g	.05	50261.10	263677.74
				1700666.96
Engineering expenses, 5%				85033.35
				1785700.31
Expended on this work prior to this estimate and not included in any items above,				85333.42
				1871033.73

Cost per mile of main track - $37050.00

Office of
Prin. Asst. Engineer
St. Paul,
January 27, 1911.



N.P.Ry.
Comparative Map and Profile
Ritzville-Ellensburg Cut Off

Office of Chief Engr. Jan. 21st 1911.

Distance Ritzville-Ellensburg via Present Main Line = 207.3 Mls
" " " " Red Line = 119.8 "
" " " " Yellow " = 122.9 "

Form 290

Northern Pacific Railway Company.

St Paul Minn 8/15-10

Mr C. L. Darling Chief Engr
St Paul Minn

Dear Sir-

Herewith list of land copy maps in stationery chest marked "No 1" These are all land copy maps pertaining to the Rly. Ellensburg Cut Off. Tracings of the various located lines includes all the topography shown on these preliminary land copy maps.

All the note books of the Rly. Ellensburg Cut Off are in this same chest.

Yours truly
H B Stover Asst.

Form 290

Northern Pacific Railway Company.

Ritzville - Ellensburg Cut Off

List of Hard Copy Maps - Chest #1.

H. B. Stoner, Asst. Engr.

#1 Tate's "G" Pre. Line Sta. 23+75 to Sta. 500 Scale-1"=200'

#2 Tate's "M" (1%) Pre Line Sta 540 to Sta 1004
" "M'" " " " " 632 " " 977
" "M²" " " " " 650 " " 870+13
Scale-1"=400'

#3 Tate's "G²" (Craig's Hill) Pre. Line Sta. 1007 to Sta. 1135+85 Scale-1"=400'

#4 Tate's "O" (1%) Pre. Line Sta. 0 to Sta. 458+84
" "M" " " " " 540 " " 874
" "M²" " " " " 650 " " 870+13
Scale-1"=400'

#5 Tate's "L^B" (0.8%) Location Sta. 555 to Sta. 1355 Scale-1"=400'

#6 Tates "L" (1.7%) Location Sta. 896 to Sta. 501+56
" "L^A" (1.6%) " " " 856 " " 306+32
Scale-1"=400'

#7 Tate's "L^B" (0.8%) Location Sta. 1162 to Sta. 1355
Stendahl's "L^E" (1%) " " " 560 " " 1123
" "L^H" " " " 560 " " 696

#8 Stendahl's "L^E" (1%) Location Scale-1"=4000'

#9 Stendahl's "L^E" "L^G" "L^G'" & "L^H" Locations Scale-1"=2000'

"G" "C1" "C" "C2" "C3" "T3" "F"

#10 Kinney's "Whiskey Dick" Pre. Lines Scale-1"=200'

"A" "A3" "G" "T3"

#11 Kinney's Whiskey Dick Pre. Lines Scale-1"=400'

#12 Kinney's "L" Location (Whiskey Dick) Scale-1"=400' Sta. 1278 to Sta 1818

#13 General Map of Kinney's Lines up to March 10, 1910 Scale 1"=4000'

#14 Kinney's Beverly Location Sta. 1101+90 to Sta. 1824 Scale-1"=400'

#15 Mayer's "E" Pre. Line Sta. 450 to Sta. 554 Scale-1"=100'

#16 Mayer's "L" Location (Whiskey Dick) Scale-1"=400' Sta. 896 to Sta. 1278

#17 Mayer's Beverly Location Sta. 1455 to Sta. 1872 Scale-1"=400'

#18 Mayer's Pre. Lines Scale 1"=2000' "E" "F" "T" "C4" "P4" "P"

3127

SJB-A

St. Paul, Minn.
August 16,1910.

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

Dear Sir:-

Referring to your report of August 13 on work of sounding for bed rock at the Sand Hollow Crossing of the Columbia River.

Mr. Stevens will be out there in the near future and I have requested him to go over the situation with you.

Yours truly,

Chief Engineer.

Cy.- H E Stevens.

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, August 13th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Report as follows on work of sounding for bed rock at the Sand Hollow Crossing of the Columbia River: We have the barge anchored at Station 1647-50 and Staples has put down six holes striking rock of some kind at about four feet below the surface but has been unable to get a sample of the rock as the drill will not stand the rock work. He is of the opinion that the formation is boulders as he says that his casing gets wedged between boulders, bending it and breaking his drills.

In my judgement, the information we able to get in boulder formation is very unsatisfactory and I think that we should use a larger drill and make sure of bed rock. The owner of the 6" drill we were using on the fi first hole has left his drill on the river bank and I do not think there would be any delay in getting permission to use it again.

Please advise. In meantime Staples is trying the seventh hole. at Station 1647-50.

Yours truly,

M. W. Howland

Asst. Engineer.

Copy to Mr. Stevens.

Form 290 TW

Northern Pacific Railway Company

St. Paul, Minn., August 16, 1910.

HES.

Mr. M. W. Howland, Assistant Engineer,

Ritzville, Wash.

Dear Sir:

Since writing you today regarding the drilling, I am in receipt of copy of yourreport of the 13th.

If we can get the 6" drill and supplies for same for a reasonable consideration, I think you had better arrange to do so, and give the outfit a thorough trial. It may be , it will not work any better than the smaller drill, and if the trial shows this, we can return the large drill to the owner and continue with the smaller outfit, we now have.

I am afraid you will have difficulty in penetrating loose boulder formation with any kind of an outfit, but think that an occasional light shot of dynamite willhelp you out.

I expect to pass through Ritzville some time this week and would like to meet you for further discussion as to soundings. Will wire you definitely later.

Yours truly,

Bridge Engineer.

B

Cy. W. L. D.

3127

Saint Paul, Aug. 13, 1910.

Mr. Howard Elliott,

President.

see m file 3104

Dear Sir:

The attached small scale blueprint shows three proposed lines entering Ellensburg from the East on the Ritzville-Ellensburg cut-off. Right of way maps have been furnished Mr. Cooper from Ritzville West to this point. The difficulty with this location is in the crossing of the Saint Paul road. I have run the three lines necessary to determine the proper location.

Line A, grade crossing,	$58,780.00
Line A, overhead crossing,	256,400.00
Line B, overhead crossing,	100,590.00
Line C, overhead crossing,	151,800.00

Line B is the more economical line but has some bad curvature.

Line A with grade crossing would cost about $42,000.000 less, but this Company has always assumed the position with the Saint Paul Company that crossing for a

main line should be separated providing it does not cost to exceed $100,000.00.

Yours truly,

Encl. Chief Engineer.

COPY.

Form 290 TW

Northern Pacific Railway Company

3127

Ritzville, Wash, August 7th, 1910.

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of Sounding the Columbia River at Sand Hollow and Revision near mouth of Sand Hollow;

We have put down four holes at Station 1647-50, striking boulders or rock at about four feet below the river bed, in each case. Staples is trying another hole and will get a sample of the rock.. We drilled in one hole 5 1/2 hours and made but about 2" in depth so that I would say that it practically impossible to drill rock with this drill. The bed rock is of basaltic formation and when we strike basalt we can be sure that it is either the bed rock or fragments of the bed rock immediately over it. The boulders are of a granite formation.

We have finished the sounding one mile above the crossing and a half mile below except for about 1000 feet between the cables where it would be dangerous to handle a boat account of the swift current. This portion of the work should be left until the cables are taken out.

Line revisions near mouth of Sand Hollow completed except for cross sections of work along the cliffs account of estimate.

Yours truly,

M. W. Haulund

Asst. Engineer.

Copy to Mr. Stevens.

Form 290

3127

Northern Pacific Railway Company.

St Paul Minn 8/9 10

Mr L. L. Darling Chief Engr
St Paul Minn

OFFICE OF CHIEF ENGINEER AUG 9 1910 NOR. PAC. RY. ST. PAUL, MINN.

Dear Sir.

Herewith R & B Ry map of Amended Definite Location, Ritzville Ellensburg Cut Off. Sta 1005+00 & 1769+08

Yours truly
M B Stoner C.E.

Rec'd Mar filed — #203-21 J.M.S. J.M.

Jms for record MBS 8/10

Form 290

3127

Northern Pacific Railway Company.

St Paul Minn 8/12 '10

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

Dear Sir.

Herewith file Amended Location Section 1 & Columbia River. By this revision the fill at the approach to the Columbia River has been increased 98800 yds

70° 15' Curvature and 766' distance has been cut out of original location.

Yours truly
H. B. Stone C.E.

Chf Engr.
For files & return
WHB 8/12

Rec'd Profile filed #1177-26 J.M.G. J.M.G.

3127

SJB-A

St. Paul, Minn.
August 8, 1910.

Mr. J. N. Pariseau:

Herewith copy of Mr. H. B. Stoner's letter of July 30 to Mr. Darling, with 2 boxes and chests enumerated. Please have checked up and file. Please give reference numbers of filing on the letter and return.

Yours truly,

S. J. Bratager.

JNP.
Was this done?
4/7 SJB.

SJB- The work was done as noted on attached correspondence
H.B.
4/6

Copy on file 3360

Ellensburg, Wash. 7-30-10.

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

Dear Sir:-

This date I am shipping to you at St. Paul six boxes and chests numbered and containing:

#1. All field notes and prel. survey. Glendive Helena cut off. Helena East. Misc. Hard copy profile — Empty. Field books in temp. file in drafting room.

2. Ritzville Ellensburg cut off- Hard copy profiles. — Empty. Maps filed as noted on attached letter

3. Field notes and maps, Elg. to Columbia River. — Empty.

4. Small m't. stationery chest-triangles and str. edges, etc. — Empty

5. Same but containing misc. stationery. — Empty

6. Standard size Stationery chest with maps, (Hard copy-Ritz. Elg. cut off.) stationery etc. — Office stationery only. Includes stationery from boxes 4 & 5

Yours truly,

S. B. Stoner.

Assistant Engineer.

Copy on file 3360

Form 290 TW

3127

Northern Pacific Railway Company

Ritzville, August 3rd, 1910.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Dear Sir:

Referring to my Requisition #84 June 20th, for monthly supplies for camp at Beverly, account Sounding Columbia River, Ritzville Ellensburg Cut-Off.

Beg to advise that these supplies have not been received to date and wish to know if requisition has been put through. We have already had to buy locally to keep this camp going.

Wish you would please advise when we can expect supplies as same are needed badly.

Yours truly,

M W Howland

MWH

Assistant Engineer.

Form 290 TW

Northern Pacific Railway Company

3127

OFFICE OF CHIEF ENGINEER AUG 5 1910 NOR. PAC. RY. ST. PAUL, MINN.

Ritzville, Wash, Aug. 1st, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of sounding the Columbia River at Sand Hollow and Revision at mouth of Sand Hollow:

The barge with drill mounted upon it was anchored out in tne river at Station 1647_ 50 on Tursday and we have put in the balance of the week endeavoring to tighten cables so as to hold the barge steady against the wind. The wind blows a gale the greater part of the time and at last report moved the barges back and forth about two feet. We have changed the stern line so as to pull down stream and think that this will take up the slack.

Have sounded the river for 1200 feet above the crossing this week and think that we can finish the soundings this comming week.

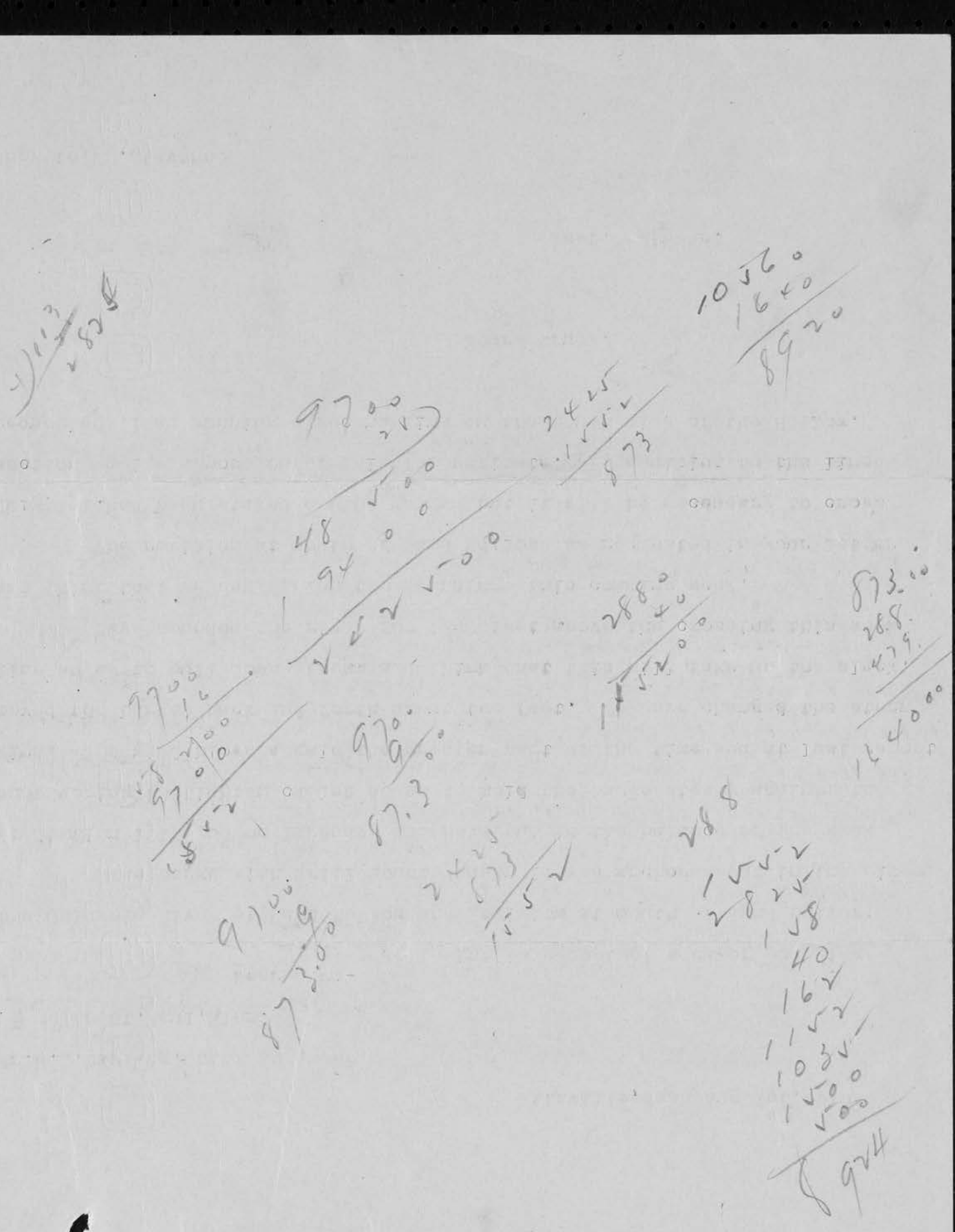
The revision at mouth of Sand Hollow as requested in your letter July 1st. has been staked on the ground but it will be necessary to cross section quite a portion of this for estimate. In addition to the lines requested, I am running a second line on the south side of the Hollow.

Yours truly,

M. W. Haviland

Asst. Engineer.

Copy to Mr. Stevens.



Form 290 TW

Northern Pacific Railway Company

3127

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

Ritzville, Wash, July 25th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of sounding the Columbia River at Sand Hollow.

We succeeded in stringing the three cables across the river Saturday and Sunday and do not anticipate any trouble in connecting the barge and moving the drill upon it today. Expect to be drilling sometime Tuesday.

Repairs have been received for the power boat and we started a mechanic at work on the boat Saturday. I think that we can get at the soundings Tuesday or Wednesday.

The preliminary work being practically out of the way, this work will go ahead rapidly.

Yours truly,

M. W. Howland,

Asst. Engineer.

Copy to Mr. Stevens.

Form 290 TW

3127

Northern Pacific Railway Company

Ritzville, Wash, July 23rd, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is report of work of sounding Columbia River at Sand Hollow and Line Revision near the mouth of Sand Hollow as requested in your letter July 1st.

The two line changes have been staked out on the ground and map and profile will be forwarded as soon as possible. I intend running out another line on the south of the Hollow and crossing at the mouth which I think will be an improvement on the line run.

We have had the barge at the crossing for a week but have been delayed most of the week account of breaking engine on power boat we were to use in stringing the cables. I sent out a quantity of small rope and we are trying to pull the cables across by hand and with teams. This method is slower than the other but as sure and it is all we can do until boat has been repaired.

Repairs for the boat were received today and as soon as it is in shape to use will go at the sounding again.

Yours truly,

M. W. Howland

Asst. Engineer.

Copy to Mr. Stevens.

3127

WLD R

St. Paul, July 1st, 1910..

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

Dear Sir:-

I hand you herewith statement made by Mr. Stoner showing comparative estimate between your located and projected lines from station 2290 to 2380. Your comparisons were not made on a basis that would be of use to us so I had Mr. Stoner revise them. Will you not please have this projected line run and let me have estimate of what the actual cost will be.

Yours truly,

Chief Engineer.

Encl.

Form 290 TW

Northern Pacific Railway Company

St. Paul, July 1st, 1910.

HBS-W

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

Dear Sir:

Herewith analysis of the three lines out of Ellensburg on the one percent line:

Direct line with grade or overhead crossing designated Line "A"; Line with overhead crossing and two curves near CM&PS designated Line "B"; Line with overhead crossing and one curve near CM&PS designated Line "C".

	Line "A" Gra.Crsg	Line"A" Ovhd Crsg	Line "B" Ovhd Crsg	Line "C" Ovhd Crsg
Cost Grading	$12175.00	$17245.00	$5820.00	$9195200
" R/W	3280.00	7660.00	4120.00	5300.00
Brgs & Culvts	~~3625.00~~	4254.00	4185.00	670600
Road Crossgs	160.00	3080.00	4160.00	16000
Interl. Plant	8000.00	------	------	-------
	$56,760.00	$256389.00	$10775.00	$15181800
Distance	25637'	25637'	26400'	26115.6
Curvature	98° 36'	98° 36'	202° 43'	139° 27'

Form 114 made up to use Line "A" grade crossing CM&PS.

Yours truly,

H. B. Stone

Assistant Engineer.

COMPARATIVE ESTIMATE BETWEEN HOWLAND'S LOCATED AND PROJECTED LINES - Stations 2290-2380

	Orig.Loc. 8 Curves	1st Proj. 6 curves	2nd Proj. with Steel Br:	2nd Proj. with Wooden Br:
Earth 300' haul	212.80	134.80	80.00	80.00
" 300'-1000'"	3494.00	5328.00	1200.00	1200.00
Hard Pan	9087.00	9060.00	9415.50	9415.50
Loose Rock	5528.00	2308.00	2168.00	2168.00
Solid Rock	55822.50	57960.00	55076.25	55076.25
Overhaul	192.70	1565.00	515.50	515.50
36" C.I.P.	1080.00	1080.00	-------	-------
24" "	423.00	423.00	-------	-------
Concrete	-------	-------	13200.00	-------
Right of Way	916.00	1019.20	785.20	785.20
Tunnel 50% lined	-------	21000.00	-------	-------
Viaduct Steel	-------	-------	56000.00	-------
Timber	1495.00	1495.00	-------	12196.90
Wrought Iron	36.00	36.00	-------	655.80
Cast Iron	15.00	15.00	-------	272.40
Trestle Pits	200.00	200.00	-------	1000.00
Freight on Br &	78502.00	101594.00	138440.45	83365.55
Culvert Material	720.00	1080.00	18392.00	3315.00
Total Cost	$79222.00	$102674.00	$156832.45	$86680.55

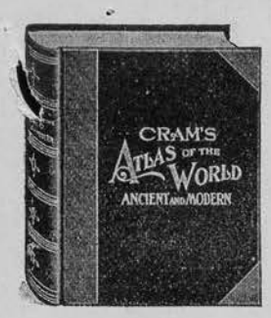
Saving in dist. & Curv over original location,	7032' Curv 50' dist	43 20' Curv 190' dist	43 20' Curv 190' Dist

H. B. Howland
Assistant Engineer

St. Paul, July 1st, 1910.

CHICAGO ESTABLISHED 1867 NEW YORK

3177



GEORGE F. CRAM

MAP AND ATLAS PUBLISHER

55 TO 61 MARKET STREET,

COMPILING - DRAFTING - ENGRAVING - PRINTING

CHICAGO, JUL 20 1910

W. L. Darling C. E.
Northern Pacific Ry.
St. Paul, Minn.

17,991

Dear Sir:

Enclosed herewith please find a clipping of our Washington map, on which kindly delineate the line of R. R building from Ellensburg to Ritzville, etc., and locate all stations thereon; state how many miles are now under construction, and how soon you expect to have same completed and in full operation.

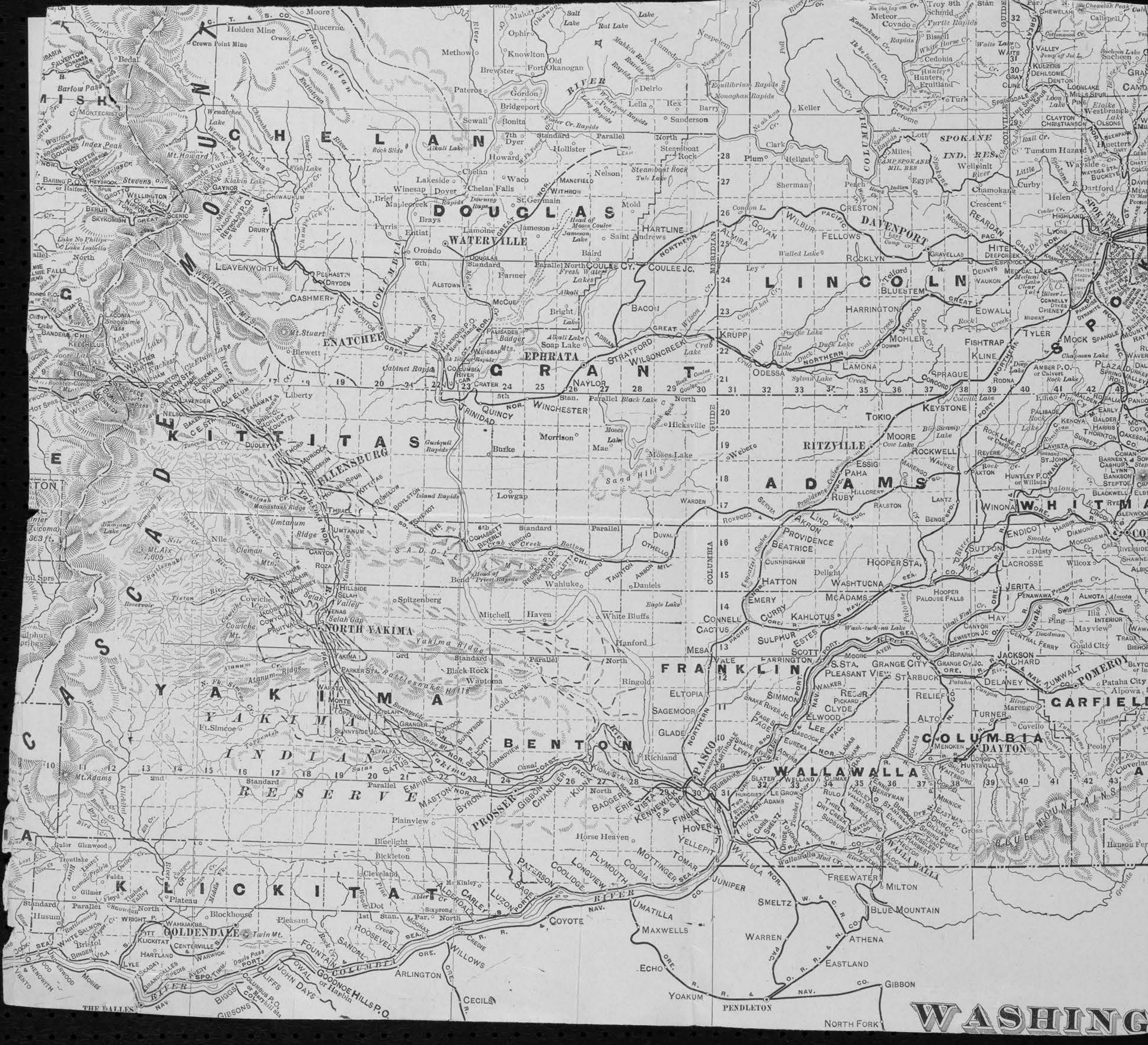
You can aid us to a great extent by sending the foregoing information, so that we may be able to show your road and its stations up to the best advantage on the maps of our ANCIENT AND MODERN ATLAS OF THE WORLD, and our NEW UNRIVALED ATLAS OF THE WORLD, published early next year.

If your road is not in such a condition at present as to warrant its being shown on our maps, let us know when to write you again, so that we can keep better posted and up-to-date in this department of our work.

An early and favorable response will greatly oblige,

Yours very truly,

Geo. F. Cram
12


WASHING
CHELAN
DOUGLAS
GRANT
LINCOLN
ADAMS
KITTITAS
YAKIMA
YAKIMA INDIAN RESERVE
BENTON
FRANKLIN
WALLAWALLA
COLUMBIA
GARFIELD
KLICKITAT
WHITMA
CASCADE MOUNTAINS
BLUE MOUNTAINS
SPOKANE IND. RES.
CAMP SPOKANE MIL. RES
WATERVILLE
EPHRATA
DAVENPORT
RITZVILLE
ELLENSBURG
NORTH YAKIMA
PROSSER
PASCO
DAYTON
POMEROY
GOLDENDALE
WALLA WALLA
PENDLETON
THE DALLES
LEAVENWORTH
CASHMERE
CHELAN
Chelan Falls
Lake Chelan
Wenatchee Lake
Mt.Stuart
Mt.Howard
Mt.Adams
Mt.Aix 7,605
Index Peak
Holden Mine
Crown Point Mine
Moses Lake
Soap Lake
Sand Hills
Yakima Ridge
Rattlesnake Hills
Horse Heaven
KENNEWICK
WALLULA
UMATILLA
MILTON
FREEWATER
ATHENA
BLUE MOUNTAIN
COLUMBIA RIVER
Snake River
Guide Meridian

No. 17991 Wash.

Name of Railway:

Northern Pacific.

From Ellensburg to Ritzville

" ~~to~~ Grandview to Gibbon m.

m.

Express.....

NOTE.

The information desired on the enclosed tracing or clipping of map, is the **Correct and Accurate** *location of above named line between the points named, that we may show same properly and up-to-date on all of our Pocket Indexed Maps, Wall Maps, and especially in our Standard Business and Railway System Atlas of the World.*

Form 1386

3177

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	CO'S FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER
19	Nop	Cn	Co	11/6 M.	W	M.			M.	

FROM Fargo N.D. TO Mr L Darling

DATED 7/20- AT Duluth

Your wire 19th - will go through to Duluth

6:40 pm

H. B. Stoner

Form 1339

NORTHERN PACIFIC

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

FROM Duluth,

DATED July 19th, 1910..

TO H B Stoner,
c/o No. 6
Fargo, N. D.

Come through to Duluth answer.

W L Darling.

COPY

NORTHERN PACIFIC — YELLOWSTONE PARK LINE

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	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
Eb	Mi	V		2 11a M.	18	M.			M.		

FROM Ellensburg TO W L Darling

DATED July 17 1910 AT Spane

Leaving for Spane on No 6 tonight

H B Stover

m Darling
You may want to
write her
meet you
Wed 7/18

N Bank
19th
6 o'clock

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

FROM July 17th 1910 TO H B Stoner

DATED AT Ellensburg

When you left StPaul you told me you could go out there and back quicker for material than you could send for it and it was understood you were to come to St Paul immediately Want you to come straight to St Paul bringing all notes and information you have at Ellensburg. Advise

W L Darling

FORM 1386 13 5-10 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
22	BY S	V	1248 AM	17 M.		M.			M.		

FROM Ellensburg July 16, 1910 TO W. L. Darling

DATED AT St Paul.

Your wire this date. zDid not understand that I was expected to return to St Paul have estimates profiles and reports ready on Montana work. Shall I mail them or take them to St Paul myself?

H. B. Stoner.

Form 1886

NORTHERN PACIFIC — YELLOWSTONE PARK LINE

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.

COPY

NUMBER	[illegible] FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				____M.		____M.			____M.		

FROM St. Paul, July 16th, 1910..

TO H B Stoner, Ellensburg.

When do you expect to be in St. Paul Understood you were to make quick trip.

W L Darling.

WLD R

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash, July 10th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of work of sounding the Columbia River at Sand Hollow Crossing.

I am sending you herewith a profile showing the results of borings to date. Samples of the material will be forwarded later.

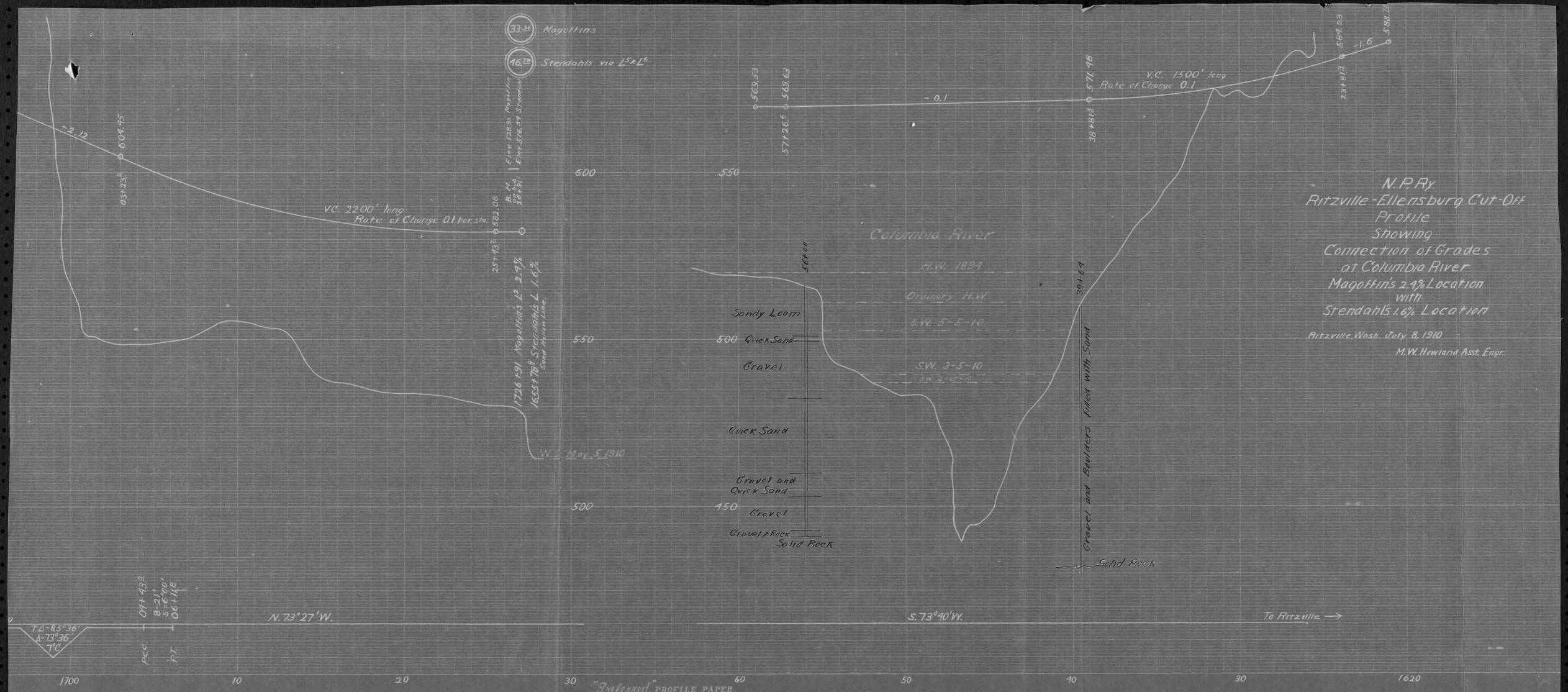
We got the barge free from the rocks Thursday evening and at last report Saturday noon were well on the way up river. I do not anticipate any further trouble in moving the barge as we are now past all the bad places and should have it in place the first of next week.

We are ready to take sounding of the river bottom for 1/2 mile below and 1 mile above the crossing as soon as transit arrives from your office.

Yours truly,

M. W. Howland

Asst. Engineer.



N.P.Ry.
Ritzville-Ellensburg Cut-Off
Profile
Showing
Connection of Grades
at Columbia River
Magoffin's 2.4% Location
with
Stendahl's 1.6% Location

Ritzville, Wash. July 8, 1910

M.W. Howland Asst. Engr.

"Preferred" PROFILE PAPER.
PLATE-A.

Form 290 TW

3127

Northern Pacific Railway Company

Ritzville, Wash., July 7th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Referring to your message inquiring as to arrangements made with the C.M.& P.S. for use of their barge in connection with sounding of the Columbia River at Sand Hollow. We have rented the barge at rate of $1.00 per day, beginning July 6th, and have use of same until the work is done.

Yours truly,

M. W. Howland

Asst. Engineer,

Copy to Mr. Stevens.

WLD R July 8th, 1910..

The King-Lawson Car Company,

1 Madison Avenue, New York.

Gentlemen:-

Referring to your letter of the 5th instant. The Ellensburg-Ritzville cut-off you refer to has not yet been authorized.

Yours truly,

Chief Engineer.

THOMAS LAWSON, PRESIDENT

HAROLD C. HANSEN, TREASURER

THE KING-LAWSON CAR COMPANY

METROPOLITAN TOWER
TWENTY EIGHTH FLOOR
1 MADISON AVENUE
NEW YORK

STANDARD GAUGE DUMP CARS
ALL STEEL CONSTRUSTION
OPERATED BY AIR
CAPACITIES UP TO 80.000 LBS.

3127

Mr. W. L. Darling,
Chief Engineer,
Northern Pacific Railway,
St. Paul, Minn.

July 5th, 1910.

Dear Sir:

We notice that the Ellensburg-Ritzville cut-off in the Columbia Valley on your line is being pushed rapidly and we would like to take up the question of your use of King-Lawson cars, which are particularly adapted to expeditious and economic work of this nature.

The writer would be glad to take this question up with you personally, and to figure on any proposition looking toward the use of King-Lawson cars, which are now exclusively employed in this section and have only recently been ordered by the New York Central lines.

Hoping to hear from you on the subject, we are

Yours very truly,

KING-LAWSON CAR COMPANY,

Howard W. Dibble

Vice-President & Sales Mgr..

HB-H

V

Form 290 TW

Northern Pacific Railway Company

3127

Ritzville, Wash., July 4th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Following is a report of the work of sounding the Columbia River at Sand Hollow Crossing.

Drill hole on the west bank of the river down 59 feet Thursday evening. Several different layers of sand have been encountered, varrying from 2 to 7 feet in thickness . The sand has been discribed to me as quick sand but I have not received samples as yet and will report again later.

We have been having trouble with the barge and at last report , July 1st, it was hung up on rather aground in shallow water along shore. I am going out to Beverly in the morning and make arrangements so that the work need not be delayed account of it.

Have started a small party running out base lines for sounding the river above and below the crossing and they will be ready to begin sounding the first of the week.

Yours truly,

M. W. Haviland

Copy to Mr. Stevens

Asst. Engineer.

17.

Form 290 TW

3127

Northern Pacific Railway Company

St Paul 7/1

Mr H L Darling Chief Engr
St Paul

Dear Sir.

Herewith following profiles and map for your record.

#203-17 400 map Chestnut to Summit L^E 15' Line
#203-20 " " " " " L^E 10' "
#177-24 Profile L^E Line
#177-25 " L^E " taking out one curve near Chisholm

Yours truly
H B Scover Ch E

R. Ch. E. Filed 7/1

Jnp
For record & future reference
W P S
7/1

11-5-07 Form 212

NORTHERN PACIFIC RAILWAY COMPANY.

CONSTRUCTION

From Ellensburg to Kittitas Branch Cornell Mathews 82 34 sec

File ..... 190 ..... Month 190

		This Month	Total to Date
	ENGINEERING.		
1 A	Salaries and Wages		183558.77
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		116550.00
3	Real Estate		
	ROADWAY.		
4 A	Clearing and Grubbing		3565.00
4 B	Grading		1417813.75
4 C	Protection of Banks		
5	Tunnels		
6 A	Steel Bridges		402868.00
6 B	Wooden Bridges		145253.50
6 C	~~Masonry and Concrete Substructures~~		
6 D	~~Masonry and Concrete Bridges and~~ Culverts		
6 E	Other Culverts		11807.00
	TRACK.		
7	Ties		101099.16
8	Rails		393824.00
9	Frogs and Switches		5180.00
10	Track Fastenings and other Material		92840.68
11	Ballast		121083.60
12	Track Laying and Surfacing		82684.95
13	Roadway Tools		
	STRUCTURES		
14	Fencing Right of Way		28822.50
15	Crossings and Signs		2887.61
16	Interlocking and other Signal Apparatus		8000.00
17	Telegraph and Telephone Lines		18536.50
18	Station Buildings and Fixtures		5505.00
19	General Office Buildings and Fixtures		
20	Shops, Enginehouses and Turntables		9100.00
21	Shop Machinery and Tools		
22	Water Stations		36500.00
23	Fuel Stations		5000.00
24	Grain Elevators		
25	Storage Warehouses		
26	Dock and Wharf Property		
31	Miscellaneous Structures Section Houses - Tool Houses		7400.00
	Stock Yards		1000.00
	MISCELLANEOUS.		
32	Transportation of Men and Material		653854.85
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		46814843847347 17
	APPROPRIATION		
	BALANCE		

St. Paul, Minn. 190

(X)

Auditor Disbursements

Form 114 2-09 500 StP

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.

Roadbed 18' Rock Cuts 1/4:1 slope
24' Earth Cuts 1:1 "
18' All Fills 1½:1 "

Estimate of cost of line From Ellensburg M P 126 to Jct Kly Branch for Rock Creek & Northern

Length: Main Track 82.34 *miles; Siding, etc.* 9.39 *miles; Total* 91.73 *miles,*

Based upon 1% Max E. Bound. Grade Xing CM&StP 2.4% W " from Columbia *made* June 30 1910, *by* H L Darling Chf Engr

Engineer, under direction of H L Darling Chief Engr

ITEM	QUANTITIES		@	AMOUNT	TOTAL
3. RIGHT OF WAY AND STATION GROUNDS.					
Right of Way—Agricultural Lands East of Columbia	690	acres	45	3105000	
" " Irrigable " West "	210	acres	300	6300000	
" " ~~Mining Claims~~ Non Irrigable " " "	250	acres	30	460000	
~~Station Grounds~~ Terminal Grounds at		acres			
Damages to property				1500000	11655000
Salaries and expenses					
4. REAL ESTATE.					
		acres			
		acres			
5. CLEARING AND GRUBBING.					
Clearing, light Sage Brush	303	acres	$5	151500	
Clearing, ~~heavy~~ Orchards & Brush	50	acres	20	100000	
Grubbing Light	35	~~stations~~ "	30	105000	356500
Cutting down overhanging trees		trees			
6. GRADING.					
Solid rock	135061.6	cu. yds.	75¢	10129620	
Loose rock	8754.0	cu. yds.	40¢	350160	
Shot Rock	1500.0	cu. yds.	30¢	450.00	
Hard Pan	45245.0	cu. yds.	30¢	13573500	
Earth Less 300' haul	50270.0	cu. yds.	16¢	8043.20	
~~Borrow pits~~ Earth 300' to 1000' haul	50035.0	cu. yds.	20¢	10007.00	
Extra haul	468487.5	cu. yds.	01¢	4684.87.5	
Train service (widening cuts, banks, etc.)		days			
Rent of equipment		days			
Riprap	1800	cu. yds.	1.25	2250.00	1417813.75
Slope wall	1500	cu. yds.			
Retaining wall		cu. yds.			
		Carried Forward,			1537928.75

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			1537928.75
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.)				
1 spans, 350 feet, Steel truss.				
5 spans, 250 feet, " truss,				
3 spans, 100 feet, D.P.G. truss,	Total 2955 Tons	60.00	177300.00	
Wrought Iron in truss	lbs.			
Cast Iron in truss	lbs.			
~~Timber in truss~~ Decking	1900 ft. B. M. lin. ft.	2.00	380000	
Framing and erection	2955 Tons ~~lin. ft.~~	20.00	5910000	
Painting	2955 "	1.50	443200	
Falsework				
Concrete in abutments and piers	9600 cu. yds.	10.00	9600000	
~~Masonry in abutments and piers~~ Concrete piles	1500 lin ft cu. yds.	2.00	300000	
~~Timber in abutments and piers~~ Exc for abutments & piers. Dry	900 ~~ft. B. M.~~ cu yds	1.00	90000	
Excavation for abutments and piers Wet	1100 cu. yds.	6.00	660000	
Abutment and pier filling Caisson Sunk below low water	62400 cu. ~~ft.~~ yds.	14¢	873600	
Wrought Iron in abutments and piers Air Plant and equipment	lbs.		3500000	
Cast Iron in abutments and piers Protection Work	lbs.		800000	40286800
Piles, hardwood, in place	lin. ft.			
Piles, softwood, in place	28800 lin. ft.	30¢	864000	
Timber in pile and trestle bridges	3946000 ft. B. M.	23.00	907580.00	
Wrought Iron in pile and trestle bridges	172640 lbs.	3¢	5179.20	
Cast Iron in pile and trestle bridges	68170 lbs.	3¢	204510	
Iron guard rails for high trestles Galv Iron	28140 gro. tons	3¢	84420	
Fastenings for guard rails Hauling Bo Timber	7830 M per Mos.	60¢	469800	
Timber in culverts " Piling	364500 ft. B. M. Lin ft Mile	01¢	36450.00	
~~Log culverts~~ Vitrified Pipe	4250 lin. ft. ~~log~~	2.00	850000	
Cast Iron pipe culverts	772 gro. tons	30.00	2316000	
Masonry culverts Hauling Pipe	19182 ~~cu. yds.~~ ton mi	50¢	95991.00	15706050
	Carried Forward,			20997857.25

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				2097857.25
Blind drains		cu. yds.			
Train service		days			
Inspection and incidentals					
Contingencies					
9. **TIES.**					
9173 miles × ~~2,700~~ 2880 ties per mile =	264082	ties	38¢	99351 16	
sets switch ties	46	set	38.00	1748 00	101099.16
Inspection and incidentals					
10. **RAILS.**					
8234 miles, ~~56~~ 90 lb. × 88 gro. tons per mile	11643	gro. tons	30.00	349290 00	
miles, 66 lb. × 104 gro. tons per mile		gro. tons			
939 miles, 72 lb. × 113 gro. tons per mile	1061	gro. tons	30.00	31830 00	
Inspection, handling, etc.	12704		1.00	12704 00	393824.00
11. **TRACK FASTENINGS.** (200 lb. kegs.)					
Track spikes 9173 miles × 40 kegs =	3669	kegs	3.80	13942.20	
Track bolts 9173 miles × 1500 =	562	kegs	4.50	2529 00	
Angle bars, ~~56~~ lb. 8234 miles × ~~48~~ 712 bars × ~~97~~ 96 lbs. each	142286	lbs.	1.60	22765.38	
Angle bars, 66 lb. miles × 712 bars × 17 lbs. each		lbs.			
Angle bars, 72 lb. 939 miles × 712 bars × 18 lbs. each	120340	lbs.	1.60	1925.44	
Rail braces For Switches	1500	braces	15¢	225.00	
Track spikes for braces—1 keg to 160 braces	9	kegs	4.50	40.50	
Tie plates 8234	428428	each	12¢	51412.56	92840.08
12. **FROGS AND SWITCHES.**					
Split switches, complete with frogs 90"	27	sets	125	3375 00	
Stub switches, complete with frogs 72"	19	sets	95	1805 00	5180.00
Railroad crossings, (including timbers)		crossings			
13. **TRACK LAYING AND SURFACING.**					
Track laying	9173	miles		27519.00	
Rent of equipment	9173	days		18346.00	
Train service (½ mile track per day)	9173	days		30729.55	
Track surfacing		miles			
Track tools (sections 5 to 7 miles long each)	46 Sets	sections		1150.00	
Track inspection and incidentals See Plating	8234			4940.40	82684.95
Contingencies					
	Carried Forward,				2773485.44

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				2773485 44
14. **BALLAST.**					
9173 miles × 2000 1,500 cu. yds. =	183460	cu. yds.	30¢	55038 00	
Train service miles × 5 days per mile =	183460	days	20¢	36692 00	
Rent of equipment	183460	days	10¢	18346 00	
Contingencies	10%			1100760	12108360
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	3		1600	480000	
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	3		3500	10500	
Furniture and fixtures	3	stations	2000	60000	550500
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 2 stalls S. 32-30	900		per stall 1800	180000	
Ash pit 100' S. 32-35			2500	250000	
Turntables, iron—64 ft. diameter	1		4800	480000	910000
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,				2909174 04

ITEM		QUANTITIES	@	AMOUNT	TOTAL
		Brought Forward,			2909174 04
18. SHOP MACHINERY AND TOOLS.					
19. WATER STATIONS.					
Water tanks	S. 37-3	5	3200	160000	
Pump houses with pumps and boilers	S. 37-1	5	1600	80000	
Wells (generally 16 ft. diam. and curbed)		5	2500	125000	3650000
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	500000	500000
2d class coaling station	S. 36-5				
Coal platform—16′x 80′	S. 36-9				
21. FENCING RIGHT OF WAY.					
Fencing—against stock—164 7 miles of fence			175	2882250	28822.50
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		5	200.00	1000.00	1000.00
24. CROSSINGS, CATTLE GUARDS AND SIGNS.					
Cattle guards		62 guards	15.00	93000	
Road Crossings		46 crossings	10.00	46000	
Signs, posts, etc.		82 34/100 miles	15.00	123500	
				26251	288761
		Carried Forward,			2983384.15

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			2983384.15
25. INTERLOCKING OR SIGNAL APPARATUS.	1		800000	800000
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 8 S. 39-6		850	680000	
Double tool houses S. 39-8				
Single tool houses 8 S. 39-8		500	40000	
Section house privies 8 M. 41-1		2500	20000	740000
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.				
82 34 miles	82 34 miles	225	1853650	18536.50
31. TRANSPORTATION CHARGES.				
Steel rails 12704 gro tons = 13593 28 net tons		1700	231085.76	
Track spikes 3400 kegs = 340 net tons		1900	646000	
Track bolts 562 kegs = 56 2 net tons		1900	106780	
Angle bars 1422836 lbs. = 712 net tons		1900	14668.00	
Rail braces and Tie plates 1450 net tons		1900	27500.00	
Frogs and switches 46 sets = 92 net tons		1900	1758.00	
Bridge iron 6178950 lbs. = 3089 50 net tons		121	74765.30	
Cast Iron Pipe 772 " "		994	15285.60	
Vit Pipe 387 " "		948	12748.80	
Equipment Columbia River Bx	~~Carried Forward.~~		3500000	4148652.6
	Carried Fd			3432185.91

Freight Charges

Cement	10800	V
Sand	3610	V
Pebbles	1710	V
Steel	71511	V
Equipment	35000	V
	122631	

Engineering - 20143

STRUCTURE

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			3432185 91
Water stations 5 × 30 tons each = ~~232~~ 46.0 5' net tons	465000#	19¢	106020	
Telegraph material net tons	2636200	19¢	500878	
Building material and miscellaneous net tons	559300	19¢	106267	
Wire	257000	1 20	321250	
Cement	4492400	25 19¢	1123100	
~~Total~~ Piling tons × miles	2016000	19¢	383000	
Br. timber Tunnel Timber, False Work ~~Lumber~~	9111960	17¢	15490.71	
264087 cross ties = tons × miles 46 3 Sills Stulls	48086760	17¢	8174749	
engine coal = tons × miles				
Freight on contractor's plant Miscellaneous freight charges Northern Pacific express charges Transportation of laborers and others	2908656 miles	3d 04	116346.24	23898959
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,	36711754 0
Engineering expenses, add 5 2 per cent of above total (generally about 5 per cent)				1835587 7
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				38547341 7
Per mile of main track				46814 84

.....

.....

.....190

.....Engineer.

Form 290 TW

Northern Pacific Railway Company

Mandan, N. Dak., June 30, 1910

Mr. W. L. Darling,

Chief Engineer,

St. Paul, Minn.

Dear Sir :

I am in receipt of Armour & Co's invoice of May 27th, amount $51.58 covering shipment of meats to S. S. Magoffin at Winston, Montana. As this evidently was sent to me in error, I have forwarded to Mr. Magoffin. Kindly change your records accordingly.

Yours truly,

T. E. Shean

ADM T

Assistant Engineer

Please do right

Above done 7/1/10

Form 290 TW

3127

Northern Pacific Railway Company

St Paul 6/29 10

Mr H L Darling Chf Engr
St Paul

Dear Sir -

Herewith following maps and profiles for your records

Tracing Whisky Dick Location #203-14 ✓ Mayers Line NP 17 E 25
" " " " #203-14 ✓ Kinney " NP 25 E 35
Profile " " " #477-22 ✓ Mayers Line (hard copy)
" " " " #477-22 ✓ Kinneys line

Tracing Beverly Location #203-15 ✓
Profile " " #477-23 ✓

Yours Truly
H B Stone C E

Filed as noted above
6/30

10-8-07 2M E R

Form 212

NORTHERN PACIFIC RAILWAY COMPANY

CONSTRUCTION

Rt. Ellensburg Cut Off From Ellensburg to West End Bridge Columbia R.
Over 1.6% & 2.4% Lines File Length 33.36 Miles 190

		This Month	Total to Date
	ENGINEERING.		
1 A	Salaries and Wages	3340.91	111452.86
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	1691 55	56430.00
3	Real Estate		
	ROADWAY.		
4 A	Clearing and Grubbing	450	
4 B	Grading	114306.50	36223.51 1208416.50
4 C	Protection of Banks		
5	Tunnels	64360.00	
6 A	Steel Bridges		
6 B	Wooden Bridges		
6 C	Masonry and Concrete Substructures	7867 16	262448.45
6 D	Masonry and Concrete Bridges and Culverts		
6 E	Other Culverts		
	TRACK.		
7	Ties		
8	Rails		
9	Frogs and Switches		
10	Track Fastenings and other Material	11250.02	375300.67
11	Ballast		
12	Track Laying and Surfacing		
13	Roadway Tools		
	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	General Office Buildings and Fixtures		
20	Shops, Enginehouses and Turntables	1620.08	54045.90
21	Shop Machinery and Tools		
22	Water Stations		
23	Fuel Stations		
24	Grain Elevators		
25	Storage Warehouses		
26	Dock and Wharf Property		
31	Miscellaneous Structures		
	MISCELLANEOUS.		
32	Transportation of Men and Material	8165.27	272415.84
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	70159.18	2340510.08
	APPROPRIATION		
	BALANCE		

St. Paul, Minn. 190

Auditor Disbursements.

Form 114 5-05 500 StP

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.

Estimate of cost of line From Ellensburg over 16 & 24 locations to Columbia River to _____

Length: Main Track 33.26 miles; Siding, etc., 2.84 miles; Total 36.2 miles,

Based upon _____ made May 19 1900, by N B Stones A.E.

_____ Engineer, under direction of W L Darling Chief Engr

ITEM	QUANTITIES		@	AMOUNT	TOTAL
3. RIGHT OF WAY AND STATION GROUNDS.					
Right of Way—Agricultural Lands Irrigable	114	acres	300	34200 00	
" " —~~Mining Claims~~ Non "	170	acres	30	5100 00	
Station Grounds	20	acres	100	2000 00	
Terminal Grounds at		acres			
Damages to property				10000.00	
Salaries and expenses Ry Cap't 10%				5130 00	56430.00
4. REAL ESTATE.					
		acres			
5. CLEARING AND GRUBBING.					
Clearing, light Orchards and brush	30	acres	15	450 00	450 00
Clearing, heavy		acres			
Grubbing		stations			
Cutting down overhanging trees		trees			
6. GRADING.					
Solid rock	1,042,000	cu. yds.	.85	885700 00	
Loose rock	135,350	cu. yds.	.40	54140.00	
	39,800	cu. yds.	.35	13930 00	
	50,070	cu. yds.	.55	27538.50	
Earth 300' or less	160,380	cu. yds.	.18	28868 40	
~~Earth~~ Borrow pits 300' to 1000'	344180	cu. yds.	.22	86719.60	
Extra haul	4,621,000	cu. yds.	.01	46210.00	
Train service (widening cuts, banks, etc.)		days			
Rent of equipment		days			
Riprap	2000	cu. yds.	1.25	2500 00	1143606 50
Slope wall		cu. yds.			
Retaining wall		cu. yds.			
		Carried Forward,			1200486.50

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				12,04486.50
Wing dams, cribbing, etc					
Contingencies					
7. **TUNNELS.**					
Excavation	1000	lin. ft.	55.00	5500000	
Extra excavation	2144	cu. yds.	2.50	536000	
Timber lining	160,000	ft. B. M.	25.00	400000	6436000
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 Viaduct Steel	2078 Tons		60.00	12468000	
Cast Iron in truss		lbs.			
Timber in truss		ft. B. M.			
Framing and erection		lin. ft.			
Painting					
Falsework					
Concrete in abutments and piers	2336	cu. yds.	10.00	2336000	
Masonry in abutments and piers		cu. yds.			
Timber in abutments and piers		ft. B. M.			
Excavation for abutments and pedestals	2000	cu. yds.	60¢	120000	
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	7800	lin. ft.	24¢	187200	
Timber in pile and trestle bridges	3,137,500	ft. B. M.	25.00	7843750	
Wrought Iron in pile and trestle bridges	160000	lbs.	3¢	480000	
Cast Iron in pile and trestle bridges		lbs.			
Iron guard rails for high trestles		gro. tons.			
Fastenings for guard rails Gal Iron	35000	lbs.	3¢	105000	
Timber in culverts		ft. B. M.			
Log culverts		lin. ft. log			
Cast Iron pipe culverts	53	gro. tons	30.00	159000	
Masonry culverts Washington sec	3200	cu. yds.	.50	160000	2385850
	Carried Forward,				15034360

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,			2385890	1503436
Blind drains		cu. yds.			
Train service		days			
Inspection and incidentals					2385890
Contingencies 10%					
9. TIES.					
36 miles×2,700 ties per mile=	97740	ties	40¢	3909600	
16 sets switch ties		set	38.00	60800	
Inspection and incidentals					
10. RAILS.					
33 miles, 90 lb.× ~~88~~ gro. tons per mile	4718	gro. tons	30.00	141540 00	
miles, 66 lb.×104 gro. tons per mile		gro. tons			
miles, 72 lb.×113 gro. tons per mile	321	gro. tons	25.00	8025 00	
Inspection, handling, etc.					
11. TRACK FASTENINGS. (200 lb. kegs.)					
Track spikes, 36 miles×33 kegs=	1195	kegs	38.00	45410 0	
Track bolts 36 miles×1500=	315	kegs	4.50	1417 50	
Angle bars, ~~66~~ 80 lb. 33 miles×712 bars×16 lbs. each.	576450	lbs.	1.60	92242 0	
Angle bars, 66 lb. miles×712 bars×17 lbs. each.		lbs.			
Angle bars, 72 lb. 28 miles×712 bars×18 lbs. each.	36216	lbs.	1.60	57945 60	
Rail braces	8000	braces	15¢	1200 00	
Track spikes for braces—1 keg to 160 braces		kegs			
Tie plates		each			
12. FROGS AND SWITCHES.					
Split switches, complete with frogs	11 / 5	sets	125.00 / 95.00	1375 00 / 475 00	
Stub switches, complete with frogs		sets			
Railroad crossings, (including timbers)		crossings			
13. TRACK LAYING AND SURFACING.					
Track laying	36	mfiles	300	10860 00	
Rent of equipment	do	days	200	7240 00	
Train service (½ mile track per day)	do	days	250	9050 00	
Track surfacing	do	miles	250	9050 00	
Track tools ~~(sections 5 to 7 miles long each)~~ Tie plating	33	sections	50	1668 00	
Track inspection and incidentals Placing 16 sections	16		25	400 00	
Contingencies 10%				30371 53	334086,83 / 1868381.78

Carried Forward,

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				18613878
14. BALLAST.					
36.2 miles×1,500 cu. yds.=	54300	cu. yds.	32	17376 00	
Train service miles×5 days per mile=	do	days	21	11403 00	
Rent of equipment	do	days	13	7059 00	
Trans. Laborers and ballast	do		03	1629 00	
Contingencies 10%				3746.70	41213.70
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	2		1600	3200 00	
3d class combination (2 story) depots S.26-14					
4th class combination depots S. 26-31					
1st class freight depots S. 27-1					
2nd 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	2		35	70 00	
Furniture and fixtures	2	stations	200	400 00	
Wells at stations		wells			
Track scales					
Contingencies 10%				36700	403700
16. ENGINE HOUSES AND TURNTABLES.					
1st class round house, brick, stalls S. 32-1		per stall			
Frame engine house 4 stalls S. 32-30		per stall	900	360000	
Ash pit S. 32-35					
Turntables, iron— ft. diameter					
Turntables, combination—64' ft. diameter			4800	480000	840000
17. ENGINE AND CAR SHOPS.					
Blacksmith shop M. 41-5					
Repair shop					
Brick sand and oil houses M. 41-6					
Frame sand house M. 41-7					
	Carried Forward,				19150248

ITEM		QUANTITIES		@	AMOUNT	TOTAL
		Brought Forward,				19150[illegible]248
18. SHOP MACHINERY AND TOOLS.						
19. WATER STATIONS.						
Water tanks	S. 37-3	3		3200	960000	
Pump houses with pumps and boilers	S. 37-1	3		1600	480000	
Well (generally 16 ft. diam. and curbed)		3		1800	540000	
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					
Coal platform—16'x80'	S. 36-9					
21. FENCING RIGHT OF WAY.						
Fencing—against stock—66.7 miles of fence				175.00	1167250	
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						
24. CROSSINGS, CATTLE GUARDS AND SIGNS.						
Cattle guards		14	guards	15.00	21000	
Road Crossings		7	crossings	10.00	7000	
Signs, posts, etc.		33.36	miles	15.00	50040	3225290
		Carried Forward,				19[illegible]28538

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			194728538
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	2	850	170000	✓
Double tool houses S. 39-8				✓
Single tool houses S. 39-8	2	50	10000	
Section house privies M. 41-1	2	25	5000	✓
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.				
33 36/100 miles	miles	225	7506 00	9356.00 ✓
31. TRANSPORTATION CHARGES.				
Steel rails 4718 gro. tons = 5284 net tons		$19.00	10039600	✓
Track spikes kegs = 119½ net tons		19.00	227050	✓
Track bolts kegs = 16 net tons		19.00	30400	✓
Angle bars lbs. = 188 net tons		19.00	357200	✓
Rail braces lbs. = 20 net tons		19.00	38000	✓
Frogs and switches sets = 32 net tons		19.00	60800	✓
Bridge iron lbs. = 80 net tons	1600 Cwt	1.14	182400	✓
C.I.P. 644	12880 Cwt	.99	1275120	18088410
Viaduct Steel 2078	51560 Cwt	1.14	5877840	213752598
	Carried Forward,			21 [illegible] 42.18

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			21375548
Water stations 3 × ~~47~~ 50 tons each = 141 net tons	282000	14¢	39480	
Telegraph material net tons	924600	14¢	129444	
Building material and miscellaneous net tons	180000	14¢	25200	
Cement	257000	17¢	43690	
Wire	67000	1¹⁹	79730	
Total to tons × miles				
ft. timber = tons × miles	9412500#	14¢	1317750	
cross ties = tons × miles	14661000#	14¢	2052540	
engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges				
Transportation of laborers and others 1821780	miles	3¢	5465340	

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 — 9153174

TOTAL, 22290722

Engineering expenses, add 5 per cent of above total (generally about 5 per cent) — 1114536

Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)

Total estimated cost — 2340519.08

Per mile of main track — 7015.17

Ellensburg Wash.
May 19 1900

H B Stone
Chief Engineer.

10-8-07 2M E R

Form 212

NORTHERN PACIFIC RAILWAY COMPANY.

CONSTRUCTION

Ritzville-Ellensburg Cut off from Ellensburg to Columbia R.
Over 0.80 % 2.40 Lines ~~Mile~~ 40 26 Miles 190 Month 190

		Per Mile ~~This Month~~	Total to Date
	ENGINEERING.		
1 A	Salaries and Wages		
1 B	General Expenses		
1 C	Subsistence of Men and Animals	2795.75	112567.13
1 D	Animals, Vehicles, Field Equipment and Guides		
	LAND.		
2	Right of Way and Station Grounds	1639.34	66000.00
3	Real Estate		
	ROADWAY.		
4 A	Clearing and Grubbing		
4 B	Grading		
4 C	Protection of Banks		
5	Tunnels		
6 A	Steel Bridges	36058.73	1451224.68
6 B	Wooden Bridges		
6 C	Masonry and Concrete Substructures		
6 D	Masonry and Concrete Bridges and Culverts		
6 E	Other Culverts		
	TRACK.		
7	Ties		
8	Rails		
9	Frogs and Switches		
10	Track Fastenings and other Material		
11	Ballast	10104.04	406788.57
12	Track Laying and Surfacing		
13	Roadway Tools		
	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	General Office Buildings and Fixtures		
20	Shops, Enginehouses and Turntables		
21	Shop Machinery and Tools	1209.95	48712.80
22	Water Stations		
23	Fuel Stations		
24	Grain Elevators		
25	Storage Warehouses		
26	Dock and Wharf Property		
31	Miscellaneous Structures		
	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	6908.01	278116.61
43	Law Expenses		
44	Stationery and Printing		
45	Insurance		
46	Taxes		
47	Interest and Commissions		
48	Other Expenditures		
	TOTAL EXPENDED	58715.82	2363909.79
	APPROPRIATION		
	BALANCE		

St. Paul, Minn. 190

Auditor Disbursements

Form 114 5-05 500 StP

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.

Estimate of cost of line From Connection with Main Line 5 Miles West of Ellensburg Wash to Columbia River

Length: Main Track 40 26 miles; Siding, etc., 3 41 miles; Total 43 67 miles,

Based upon 080 E. bound - 240 W bound made May 20 1910, by H. B. Stoner, A.E.

Engineer, under direction of W. L. Darling Ch. Engr.

ITEM	QUANTITIES		@	AMOUNT	TOTAL
3. RIGHT OF WAY AND STATION GROUNDS.					
Right of Way—Agricultural Lands Irrigable	112	acres	300	3360000	
" " ~~Mining Claims~~ Non "	280	acres	30	840000	
Station Grounds	40	acres	75	300000	
Terminal Grounds at		acres			
Damages to property				1500000	
Salaries and expenses Ry. Agt. 10%				600000	6600000
4. REAL ESTATE.					
		acres			
		acres			
5. CLEARING AND GRUBBING.					
Clearing, light Orchards & Brush	50	acres	20	100000	
Clearing, heavy		acres			
Grubbing Light	40	stations	30	120000	
Cutting down overhanging trees		trees			2200 00
6. GRADING.					
Solid rock	1087326	cu. yds.	85	92422710	
Loose rock	177538	cu. yds.	40	7101520	
Hard Pan	39800	cu. yds.	35	1393000	
Earth Less 300 ft haul -	69816	cu. yds.	18	1256688	
Earth hauled 300' to 1000'	145855	cu. yds.	22	3208810	
Borrow pits	312982	cu. yds.	25	7824550	
Extra haul	4454240	cu. yds.	01	4454240	
Train service (widening cuts, banks, etc.) Solid Rock Borrow	39544	days	55	2174920	
Rent of equipment		days			
Riprap	2000	cu. yds.	1 25	250000	12006438
Slope wall		cu. yds.			
Retaining wall		cu. yds.			
	Carried Forward,				12690438

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			12690638
Wing dams, cribbing, etc				
Contingencies				
7. **TUNNELS.**				
Excavation	lin. ft.			
Extra excavation	1000 cu. yds.	55⁰⁰	5500000	
Timber lining	2000 ft. B. M.	2⁵⁰	500000	
Masonry lining	160000 cu. yds.	25⁰⁰	400000	6400000
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 Viaduct Steel	835 Tons ~~lbs.~~	60⁰⁰	5010000	
Cast Iron in truss	lbs.			
Timber in truss	ft. B. M.			
Framing and erection	lin. ft.			
Painting				
Falsework				
Concrete in abutments and piers	1488 cu. yds.	10⁰⁰	1488000	
Masonry in abutments and piers	cu. yds.			
Timber in abutments and piers	ft. B. M.			
Excavation for abutments and piers	2000 cu. yds.	60¢	120000	
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	480 lin. ft.	25¢	12000	
Timber in pile and trestle bridges	2522120 ft. B. M.	25⁰⁰ per 1000 F.B.M.	6305300	
Wrought Iron in pile and trestle bridges	100000 lbs.	3¢	300000	
Cast Iron in pile and trestle bridges	lbs.			
Iron guard rails for high trestles	gro. tons.			
Fastenings ~~for guard rails~~ Gal Iron	20000 lbs.	3¢	60000	
Timber in culverts	ft. B. M.			
Log culverts	lin. ft. log			
Cast Iron pipe culverts	1086 gro. tons	30⁰⁰	3255000	
Masonry culverts	4740 cu. yds.	50¢	237000	16787300
Hauling Ton Mi.	Carried Forward,			15009378

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				150093738
Blind drains		cu. yds.			
Train service		days			
Inspection and incidentals					
Contingencies 10%					1678730
9. TIES.					
43 67 miles × 2,700 ties per mile = 117900		ties	40¢	4716000	
18 sets switch ties		set	38.00	68400	
Inspection and incidentals					
10. RAILS.					
40 26 miles, ~~56~~ 90 lb. × ~~80~~ 141.4 gro. tons per mile	5693	gro. tons	30.00	17079000	
miles, 66 lb. × 104 gro. tons per mile		gro. tons			
3 41 miles, 72 lb. × 113 gro. tons per mile	385	gro. tons	25.00	962500	
Inspection, handling, etc.					
11. TRACK FASTENINGS. (200 lb. kegs.)					
Track spikes 43 67 miles × 33 kegs =	1441	kegs	38.0	547580	
Track bolts 43 67 miles × 1500 =	655	kegs	4.50	294750	
Angle bars, ~~56~~ 90 lb. 40 26 miles × ~~712~~ 640 bars × ~~16~~ 27 lbs. each.	695690	lbs.	1.60 cwt.	1113104	
Angle bars, 66 lb. miles × 712 bars × 17 lbs. each.		lbs.			
Angle bars, 72 lb. 3 41 miles × 712 bars × 18 lbs. each.	43700	lbs.	1.60	69920	
Rail braces	10500	braces	15¢	157500	
Track spikes for braces—1 keg to 160 braces	66	kegs	3.80	25080	
Tie plates 40 26	217400	each	12¢	2608800	
12. FROGS AND SWITCHES.					
Split switches, complete with frogs	13	sets	125.00	162500	
Stub switches, complete with frogs	5	sets	95.00	47500	
Railroad crossings, (including timbers)		crossings			
13. TRACK LAYING AND SURFACING.					
Track laying	4367	miles	300.00	1310100	
Rent of equipment	"	days	200.00	873400	
Train service (½ mile track per day)	"	days	250.00	1091750	
Track surfacing	"	miles	250.00	1091750	
~~Track tools (sections 5 to 7 miles long each)~~ Tie plating	40 26	sections	50.00	201300	
Track inspection and incidentals Placing tie pl.			25.00	40000	
Contingencies 10%				3246093	35707027
Carried Forward,					187479495

ITEM	QUANTITIES		@	AMOUNT	TOTAL
	Brought Forward,				1874794 95
14. **BALLAST.**					
43 67 miles × 1,500 cu. yds.=	65505	cu. yds.	32¢	2096160	
Train service miles × 5 days per mile=	11	days	21¢	1375605	
Rent of equipment	11	days	13¢	851565	
Trans. Laborers Acct. Ballast.	11		03¢	196515	
Contingencies 10%				451985	4971830
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					
3d class combination (2 story) depots S.26-14	3		1600	480000	
4th class combination depots S. 26-31					
1st class freight depots S. 27-1					
2nd 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	3		35⁰⁰	10500	
Furniture and fixtures	3	stations	200⁰⁰	60000	
Wells at stations		wells			
Track scales					
Contingencies 10%				55050	605550
16. **ENGINE HOUSES AND TURNTABLES.**					
1st class round house, brick, stalls S. 32-1		per stall			
Frame engine house 4 stalls S. 32-30	900	per stall	900	360000	
Ash pit S. 32-35					
Turntables, iron—64 4 ft. diameter			4800	480000	840000
Turntables, combination— ft. diameter					
17. **ENGINE AND CAR SHOPS.**					
Blacksmith shop M. 41-5					
Repair shop					
Brick sand and oil houses M. 41-6					
Frame sand house M. 41-7					
	Carried Forward,			1938968.75	1938968 75

ITEM		QUANTITIES		@	AMOUNT	TOTAL
		Brought Forward,				1938968 75
18. SHOP MACHINERY AND TOOLS.						
19. WATER STATIONS.						
Water tanks	S. 37-3	3		3200	960000	
Pump houses with pumps and boilers	S. 37-1	3		1600	480000	
Well (generally 16 ft. diam. and curbed)		3		1800	540000	
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					
Coal platform—16′x80′	S. 36-9					
21. FENCING RIGHT OF WAY.						
Fencing—against stock—80 5/8 miles of fence				175	140875	
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						
24. CROSSINGS, CATTLE GUARDS AND SIGNS.						
Cattle guards		28	guards	15	42000	
Road Crossings		14	crossings	10	14000	
Signs, posts, etc.		43 67/100	miles	15	65505	2242380
		Carried Forward,				19613925 5

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			19613925 5
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	3	850 00	255000	
Double tool houses S. 39-8				
Single tool houses S. 39-8	3	50 00	15000	
Section house privies M. 41-1	3	25 00	7500	277500
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.				
40 26 miles	40 26 miles		225 00 9059 50	905850
31. TRANSPORTATION CHARGES.				
Steel rails 6078 gro. tons = 6807 net tons			19 00 1293330 0	
Track spikes kegs = 156 net tons			19 00 29640 0	
Track bolts kegs = 66 net tons			19 00 12540 0	
Angle bars lbs. = 370 net tons			19 00 7030 0 0	
Rail braces lbs. = 26 net tons			19 00 4940 0	
Frogs and switches sets = 36 net tons			19 00 6840 0	
Bridge iron lbs. = 50 net tons	100000 #		1 14 1140 0 0	
C. I. P. 1085 " "	1170000		994 1148300	
Viaduct Steel 835 " "	1670000		1 14 1903800	18342000
	Carried Forward,			21566405

ITEM	QUANTITIES	@	AMOUNT	TOTAL
	Brought Forward,			21566460 5
Water stations 3 × ~~50~~ 47 tons each = 141 net tons	282000	14¢	39480	
Telegraph material net tons	1108000	14¢	155120	
Building material and miscellaneous net tons	180000	14¢	25200	
Cement	398250	17¢	67702	
Wire for Fencing	80400	11¾	9566	
Total to tons × miles				
2600000 ft. timber = tons × miles	7800000	14¢	1092000	
117900 cross ties = tons × miles	17685000	14¢	2375900	
engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges				
Transportation of laborers and others 1872861	miles	3¢	5618583	9469661
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,		22513422 66
Engineering expenses, add 5 per cent of above total (generally about 5 per cent)				1125673
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				23639095
Per mile of main track				58715.82

_____ 190

_____ Engineer.

ITEM	QUANTITIES	@	AMOUNT	TOTAL
Brought Forward,				21566405
Water stations 3 × ~~36~~ 47 tons each = 141 net tons	282000	14¢	39480	
Telegraph material net tons	1108000	14¢	155120	
Building material and miscellaneous net tons	180000	14¢	25200	
Cement	398250	17¢	67702	
Wire for Fencing	80400	11¢	9576	
Total to tons × miles				
2600000 ft. timber = tons × miles	7800000	14¢	1092000	
117900 cross ties = tons × miles	17685000	14¢	2375900	
engine coal = tons × miles				
Freight on contractor's plant				
Miscellaneous freight charges				
Northern Pacific express charges				
Transportation of laborers and others 187286	miles	3¢	5618583	9469661
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,	22513427 66
Engineering expenses, add 5 per cent of above total (generally about 5 per cent)				1125673
Expended on this work prior to this estimate, and not included in any items above—(get this from Chief Engineer)				
Total estimated cost				23639099
Per mile of main track				58715.82

_____ 190

_____ Engineer.

Form 290 TW

3127

Northern Pacific Railway Company

Ritzville, Wash, June 24th, 1910

Mr. W. L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

I am sending you herewith blue prints from map and profile showing projected line revisions of Located Line L5 Ritzville Ellensburg Cut-Off at mouth of Sand Hollow to maximum of six degree curves. We will stake the revision shown on north side of the Hollow.

Yours truly,

M. W. Hurlburt

Asst. Engineer.

Drop
Please note & return
Ref 6129
Right + Profile filed
#203-16
J.M.B.
J.M.
7/7

3127

WLD R

St. Paul, June 13th, 1910..

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

Dear Sir:-

I would like to have you make a special study of the line between Stations 2300 and 2390 to see if it is not practicable to flatten the 8° curve so as not to exceed 6° maximum. It may require a slight change from the curve east to the curve west of it. In any event I want to get the best line run with 6° curve that you can and let me have comparative estimates. It looks from the contour map as if there would be very little difference between 6 and 8° by adjusting the first curve east.

Yours truly,

Chief Engineer.

3127

WLD R June 25th, 1910..

Mr. E. K. Christie,
711 North Lawrence,
Tacoma, Washington.

Dear Sir:-

I beg to acknowledge receipt of your letter of the 20th inst. I would be very glad to send you blue-print showing location of line across your land in Township 17, Range 24 if it were thoroughly approved, but you can appreciate the fact that a line is not thoroughly approved until it is constructed as it is subject to change meanwhile.

Yours truly,

Chief Engineer.

ESTABLISHED 1888

3127

PHONES { OFFICE MAIN 3819
RES. 1439

W. D. E. ANDERSEN

REAL ESTATE AND FIRE INSURANCE

224 PROVIDENT BLDG. 224 PROVIDENT BLDG.

FIFTH FLOOR KENTUCKY BUILDING
1130 PACIFIC AVENUE

TACOMA, WASH., June 20 1910

Mr. W. L. Darling
Dear Sir If you remember I
wrote you some months ago concerning
the Sand Hollow Route East from the
Columbia River for the N. P. Cutoff I am
much gratified to learn the route has been
at last partially located and now I would
like to ask if you have a map or plat of
the roads location and if it will be of
no inconvenience to you to send me a
couple of copies as I own land in
Tp. 17 R. 24 East and I am told the
Survey runs through my daughters claim
awaiting an early reply I am

Yours Truly
E. K. Christie

711 Nor Lawrence
Tacoma

Mr Darling - I cannot find among Wash
previous correspondence with Mr Christie
ags

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	RD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1134	BY O J			M.		M.			M.		

FROM Ellensburg June 23 rd 1910. TO W.L.Darling

DATED AT

Leave on 8 June 24 th for StPaul

H.B.Stoner.

835 A.M. 24th

Form 1380

NORTHERN PACIFIC

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	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				____M.		COPY. ____M.			____M.		

FROM St. Paul, TO H. B. Stoner,

DATED June 22nd, 1910.. AT Ellensburg.

Your estimate attached to your letter 19th just as unsatisfactory as former estimate. Come to St. Paul with your maps and profiles to see if we cannot make better guess.

W. L. Darling.

WLD R

Northern Pacific Railway Company

Form 290

3127

G.N. — S.R. H.P. — Earth — Steel —

Just Pass 303 314.100 378000 60500 155500 = 28200 Shrunk

672.400 470.700 204000 36500

376100 76000 310.000 40.000

452 450

1062.600 725000 1015000

314.100
378.000
605.000
1297.100
22
277
245
240
90

(46
28200

1.062.600
725.000
1.015.000
2.106.600
2772
5046
5788
5580

82.4
3760

E — H.P. S.R.

2V 7.000 20.400 5000
7600 6000 13800
1000 40 24800
76000 14700
20000 24250
81.000 12800
20.000 10800
21000 87.600
210000 61600
21800
26500
70000
377.100
1591500

1.062.600 V 725.000 V
6813000 2625000
973800 2175000
1041500 2537500
25.3750 1.819000 2V
202800 2038000
52400

3004

Form 290

Northern Pacific Railway Company

Ellensburg Wash June 26 1910

Mr A. D. Darling Chief Engr
St Paul

Dear Sir -

Herewith revised estimate as requested. The yardage per mile was correct before revisions were made but it is evident that there was an error in total cost. When the original estimate was made the location was only partially completed and the information at hand was not very satisfactory.

Shall send you estimates on Form 114 in a day or two

Yours truly

H. Stone C.E.

RITZVILL ELLENSBURG CUTOFF EST. REVISED.

Route	Distance	Curv.	Max. E Bound	Grade W Bound	Cubic Yards Per Mile	Cost of Grading	Cost of Bridging	Rt. of Way & Clearing	Track and Ballast	Transportation	Bldg's, Fence, Tel. Lines etc.	Engineering	Total Cost	Cost Per Mile
Sand Hollow	62.0	1988	1.6	2.4	40580	1438770	850155	31795	585431	539578	79216	153081	3622642	
	25.6	1102	0.8		30100	482570	62660	60000	259288	113232	28272	38567	1099973	
	87.6	3090			37532	1921340	912815	91795	844719	652810	107448	191648	4722615	53911
	62.0	1988	1.6	2.4	40580	1438770	850155	31795	585431	539578	79216	153081	3622642	
	20.4	954	1.0		49153	582587	30000	60000	245180	123230	22000	53149	1116146	
	82.4	2942			42702	2021357	880155	91795	830611	662808	101216	206730	4738788	57509
	62.0	1988	1.6	2.4	40580	1438770	850155	31795	585431	539578	79216	153081	3622642	
	17.5	648	1.6		41191	423672	141179	50430	251226	285000	33626	44013	1226530	
	79.5	2636			81771	1864442	991334	82225	836657	764578	112842	197094	4849172	60994

Form 290 TW

Northern Pacific Railway Company

3127

IN YOUR REPLY PLEASE
REFER TO FILE

St. Paul, Minn., June 23, 1910.

HES.

Mr. W. L. Darling,
Chief Engineer.

Dear Sir:

Your memorandum on the attached letter from Mr. Howland.

Supplies for Sounding outfit, Columbia River crossing.

We have been following up these requisitions ever since they were made and am doing everything possible to hurry the material.

My latest information is that the rope and pipe was overlooked and sent through to Seattle. I am arranging to have return of same to Beverly.

Yours t ruly,

Bridge Engineer.

B

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash., June 20th. 1910

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

Dear Sir:

Yours of the 13th inst regarding methods for handling barge and stretching cables inconnection with the sounding of Columbia River at Crossing two miles north of Sand Hollow. The easiest way to handle the barge and cables is with power boat but in my judgement we can move the barge with teams at a fraction of the expense and I have men and teams at that work this morning. Captain Griggs to whom Mr Nutt refers, askes $25.00 per day for use of the boat and a guarantee of use to the extent of $1000, which with wages for the crew and fuel would amount to not less than $2500. I estimate the cost of doing this work with men and teams as about $500, which amount is nearly double the estimate given me by river men.

Staples has his drill set up on the west bank of the river and is ready to drill as soon as supplies ordered by MR.Stevens are received. The car NP 28027 in which pipe and rope were shipped was delivered to Seattle Div. on June 10th but we can find no trace of any freight for Lind or Beverly. We are endeavoring to get supplies we need locally and may get started tomorrow but will be delayed again soon if we do not get supplies ordered through Mr. Stevens.

Yours truly,

M.W. Howland

Assistant Engineer.

MWH
Copy to Mr. Stevens, Bdg Engr.

Ellensburg Wash 6/12 10

Mr A L Darling Chf Engr
St Paul

L

Dear Sir.

In regard to your two letters D/ June 14th relative to the relocation of 8° Curves on the 2nd line in favor of 6° Curves You stated by comparative table that the change would require an additional 103,000 yds in embankment.

By making the revision at 1195 to 1230 the distance is shortened 240 ft which will raise the grade line at end of revision 5 ft and require relocation of entire line from that point to the river.

The revision at 1639 to 1685 would shorten line 46.5' and raise grade line still more I have made projection using 6° Curves as advised and find that my grade line over big fill on approach to Columbia River bridge will be 13.° higher and require 107000 additional in this one fill. This quantity should be added to 103000 as per your table making 210,000 yds for the change.

Yours truly J. B. Lovell CE

Form 290 TW

8127

Northern Pacific Railway Company

Ritzville, Wash., June 17th, 1910

Mr. W.L. Darling, Chief Engineer,

St. Paul, Minn.

Dear Sir:-

Herewith tracing #215-30 of Stoners recent revision Ritzville Ellensburg Cut-off from the summit west of the Columbia River to Ellensburg. Stoner had this tracing sent to me so that it could be put upon the small scale tracing of the Ellensburg Cut-off, which we have made. However, as our tracing #363-6 was sent to you a week or ten days ago, I am forward-ing the tracing of this revision to you. It should be shown upon the tracing, which is referred to above, and if you care to return both tracings to me, I will see that the work is done in my office.

Yours truly,

Plotted on map #363-6 6/23

M.W. Howland

Asst. Engineer,

J H S

[redacted] Have Doc Mc Clark

will Lines upon [redacted] Map. If it is ok. Have

#215-31 #477-21

leave it [illegible] 4800 Mk 6/20

#363-6

WLD R

3177

St. Paul, June 18th, 1910..

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

Dear Sir:-

I do not remember having seen weekly report from you for sometime about the work along the Columbia River. Please see that these are sent in promptly. We are anxious to know just what is being done there and what the results of your soundings are and we want the progress report from time to time. Be sure that your surveys cover a distance of one and one half miles each side of proposed crossing.

Yours truly,

Chief Engineer.

Kittitas, Wn. June 10-10

Mr. H. W. Howland, Asst. Engr.
Ritzville, Wn.

Dear Sir.

On regest from Mr. Stowe I am today sending you tracing of my 4000' map. Line in pencil is a 1% line with a grade x ing of Milwaukee and I do not know if he want same shown.

L^E equation with C.M & P.S. is:
$3140+92^5 = L^E\ 226+79^5$
L^G equation with C.M & P.S is
$3111+86^7 = L^G\ 207+35^1$
I got the Milwaukee stations after wrapping up map, and I wish you would kindly put same on map.

Yours truly
Herman Sternbach

WLD R

St. Paul, June 14th, 1910..

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

Dear Sir:-

Referring to my letter of the 13th inst. about flattening curves and changes of line between the Summit and the Columbia River. The attached table shows comparative estimates on present and projected locations as estimated by Mr. Stout. This shows an addition of about 100,000 yards of embankment with the same amount of excavation. This is as near as could be figured from the topography on the map. Possibly you may find some difference when the line is actually run on the ground.

Yours truly,

Chief Engineer.

Encl.

Form 290 TW

3127

Northern Pacific Railway Company

Ritzville - Ellensburg Cut-off.
Estimates of excavation and embankment quantities for projected line changes west of Columbia River.

St. Paul 6-14-1910.

Station to Station	Present Location.		Projected Revised Location	
	Excavation	Embankmt	Excavation	Embankmt.
1080 - 1094	- - - -	29,800	- - - -	46,800
1192 - 1227	33,500	49,200	50,200	73,400
1347 - 1358	4,200	68,300	1,800	70,400
1460 - 1470	23,300	- - - -	28,700	- - - -
1487 - 1519	1,300	45,900	700	16,500
1640 - 1680	18,700	41,600	100	131,100
Totals	81,000	234,800	81,500	338,200

✓

	Sections	Slopes
Earth Cuts	24'	1:1
Rock Cuts	18'	¼:1
Embankments	18'	1½:1

Ritzville-Ellensburg Cut-Off

Estimates of excavation and embankment quantities for projected line changes west of Columbia River.

St. Paul, June 14th, 1910..

Station to Station	Present Location: Excavation	Present Location: Embankment	Projected Revised Location: Excavation	Projected Revised Location: Embankment.
1080-1091	-------	29,800	---------	46,800
1192-1227	33,500	49,200	50,200	73,400
1347-1358	4,200	68,300	1,800	70,400
1460-1470	23,300	------	28,700	------
1487-1519	1,300	45,900	700	16,500
1640-1680	18,700	41,600	100	131,100
	81,000	234,800	81,500	338,200

	Sections:	Slopes
Earth Cuts	24'	1:1
Rock Cuts	18'	¼:1
Embankments	18'	1½:1

3127

WLD R

St. Paul, June 14th, 1910..

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

Dear Sir:-

In studying over contour map from the Summit west to the Columbia River of the 2.4% line down the west slope of the Columbia Valley it looks to me as if with small additional expense that 6° maximum curves could be obtained. I wish therefore that you would have Magoffin re-run some of these curves and get an approximate estimate of what these changes would cost so as to compare with 8° curves as located.

I have special reference to the following:

At station 1080, use 6° instead of 8° with same angle;

Station 1195 to 1230 re-locate curve as shown on attached print;

Station 1350 use 6° instead of 8° with same angle;

Station 1465 use 6° instead of 8° with same angle;

Station 1900 use 3° instead of 3° 30';

Station 1639 to 1685 revise line as shown on

attached blueprint, plan and profile.

Wish you would have these run at your early convenience and let me have comparative estimates.

Yours truly,

Chief Engineer.

Encl.

N. P. Ry.

Ellensburg – Ritzville Cut-off

Projected Line Changes

Between M. P. 31 and M. P. 33.

St. Paul, June 13, 1910

Scale 1" = 400'

Nicholas Snow (Entire Sec)
12.77 Acres.

Levi Surlock
2.95 Acres

Orion Surlock

Rye Grass Ck.

Snipley Cr.

P.S. = 1639+202
Ang. = 4°40' 7 ch @ 22'
P.C.C. = 1640+742
D = 7°00'
P.T. = 1643+078
Ang. = 4°40' 7 ch @ 22'
P.R.C. = 1644+615

P.S. = 1669+57±
Ang. = 7°30' 9 ch @ 21'
P.C.C. = 1672+45±
D = 8°0'
T.R. = 88°42'
P.C.C. = 1680+61.5±
9 ch @ 21'
P.T. = 1682+56.4±
Ang. = 7°30'

P.S. = 1692+23.8±
8 ch @ 21'
P.T. = 1693+91.8±
Ang. = 6°00'
P.C.C. = 1704+43.8±
8 ch @ 21'
P.T. = 1706+11.8±
Ang. = 6°00'

N. 78°33' E.
N. 76°33' E.
N. 12°09' W.
N. 73°36' E.
68°15' (Approx)
53°30' (Approx)
6°00'

Ritzville - Ellensburg Cut-off
Projected Line Change M.P. 24 - 25
Scale 1" = 400'
St. Paul, 6-14-1910

32

33

1950
1900
1850
1800
1750
1700
1650
1600
1550

S 55°00' E.

N 72°29' E.

P.S. 1187+24 = P.S.
9 Ch. @ 21' Ang. 7°30'
1199+13 = P.C.C.
1204+58 = P.C.C.
9 Ch. @ 21' Ang. 7°30'
1206+47 = P.T.

P.S. = 1211+37
Ang. = 7°30' 9 Ch @ 21'
P.C.C. = 1213+21

P.C.C. = 1225+21
Ang. = 7°30' 9 Ch @ 21'
P.T. = 1227+07

P.S. 1242+43 = P.S.
4 Ch @ 28' Ang. 4°40'
1243+63 = P.C.C.

T.A. = 11°02'

43° 30'
6°00' C

Nicholas Snow (Entire Sec)

Form 933 3-8-10 5M RP

RUSH

3127

WLD R

St. Paul, June 13th, 1910..

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

Dear Sir:-

Herewith copy of letter from Mr. Nutt, dated June 9th relative to Griggs steam boat at the crossing just north of Sandhollow. I believe the best way to make these soundings is to borrow a barge from the St. Paul people at Beverly and attach it to cable which is proposed to string across the river at the crossing. Cannot the barge be ~~held~~ drawn up by horses or otherwise? Wish you would look that up and advise how it can best be done.

Yours truly,

Chief Engineer.

Encl.

WLD R

St. Paul, June 13th, 1910..

Mr. H. C. Nutt,

General Manager, Tacoma.

Dear Sir:-

Referring to your letter of the 9th inst. I do not think that we will need steam boat belonging to Captain Griggs as we expect to do our work from barges brought up from Beverly.

Yours truly,

Chief Engineer.

Form 290 TW

Northern Pacific Railway Company

IN YOUR REPLY PLEASE
REFER TO FILE_____

Tacoma, June 9, 1910.

Mr. W. L. Darling,
Chief Engineer,
Saint Paul.

Dear Sir:

Capt. J. J. Griggs, General Manager of the Columbia & Okanogan Steamboat Company, called to see me today in reference to renting one of his boats for the surveyors to use in their work at the crossing of our proposed Ritzville-Ellensburg line over the Columbia River. He said that about three weeks ago some young man came to see him relative to hiring a boat for this surveying party, but he has lost the memorandum which he took of this man's name and cannot locate him or recall his name.

He says that if anything is to be done, it must be done quickly as the river is beginning to fall and unless the boat is moved from Wenatchee to the lower river soon it will be impossible to get it down there before next spring.

He says that he made a proposition to this

young man as to the price and conditions under which he would rent this boat, which I presume has been transmitted to you, probably through Mr. Holland or Mr. Stindel.

Mr. Griggs will appreciate very much if you will advise him at Wenatchee whether or not you will want to have one of his boats taken down the river for this work.

Yours truly,

H. C. Nutt

Form 290 TW

Northern Pacific Railway Company

WLD R

St. Paul, June 13th, 1910..

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

Dear Sir:-

In checking over the statement you gave me showing the cost of grading from Ritzville Junction through to Ellensburg, it looks to me as if you had made a very serious error in the amount of grading to be done for the 2.4 and 1% lines. I believe that you have left out all of the grading between the junction and the east side of the river. It was included in the other statements, but in that particular one you must certainly have left it out. I wish you would write me about this at once and if it has been left out send me a corrected statement quick. I am sending you herewith blueprint of the information you gave me.

Yours truly,

Chief Engineer.

Encl.

— Ritzville - Ellensburg Cutoff Estimates —

Route	Distance	Curvature	Maximum Grade E. Bound	Maximum Grade W. Bound	Cubic Yards per mile	Cost of Grading	Cost of Bridging	Right of Way and Clearing	Track and Ballast	Transportation	Bldgs. Fence Tel. Line, etc.	Total Cost	Cost per mile
SKOOKUMCHUCK	70.8	3286	0.8	2.2	40,200	1,637,300	1,369,900	48,000	566,400	603,400	158,000	4,225,000	
	25.6	1102	0.8		24,800	488,280	160,000	64,920	204,800	204,800	51,200	1,174,000	
	96.4	4388			36,000	2,125,580	1,529,900	112,920	771,200	808,200	209,200	5,399,000	56,000
	70.8	3286	0.8		40,200	1,637,300	1,369,900	48,000	566,400	603,400	158,000	4,225,000	
	20.4	954	1.0		34,500	558,700	49,000	34,500	163,200	40,800	142,800	989,000	
	91.2	4240			39,000	2,196,000	1418,900	82,500	729,600	644,200	300,800	5,214,000	57,170
	70.8	3286	0.8		40,200	1,637,300	1,369,900	48,000	566,400	603,400	158,000	4,225,000	
	17.5	648	1.6		30,000	354,500	200,000	50,700	140,000	122,500	35,000	902,700	
	88.3	3834			38,200	1991,800	1,569,900	98,700	706,400	725,900	193,000	5,127,700	58,750
SAND HOLLOW	62.5	1988	2.0	2.4	36,500	716,900	893,500	40,000	502,400	510,000	102,000	2,764,800	
	25.6	1102	0.8		24,800	488,280	160,000	64,920	204,800	204,800	51,200	1,174,000	
	88.4	3090			33,100	1,205,180	1,053,500	104,920	707,200	714,800	153,200	3938,800	44,560
	62.5	1988	2.0	2.4	36,500	716,900	893,500	40,000	502,400	510,000	102,000	2,764,800	
	20.4	954	1.0		34,500	558,700	49,000	34,500	163,200	40,800	142,800	989,000	
	82.9	2942			36,000	1275,600	942,500	74,500	665,600	550,800	244,800	3,753,800	45,120
	62.9	1988	2.0	2.4	36,500	716,900	893,500	40,000	502,400	510,000	102,000	2,764,800	
	17.8	648	1.6		30,000	354,500	200,000	50,700	140,000	122,500	35,000	902,700	
	80.3	2636			35,000	1,071,400	1,093,500	90,700	642,400	632,500	137,000	3667,500	45,670
BEVERLY	70.9	3132	0.8	2.2	56,000	2430,000	285000	46,000	554,000	554,000	136,000	4,005,000	
	25.6	1102	0.8		24800	488,280	160,000	64,920	204,800	204,800	51,200	1,174,000	
	96.5	4234			50,400	2,918,280	445,000	110,920	758,800	758,800	187,200	5,179,000	53,670
	70.9	3132	0.8	2.2	56000	2.430,000	285000	46,000	554,000	554,000	136,000	4,005,000	
	20.4	954	1.0		34,500	558,700	49,000	34,500	163,200	40,800	142,800	989000	
	91.3	4086			51,200	2,988,700	334,000	80,500	717,200	594800	278,800	4,994,000	54,700
	70.9	3132	0.8	2.2	56,000	2,430,000	285000	46,000	554,000	554,000	136,000	4,005,000	
	17.5	648	1.6		30000	354,500	200,000	50,700	140000	122,500	35,000	902,700	
	88.4	3780			50,850	2,784,500	485,000	96,700	694,000	676,500	171,000	4,907,700	55,520

Estimate if connection is made at Beverly and C.M.&P.S. used to within 4 miles of Ellensburg
Total Cost $2,107,000

Total 870 mi.
Use C.M.&P.S. 318 "
To be const'd by N.P. 552 "

Estimated cost C.M.&P.S. 31.8 mi @ $80,000 - $2544,000
Columbia River Bridge 930,000
$3,474,000

St. Paul, Apr. 12, 1910

WLD R

St. Paul, June 13th, 1910..

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

Dear Sir:-

In checking over the statement you gave me showing the cost of grading from Ritzville Junction through to Ellensburg, it looks to me as if you had made a very serious error in the amount of grading to be done for the 2.4 and 1% lines. I believe that you have left out all of the grading between the junction and the east side of the river. It was included in the other statements, but in that particular one you must certainly have left it out. I wish you would write me about this at once and if it has been left out send me a corrected statement quick. I am sending you herewith blueprint of the information you gave me.

Yours truly,

Chief Engineer.

5-2-10 5M RP

Form 1757

N. P. RY. CO.

Chief Engineer

FILE NO. 3127

SUBJECT: Part 2

Ritzville-Ellensburg Cut-off.

3127

B-2

LJP

OFFICE OF
CHIEF ENGINEER

NOV 22 1966

NORTHERN PACIFIC CO.
ST. PAUL, MINN.

Docket No. 24878
St. Paul, Minnesota
November 18, 1966

Mr. F. L. Steinbright, Vice President, Operations
Mr. N. M. Lorentzsen, General Manager
Mr. E. L. Ordell, Comptroller (3)
Mr. L. C. Wise, District Accountant
Mr. Robert A. Juba, Manager, Industrial Development
Mr. Richard D. Larson, Western Manager, Industrial Development
Mr. H. A. Knudsen, Eastern Supervisor, Property Taxes
Mr. C. E. Gallagher, Western Supervisor, Property Taxes
Mr. E. M. Stevenson, Vice President, Traffic
Mr. O. A. Kobs, Western Freight Traffic Manager
Mr. G. W. Thompson, Superintendent, Spokane
Mr. D. H. Shoemaker, Chief Engineer (3)
Mr. J. E. Hoving, Assistant Chief Engineer

Referring to agreement dated April 15, 1964, between Collier Carbon and Chemical Corporation, d/b/a Big Bend Fertilizers, Inc., and Northern Pacific Railway Company covering lease of 100 feet of track at Ritzville, Washington:

Attached is copy of Termination Agreement dated November 11, 1966, effective November 1, 1966.

Distribution of this instrument is limited to the list shown hereon. It must not be copied and distributed to other departments or subordinate officers without the approval of the Secretary.

R. H. DICK

attach

TERMINATION AGREEMENT

IT IS MUTUALLY AGREED by and between the NORTHERN PACIFIC RAILWAY COMPANY and COLLIER CARBON AND CHEMICAL CORPORATION d.b.a. BIG BEND FERTILIZERS, INC. that that certain agreement between them dated April 15, 1964 covering the lease of 100 feet of track at Ritzville, Washington shall be and the same is hereby terminated as of November 1 1966; provided, however, that such termination shall not affect or impair any right or obligation of either party to said agreement which had accrued prior to said termination date.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed on the 11th day of ~~October~~ November, 1966.

NORTHERN PACIFIC RAILWAY COMPANY

By F. L. Steinbright
VICE PRESIDENT

COLLIER CARBON AND CHEMICAL CORPORATION d.b.a. BIG BEND FERTILIZERS, INC.

By Thos. A. Kimball
Manager

3127

Docket No. 24878
St. Paul, Minnesota
November 18, 1966

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Mr. N. M. Lorentzsen, General Manager
Mr. E. L. Ordell, Comptroller (3)
Mr. L. C. Wise, District Accountant
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NORTHERN PACIFIC RAILWAY COMPANY

By F. L. Stonebraker
VICE PRESIDENT

COLLIER CARBON AND CHEMICAL CORPORATION d.b.a. BIG BEND FERTILIZERS, INC.

By Thos. Gambell
Manager

3127

Seattle, Wash.
Feb. 23, 1949

Ritzville-Ellensburg cutoff

Mr. W. P. Stapleton:

In compliance with your verbal request, I have colored print of Reclamation Department's map, sheets 1 and 2, showing location of proposed Ritzville-Ellensburg cutoff in relation to irrigation district in reference to the Columbia Basin and Roza Projects. This for your personal information.

J. T. DERRIG

Assistant Chief Engineer

JTD:c

cc BB - Print of the above referred to maps attached.

Will you please file maps and note reference

Permaa Blum 2/26/49

February 23, 1949

BRUCE A. WILSON, Publisher
The Journal-Times
Ritzville, Washington

Dear Mr. Wilson:

Thank you very much for your letter of the 18th with copy of the February 17 issue of your paper.

I will read the article with a great deal of interest, and will keep it in our file on the Ritzville-Ellensburg survey.

Please give Mrs. Wilson my kindest regards.

Sincerely yours,

bb/s

The RITZVILLE Journal-Times

BRUCE A. WILSON, Publisher

PRINTERS • OFFICE SUPPLIES

Ritzville, Washington

February 18, 1949

Mr. Bernard Blum
Chief Engineer
Northern Pacific Railway
St. Paul, Minn.

Dear Mr. Blum:

I have mailed you under separate cover a copy of this week's Journal-Times which carried our story on the proposed Ellensburg cutoff.

Perhaps you will recall that my wife discussed the matter with you, Mr. Parrin, and others in St. Paul last summer. We followed up these interviews with considerable research back here -- Mr. T. O. Kirkvold, traveling agent out of Spokane was most helpful -- and emerged, we hope, with a fair and accurate picture of the situation.

I am extremely grateful to you for the courtesy and interest you showed at the time of Mrs. Wilson's visit.

Most sincerely,

Bruce Wilson

Bruce A. Wilson

Flood Waters Wash Through 'Flats'

The RITZVILLE Journal-Times

VOLUME L, NO. 7 RITZVILLE, WASHINGTON THURSDAY, FEBRUARY 17, 1949 OFFICIAL ADAMS COUNTY PAPER

Large Area Is Under Thursday

A 50-mile-an-hour warm wind from the southwest turned snow into water this week, creating floods which caused thousands of dollars worth of damage over most of Adams county.

The most critical condition existed in Connell in Franklin county where torrents reached the first-floor level in dozens of residences and business buildings. During Wednesday night all families living in lower levels at Connell were evacuated.

By Thursday morning the crest was subsiding, but a great share of the city still was under water.

Residents of the "chronic" flood areas in Ritzville woke Thursday morning to find water at its highest level yet. Homes in the flats and along the foot of College hill were particularly hard hit.

Over the rest of the county:

Lind experienced very little trouble;

Washtucna was badly washed Wednesday but the peak had passed by Thursday morning;

Many farmers in the Hatton and other areas spent Wednesday with their trucks in Connell, helping in the evacuation;

Most of the unpaved roads were impassable or almost impassible. Road restrictions were clamped on the entire county.

Peak of the flood condition in Ritzville was reached in the "flats" just beyond West Birch street where swirling currents of water three to five feet deep poured across four city blocks.

The "[illegible]" stirred by the gusty wind, lapped against front and back doorways and splashed over the running boards of parked automobiles. Water swirled under the Division street bridge with the intensity of a small rapids.

Homes of Rudy Thaut, Clarence Miller, Reuben Batt, Harley Dirks, Shorty Werner, Johnny Johnson, Berthold Koch, and at least a dozen others were completely surrounded by two or three feet of water.

No estimate could be made of the damages until the water subsided. It was believed the flood had reached its peak in this vicinity Thursday morning, although nobody could tell for sure what was going to happen next.

Many other homes on the flats had water seeping into their basements. All the annual puddles, including the fair-sized lake behind the Desert hotel, had formed by Wednesday evening.

Highway in Trouble

Another center of near-flood activity in Ritzville was just across the highway at the intersection with Adams street.

There Lloyd Wellsandt, who was badly battered by last year's floods, again found himself in hip boots struggling against a foot or two of water in his basement.

By Thursday afternoon city crews under Water Superintendent Ralph Allert had been pumping water out of the "lake" covering the vicinity of Wellsandt's home for 24 consecutive hours. Workers estimated they had lowered the general level about four inches.

But other homes in the area were suffering, most of them from basement troubles. The G. P. Webers reported deep currents between their house and the Zion Congregational church. "Basement filling rapidly," a communique from the Webers said Wednesday afternoon.

Homes higher on College and Nob hills were escaping the worst of it, but dozens found water seeping into their garages and basements.

No Train Service

Ritzville has been without train service since early Wednesday afternoon. Station Agent Paul Fickle said Thursday morning it might be two or three days before normal schedules can be resumed.

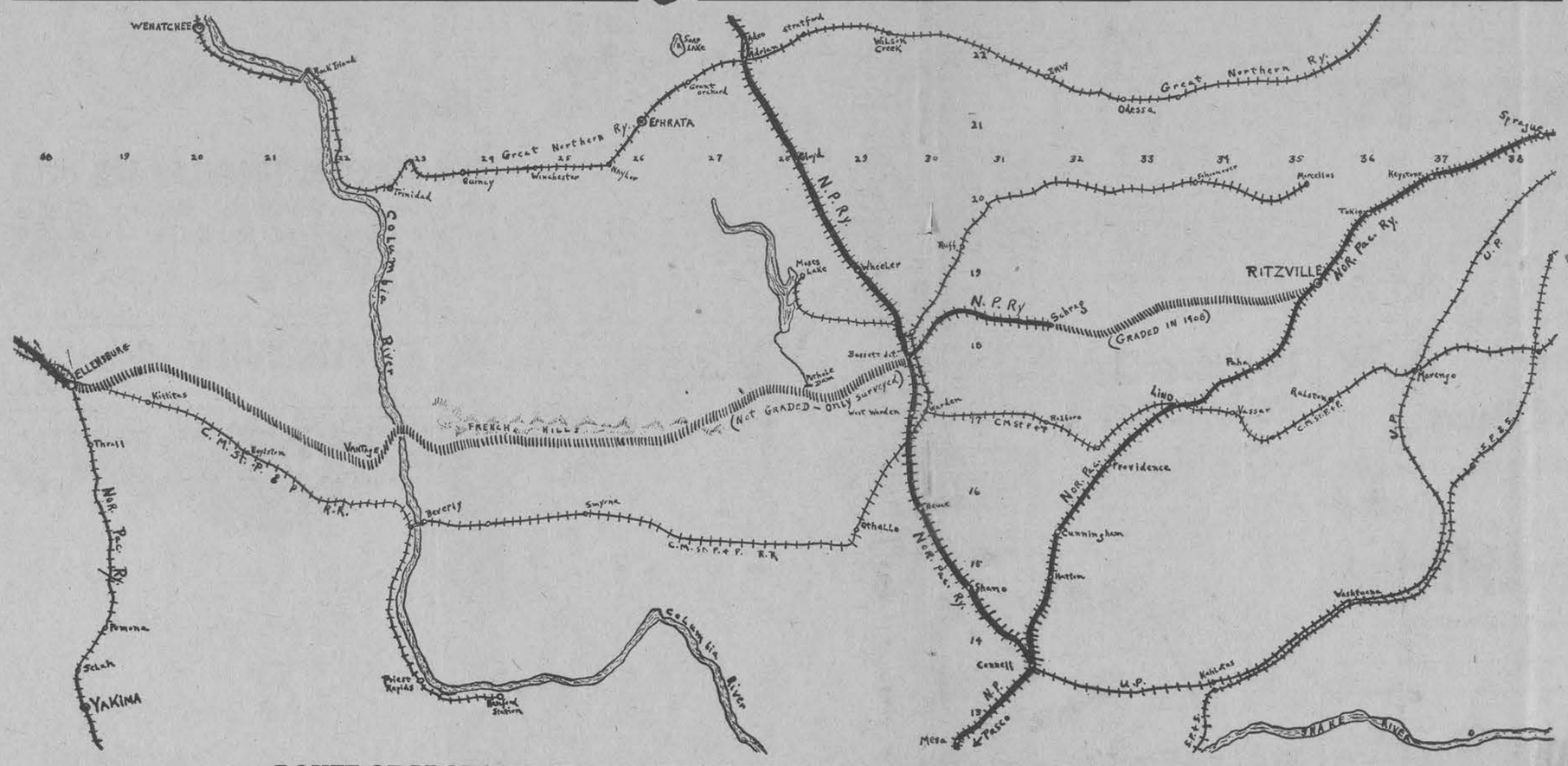
The highly-destructive floods at Connell caused the disruption of rail service here.

Two Northern Pacific bridges, one three miles this side of Connell and the other near Mesa, were washed out of line by torrents which reached 12 feet in depth Wednesday.

Fickle said by Thursday morning the water, which had covered some sections of track to a depth of about a foot, was down from its crest.

One work train went through

(Continued on Page 7)



ROUTE OF PROPOSED ELLENSBURG-RITZVILLE CUTOFF SHOWN BY VERTICAL LINES

ELLENSBURG CUT-OFF

A Complete Case History of the Northern Pacific's Shortcut to the Coast, Started But Never Finished

A MOUND OF EARTH that seems to have a purpose veers off from Ritzville to the westward. In winter it is camouflaged with snow and blends easily into the undulating white farmland of Adams county. But in summer it is crested with cheet grass and weeds, and strikes like a vibrant green highway through the golden acres of crested wheat.

This mound is the Ellensburg Cutoff. It was carved from the soil nearly 40 years ago by men who worked slowly with teams of horses. As the earth was stacked up and the mound stretched longer, the people of Ritzville felt themselves on the verge of a tremendous development even exceeding the hopes of their most ambitious pioneers.

At Ritzville, not at Spokane, transcontinental trains from the east would be re-assembled, one segment to continue southward to Pasco and Portland, the other to break westward across the Cutoff through Ellensburg to Seattle.

Make Up Trains Here

At Ritzville also the east-bound links, from Portland and Seattle, would be joined in their long passage across Montana and Dakota to the distant Twin Cities. Ritzville would surely become an important railroad center and a city of five to ten thousand inhabitants.

But in the spring of 1910, after a winter of feverish activity, the construction crews departed. They left the mound of earth, stretching westward, but it was a barren mound without steel to give it life. The Cutoff fell silent and the dreams faded away.

Today the Ellensburg Cutoff is little more than the promise of what might have been a railroad line. It is a stretch of unnatural landscaping ignored by homefolk and causign only occasional comment from travelers on the Moses Lake highway who observe its wanderings across the countryside.

Spasmodically great rumors take wing. It is reported excitedly over a cup of coffee, that a goup of ten fashionable bigwigs from Northern Pacific headquarters in St. Paul have spent the past two days tramping over the Cutoff route. If they are satisfied that the grading actually follows the route shown on their maps, construction will start soon.

Naturally, as the word spreads, one or more persons check swiftly with Paul Fickle, the local NP station agent. Fickle denies everything. But of course he'd deny everything . . . probably has orders to keep his mouth shut. The rumor flames for a day or two, then smoulders and dies.

Yet, despite the recurrent failure of Northern Pacific executives to appear for a hike along the Cutoff route, the fact is known to all that the railroad has continued to pay its county taxes on the Cutoff ever since it was graded.

Since railroads are not well-known for pouring dollars and cents into a bottomless drainhole, it would appear the NP has some project or another in mind when it mails its annual check to County Treasurer Maude Thiel.

In This Article

- ★ Why construction of the cutoff was stopped in 1910.
- ★ How much the N. P. has paid to maintain its right-of-way.
- ★ What the prospects are for completing the cutoff.
- ★ What that would mean to the City of Ritzville.

To attempt a clear and complete portrait of this shadowy and speculative Ellensburg Cutoff situation is the purpose of this article.

Material has been gathered over the course of six months, some of it through an interview which Mr. Bernard Blum, chief engineer for the Northern Pacific Railroad, and other top NP officials kindly granted the publisher's wife last summer in St. Paul.

But the Journal-Times wishes to emphasize that unless a specific source is mentioned, the research and conclusions are entirely its own.

Depend on Basin

Basically, construction of the Ellensburg Cutoff depends on the development of the Columbia Basin irrigation project.

If the time comes when the Northern Pacific Railroad feels the project has generated sufficient traffic to put the Cutoff on a paying basis, it probably will be built.

The clearest authoritative statement behind this prospect comes from Mr. Blum, the NP's chief engineer. He said:

"As long as I'm chief engineer I must give permission for the disposal of all railroad property, and I would never allow us to sell that right-of-way."

The engineer continued, "With the culmination and construction of the Columbia Basin project, the country from Schrag west will be developed beyond what can be imagined now.

"It is not inconceivable that we will want to pull freight from Ritzville across into the basin project. But no definite plans have been made, and the project must wait until the country develops.

When the basin project actually will "develop," of course, is anybody's guess.

"It might be five years or 15 years or longer than that," commented John W. Hall, director of the Northern Pacific agricultural development department.

"But it is certain, Hall added, "that eventually the basin will develop to the point where more railroad service is necessary."

The NP officials in St. Paul went on to indicate clearly that the prime purpose in developing the Ellensburg Cutoff would be to speed freight—not passengers—into and out of the basin area and through to the Coast.

This information dispels a popular local notion that the Cutoff might be intended primarily to cut the running time of crack NP streamliners from Minneapolis to Seattle in order to compete more favorably with rival lines.

While some passenger trains unquestionably would make use of the Cutoff, its main job would be hauling freight.

"The Cutoff would speed up our freight," Blum. the engineer, concluded, "but the necessity for speeding it any faster than it already is can depend only on future demand and competition."

A more detailed examination of this "mound of earth" heading westward out of Ritzville requires some understanding of its history.

The Northern Pacific gave America its first transcontinental line to the Pacific Northwest. Construction was authorized by President Lincoln in 1864 and the "last spike" was driven at Gold Creek, Mont., in 1883.

Region Developed

Thousands of homesteaders and tradesmen began pouring into this new, rich country. Six years after St. Paul had been linked to Seattle by rail, the entire tier of Northwest territories had gained enough in population to become states. Still the westward rush continued.

It is small wonder, then, that in the early 1900's the NP was still giving serious thought to even more construction which might increase its traffic and profits in this prospering development.

One of the projects to come under consideration was a more direct route across Washington to Seattle. This route would swing westward from Ritzville approximately 100 miles to Ellensburg. where it would rejoin the existing main line.

Dipping southward to Pasco and then to Ellensburg gave NP trains a 272-mile run from Spokane to Ellensburg. The Cutoff would slash 88 miles from this trip, reducing the run to less than 200 miles.

The first official notice of this project was made in the Northern Pacific's "Annual Report" of June 30, 1909. The report observed briefly:

"Ritzville Br.: 38 miles, contract let and contractor getting forces on work."

But the Ritzville Journal, predecessor to the Journal-Times, was infinitely more excited.

(Continued on Page 6)

Bernard Blum chief engineer for the NP railway, was one of the top officials interviewed for this article. Mr. Blum's office is in St. Paul.

SCHOOLS CLOSE; HOOP GAME OFF

Schools are closed in Ritzville both Thursday and Friday of this week regardless of the weather, Superintendent H. A. Trimble said Wednesday night.

And the band benefit basketball game with Colfax Friday evening has been postponed. So was a trip the Broncs were scheduled to take to Colfax Wednesday.

At a special assembly Wednesday, students were urged to line up their own rides if the buses can't get out. But Thursday's floods were too much.

GRANGE AFFAIR AT SANDHILLS IS SET ON SATURDAY

Last gavel program of the season for the Adams county granges will be held at 8 p.m. Saturday, February 10, at the Sandhills Grange hall. Members from Marcellus, Ralston, Benge, Lind, and Rimrock granges are expected to attend.

Marcellus Grange officers headed by Master Krause will open and close the meeting. Sandhills grange will conduct their business meeting and provide entertainment arranged by Lecturer Mary Jane Curry. Lunch will be served by Home Economics Chairman Mrs. Charlie Williams.

Sandhills Grange has sponsored three modern and old time dances this year and is planning another for the near future, according to Master Foulkes.

Commissioners Eye Crowded Precincts

Adams County Commissioners will meet at 1:30 p.m. Monday, February 21, to consider dividing some of the larger voting precincts in the county.

State law requires that no precinct should contain more than 300 voting citizens.

Councilman W. Walters Miller, City Attorney George Freese, and City Clerk Richard Miller will represent Ritzville at the meeting. Two Ritzville precincts, No. 2 with almost 400 voters and No. 3 with more than 500 voters, are definitely over the limit. No. 1 has 290 voters, 10 short of the limit.

FIREMEN EYE HOP

Ritzville firemen will hold their annual dance Saturday, February 26, in the Legion hall. Danny Kutschkau is chairman of the ball. Ed Haight and Johnny Rowe are assisting.

☆ The Markets

Baart, bushel	$1.98
Turkey, bushel	$1.96
Eggs, dozen	$ .40
Butterfat, pound	$ .69

Tax Bills Are Now In Ma[illegible]

Discounts Given for Payment Now

Adams county taxpayers are receiving their 1949 tax statements this week, some with downright dismay but most with a shrug of the shoulders.

Residents of Ritzville have found their taxes per $1000 of assessed valuation are slightly less than last year. Washtucna's bill also is down. But citizens of Lind and Othello, because of special levies, have been asked to pay somewhat more.

Payments are being accepted at the office of County Treasurer Maude Thiel, or they may be mailed to Mrs. Thiel's office. Despite talk of repeal in Olympia, a three per cent rebate still is allowed on all taxes paid in full by March 15.

Slightly more than $909,000 is scheduled to be collected in taxes this year, Mrs. Thiel said. Total evaluation of the county for assessment purposes is $14,997,000.

How They're Figured

Here's how the taxes are made up for a resident of the city of Ritzville:

For every $1,000 valuation, he's paying 15 mills to the city, 18 mills for school operation (of which 10 were voted as a special levy), 12 mills for school building (of which 10 are special), 3.5 mills on school bonds, 2.635 mills to state schools, 2.67 mills to the public hospital district and 10 mills to Adams county.

The county's share is broken down into 7.05 for current expense, 2 for public assistance, .05 for soldiers' relief, and .9 for county schools.

Thus the Ritzville resident faces a levy of $63.805 on each

(Continued on Page 6)

Harry Martin Rests in Local Hospital

Harry Martin, president of the Ritzville State bank, was taken to Ritzville General hospital Friday after an attack of lumbago had confined him to his hotel room.

Harry was taken care of by Cherley Kemp at the Desert hotel and had his meals with Mr. and Mrs. Paul Davis, proprietors, until his son, Harold, arrived from Spokane. At Harold's suggestion the veteran Ritzville banker went to the hospital.

HIZZONER SLIPS

Ex-Mayor R. E. (Skinny) Edwards slippd on some ice Friday night while lugging ashes out of the basement and fell down his basement stairs, breaking several ribs. He has been confined to his home this week but expects to be back at the Abstract office early next week.

The Weather

	H	L	P
Friday	40	13	
Saturday	32	4	
Sunday	25	-3	T
Monday	24	3	T
Tuesday	35	12	
Wednesday	39	17	
Thursday	43	37	

Ellensburg Cut-off *Continued from Page 1*

"Ritzville will become a big railroad town on the Northern Pacific soon," cried the issue of January 27, 1910. "The line from Ritzville to Ellensburg is assured."

In June of 1910 the Journal followed it up:

"There is no doubt about the Ritzville-Ellensburg cut-off being the main line. The new depot is soon to be built.

"The right-of-way from just below Moses Lake to the city of Ellensburg has all been purchased except six miles which will be acquired as soon as final surveys and reports are in.

"Rock bed for the bridge across the Columbia is not yet located."

Actualy, the right-of-way from Bassett Junction, south of Moses Lake where teh cutoff would cross the existing Adrian-Connell line, westward to Ellensburg never was entirely purchased. It was completely surveyed, however.

The right-of-way from Ritzville through Schrag to Bassett Junction was both surveyed and purchased.

Some Objections to Land Sale

Prices varied slightly in procuring the 100-foot wide right-of-way, but Henry Bauer tells the Journal-Times he was paid $50 an acre for value of the land plus an additional $45 per acre for "damages" which might be caused during construction.

Not many of the farmers were anxious to sell, Bauer says, and a few fought the sale in court. But the railroad let them keep the right-of-way in crop. not only to ease bitter feelings but also to keep the weeds down.

An eight-man surveying party completed its job in the winter of 1908-09, Bauer recalls, and grading started in October of 1909 with construction camps on the Bill Danekas place, two miles from Ritzville; Henry Bauer's place, four miles out; and Jake Becker's place, 12 miles out.

About 20 men were working with "fresnos" (four-horse dirt scrapers), "wheel scrapers" using a two-horse team with a three-horse spike team, and a huge contraption to lift dirt into wagons which used 16 horses and mules—12 pulling and four pushing.

Bauer freighted for the crews all through the winter of 1909-10, hauling everything from oleomargarine to bridge timbers from Ritzville to the three camps.

By May 10 the grading was completed to Bessett Junction and everyone was certain steel would be laid immediately and Ritzville would become bigger than Pasco.

'Trains Start Soon'—Paper

"Trains will be running out of Ritzville on the Ellensburg cut-off before September 1," the Journal stated flatly.

"The steel gang with track-laying machines is five miles out of Bassett, below Moses Lake. They are averaging more than a mile a day and at this rate the rails should be laid into Ritzville by August 20.

"Wires and poles are on the ground for the telegraph lines."

Even the NP's annual report that year sounded optimistic: "Ritzville depot built. Ritzville Br. 38 miles, grading completed and part of the track will be laid this fall."

Then something happened.

Rails were laid, according to main line specifications, from Bassett Junction 12½ miles eastward to Schrag—and not an inch farther. The "steel gangs with track-laying machines" abruptly disappeared. By the end of summer, Ritzville's soaring hopes were dead.

The answer to this puzzle—why the Ellensburg cutoff was never completed—can be found in pages of the NP's annual reports.

During 1909-10, while the Cutoff was being graded, Northern Pacific business had reached an all-time high. The normally heavy traffic incident to opening up a new land was swelled even further by thousands of passengers attending the Alaska-Yukon Pacific Exposition in Seattle, and by the opening of fresh lands in the Flathead, Coeur d'Alene, and Spokane Indian reservations to homesteading.

But by the summer of 1910, when tracks were being laid out of Bassett Junction, NP business had fallen off sharply.

"The volume of transactions of all kinds in NP territory was down," the annual report for 1911 summarized.

"The grain crop in North Dakota and Minnesota was seriously damaged, and the crop in Washington, Idaho, and Oregon was less than usual.

"Over 10 per cent decrease in freight revenue and almost 20 per cent decrease in passenger revenue must be attributed to lessened business activity and diminished grain crops."

Moreover, the Chicago, Milwaukee. St. Paul and Pacific, the Great Northern, and the Union Pacific railroads all were laying new track of their own, and attracting thousands of dollars worth of business from a region which had once been the Northern Pacific's private "backyard."

"A large event has been the opening of the Panama Canal," an NP report added in 1914. "This new route may be expected considerably to affect some trade currents now established."

"There is little doubt also," another NP report said about this time, "that the growing use of the automobile has had its effect on volume of pasesnger business."

Why Work Was Stopped

Thus, it appears safe to conclude that construction of the Ellensburg Cutoff was stopped short in 1910 by:

(1) A very considerable decrease in business suffered by the Northern Pacific as compared with the previous year;

(2) Increased competition from other railroads;

(3) Prospects of further traffic losses when the Panama Canal was opened;

(4) Possibly a retrenchment of expansion caused by the forming of the first clouds of World War I.

It is a surprising thought to consider that Teddy Roosevelt's Panama Canal had any direct effect on the destiny of Ritzville, but that does not seem an illogical conclusion as far as this research would show.

After 1910, neither the Ritzville Journal nor the NP annual reports made any further reference to the Ellensburg Cutoff.

What is the status of this unused mound of earth today?

According to F. O. Kersten, Northern Pacific western tax commissioner in Seattle, the NP holds a right-of-way of 23.88 miles between Ritzville and Schrag.

This right-of-way extends almost due west of Ritzville for about eight miles, then veers slightly to follow the "third coulee" into Schrag.

From Schrag 12½ miles of track built to main line construction specifications run westward to Bassett Junction. There it connects with the Connell-Adrian line which follows a large loop to the north through Hartline, Wilbur and Davenport and into Spokane.

Serves Two Elevators

The track from Bassett Junction to Schrag services two large elevators at Schrag. During harvest Schrag is scheduled to receive one train per day. The rest of the year it receives trains on call only.

Between 1912 and 1948, according to the NP's western tax office the railroad paid Adams county about $12,000 in taxes to maintain its right-of-way from Ritzville to Schrag.

During the same period it paid approximately $145,000 in taxes on its operating line between Bassett Junction and Schrag.

From Bassett Junction westward, the Cutoff has been only surveyed. The proposed route heads southwest between Potholes and Goose lakes, thence to the west between the French hills and Saddle mountains to the Columbia river.

It crosses the Columbia between Beverly and Vantage. Then it roughly parallels the present Milwaukee Road line into Ellensburg.

A survey of timetables shows that Northern Pacific streamliners using the Ellensburg cutoff could compete more favorably with other trains between Spokane and Seattle, and consequently on the entire run between Chicago-Minneapolis and Seattle.

The Great Northern's Empire Builder is scheduled to make Seattle from Spokane in eight hours. The Milwaukee road's Olympian Hiawatha is scheduled at eight and one-half hours.

But the NP's crack North Coast Limited is scheduled at ten and one-half hours—two hours more—because of the loop down to Pasco. Slashing 88 miles from the run, by following the Cutoff, would make up most of those two hours.

However, as St. Paul headquarters has indicated, bringing the Cutoff into operation must depend almost entirely on guaranteed freight revenues rather than on additional passenger traffic.

Main line construction now costs roughly $75,000 a mile. Bridging the Columbia river above Priest rapids would cost an estimated $2-3,000,000.

Adding sidetracks, station facilities, block signals and other elements would easily raise the cost of the Cutoff to at least $10,000,000.

"To make the building of any new line feasible," Mr. Blum, the chief engineer, has pointed out, "a railroad must be able to show a 10 per cent profit above operation and maintenance costs."

Thus top NP officials have made it very clear that construction of the Ritzville-Ellensburg route must await large-scale development of the Columbia Basin project.

Moreover, another NP official indicated, the railroad has been making strenuous efforts to reduce a heavy interest load which almost threw the line into bankruptcy during the depression.

Certainly the directors would insist on sound evidence of increased earnings before incurring the expense of construction. The Interstate Commerce Commission, too, would have to be convinced that the new cutoff was necessary to the public welfare.

Even if the basin matures rapidly, a possibility may exist (though it has not been confirmed by any railroad official) that the NP might make a deal to use the Milwaukee Road tracks from Lind to Ellensburg rather than attempt new construction.

This prospect deserves consideration, since it can be shown that the Milwaukee track from Lind to Ellensburg could handle additional traffic.

Normal Load Here

The NP's line from Spokane to Pasco normally carries six passenger trains daily in addition to two "time" (scheduled) freights, one local freight, and one or two special freights carrying surplus cargoes from time freights which must be moved swiftly as other schedules would allow.

This makes a total of 10 to 12 trains daily. But during the war the Spokane-Pasco line was able to handle up to 40 trains daily.

Assuming the Milwaukee Road between Lind and Ellensburg carries a comparable normal load, it is likely that five to ten Northern Pacific trains could be added daily without undue trouble.

However, the Milwaukee Road has never been approached on this subject, as far as the Journal-Times could learn, and probably would be receptive only if faced with the immediate threat of a new parallel line.

Even then, it seems unlikely the Milwaukee, having undergone the expense and difficulties of construction, would be apt to surrender its hard-won advantage by sharing its track with a competitor.

Would the NP be apt to reroute the Ellensburg Cutoff before building? This prospect, also, seems unlikely.

The purpose of a cutoff is to cut off distance, and the most distance could be cut off with the least amount of construction by following the present grade from Ritzville.

Would Mean Much

Finally, what would the Cutoff mean to Ritzville?

The answer is: plenty.

Ritzville's growth now, four years after the end of the war, remains steady but nominal.

Direct acceleration could be caused only by inducing a light manufacturing plant or office-type business to locate here. Development of the basin project should benefit Ritzville, but it may be only indirectly.

Construction of the Ellensburg Cutoff, on the other hand, would tie Ritzville directly into the booming activity of the Basin and without losing its present long-standing stability, the city would be certain to grow significantly larger.

Although the Ellensburg line would remain subordinate to the Pasco line, Ritzville certainly would become a division point for splitting up freights to Portland and Seattle and for assembling them for the passage to Spokane and the Midwest.

A small roundhouse would be needed and a classification yard, both probably located inside the "V" at the edge of town. A fuel station and facilities for making minor repairs also would be located here.

Major locomotive and rolling stock repairs still would be handled at Spokane, and through freight crews probably would continue to change at Spokane.

But one well-informed railroad man has estimated that 25 to 50 families would be placed on a railroad payroll in Ritzville.

That would not end the expansion, however.

From Ritzville local freights could pick up irrigation produce at Moses Lake, Wheeler, and other points. and return that same evening for conection with eastbound through freights from Yakima and Pasco.

This service might attract an icing station and very likely processing plants of one kind or another. Then Ritzville indeed would become a living part of the Basin development.

In conclusion, it is accurate to report that while the Ellensburg Cutoff is not under active consideration at this time, its construction will be considered very seriously whenever the Columbia Basin develops sufficient freight traffic to justify the expense.

It is impossible to say when this day will arrive, but it would appear almost inevitable during the next 10 to 25 years.

The Ritzville Journal-Times

Entered as Second Class Matter at the Postoffice at Ritzville, Washington, Under Act of Congress, March 1, 1879.

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50 Years Ago

February 10, 1899

Wells in Adams county vary in depth from 15 to 300 feet, but most of them are from 100 to 175 feet.

Elder T. M. Morgan preached in Washtucna schoolhouse Sunday.

In Kansas Valley the ground is frozen to a depth of about a foot. In Lind there are nine inches of snow. In Paha some of the cattle are dying because of the severe weather.

County School Superintendent L. C. Van Patten paid an official visit to the school Friday.

Mrs. Smith and two sons of Ritzville and Mrs. Van Patten of Paha were visiting Mrs. Savage when the storm came and they could not get home.

Fine winter apples $1.00 per box.

J. P. Schroeder opened the Hotel Ritzville, formerly the Morley house the first of the week.

Miss Lucy Mays of Washtucna is now permanently employed as a deputy in the county treasurer's office.

Mrs. Ellen McKellips, 60 years old, died here this morning. She came to Adams county in 1889.

Mrs. Parr of Crab Creek lately received a letter from home with a check for $30 to help fence her claim.

The bliggard struck Crab creek the last day of January and it has been 6 below zero every night since.

Willie Parr started home from Lavender's a little before the storm came. Several times the horses turned and refused to face the storm but by letting them stand for a few minutes and then using the whip and urging them he got started again and then finally reached home safely.

John Schaffer, living near the North line of the county, has lost three children in the past few days.

Nora, infant daughter of Mr. and Mrs. William Goodenough, of Hatton, died Saturday at the home of her parents.

L. C. Van Patten, county superintendent of schools, has just recovered from an attack of measles.

What Is Your Opinion?

ALTHOUGH OPEN HEARINGS on the subject were conducted recently, apparently some farmers in this area are still not quite certain as to how the proposed Washington Wheat Commission would operate if it were approved by the legislature.

The act as submitted to the house agriculture committee states that the commission is created to conduct research, find new markets for wheat and its products, advertise wheat and its food values, advertise the special values of wheat grown in this area, study our agricultural problems, fight to maintain equitable freight rates, and undertake a host of minor activities.

The act empowers the commission to force the first purchaser—the grain dealer to whom you sell your wheat—to collect one-fourth of a cent per bushel. This money would be sent to the state treasurer who would keep it in a special wheat commission fund which the commissioners may spend to the best advantage. The Washington-Idaho Wheat league estimates this revenue plan will raise between $120,000 and $150,000 yearly.

The bill calls for five commissioners which the governor would appoint, one from each district. Adams falls in District 4 along with Grant, Douglas, Chelan and Okanogan counties. Each commissioner must have farmed in the state at least five years and be actively engaged in farming. The commissioners will serve without pay.

Oregon has a wheat commission established in 1947 which collected $40,000 at one-half cent a bushel last year. Some $5,000 of this was donated to Washington State college for wheat experimentation, and $3,500 was placed in a special fund to study freight rates. Experimental work in erosion also is planned.

Right now the state legislature is attempting to determine whether or not a majority of Washington's wheat growers are in favor of such a commission. But the lawmakers can't tell unless the farmers speak up. The Journal-Times urges all of its farmer-readers to send a postcard, if nothing else, to Representatives Hoefel or Raugust, casting a yea or nay on the proposed commission and briefly stating a reason or two for their vote.

Shorty Becker, First Draftee, at Lewis

Recruit Alvin L. (Shorty) Becker of Ritzville, first Adams county man drafted under the post-war selective service program, has been assigned to Company A, 23rd infantry regiment, at Fort Lewis, Wash.

Becker is one of 600 men who came to Fort Lewis after being "introduced" to the army at Fort Ord, Calif. He will take his basic training at Washington post and then be asigned to a regular active unit.

BUYS GAS STATION

Mr. and Mrs. Leonard Swedo will move to Spokane this weekend where he has purchased a filling station on the south hill.

Mrs. Lawrence Gaskill and Mrs. O. L. Gaskill visited Mr. Lawrence Gaskill in St. Luke's hospital in Spokane over the weekend.

POWER SHORTAGE PAST EXCEPTING 5-6 P. M. — TONY

The peak of the winter power shortage in the Pacific Northwest has passed, Tony Eichner, Washington Water Power manager, declared Wednesday.

Eichner said all members of the Northwest power pool were grateful to the public for its cooperation during the critical period. Voluntary power conservation may now be relaxed, he said, except during the peak hour of 5 to 6 p.m. when dangers of a shortage still exist.

Mr. and Mrs. Eichner returned Tuesday from a visit with relatives at Bolville, Ida., where the snow, he claimed, was drifting into second story windows and the Ritzville couple was marooned for two days.

During his absence Ted E. Holsey of Davenport, WWP division manager, visited the Ritzville office.

Schools Opened Despite Weather

Water or no water, school was resumed Wednesday and Superintendent H. A. Trimble said every effort would be made to continue classes without a break. Ten of the 15 days allowed for cancelling school because of bad weather already have been used up.

The superintendent reported that despite muddy roads, attendance Wednesday was normal. Only 10 of the 236 high school building students were absent and only 14 of the 270 at Central school failed to make it.

About 25 family cars helped deliver passengers at the two schools, but all buses were operating as usual. Two drivers, Jack Danekas and Verlyn Gereine got stuck in the country but both managed to free themselves in short order. Fred Langenheder, member of the school board, came along in time to help Danekas.

Decision to open the schools was made at a director's meeting Monday when members decided they were risking a serious loss of educational benefits to the students if they remained closed any longer. It is almost inevitable that more days will be lost during the spring breakup.

Town Crier

February 19 (Saturday) Marcellus Grange takes the Friendship Chain back to Sandhills Grange. Last of gavel meetings.

February 22 (Tuesday) Women's club meeting at home of Mrs. Edmond Meyer 1 o'clock dessert.

February 25 (Friday) Marcellus Grange pinochle party. Public invited.

February 26 (Saturday) 4-H Colt club western square dance H. S. gym, teen agers.

February 26 (Saturday) Ritzville Firemen's ball at Legion hall.

Mr. and Mrs. M. B. Reese of Spokane spent the weekend in Ritzville to attend the wedding of Miss Hoefel and Mr. Munroe.

Here's More About— TAX BILLS

(Continued from Page 1)

thousand dollars worth of assessed valuation, as compared with $63.968 for last year.

Lind Levy Highest

Lind residents are paying the same taxes for state, county, hospital district and city plus a 47.5-mill levy for schools which makes their total $77.805 on a thousand valuation as compared with $57.468 for last year.

Washtucna this year has a rate of $49.305 mills as compared with $55.468 last year. Othello's is up from 65.468 to 74.305. Special levies for schools and Fire District No. 7 are responsible.

Taxes for rural residents depend largely on what road, fire and school districts they live in.

Mrs. Thiel explained that all third class school districts pay a non-high school levy of two mills which is held in reserve to pay for the high school education of children from those districts.

While residents of Lind and Othello face the highest levies, Mrs. Thiel said, a farmer living in the Benge school district, Road District 1, and Fire District 1 pays the lowest levy — 34.616 mills as compared with 77.805 for a citizen of Lind.

PROM DATE SET

WASHTUCNA — The Junior prom which was to be given February 12, had to be postponed because of the weather.

The date has been set for March 26.

Guests of Mrs. Robert Honeycutt Monday afternoon were Mrs. Ray Hayden, Mrs. Dale Wise and Mrs. Frank Laird.

November 12, 1948

BRUCE WILSON, Editor
Ritzville Journal-Times
R i t z v i l l e, Washington

Dear Mr. Wilson:

Mr. Ackermann has written me about your proposed article on the RITZVILLE-ELLENSBURG cutoff that was surveyed and partially constructed in 1909 and 1910, and your desire to accompany your article by a sketch showing the route of that line.

I am returning your sketch-map which Mr. Ackermann sent me. Instead of correcting it I am transmitting to you a white print of a map of Washington and Northern Idaho which is published by the Northern Pacific. On this print there is shown in red the alignment of the Ritzville-Ellensburg cutoff. As you know, that portion of the cutoff between Bassett Jct. and our Connell Northern line and Schrag, was constructed and is operated today; and therefore I have not colored it.

This map shows the location of the Third Coulee, French Hills, as well as the Potholes reservoir.

From this map I think you can obtain a better picture and a better cut than from a freehand sketch, although it seems evident that you have traced your sketch from the same map which I am sending you, since your drawing portrays the location of the towns and streams shown thereon. As you evidently know, the small squares are townships, with the boundary lines 6 miles apart.

Construction of the line was commenced October 1,1909, and such grading as was done was completed in June 1910. Between Ritzville and Bassett Jct. the pile bridges were practically completed by June 1910. Track-laying was begun at Bassett Jct. July 8, 1910, and reached Schrag on July 30, 1910. At that time further work ceased.

Last October 16, the day I called on you, on our way to Moses Lake, I drove along the line from Ritzville to Bassett Jct. on the U S Highway; and observed that the grading done 39 years ago was nearly continuous from Ritzville to Schrag, although I also observed a couple of short stretches where the grading was not finished.

Our records are not clear as to why the track-laying was not continued into Pitzville, although it is my recollect on that in 1910 business conditions were rather unsettled, and that may have had a bearing on the decision.

I trust that this will give you the information desired.

I was indeed glad for the opportunity to meet you on my recent trip.

Very truly yours,

cc-Mr. L. M. Ackermann
x
bc-Mr. J. H. Poore

bb/s

att.

Kitzville to Bassett Jct

Construction of line was begun on Oct 1st 1909, and grading of roadbed was completed in June 1910. The pile bridges were practically complete in June 1910.

Track laying was begun on July 8, 1910 and reached Schrag on July 30, 1910.

NORTHERN PACIFIC RAILWAY COMPANY
TRAFFIC DEPARTMENT
701 SPRAGUE AVENUE, SPOKANE, WASHINGTON
L. M. ACKERMAN, GENERAL AGENT

November 6, 1948 File J

MR. BERNARD BLUM, Chf.Engr.,
St.Paul, Minnesota

You will recall that Mrs. Bruce Wilson of the Ritzville Journal-Times called on you at St.Paul several weeks ago in connection with a story they plan to run on the old proposed Ritzville-Ellensburg cutoff.

They have spent considerable time going over old county records and copies of their own newspaper printed in 1908 and 1909, but are still in need of a little more data before running the story. There has been considerable inquiry on the part of the public concerning this project ever since we had some men attend hearing on the proposed Priest Rapids dam, and a complete story in the Ritzville paper would not only be timely but of no little advertising value to the Northern Pacific. Much of the story will be historical, and will be careful not to leave the impression that there are immediate plans for the extension.

Mrs. Wilson recalls a map you had showing the proposed line. With their story, they would like to sketch a map showing location of the extension in relation to present facilities; therefore, have shown on the attached where the old survey ran. It is our understanding that the proposed line ran almost due west of Ritzville for about 8 miles, then followed so-called Third Coulee into Schrag; then from Bassett Junction it went southwest between Potholes and Goose Lakes, and thence almost midway between the French Hills and Saddle Mountains, and crossed the Columbia River between Beverly and Vantage; then paralleled present line of Milw.RR. into Ellensburg. Will you please have one of your men make whatever corrections are necessary to this sketch? You may return same, either to this office or to Mr. Wilson direct.

According to 1908 and 1909 issues of the Ritzville newspaper, the proposal was progressing rapidly, but then suddenly dropped. Do you know of any contemporary event that caused this? Also will you confirm our understanding that the grade was completed between Ritzville and Bassett Jctn.?

tk/a L. M. Ackerman, GA.

cc: Mr.Bruce Wilson, Editor,
Ritzville Journal Times,
Ritzville, Washington

3127

Saint Paul, December 9th, 1936

MR. H. E. STEVENS:

I am handing you herewith for approval Idaho Division AFE ED 92-38, covering retirement of proposed Ritzville-Ellensburg cutoff.

As you know there was completed under AFE 844-09 that portion of the cutoff located between Bassett Jct. on the Connell Northern and Schrag. Grading and bridge work was done on the line between Ritzville and Schrag amounting to $213,509. Between Bassett Jct. and Ellensburg under AFE #816-11 a total expenditure of $83,477 was incurred, of which practically all was engineering.

It seems desirable to write off this investment, and the Accounting Department are anxious to have the AFE as soon as possible so that the accounting can be consummated during December.

No RFA was received, and under the circumstances I do not believe approval of Western District officers is necessary.

bb/s

x

St.Paul, Dec. 8, 1936.

MR. BLUM:

Herewith for approval Idaho Division AFE ED 92-36 Bet.Ritzville, Ellensburg-retirement of property and investment abandoned, $---.

The AFE covers abandonment of the partially completed line from Ritzville to Schrag and the location survey, Basset Jct. to Ellensburg, capitalized under AFEs 844-1909 and 816-1911, but not inventoried.

HAC

enc

HAC-vm 1

FILE 3127

COPY

31

Saint Paul, September 6, 1924.

Mr. H. E. Stevens:

Referring to Mr. Watsons's letter of September 4 attached. The certificate and affidavit of proof of construction of the Adrian Branch are correct. The dates have been filled in in this office.

As to the last paragraph of Mr. Watson's letter about the unconstructed line between Ritzville and Ellensburg: I presume there is very little prospect of that line ever being built and it would seem to me as if we might just as well file a relinquishment of any rights acquired by the filing of the five maps.

Asst. Chief Engineer.

SJB:h

encl.

February 2, 1912.

Dear Madam:

Replying to your letter of the 30th ultimo:

I would be very much pleased to answer your inquiry definitely if possible, but the line to which you refer has not yet been authorized by this Company, and meanwhile matters might come up which would require an entire change in the several lines that have been located through that district. You can, therefore, understand that it is impossible for me to say that the adopted line will pass through any particular section.

Yours truly,

Chief Engineer.

Miss L. H. Wheeler,
211 South Elm Street,
Spokane, Washington.

211 So Elm Street

Spokane Wash 1/30/12

Mr W. L. Darling Chief Engr

St Paul Minn

Dear Sir:

If consistent with all your secret knowledge & discretion will you please advise me if your "Ritzville Ellensburg Cut off" will cross S. E. 1/4 Sec 32. 18. 20. I have waited nearly a year hoping to learn this through general public news. 12 miles from Ellensburg is the nearest point yet

Known to me, This information

means very much to me.

Yours very truly

(Miss) L. Otto Fuller

3127
Survey

REG

Saint Paul, November 10, 1911.

Mr. A. R. Cook,

Principal Assistant Engineer,

Tacoma, Wash.

Dear Sir:-

As requested in your letter of the 4th inst. I am sending you under separate cover by train mail today, a set of blueprints of revised location Ritzville to Ellensburg.

Yours truly,

Chief Engineer.

Encl. S.C. T.M.

Form 290 TW

Northern Pacific Railway Company

Tacoma, Washington, November 4, 1911.

Mr. W. L. Darling,

Chief Engineer.

Dear Sir:

Will you please furnish me with a set of the revised Kitzville-Ellensburg cutoff located line maps for our files? We are receiving copies of deeds from the Right of way Department covering right of way purchased for this line and maps are needed on which to record same.

Yours truly,

A. R. Cook

W-P

Principal Assistant Engineer.

please furnish with 8117

#203-17
#215-12, 13, 21 & 25.

R. E. Eddy

Prints herewith

11/10/11

3127

St. Paul, June 16th, 1911..

Mr. Howard Elliott,

President.

Dear Sir:-

Referring to your memorandum about Ritzville Branch and connections.

1st. The cost to complete the Ritzville Line without reducing to 3° curves is as follows:

Bridges,	$3599	
Ties,	5255	
Track Fastenings,	2561	
Frogs & Switches,	800	
Tracklaying & Surfacing,	93739	
Buildings,	3355	
Fences,	6562	
Crossings & Signs,	1250	
Telegraph Lines,	2500	
Transportation,	9913	
Engineering,	8331	$137865

The above on the basis that the Operating Department will return the 90# steel which has recently been transferred to them.

2nd. Connections:	Ritell,	0
	West Warden,	10500
3rd.	Connection at Ellensburg,	83000
	Total,	$231365

Yours truly,

Chief Engineer.

Encl.

Maps on file Book

St. Paul, June 15th, 1911..

Mr. Howard Elliott,

P r e s i d e n t .

Dear Sir:-

I neglected to take up with you the other day matter of connections between the Saint Paul and Northern Pacific between Ellensburg and Ritzville. The attached blueprint, I think, will give you the information you wish.

The cost of the connection between the Saint Paul near Ellensburg and the Ellensburg station, a distance of about three miles is $83,000.00; the connections at Ritell and West Warden will be less than a mile each.

The distances and profile are shown on sketch.

Yours truly,

Chief Engineer.

Encl.

3/27

R April 5th, 1911..

Trinidad Land Company,
614 Columbia Building,
Spokane, Washington.

Gentlemen:-

Referring to your letter of the first instant.

The construction of bridge you refer to across the Columbia River has not been authorized by this company.

Yours truly,

Chief Engineer.

GENERAL OFFICES: 614-615-616 COLUMBIA BLDG.
SPOKANE WASH.

April 1st., 1911.

Chief Engineer,
Northern Pacific Railway,
St. Paul, Minn.

V

Dear Sir;-

We understand that you will build a bridge across the Columbia River on your new Ritzville Ellensburg cut-off, sometime during the next year, and we thought that we would write and tell you that Trinidad would make an ideal distributing point for you, as there are side tracks already in and good roads down to the river.

Should you care to purchase a steamboat we know of a boat seventy feet long, twelve foot beam, drawing thirteen inches of water, stern wheeler, seventy horse power, which you can get f.o.b. at Trinidad, Wash. in perfect running order for $2300.00. We think that you will have better results by shipping over the Great Northern Railway than to ship over the Milwaukee as everything can be floated down stream from Trinidad, while from Beverley you will have to haul everything up stream.

Hoping that you will soon put in your bridge and will make Trinidad your shipping point, and that we can be of some service to you, we remain,

Sincerely yours,

TRINIDAD LAND CO.

By

W. G. Robertson Secy.

W.G.R./S.C.B.

3127

REG

St. Paul, March 14th, 1911..

Mr. W. S. Tayler,

Auditor Agencies.

Dear Sir:-

I enclose letter of March fourth from Mr. L. L. Turley, to Mr. M.W. Howland with copy of his way-bill No. 239 covering one case of dynamite shipped to the Flick Construction Company, and advising that the agent at Line is asking for prepay of $0.79 to cover above shipment. This shipment covered case of dynamite which had been borrowed from the Flick Construction Company and was being returned to them at Rye Station. The charge is a proper one against File O Ellensburg - Riztville Cut-off and I will be glad if you will arrange to have the agent relieved of the charge and bill made against the construction department.

Yours truly,

Chief Engineer.

Copy L L T

Waukegan,Ill.,March 10th,1911

Mr.W.L.Darling,Chief Engineer N.P.

St.Paul,Minn.

Dear Sir:-

Answering your letter of March 8th. regarding prepay on casex of dynamite shipped by me to the Flick Construction Co. at Rye,Wash. We borrowed a case of dynamite from the Flick Construction People at Beverly to use in connection with the boreings at Sand Hollow Crossing of the Columbia River about the first of October and agreed to return same amount of dynamite to them at any near p ppoint. Rye Station is first station west of Beverly,on the Milwaukee R.R. and the bill from the Agent at Lind evidently covers the return of the borrowed material.

The Agent at Lind had instructions to prepay freight over the C.M.& P.S. for us but as this shipment was made to the Flick Construction CO,I presume that the Auditor thought it a doubtful shipment and refused to credit the Lind Agent with the prepayment. The charge is a proper one,however,and the Lind Agent should be paid. This is the first that this matter has been brought to my attention or I should have paid it and taken receipt for the amount.

Yours truly,

M.W.Howland

Northern Pacific Railway Company.

Office of the Chief Engineer

W. L. DARLING
CHIEF ENGINEER

REG

St. Paul, Minn. March 9th, 1911..

Mr. M. W. Howland,

219 County St. Waukeegan, Ills.

Dear Sir:-

Herewith letter from L. L. Turley March 4th with copy of way bill 239 covering dynamite shipped to Flick Construction Company and stating that the agent at Lind is asking for prepay of 79¢ to cover. I do not understand this shipment or why the Railway Co. should pay freight on same. Will you please explain.

Yours truly,

W L Darling

Chief Engineer.

eEnel.

RÆG

3127

Saint Paul, March 4, 1911.

A. R. Cook,

Engineer Maintenance of Way,

Tacoma, Wash.

Dear Sir:

Referring to your letter of February 20th to Mr. Smith in regard to credit for 92 lineal feet 1½" pipe.

The credit offered by the Division Storekeeper for same is satisfactory and should be made to File none, Ritzville-Ellensburg Cutoff.

Yours truly,

Chief Engineer.

Form 1290 TW

Northern Pacific Railway Company

IN YOUR REPLY PLEASE REFER TO FILE

4

SAINT PAUL, March 3, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

I return you herewith Mr. Cook's letter of the 30th received with your letter of the 1st, regarding 92' of 1¼" pipe.

Credit offered by Division Storekeeper is satisfactory and should be given to File( )'10 Ritzville-Ellensburg Cutoff.

Yours truly,

Bridge Engineer.

B

Form 290 TW

Northern Pacific Railway Company

Tacoma, Washington, February 20, 1911.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:

At the request of Bridge Engineer Stevens there was shipped to South Tacoma by Assistant Engineer Westfall 92 lineal feet of 1¼" pipe. Mr. Westfall advised that this pipe was ordered from Crane and Company at St. Paul for the work at the Columbia River but was not received before the drill outfit was shipped to South Tacoma. The Division Storekeeper advises that he will accept bill for this at $10.00 per hundred feet. Please advise if this price is satisfactory and if so what account should be credited with value of the pipe?

Yours truly,

A. R. Crane

W-P

Engineer Maintenance of Way.

3127

Form 290 TW

Northern Pacific Railway Company

File

St. Paul, March 2nd, 1911..

Mr. Darling:

Referring to attached: The boring outfit used at Sand Hollow was shipped to Tacoma and arrived short the cable in question. Mr. Stevens investigated and it would appear that someone had removed the cable from the car at Beverly. Possibly it is not worth while pursuing the matter further as cable is only worth about $32.00 and the expense of sending a special agent to investigate might amount to more.

R. E. Gemmell.

Form 255 T W

Northern Pacific Railway Company.

At Spokane, Feb. 26th, 1911..

Mr. Gemmell:

Will you please take up with Mr. Stevens and see what is the occasion for this correspondence about loss of 1750' of ½" cable. There is nothing to show where it originated nor occasion for correspondence.

W. L. D.

6

Form 2290 TW

Northern Pacific Railway Company

IN YOUR REPLY PLEASE
REFER TO FILE_____

SAINT PAUL, February 22, 1911.

HES.

Mr. W. L. Darling,

Chief Engineer.

Dear Sir:

I hand you herewith correspondence regarding shortage of 1,750 feet of ½" cable, which was supposed to have been shipped in from Beverly, along with the balance of the boring outfit used in making Columbia River Soundings at Sand Hollow.

You will note from the correspondence that Mr. Howland and his men are positive that this cable was loaded into the car, but when car was checked up on its arrival at South Tacoma, the cable was missing.

It seems quite probable that the cable was removed from the car by someone before the car left Beverly.

The weight of the cable is approximately 800 lbs., and its value about $65.00, FO.B. Seattle. It had been used throughout the job and was probably worth about one-half price, or $32.00.

I suggest that the matter be turned over to the Special Agents as it may be , the cable can be recovered.

Yours truly,

B

Bridge Engineer.

SAINT PAUL, February 18, 1911.

COPY.

Mr. H. E. Stevens,

Bridge Engineer, N.P. Ry. Co.

Dear Sir:

I was talking to Mr. E. A. Howland and he is positive the 1750 ft. of ½" cable was loaded and from other talk, evidently some of the ranchers along the River near Beverly wanted a cable, and may have gotten it after it was loaded.

His teamster in a letter which is now in your file also confirms the loading of this cable. It would be well for some one to look along the West Side of the River, North of Beverly as far as the Sand Hollow Crossing.

A fellow by the name of Scurlock, living near the Crossing might know something of this cable.

In my file which you will find in the chest in front of my table you will find Howland's description of the cable, written today, which I intended to attach, but in my hurry to pack up, it was packed. You will find it in a wire basket on top, labeled"Columbia River Crossing".

Yours truly,

(Signed) H. C. WESTFALL

Asst. Engr.

FE B

SAINT PAUL, Minn., 2/18/1911.

Mr. H. C. Westfall,

Asst. Engr.,

City.

COPY.

Dear Sir:-

In regard to the ½" cable reported missing from car in which I shipped all drilling tools and camp equipment to Tacoma, will say that this cable was reeled up on a home made reel made from a 4" x 6" timber with 1" pipe thru the ends to hold the cable on.

After floating down from the camp, I had the men load the cables first. The 5/8" cable went in the first wagon load, then the two ½" cables were taken on the second trip. There was about 250' of ½" cable that was coiled up and tied.

If the cable was taken out at Beverly, it must have been done by someone who wanted to put in a ferry. At least this is my opinion.

The cable had many strands broken and was covered with a coat of Standard steam engine oil when reeled.

Yours truly,

(Signed) E. A. HOWLAND.

My Adress is

Ortonville, Minn., if you

wish to find me.

COPY.

ORTONVILLE, MINN., 1/13/1911.

Mr. H. C. Westfall,

Asst. Engr.,

St. Paul, Minn.

Dear Sir:-

Herewith is a letter just received from Mr. Smith(who was teamster for me on the Columbia River), which explains itself.

I expect to be in St. Paulabout the last of this month and will call at the office and if there is anything I can do will be glad to do it while there.

Yours truly,

(Signed) E. A. HOWLAND.

B

COPY

Beverly 1/8/1911.

Mr. E. A. Howland,

Ortonville, Minn.

Dear Sir:-

In regard to the articles that were short in the car.

The cable was the first thing that was loaded, for I hauled up the big roll the first time and the other two the next time.

Regarding the other articles that you mention. There was quite a number of blocks put in the car, but I could not say how many; and there were some lanterns put in too. So that the articles that are short must have been taken from the car and the cable I know was loaded.

Yours truly,

(Signed) Chas. Smith.

B

ORTONVILLE, MINN., 1/3/11.

Mr. H. C. Westfall,

Asst. Engr.,

St. Paul, Minn.

COPY.

Dear Sir:-

Your letter in regard to shortage of articles from car shipped to Tacoma will say that to the best of my knowledge every thing was put in the car.

I staid at the barge and checked the articles off as they left there and had Mr. Staples go with the load and see that it was loaded. With the exception of moving the cables I was present when everything was loaded on the wagon. They were the first to be loaded and I went up town to settle some bills and on my return asked Mr. Staples if the cables were loaded. He told me they were.

The six steel pins for shives were in a long box. The 6" shives were in a sack and I counted the steel snatch block and pulleys. The single & double blocks were put in one of the boxes.

The first night I sealed the car myself, Mr. Staples being with me. It was after dark and It might be that some one took the missing articles before I sealed the car. I know that everything was loaded on the wagon from the barge. I will write to my teamster in regard to the cable; if it was not loaded in the car he will tell me.

Yours truly,

(Signed) E. A. Howland

317

Saint Paul, February 6, 1911.

Mr. O. C. Wakefield,

Supply Agent.

Dear Sir:

Referring to your letter of the 4th in regard to invoice of Robinson, Cary & Sands Co., June 9, $3.30, and returning papers.

Notwithstanding the statement that the former Agent's records show that this shipment was delivered, I am advised by the Assistant Engineer in charge of the work that it was not.

Yours truly,

Encl.

Chief Engineer.

St.Paul,Minn.,February 4th,1911.

Invoice Robinson,Cary & Sands.

Mr. W.L.Darling,

Chief Engineer.

Dear Sir:

Referring to myletter January 19th. in regard to invoice Robinson,Cary & Sands Company June 9th,$3.30.

Will you please return invoice promptly for voucher. I advised you in my letter January 19th. that the material was delivered July 20th/

Yours truly,

Supply Agent.

N-d.

3385

St.Paul,Minn. January 19th. 1911.

Mr. W. L. Darling,

Chief Engineer,

Dear Sir:

Referring to your letter October 12th., in regard to material upon invoice Robinson, Cary & Sands Co., June 9th. $3.30.

Please note Mr. Dickson's letter January 11th., attached, indicating that the material was received and delivered on July 20th. 1910. Kindly ~~have~~ arrange prompt return of invoice referred to for voucher.

Yourstruly,

Supply Agent,

N-c

Jim Grieve -
There are some papers showing we never got the material - Please see if you can locate them 1/26

3127

St. Paul, Minn., Oct. 19th '10.

Stock & dies.

Mr. W.L. Darling,

Chief Engineer.

Dear Sir:-

Replyint to your letter October 12th, in regard to invoice Robinson Cary & Sands Co. June 9th, $3.30. Mr. Dickson writes me under date of October 17th as follows:-

"Referring to your letter of Oct. 14th, relative to a shipment of one box of stock and dies forwarded by Robinson Cary & Sands Co. on June 9th to care of M.W. Howland, at Beverly Wash. This shipment went forward on Northtown to Easton way-bill 3864 of June 10th in N.P. car 98591.

I have requested the Agent for final delivery but to date have received no reply. I have sent another tracer this date and as soon as I receive a reply, will advise you the result of my investigation."

As soon as investigation is completed, I will advise you in regard to the invoice.

Yours truly,

Supply Agent.

N J

E.O. Howland adv. material received just before they closed up work had none OK Ronnie Send d to 0 0 C5

4/4/11 ——— neg

St. Paul, Minn., Oct. 14th '10.

Stocks and dies.

Mr. T.H. Dickson,

Agent, St. Paul.

Dear Sir:-

Will you kindly advise if material referred to in my letter of September 21st reading as follows, has been located:

"Herewith copy of shipping receipt covering one box of stock and dies forwarded by Robinson Cary & Sands Co., June 9th, to care of M.W. Howland, Beverly, Wash.
Will you please start immediate tracer and advise delivery?"

Yours truly,

Supply Agent.

N J

Copy W.L.D. Your letter Oct. 12. Invoice Robinson Cary & Sands Co., June 9th, $3.30.

COPY.

St. Paul, Sept. 10, 1910.

REG-W

Mr. O. C. Wakefield,

Supply Agent.

Dear Sir:

Referring to your memorandum of the 31st ultimo concerning invoice of Robinson, Cary & Sands Company of June 9th for $3.30 covering material shipped Mr. M. W. Howland at Beverly, Washington.

Mr. Howland advises that the supplies covered by this bill have not yet been received and that he will have no further use for them, having borrowed others. Please advise how bill should be handled.

Yours truly,

Chief Engineer.

Form 290 TW

Northern Pacific Railway Company

Ritzville, September 6th, 1910.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Dear Sir:

Referring to your letter memorandum of Sept., 1st, regarding return of Robinson, Cary and Sands Company bill of June 9th, amount $3.30.

Beg to advise that supplies covered by this bill have not been received. When Mr. Stevens, Bridge Engineer was here last week he advised us to have this bill cancelled and if the supplies were received to return same to St. Paul.

As the supplies referred to have not been received and as we have no further use for them, having borrowered same for our use, think that this bill should be cancelled, but do not know how this should be handled, account of ordering supplies and there not being received.

Suppose we will have to pay for same as soon as supplies are received. Will you please advise me regarding this.

Yours truly,

W W Howland

CWL

Assistant Engineer.

COPY

St. Paul, Sept. 1, 1910.

REG-W

MEMORANDUM

Mr. M. W. Howland:

Will you please hurry return of invoice of Robinson, Cary & Sands Company, dated June 9th, amount $3.30, sent you July 15th.

W. L. Darling.

W.L D.

Kindly hurry return of certified invoices favor Robinson Cawry & Sands Co., dated June 9th amount $ 3.30 sent you 6/14/10, material shipped M.W. Howland Beverly, Wash.

O.C. Wakefield

8/31/10

for your record

Ritzville, September 6th, 1910.

Mr. W. L. Darling,

Chief Engineer.

St. Paul, Minn.

Dear Sir:

Referring to your letter memorandum of Sept., 1st, regarding return of Robinson, Cary and Sands Company bill of June 9th, amount $3.30.

Beg to advise that supplies covered by this bill have not been received. When Mr. Stevens, Bridge Engineer was here last week he advised us to have this bill cancelled and if the supplies were received to return same to St. Paul.

As the supplies referred to have not been received and as we have no futher use for them, having borrowered same for our use, think that this bill should be cancelled, but do not know how this should be handled, account of ordering supplies and there not being received.

Suppose we will have to pay for same as soon as supplies are received. Will you please advise me regarding this.

Yours truly,

CWL

Assistant Engineer.

Form 290 TW

Northern Pacific Railway Company

St. Paul, Sept. 1, 1910.

REG-W

MEMORANDUM

Mr. M. W. Howland:

Will you please hurry return of invoice of Robinson, Cary & Sands Company, dated June 9th, amount $3.30, sent you July 15th.

W. L. Darling.

Form 290 TW

Northern Pacific Railway Company

Ritzville, Wash., Aug 24th, 1910.

Mr. E. A. Howland,

Beverly, Wash.

Dear Sir:

Have you any record of receiving 1 - 2# Stock & dies cutting 1 1/4 to 2".

I wrote you some time ago regarding this but at that time you had not received it. Will haveto put out a tracer for it as same was shipped from St. Paul in June.

Yours truly,

M W Howland

CWL Assistant Engineer.

M. W. H. 8/26-10

Only received 1 die & collar for cutting 1" pipe.

E. A. H.

Ritzville, Wash., Aug 24th, 1910.

Mr. E. A. Howland,

Beverly, Wash.

Dear Sir:

Have you any record of receiveing 1 - 2# Stock & dies cutting 1 1/4 to 2".

I wrote you some time ago regarding this but at that time you had not received it. Will haveto put out a tracer for it as same was shipped from St. Paul in June.

Yours truly,

CWL

Assistant Engineer.

3-25-10 10M RP

Supply Agent's Reqn. No. BD 68
Division " " "
Sheet " "

Form 1018

Northern Pacific Railway Company.

St. Paul, Minn., September 7, 1910.

To the PURCHASING AGENT,

The following articles are required for the Company's use, and should be delivered

to M. W. Howland, Assistant Engineer, *at* Ritzville, Wash.

QUANTITY	DESCRIPTION OF ARTICLES	Estimated Cost	For What Purpose Ordered	ON HAND
			Supplies will be furnished only upon the written requisition of the heads of Departments, and the officer making the requisition must state fully and minutely where and for what purpose the articles ordered are to be used. If this is not done the requisition must be returned for the information.	
1 ✓	Set Stocks & Dies, Threads 2" to 3" ✓		For completing borings on proposed Columbia River Crossing, Sand Hollow.	
1	Fluted Rock bit Figure 606) Am. Well			
1	Star bit, Figure 66) Works Bulletin			
2 ✓	Reamers, Figure 36)) No. 105			
6 ✓	Jetting drills, Figure 773)			
	(All drills and reamers to pass through a 3" pipe and screw to a 2" drill rod.)			
	Please R U S H and ship by express.			
	Cy. M.W.H.			

Approved Chief Engineer

Principal Assistant Engineer.

Bridge Engineer. (Sign Here.)

(Title)

Supply Agent.

3127

Saint Paul, Minn., Jan. 31, 1911.

Mr. Howard Elliott,

President.

Dear Sir:-

I hand you herewith estimates giving comparative costs for constructing line between Ritzville Junction on the Connell-Northern Railway Westerly to Ellensburg as follows:

COMPARISON OF SAND HOLLOW AND BEVERLY LINES:

	Sand Hollow			Beverly		
	Cash Cost	Transportation.	Total	Cash Cost	Transportation.	Total
M.L. 82.9 mi.						
Sid'gs. 9.39 "						
Total, 92.29 "	$3606782:	$ 642098:	$4248880:			
M. L. Connell Northern Jct. to Beverly; 50.5 miles,				$1607356:	$263678:	$1871034
½ cost of Beverly Bridge,				375000:		375000
½ cost of 32 miles St. Paul Line @ $60,000:				960000:		960000
Ellensburg connection, 2.8 miles,				70300:	11700:	82000
Total,	$3606782:	$642098:	$4248880:	$3012656:	$275378:	$3288034

OPERATING COST FOR TEN TRAINS DAILY EACH WAY.

	Sand Hollow.	Beverly.
Interest on investment at 4%,	$169955.	$131521.
Distance 3.1 miles,		11625.
Pusher Service 5.4 miles,		15120.
Rise and Fall 30',	2100.	
½ Cost 32 miles maintained track @ $1000.	16000.	
Interest on ½ cost 32 miles double track 4%,		25600.
	$188055.	$183866.

The attached map and profile shows alignment and grades worked to. The Saint Paul Line is constructed with 10 to

12° curves between the river and Ellensburg while the Northern Pacific has not to exceed 6° curves.

The Sand Hollow Line estimate is based on the constrc-tion of an entirely new line from Connell Northern Junction to Ellensburg with a steel bridge across the Columbia River using 3° curves except on the mountain between Ellensburg and the river by using 6° curves, also 6° curves on the 1.6% pusher grade for four miles east out of the Columbia River.

The Beverly Line estimate is based on the construction of a new line extending fron Connell Northern Junction to Beverly thence using St. Paul line to within 2.8 miles of Ellensburg then by building new track to connect with the Northern Pacific just south of the most southerly yard switch.

The Sand Hollow estimate has been increased $494,100. over that sent you April 15th principally due to

Additions to Right of Way,	$53,000.00
Ballast,	74,000.00
Transportation,	91,000.00
Engineering,	275,000.00
	$493,000.00

Yours truly,

Encl.

Chief Engineer.

Original copy on file 3004 also copy on file 1907

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

Estimated cost of the proposed Ritzville-Ellensburg Cut-off, between the point of connection with the Ritzville Branch, just east of the crossing of the Adrian-Connell Line, and Ellensburg, via Sand Hollow.

(See sketch map and profile of Ritzville-Ellensburg Cut-off, dated January 21st, 1911, the line covered by this estimate being that shown there on in vermilion color.)

Length of Main Track	82.90 Miles
" " Side Tracks	9.39 "
Total	92.29 Miles

RIGHT OF WAY AND STATION GROUND

Right of Way, East of Columbia River	690 acres	@	$45	$31050.00	
Right of way, West of Columbia River-Irrigable	210 "	@	$300	63000.00	
Right of way, West of Columbia R., Non-Irrigable	500 "	@	30	15000.00	
Damage to property				15 000.00	
					$124050.00

CLEARING & GRUBBING.

Clearing, sage brush	303 acres	@	$5.00	1515.00	
" Orchards & brush	50 "	@	$20.00	1000.00	
Grubbing, light	35 "	@	$30.00	1050.00	
					$3565.00

GRADING

Solid Rock	1,394,790 Cu. Yds.	@	75¢	$1046092.50	
Loose "	175,124 " "	@	40¢	70049.60	
Hard Pan	500,562 " "	@	30¢	150168.60	
Earth, less than 300' haul	691,632 " "	@	16¢	110661.12	
Earth 300' to 1000' haul	526,267 " "	@	20¢	105253.40	
Extra Haul	8,678,382 " "	@	1¢	86783.82	
Rip Rap	1,800 " "	@	$1.25	2250.00	
					$1571259.04

TUNNELS

350 Lin. Ft. @	$55			19250.00	
70,000 F.B.M.	timber lining	@	$50	3500.00	
					$22750.00

Carried Forward $1721624.04

2,283,371.

-1-

N O R T H E R N P A C I F I C R A I L W A Y C O M P A N Y

Estimated cost of the proposed Ritzville-Ellensburg Cut-off, between the point of connection with the Ritzville Branch, just east of the crossing of the Adrian-Connell Line, and Ellensburg, via Sand Hollow.

(See sketch map and profile of Ritzville-Ellensburg Cut-off, dated January 21st, 1911, the line covered by this estimate being that shown there on in vermilion color.)

Length of Main Track	82.90 Miles
" " Side Tracks	9.39 "
Total	92.29 Miles

In Mr. Boise's absence I discussed unit prices (for work Mr. Anderson (Mr. Boise's assist.) While he did not have the figures to thoroughly defend, he thought the prices shown would be ample for 1923. MB 12-17-1923

RIGHT OF WAY AND STATION GROUND

Right of Way, East of Columbia River	690 acres	@ $45	$31050.00	
Right of way, West of Columbia River-Irrigable	210 "	@$300	63000.00	
Right of way, West of Columbia R., Non-Irrigable	500 "	@ 30	15000.00	
Damage to property			15000.00	$124050.00

CLEARING & GRUBBING.

Clearing, sage brush	303 acres	@ $5.00 (20%)	6060.00 1515.00	
" Orchards & brush	50 "	@ $20.00 (30%)	1500.00 1000.00	
Grubbing, light	35 "	@ $30.00 (50%)	1750.00 1050.00	9310.00 $3565.00

GRADING

Solid Rock	1,394,790 Cu. Yds.	@ 75¢ (100)	1394790.00 $1046092.50	
Loose "	175,124 " "	@ 40¢ (60)	105074.40 70049.60	
Hard Pan	500,562 " "	@ 30¢ (40)	200224.80 150168.60	
Earth, less than 300' haul	691,632 " "	@ 16¢ (25)	172908.00 110661.12	
Earth 300' to 1000' haul	526,267 " "	@ 20¢ (30)	157880.00 105253.40	
Extra Haul	8,678,382 " "	@ 1¢ ✓	86783.82	
Rip Rap	1,800 " "	@ $1.25 (3%)	5400.00 2250.00	2123061.00 $1571259.04

TUNNELS

350 Lin. Ft. @	$55 (65.)		22750.00 19250.00	
70,000 F.B.M.	timber lining @	$50 (60%) ✓	4200.00 3500.00	26950.00 $22750.00
	Carried Forward			$1721624.04

2,283,371.

	Brought Forward			2283371.0 $1721624.04
BRIDGES, TRESTLES & CULVERTS:				
COLUMBIA RIVER BRIDGE				
SUPERSTRUCTURE:				
One span 350' steel truss) Five spans 250' " ") One " 100' D.P.G.) Three " 75' D.P.G.)	2875 Tons 2920 " 250 "	@$60.00 110.00 95.00	$172500.00	321,200 23,750
Erection	250 2875 " 2950	@$12 15.00	34500.00	3000 43800
Timber Deck	175,000 F.B.M.	@$14.00 20.00	2450.00	3500
Painting	2,875 Tons	@$ 1.50	4312.50	4915
Guardrails	3.170	1.55	1950.00	2500
##########				
Falsework, Timber	500,000 F.B.M.	@$28.00 42	14000.00	21000
Falsework, Piling	20,000 Lin. Ft. @	40¢	8000.00	8000
Incidentals	10% on Labor		5097.00	7000
	Total Superstructure		$242809.50	438665
SUBSTRUCTURE:				
Concrete	12,000 Cu. Yds.	@ $7.00	84000.00	84000
Forms	12,000 " "	@ 1.00 75¢	9000.00	12000
Reinforcing Rods	160,000 Lbs.	@ 45 35¢	5600.00	7200
Excavation-Wet	520 Cu. Yds.	@ $6.00	3120.00	3640
" Dry	1200 " "	@ $1.00 7.00	1200.00	1200
Caisson, Sunk	168000 Cu. ft.	@ 14¢	23520.00	23520
Foundation piling	3000 Lin. Ft.	@ 40 60¢	1800.00	1200
Concrete Piling	1500 " "	@ 2.75 $2.00	3000.00	4125
Air Plant & Floating Equipment			56100.00	75000
Rip rap	3000 Cu.yds.	@ 3.00 $1.50	4500.00	6000
Borings & Soundings			8860.00	10000
Incidentals	10% on Labor		7350.00	10750
Team Haul & Boat Haul			23450.00	23450
	Total Substructure		$231,500.00	278,635
Total Columbia River Bridge exclusive of freight and passenger transportation				717300.00 $474309.50
Carried Forward				$2195933.54 3,000671.00

	Brought Forward		3000671.00	$2195933.54
OTHER BRIDGES, TRESTLES & CULVERTS.				
Piles in place	28,800 Lin. Ft. @30¢ 40	8640.00	11,520	
Timber in pile & trestle bridges	3,946,000 F.B.M. @ $23.00 48.00	90758.00	189,410	
Wrought iron in pile & trestle bridges	172,640 Lbs. @ 3¢ 5¢	5179.20	8632	
Cast iron in pile & trestle bridges	68,170 lbs. @ 3¢ 4¢	2045.10	2727	
Galvanized iron in pile & trestle bridges	28140 lbs. @ 3¢ 5	844.20	1407	
Hauling bridge timber average 8 miles	3946 M @ 60¢ 1.00	18940.80	31568	
Hauling piling average 8 miles	28800 Lin.Ft. @ 1¢ 1.5¢	2304.00	4320	
Vitrified culvert pipe	4250 lin.ft. @ $1.225	5312.50	9560	
Cast iron culvert pipe	.772 tons @ $25.00 2.25	19300.00	22500	
Hauling cast iron culvert pipe average 8 miles	772 " @ 50¢ 1.00	3088.00	25600	
Hauling vitrified culvert pipe average 8 miles	380 " @ 50¢	1520.00		
Laying 772 Tons cast iron pipe	@ $2.50	1930.00	17100	
Laying 4,250 Lin. ft. vitrified pipe	@25¢	1062.50		
Total bridges, trestles & culverts, exclusive of Columbia River Bridge			324344.00	$160924.30
TIES 82.9 miles treated 2880 per M. = 239000 1.33		317870.00		
8.39 " un " " " 27100 .88		23848.00		
92.29 Miles @ 2880 per mile = 265796 @38¢		$101002.48		
Switch ties	153,379 FBM @ 20.50 46 sets @ $38.00	3144 1748.00		
Inspection & handling 268,100 Ties @ 1¢		✓ 2681.00	347583	$105431.48
RAILS				
82.9 Miles-90# steel= 11722 gross tons @	100# 13027 $30.00	43. 560161.00 351660.00		
9.39 Miles-72# steel 1061 gross tons @	1328 $30.00	43. 57104.00 31830.00		
Inspection & Handling 12783 Tons @ $1.00		14255. 14255.00 12783.00	631620.00	$396273.00
TRACK FASTENINGS				
Track Spikes 92.29 miles @ 40 kegs		6.58		
3692 kegs @	$4.00	24293.00 14768.00		
Track bolts 82.9 miles @ 13 kegs		16 11.48		
1078 kegs @	$5.00	15246. 5390.00		
Carried Forward		$20158.00	$2858562.32	
		39539.00	4304218.00	

Track Laying and Surfacing			
92.29 Miles Track Laying	@ $1550	143050 00	
46 Turnouts placed	$95	4370 00	
339000 C.Yds Ballast placed	38¢	128820 00	
82.9 miles Tie plates placed	$90	7461 00	
106000 Rail anchors placed	3¢	3180 00	286881.00

			39539.00	4304218.00
Brought Forward			$20158.00	$2858562.32
Track bolts 9.39 Miles @ 13 6 kegs			1091.00	
57 kegs @ $5.00			285.00	
Angles bars 15,800 CWT @ $1.75			68015.00	
122 8.94 3.05			27650.00	
Tie plates 82.9 miles 477500 pieces @10¢			136088	
22300 #2 28.5¢			47750.00	
Rail Anchors 106000 @ 30¢			31800.00	
Inspection & Handling 2912 Tons @ $1.00			4390.00	280923.00
			2912.00	$98755.00
FROGS AND SWITCHES				
100 90 Lb.turnouts, complete except ties, 27 @	237.79	$160.00	6420.00	
			4320.00	
90 72 lb. turnouts,complete except ties, 19 @	207.88	95.00	3950.00	
			1805.00	
Handling			150.	10520.00
			100.00	6225.00
TRACKLAYING AND SURFACING.				
Tracklaying 92.29 miles @		$300.00	27687.00	
Rent of equipment 92.29 miles @		200.00	18458.00	
Trainservice and Transportation 92.29 Miles @		335.00	30917.15	286881.00
Extra turnouts, 92.29 miles @		25.00	2307.25	
Tie Plating 92.29 Miles @		60.00	5537.40	
Putting in 46 switches @		30.00	1380.00	$86286.80
BALLAST				
92.29 Miles @ ~~2500~~ 36.80 2500 Cu.yds.=		35¢	118650.00	
230725 Cu.yds. @		32¢	73832.00	
339000				
Train Service & Transportation 230725 Cu.yds. @		21¢	48452.25	
Rent of Equipment 230725 Cu.Yds @		13¢	155940.00	274590
			29994.25	$152278.50
STATION BUILDINGS AND FIXTURES				
6 station buildings @		$1600.00	20400.00	
3400 —			9600.00	
6 Depot privies @		35.00	360.00	
60			210.00	
Furniture and fixtures for 6 stations @$200			1800.00	
300			1200.00	
Watersupply for 6 stations @		300.00	2700.00	25260.00
450.00			1800.00	$12810.00
ENGINE HOUSES AND TURNTABLES				
One 2 stall frame engine house			6000.00	
			3600.00	
One 85' turntable pit			2600.00	
One 85' Turntable in place			35000.00	
			4600.00	
Ash pit 100'			5000.00	46000.00
			3000.00	$13800.00
Carried Forward				$3228717.62
				5228392.00

	Brought Forward			5228392.00 $3228717.62
WATER STATIONS				
4 Water Stations , complete	@ $7500	11000		44000.00 30000.00
COALING STATIONS				
2 Coaling Stations, complete	@ $10,000	26,000		52000.00 20000.00
FENCING RIGHT OF WAY				
100 Miles	@ $175.00	350.00		35000.00 17500.00
STOCK YARDS				
5 yards	@ $600.00	1000.00		5000.00 3000.00
CROSSINGS, CATTLE GUARDS, AND SIGNS				
83 Miles	@ 50.00	100.00		8300.00 4150.00
SECTION AND TOOL HOUSES				
12 Section houses	@ $800.00	2000.	24000.00 $9600.00	
× 12 Tool Houses	@ $50.00	200.	2400.00 600.00	
× 12 Privies	@ $25.00	100.	1200.00 300.00	
Water supply for 12 section houses	@ $200.00	450	5400.00 2400.00	
× 12 Portable bunkhouses	@ $160.00	350	4200.00 1920.00	37200.00 14820.00
MISCELLANEOUS BUILDINGS				
One 1000 ton ice house				5000.00 1000.00
TELEGRAPH LINES				
82.9 Miles	@ $150.00	700.00		58030.00 12435.00
TRANSPORTATION CHARGES				
Steel rails, 12783 gross tons	@ $16.00	14355 12.00	172260.00 $204528.00	
Track spikes 380 net tons	@ $16.00	12.00	4560.00 6080.00	
Track Bolts 120 " "	@ $16.00	145 12.00	1740.00 1920.00	
Angle Bars 790 " "	@ $16.00	1115 12.00	13380.00 12640.00	
Tie Plates 1640 " "	@ $16.00	3044 12.00	36528.00 26240.00	
Frogs & Switches 100 " "	@ $16.00	120 12	1446.00 1600.00	
Rail Anchors 186 " "		12.00	4232.00	
Building Material & Miscellaneous 4100 Net Tons	@ $ 3.20	2.40	9840.00 13120.00	
Superstructure Columbia River Bridge			85000.00 93397.00	
Substructure Columbia River Bridge			70000. 78381.00	
Rein. Conc. Pipe 3200 Tons Cast Iron Pipe 772 Net Tons	@ $22.00		10280. 16984.00	
Vitrified Pipe 380 " "	@ $13.00		4940.00	
	Carried Forward		$459830.00 409260.00	$3331622.62 5472922

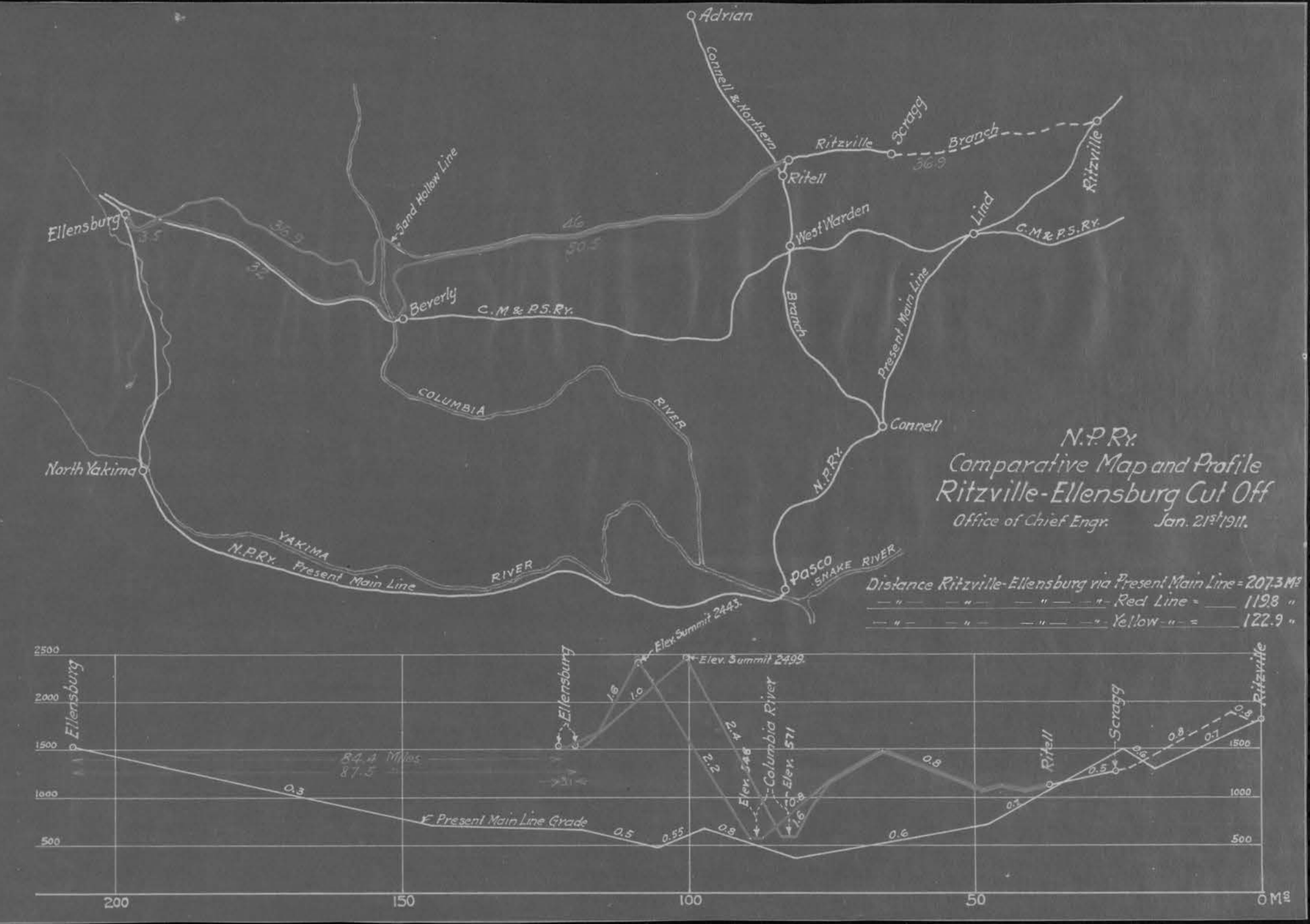
		409260.00	5472922.00
Brought Forward		$459630.00	$3331622.62
		3510.00	
Miscellaneous steel 6000 CWT @ $1.28		7680.00	
Piling in pile & trestle bridges	10080 CWT @ 16¢	1210.00 1612.80	
Timber in pile & trestle bridges	130218 CWT @ 16¢	16560.00 20834.88	
Tunnel timber	2310 CWT @ 16¢	277.00 369.60	
Cross ties and switch ties	332000CWT @ 16¢	39640.00 53120.00	
Freight on Contractors plant, miscellaneous freight charges, express charges and transportation of laborers and others, exclusive of Columbia River Bridge, 3,288,375 Cu. yds. grading @ 3¢		74000 98651.25	544457 $642098.53
			$3973721.15
			6017379.00
Engineering and Incidentals 5%			$ 198686.06
			300870.00
Expended on this work prior to this estimate $85,333.42, of which $8860, is for borings, Columbia River Bridge, and included in the bridge estimate; balance			76473.42
TOTAL			$4249880.63 6394722.

Cost per mile of Main track, exclusive of Columbia River Bridge, ~~$43,460~~ 57253
77,138

Note:
The pencil figures noted on this estimate are approximate prices as of December 20-1923.
Prices for Bridges and Culverts furnished by Bridge Department.

12/20/1924

Office of Chief Engineer,
St. Paul, Minn.,
January 26, 1911.


Adrian
Connell & Northern
Ritzville
Scragg
Branch
36.9
Ritzville
Ritell
Sand Hollow Line
46
50.5
West Warden
Lind
C.M.& P.S.Ry.
Ellensburg
3.5
36.9
32
Beverly
C.M.& P.S.Ry.
Branch
Present Main Line
COLUMBIA
RIVER
Connell
N.P.Ry.
North Yakima
YAKIMA
N.P.Ry. Present Main Line
RIVER
Pasco
SNAKE RIVER
N.P.Ry.
Comparative Map and Profile
Ritzville-Ellensburg Cut Off
Office of Chief Engr. Jan. 21st 1911.
Distance Ritzville-Ellensburg via Present Main Line = 207.3 Ms
" " " " " " Red Line = 119.8 "
" " " " " " Yellow " = 122.9 "
2500
2000
1500
1000
500
Ellensburg
Elev. Summit 2443
Elev. Summit 2409
Ellensburg
1.8
1.0
2.4
2.2
Columbia River
Elev. 548
Elev. 571
84.4 Miles
87.5
31
0.3
Present Main Line Grade
0.5
0.55
0.8
0.8
0.6
Ritell
Scragg
0.5
0.9
0.8
0.7
1.0
1.8
Ritzville
200
150
100
50
0 Ms