



Northern Pacific Railway Company.
Engineering Department Records.

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N. P. 1757
6-24

OFFICE OF BRIDGE ENGINEER

FILE NO. 379

SUBJECT:

BRIDGE OVER YARDS

AT AUBURN, WASH.

(TRAEGER STREET VIADUCT)

379

RECEIVED
JAN 10 1940
COUNTY CLERK

Saint Paul, January 2, 1940

MR. J. E. THAMES:

Herewith copy of order of vacat on by Board of County commissioners of King County, Washington, covering bridge over Auburn yard known as Traeger overcrossing.

I suggest that this be filed as a right of way instrument and that you issue right of way memorandum to the interested officers.

cc-Mr. Lowry Smith
Mr. M. W. Beach

bb/s

B

BERNARD ELUM

379

NOR. PAC. RY. CO.
APR 7 1936
ST. PAUL, MINN.

Saint Paul, April 6, 1936

Mr. H. E. Stevens:

The last few days there have been some further developments with respect to the Traeger Viaduct at Auburn.

Mr. Macfarlane advises that Mr. A. E. Edwards, living at Algona, is Chairman of a Committee appointed by the Algona Improvement Club for the purpose of trying to bring about the removal of the Traeger Viaduct and substituting in lieu thereof a paved road from Auburn to Algona along the west side of our yard.

Mr. Edwards stated that the County Commissioner had said the pavement improvement would cost around \$20000 and had intimated that the Railroad Company would perhaps defray half. Mr. Edwards was told that we made no commitment to a contribution we might be willing to make but we would be willing to talk with the County officials if the overhead bridge is vacated. The Committee appears to be quite determined in its efforts and it is to their advantage to have a good road from the west into Auburn.

At any rate this activity will extend the time that immediate action may be demanded from the County and this will be to our advantage especially as there is now indication of another appropriation of Federal money for grade separation work.

BERNARD BLUM

cc Mr. M. F. Clements

379

RRB

Saint Paul, February 28, 1936.

Mr. Bernard Blum:

Referring to your letter of February 27 in regard to the Traeger Viaduct at Auburn.

I have made a rough estimate of the cost of rebuilding the viaduct as outlined in Mr. Hayward's letter and find the prices quoted by him approximately correct.

File returned.

Bridge Engineer.

Encl.

NOT PAID BY C
FEB 28 1936
GRACE DWINE
ST. PAUL MINN

Saint Paul, February 27, 1936

Mr. M. F. Clements:

Please note attached from Mr. Stotler
about the Traeger Viaduct situation at Auburn.

Do you agree that Mr. Hayward's figures are substan-
tially correct?

Bernard Blum

Iron in 115,290 in Trusses incl. Floor Bms 326-11
16,844 in Deck + Pile Bent
132,134

Steel 7560 } 67
WF 59,432 }
C.I. 65,142
132,134

Timber in Truss 118,600
" Bent & Deck. 374,300

13331

Tacoma Riv.
Traeger st Viaduct Auburn 2/28/36

RPM

app estimate for rebuilding Howe

tusses exclusive of floor.

10,200 MFBM, L 25 m 21

2330

2122

83,000 " Chuds 135 m 30

1155

1650

20,000 " piers L 22 m 21

440

420

3800 pf. piles L 35 m 16

1330

608

50,000 # L 101

500

17,000 # " L 101 m 05

170

850

50,000 # C. I L 01 1/2

750

15,000 # " L 01 1/2 m 05

225

750

Engt use Tools

710

Eng

800

Removing old tusses etc

1050

9680

6400

9680

16080

0203
M.F.C.
6713 To check
estimate
advise HES
Seattle, Wash.,
February 21, 1936.

1003-57-1

Mr. W. E. Coman:

Auburn: Traeger Viaduct.

Your letters of January 18 and 23, calling attention to Mr. Macfarlane's letter to me of January 17, copy to you and Mr. Sloan, with attachment of letter from Prosecuting Attorney Magnuson, of same date, and Mr. Macfarlane's reply to him, also of January 17, all relating to King County's inability to close the Traeger Viaduct.

The County is desirous of having the crossing opened up (it is now barricaded) and is asking if the Railway Company will repair what is termed the "under-structure"; the County being willing to repair the planking on the bridge.

You make reference to my letter of July 24, 1935, to Mr. Blum, which states that that part of the viaduct which the Railway Company is obligated to reconstruct and maintain (under the State's statute) would cost \$24,000., and you wish to be advised if cost involved under the plan outlined by the Prosecuting Attorney in his letter referred to above, is the same as that on which our estimate was made.

Estimate of \$24,000., referred to, covers work the Railway Company is obligated to do, as referred to in the Prosecuting Attorney's letter but since that time we have made a further inspection and estimate has been revised to \$19,700., made up as follows:

Renewal of trusses 1, 2 and 3 and 4 supporting piers, exclusive of wearing surface,	\$15,500.
Housing in of trusses with corrugated galvanized iron,	4,000.
Minor repairs to the 18 bents on each side of spans,	1,200.
Total,	\$19,700.

Approximate expense the County would be put to

Mr. Coman

-2-

Feb. 21, 1935.

would be as follows:

Renewal of fence and wearing surface, including sidewalk, on the three Howe trusses,	\$2,700.
Repairs to bents,	<u>200.</u>
Total,	\$2,900.

I am attaching copy of Mr. Hayward's report of February 18, to me, in detail as to the condition of the bridge, estimate being same as quoted above.

The County will have additional expense in 1937 to renew the wearing surface, fence, guard timber and sidewalk, exclusive of the three Howe trusses, which is estimated to cost about \$5,000.

For convenience of reference, I am also attaching print, dated December 31, 1934, showing division of maintenance for the viaduct, in accordance with Mr. Macfarlane's instructions from understandings reached with the County. The portion shown in yellow is to be maintained by the County, who is also to maintain the entire surface, including sidewalk, fence and guard timber for the portion shown in red.

AFS:L

Encl.

Copy to

Mr. Blum ✓) Herewith copy of Mr. Hayward's report of
Mr. Macfarlane) February 18, for each one of you; also
Mr. Sloan) copy of print referred to above, defining
Mr. Taylor) limits of maintenance.

AFS

379

Saint Paul, January 11, 1936

NOR PAC RY CO
JAN 13 1936
BRIDGE ENGINEER
ST. PAUL MINN.

Mr. H. E. Stevens:

I have copy of letter from Mr. Macfarlane to Mr. Stotler regarding the Traeger Viaduct at Auburn, stating that one of the County Attornies indicated that there was little chance of getting abandonment of the viaduct. The nearby residents have put considerable pressure on the Commissioner and the Commissioner will not consent to the abandonment. He intimated that funds would be found by the County to defray their share of the expenses as provided by statute. There is to be an election of Commissioners this fall and they are not willing to make it a political issue.

There is nothing for us to do until we may be formally notified by the County.

The spans of the viaduct, which are our obligation, were rebuilt in 1923, and the last inspection indicated that three spans with supporting piers require rebuilding, the cost of which is estimated at \$19,500. It is possible that the County will be unable to find the funds to proceed with their share.

There is no opportunity of our securing Federal aid under the present allotment of funds, but if the second allotment is made, I think we will have a pretty good chance of getting this structure included.

STANDARD BLUM

BB h

cc Mr. M. F. Clements



MFC

Saint Paul, September 21, 1934.

Mr. Bernard Blum:

Referring to your notation on copy of Mr. Stotler's letter of July 19 to Mr. Williams in regard to the abandonment of Traeger Viaduct at Auburn.

Mr. Stotler's set-up of total and annual cost appears to be O. K. and if the viaduct is in such condition that it must be replaced or removed, I think we should go along with the proposition of abandoning the viaduct and pay one half of the cost of pavement.

Letter returned.

Bridge Engineer.

379
At Seattle, Wash.,
May 2nd, 1931.

Mr. A. F. Stotler:

Your letter 18th to Mr. Craver about
proposed abandonment of the Traeger Viaduct crossing
Auburn yards:

My file indicates repairs were made in 1926 and
approaches reinforced but you state that it will require heavy
repairs within the next two or three years.

It would seem desirable to attempt to work out some-
thing that would do away with the structure and I understand you
will do this with the Right of Way Dept.

BERNARD BLUM
Chief Engineer.

cc Mr. Craver

Mr. Clements

379
MFC

Saint Paul, December 31, 1928.

Mr. B. Blum:

Referring to your notation on Mr. Stetekluh's letter of December 28 in regard to the maintenance of Traefer Street Viaduct at Auburn.

That part of the structure which spans the two main tracks is 37'-4" long. The remaining portion of the structure which spans nineteen Northern Pacific exclusive yard tracks is 309'-2" long, making a total length of 346'-6".

Mr. Stetekluh's letter is returned.

Bridge Engineer.

Encl.

379

MFC

Saint Paul, May 27, 1927

Mr. E. O. Parks:

Several days ago Mr. Woker inquired about the changes in Traeger Viaduct, Auburn, which were made under AFE 419-26.

The original plan at the time the AFE was made provided for the placing of new bents between the old ones, leaving the old ones in place until the deck was renewed. However, it was found that the new bents could replace the old ones in the same location to advantage and the latter scheme was carried out and the old bents removed. It will be necessary, therefore, to retire the old bents.

Bridge Engineer.

1

Seattle, Wash.
May 20, 1927

RECEIVED
MAY 23 1927
ST. PAUL, MINN.

Mr. M. P. Clements
Bridge Engineer
St. Paul, Minn.

Re: AFE 419-26 - Changes in Traeger Viaduct,
Auburn, Seattle Terminal Line

Dear Sir:

Referring to your letter of May 12th relative
to AFE 419-26 - Changes in Traeger Viaduct, Auburn.

The original plan did provide for placing the
new bents between the old bents and leaving the old bents in
until deck was renewed. However, it was found that the new bents
could replace the old bents in the same location to advantage and
this scheme was followed out - removing the old bents.

Yours truly,

A. F. Jett

District Engineer.

CJF:B

7

MFC

Saint Paul, May 12, 1927.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:-

Seattle Division AFE 419-26 provides for changes in Traeger Street Viaduct at Auburn, Washington. The narrative on the AFE states that concrete pedestals and new frame bents were to be placed between the existing bents and that the old bents would remain in place until it became necessary to change the deck. The AFE stated that the old bents would not be retired. Mr. Parks' office has received a statement of the retirement of the old bents and I assume that this originated in your office.

In making repairs to the viaduct, did you follow the plan of the AFE which provided for the old bents to remain in place? If so, there would be no retirement at this time.

Yours truly,

Bridge Engineer.



N. P. 1386
12-24

TELEGRAM—BE BRIEF

TIME FILED

379

M.

1
MFC

Saint Paul, Dec. 1, 1926

A F Stotler

Seattle Wash

S-78 O K to change plan of Treager overhead
viaduct using 5 by 5 inch plank instead of double thickness with
sub plank and wearing surface. A-1

M F CLEMENTS.



N. P. 1386
12-24

334 CF N

TELEGRAM—BE BRIEF

TIME FILED

M.

Seattle Nov 30 1926

M F Clements

StPaul

Re renewal of deck Treager overhead viaduct Auburn Seattle terminal line suggest change in original plan to respacing joint center and using one thickness of wearing surface viz five by five inch s l s and 1 E Old plans using sub plank and wearing surface creates early decay please furnish plan if you approve S-78

A F Stotler

733pm

L-16

MFC

Saint Paul, January 11, 1926.

Mr. H. E. Stevens:

Referring to your letter of December fourth in regard to Seattle Division AFE ED-133 covering placing of additional bents on concrete pedestals, Traeger Viaduct, Auburn.

For your information I attach Mr. Stotler's letter of December 24th. I note he states that three post bents are sufficient to take care of traffic on the viaduct. The AFE is made up for three post bents and should be passed as it stands.

Bridge Engineer.

Encl.

MFC

Saint Paul, December 7, 1925.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:-

Seattle Division AFE ED-133 covers the placing of additional bents on concrete pedestals at Traeger Viaduct, Auburn. The AFE has been made on the basis of using three-post bents but in your letter of November 14th you called attention to the fact that this did not agree with the general Bridge Department plan for highway crossings.

Mr. Stevens has brought up the question as to the actual requirements at the Traeger Viaduct. It is the understanding that traffic is very light and possibly the three-post bents are sufficient. The general plan of highway crossings prepared in the Bridge Department which requires four-post bents, was made on the basis of a twenty ton truck load and if a bridge of the heavier design is required at this point the AFE should be changed from three-post to four-post bents.

What class of traffic uses this bridge?

Yours truly,

Bridge Engineer.

11080
Saint Paul, December 4, 1925.

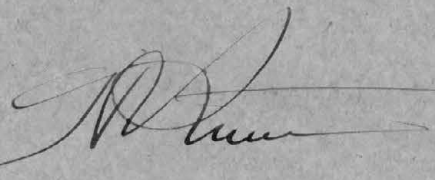
Mr. M. F. Clements:

Your letter of the first about Seattle Division ED-133, covering placing of additional bents on concrete pedestals, Traeger Viaduct, Auburn.

The estimate is on the basis of three post bents, and it is my understanding of the correspondence that you do not consider three posts sufficient for present highway loading requirements.

I do not know the character of the business handled over the Traeger Viaduct, but it is my understanding the traffic is light. Suggest you ascertain definitely from Mr. Stotler character of traffic for which the design should provide, and then make whatever changes may be necessary in the AFE to meet these requirements.

Inasmuch as the work will not be undertaken until after the first of the year I suggest the AFE be given a 1926 number.


Chief Engineer.

MFC

Saint Paul, December 1, 1925.

Mr. H. E. Stevens:

On June 23rd you sent me Seattle Division AFE 133 covering the placing of additional bents on concrete pedestals in the Traeger Viaduct at Auburn, amount \$6,590. At the time you sent the AFE to me you thought possibly the accounting was incorrect in that the full amount was charged to Additions and Betterments. At the time I received the AFE I compared a number of estimates which were prepared by Mr. Stotler and I could not reconcile them with the actual conditions. I have had the question up with Mr. Stotler several times and on November 14th I received a letter from him which I attach. Attached to his letter of November 14th is an estimated cost of renewing the pile bents from the floor by removing and replacing the deck, without removing the original bents. You will observe that the total cost would be \$7,882 as against \$6,590 in the AFE. It is, therefore, desirable to place the frame bents on concrete pedestals.

As far as the accounting is concerned, Mr. Sharood's office states that we can charge the entire amount to Additions and Betterments and retire the old bents when it becomes necessary to renew the stringers and floor. I think it would be advisable, therefore, to pass the AFE as it stands.

Bridge Engineer.

Encl.

Traeger Vredend - Auburn

Mr. Clements,

On June 23rd Mr. Stevens called your attention to the accounting distribution shown on this AFE.

On July 1st you wrote Mr. Stoller to reconcile the figures in his estimates attached to letter from Mr. Cook of June 11th. Your contention was that if it cost less to rebuild the entire approaches on piling than on concrete pedestals it should cost less to redrive the bents only than to place frame bents on concrete pedestals.

This apparent discrepancy is properly explained in Mr. Stoller's letter of Nov. 14th as being due to the necessity of removing portions of the deck when renewing the bents in kind, an expense which is eliminated by using the framed bents on concrete pedestals.

The addition to A+B is \$6590. The estimated cost of the bents to be retired, at present day prices is, according to Stoller's letter of 11/14, - \$5082. The net increase to A+B will be \$1508 when the bents are retired.

Talked with Walker whether it was

proper to carry both sets of bents
in A & B for two years and he
says it can be done on the theory
that the new bents will be considered
as strengthening.

This would seem to be the logical
way to handle the accounting.

WAB 11/24



12-24

TELEGRAM—BE BRIEF

M.

131 cf an

Seattle Nov 27/25

M F Clements

STPAUL

A-16 ED-133 -25 Place frame bents on concrete pedestals traeger
viaduct Auburn should stand Recommendations for this years form
one thirty four only adds repairs to wearing surface Renewal of
bents must be done soon D-154.

A F Stotler

232PM



FORM 1388

Telegram—Be Brief

Time Filed

M.

MFC

Saint Paul, Nov 24, 1925

A F Stotler
Seattle

Do I understand that your recommendations for work on Traeger Street Viaduct at Auburn will in any way affect Seattle Division AFE ED 133-25. See your letter November 14th. Should the AFE be placed in 1926 budget or busted and new one submitted. A-16

M F CLEMENTS

MFC

Saint Paul, September 18, 1925.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:-

Please refer to my letter of July first and tracer of August eleventh relative to Seattle Division RFA 105, AFE ED-133 covering placing of frame bents on concrete pedestals in approaches of the Traeger Viaduct, Auburn. Estimated cost \$6,590.

Can you now furnish me with the comparison requested, in order that the accounting adjustment may be made?

Yours truly,

Bridge Engineer.

L-16?

Saint Paul, August 11, 1925.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:

On July first I wrote to you regarding
comparison of costs of the Traeger Viaduct, Auburn.
Can you now furnish me with the comparison asked
for in my letter so that the accounting adjustment
may be made.

Yours truly,

MFC-c

Bridge Engineer.

MFC

Saint Paul, July 1, 1925.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:-

Seattle Division RFA 105, AFE ED-133 covering placing frame bents on concrete pedestals in approaches of the Traeger Viaduct, Auburn. Estimated cost \$6590.00.

In making the accounting adjustment, where there is a change in the design of the structure and where the portion renewed is less than 50 percent of the structure, it is customary to estimate the cost of the portion of the structure which will be ultimately retired at present day prices.

On June 11th you wrote Mr. Cook giving comparison of cost for renewal of approaches by renewing in kind, or replacing the pile bents with timber bents on concrete pedestals. Under your Estimate 1-a the cost of renewal in kind with three pile bents is \$19,667.00, under Estimate 2-a, the cost of three post frame bents on concrete pedestals is \$21,131.00, making the frame bents with concrete pedestals \$1,464.00 more than renewal in kind. Estimates 3-a and 3-c show that the concrete pedestal type costs \$1,292.00 less than the renewal in kind.

I cannot reconcile these figures and it seems to me the difference in cost in either case would be the same. It is necessary for me to furnish for accounting purposes the difference in cost of the two types, assuming that either type were used in the first construction. The unit costs which you have used in your

Mr. Stotler

-2-

estimates are difference from what we have been in the habit of using in the Bridge Department and I will, therefore, ask that you make the comparison I have outlined, so that adjustment can be made in the accounting.

Yours truly,

Bridge Engineer.

N.P. 1344
6-24

N.P. Ry - Seattle Division Seattle Terminal Lines

0226/30/20

State of Washington Valuation Sect. # 3 -

Overhead highway Bridge (Traeger Viaduct) at Auburn Wash.

Est. of cost to build substructure of highway bridge using same construction as in present Bridge. It is assumed that there is no decking to interfere with the driving of piles. Bents consist of 3 piles a 14x14x26' Cap with a pile penetration of 14'. Piling consists of 3x10 timber -

Prices made consistent with A.F.E. Estimate.

6600 lin ft piling	L 30 M 20	1980	1320
--------------------	-----------	------	------

41000 F.B.M Timber	L 16 M 18	656	738
--------------------	-----------	-----	-----

2000 # Iron	L 01 M 05	20	100
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Supts		265	
-------	--	-----	--

Engineering		291	
-------------	--	-----	--

Miscellaneous			
---------------	--	--	--

Transp -			100
----------	--	--	-----

Rental of Equipment			200
---------------------	--	--	-----

3212 ✓	2458 ✓
--------	--------

3212

5670 ✓

6590

5670

920

N.P. 1344
6-24

N. P. Ry.

Seattle Division

Seattle Terminal Line

6/30/25

State of Washington Valuation Section #3

Overhead Highway Bridge (Tragger Viaduct) at Auburn Wash.

Est. of Cost to build substructure of highway bridge using same construction as in present bridge. It is assumed that there is no decking to interfere with the driving of Piles. Bents consist of 3 piles a 14x14x26' Cap with a pile penetration of 14'. Bracing consists of 3x10" timbers.

Portland Dept prices -

6600	lineal ft. Piling	L50			
		M75	3300	1650	✓
41000	F.B.M. Timbers	L20			
		M75	820	1025	✓
2000	*Iron	M04		80	✓
Duplt			410		
Engl.			455		
Misc.					
	Transportation			100	
	Rental of Equip.			200	
	Contingencies		850	520	
			5835	3525	✓
				5835	
	Total			9410	✓

N.P. Ry -
 Seattle Division Seattle Terminal Lines
 State of Washington Valuation Sect # 3 -

CEE
 6/30/20

Overhead Highway Bridge (Trasfer Treduct) Auburn Wash

Est of cost to build substructure of highway bridge using timber bents with 14x14x26 caps, 3-12x12 posts and 12x12 piles and concrete block pedestals. These bents to be placed midway between present spans.

<u>Bridge Dept</u>		<u>Prices</u>	
430 cu yds Excav.	L 100	430	✓
200 ✓ ✓ Back Fill	L 60	120	✓
140 ✓ ✓ 113:5 concrete	L 500 M 500	700	700 ✓
100,000 FBM Timbers	L 20 M 25	2000	2500 ✓
3300 # Iron	M 04		132 ✓
Supt.		330	
Engr.		358	
Miscellaneous.			
Fright			150
Rental of Equipment			150
Contingencies 17.3%		680	630
		4618	4262
			4618 ✓
			8880 ✓

Total

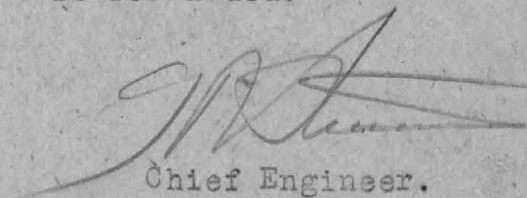
On Special - Montana Divn.,
June 23, 1925.

Mr. M. F. Clements:

In looking over the attached AFE, Seattle ED-133, did you give consideration to the accounting distribution? You will note it will all be charged to Additions & Betterments. It rather seems we can charge to Additions & Betterments only the difference in cost between the concrete pedestals and bents as compared with renewal with pile bents.

Frame bents in effect replace the pile bents, and while the pile bents are not being removed at the present time they will be removed eventually and we will then have charged into Capital Account two sets of bents.

If you agree with my conclusions please have the distribution corrected before the AFE is forwarded.



Chief Engineer.

HES-ar

Encl.



N. P. 1386
12-24

TELEGRAM—BE BRIEF

TIME FILED

L-16 M.

77 cf van

Seattle Nov 28/25

M F Clements

STPAUL

Will be in St. Paul November 30th Want to talk to you in regard to
traeger ciaduct at Auburn S-53

A F Stotler

1125AM

2-16

Saint Paul, May 13, 1935.

Mr. A. R. Cook:

I have Seattle Division ED-133, covering placing of intermediate frame bents on concrete pedestals on the approaches of the Traeger Viaduct at Auburn, amount \$6590.

In reading over the narrative it appears the entire approach is about ripe for renewal, although the narrative goes on to state that if the bents are placed the deck can be carried over, but does not state how long it can be carried over.

I am wondering if it would not be just as well to renew the approach complete, using pile bents, the same as the original construction.

Have you made any comparative estimates on that basis? If so, I wish you would forward same. I would also like to have your plan for the concrete pedestals and bents.

It is my recollection the ground line is fairly flat, but even at that it may require quite a little concrete to put in pedestals which will permit the construction of pile bents of reasonably uniform height.

I am holding the AFE pending your reply.

H. E. STEVENS,

HES-ar

Chief Engineer.

cc-Mr. M.F. Clements

2-16 ?
MFC

Saint Paul, May 24, 1923.

Mr. A. F. Stotler,
District Engineer,
Seattle, Washington.

Dear Sir:-

Complying with your request of May 21st I am sending
you one copy of plan, sheet Nos. 1 to 5 inclusive, covering
Traeger Street Viaduct at Auburn.

Yours truly,

Bridge Engineer.

Encl.

Re: Plans viaduct at Traeger St
Auburn.

Seattle, Washington
May 21, 1923

Mr. M. F. Clements
Bridge Engineer
St Paul, Minnesota

Dear Sir:

Will you please furnish for use of Supervisor
Herider one set of plans, sheet Nos. 1 to 5, inclusive,
covering Traeger Street Viaduct at Auburn.

Yours truly,



District Engineer.

D/W

Brockway

Pls furnish
file

5/24

L-16

St. Paul, Minnesota, August 1, 1922.

Mr. A. F. Stotler,

Seattle, Washington.

Dear Sir:-

I hand you herewith two sets of plans of
Traeger Street Viaduct at Auburn. The plans were
requested in your wire D-51, July 24th.

Yours truly,

Bridge Engineer.

MFC-DW



Form 1000

Telegram—Be Brief

Date Filed

JUL 24 1922	M.
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169 CF GI

Seattle Jul 24 1922 M F Clements

Stpaul

Pls furnish two sets plans Traeger street viaduct Auburn D 51

A F Stotler.

428PM.

[Handwritten signature]

2-18
St. Paul, Minn., November 20, 1911.

FEB.

Mr. L. M. Perkins,
Engineer, Maintenance of Way,
Tacoma, Wash.

Dear Sir:-

Referring to your letter of October 20th,
and tracer of the 17th inst., washers for Auburn overhead
viaduct.

I beg to advise that no changes were made in
your requisition other than the addition of the two
items noted on copy of my memo to Mr. Smith, dated
October 26th, next attached.

There is no objection to using the 9" and 10"
washers as ordered by you.

Yours truly,

Bridge Engineer.

B

Memo.

Tacoma, November 17, 1911.

H.E. Stevens:-

Can you at this time let me have
reply to my letter October 20th relative to 9 - 10 -
6 and 8 inch washers for Auburn overhead viaduct?/

L M Perkins.

AHW-w

*W.A.B.
Do you know anything
about this
S.G.B. 11/20/11*



Northern Pacific Railway Company

Tacoma, Washington, October 20, 1911.

Mr. H. E. Stevens,
Bridge Engineer,
Saint Paul, Minnesota.

Dear Sir:-

Referring to the bill of material for Auburn
overhead viaduct:

Original bill showed a number of 9 and 10 inch
washers, which were cut out on the revised bill, the
number of 6 and 8 inch being correspondingly increased.
Is there any reason why the 9 and 10 inch washers cannot
be used as originally figured on? They have already
been shipped from South Tacoma.

Yours truly,

[Signature]
Engineer of Maintenance of Way.

LMP-W

*9" & 10" washers
as ordered by
I.M.P.
Hays
10/24*



2-14

MEMO

St. Paul, Minn., October 26, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

I am returning you herewith file and requisition covering cast and wrought iron ordered by Mr. Perkins for overhead highway bridge at Auburn.

We have checked this requisition over and have noted in ink a more complete description of the material required in several instances where the original requisition is a little indefinite.

There should also be ordered the following additional material:

80 bolts $3/4$ " dia. x 21" long - 3" thread, Hex Head & Nut.

1 rod, 1" dia. x 29' 4" long - 4" thread, & Hex. nut at each end.

H. E. Stevens.

B

W.S.

Following material is needed for Auburn Highway bridge.
This is additional to Reg 227 of L.M.P.

80 Bolts $\frac{3}{4}$ " dia x 21" long. 3" thick Hex head & nut.
1 - Rod 1" dia x 29'-4" long - 4" thick & 1 Hex nut at
each end.

FMS

11/26/11

MEMO

St. Paul, Minn., October 24, 1911.

HES.

Mr. W. C. Smith

Chief Engineer Maintenance of Way.

Your memo on the attached requisition from Mr. Perkins covering Fire Resisting Tar paint for Highway Bridge at Auburn.

Our plans call for a coat of this paint, but I did not specify whether we should use a manufactured product or a product mixed up by company force.

As you are aware, Mr. Fairchild now has on hand the ingredients for mixing up the tar paint to complete the Northtown Junction Bridge. He has not yet started the work and I would suggest that Mr. Perkins' requisition be held until we ascertain what success Mr. Fairchild has with the home-made product.

We should be able to get report from him next week and if this report is favorable, I would suggest that we order similar materials for use on the Auburn Bridge.

Yours truly,

B

Bridge Engineer.

Northern Pacific Railway Company

Saint Paul, October 21, 1911.

Mr. H. E. Stevens:

What do you think of the attached requisition
of Mr. Perkins for fire resisting paint for the Overhead
Bridge at Auburn?

A. C. Smith



MEMO

L-14

St. Paul, Minn., October 12, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer maintenance of Way.

I am handing you herewith four prints each of sheets 1, 2 & 5, plans for the Highway Bridge over the new yard at Auburn, revised in accordance with our conversation, in order to bring the north approach entirely clear of the County Highway.

Will you kindly substitute these prints for those in the sets handed you last week.

H. E. Stevens

B

2-17
St. Paul, Minn., October 12, 1911.

HES.

Mr. L. M. Perkins,
Engineer maintenance of Way,
Tacoma, Wash.

Dear Sir:-

I have handed Mr. Smith for transmittal to you four sets of the detail plans of overhead highway bridge at Auburn.

In making up these detail plans we changed the length of the North approach in order to bring same clear of the county highway at this point. This introduced a number of changes in the bill of material.

Size of portals was also changed.

For your convenience in revising requisition, I have had all changes in bill of material underscored. Some of these are of such minor character that it is hardly worth while to change the order if you can possibly obtain material from other sources for making the substitution.

Yours truly,

Bridge Engineer.

Cy. W. C. Smith.

1861 Auburn Highway Bridge Plans.

Changes in bill of material have been underscored in pencil on tracing and consent in general of as follows.

Tusses-

8x8x30' top struts at ends have been changed to 12x12x30' and lengths of bolts connecting changed to suit.

Have given a little fuller description of cast iron separators used.

Have cut out 9" & 10" lateral washers & where 6" & 8" dia would satisfy.

Approaches-

Have changed the numbers reqd of various pile lengths making an increase of the longer lengths.

Have specified more in detail the amount of surfacing reqd on barndrail.

Have changed numbers of various stringer lengths reqd on account shortening budge by 5' at south end.

Have added faint quantities.

Feb.
10/11/11

HES

L-14
Saint Paul, October 7, 1911.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

Am handing you herewithfor use in the field four sets of prints of general and detail plans for highway crossing over the new yard at Auburn, Washington.

Bill of material in accordance with this plan was sent Mr. Perkins September 18th. I offered to make up requisition here for the material, but he thought it would be better to start it from that end. When requisition comes please send to me for checking.

Plan has been made up in accordance with small sketch furnished by Mr. Cook and our interpretation of Judge Reid's understanding of the matter, as per letter from Mr. Cooper to you dated August 30th.

I do not know that any further approval of County Commissioners is necessary, but it might save us trouble if we get the detail plan approved before the work is very far advanced.

On sheet No. 2, typical detail of trestle approach, I have shown in dotted lines a fence to be

Mr. W. C. Smith :- -2- 9/7/11.

provided if necessary next adjacent to county road. I do not know how important these county roads are, but if there is very much traffic I am inclined to think that the fence should be put in, for the reason that a team passing along the road might travel under the over-hanging caps of the approach bents with damage to the teamsters head or the top of the load account of the rapidly descending grade of trestle approach.

Our plans call for piling to be driven for pier No. 5 to take care of span for yard expansion at some future time. If the possibility of requiring this span is remote, bent should be substituted for this pier. I should recommend however that the piling be put in if there is a chance of span being required within the next few years.

Yours truly,

Bridge Engineer.

Encl.

HBS

12-17

Saint Paul, October 5, 1911.

Mr. W. L. Darling:-

Am handing you herewith for approval plan proposed for highway bridge over the new yard at Auburn, Washington.

Mr. Smith has already obtained the approval of the County Commissioners of a general plan for this crossing. We are providing three thru spans for the yard layout as now authorized and trestle approach is so arranged that a fourth span can be put in to permit further expansion of the yard.

The estimated cost of the structure as now to be built is about \$20,000.

H. E. Stevens.

Encl.



TELEGRAM.

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FROM Tacoma Oct. 5-11 TO H.E. Stevens,
 DATED AT StPaul.

Referring to overhead bridge Auburn. Should truss timber be sized
 or simply surfaced from sizes given.

L.M.Perkins. 1243 pm

HES

Northern Pacific Railway Company

Saint Paul, October 5, 1911.

Mr. W. L. Darling:-

Am handing you herewith for approval plan proposed for highway bridge over the new yard at Auburn, Washington.

Mr. Smith has already obtained the approval of the County Commissioners of a general plan for this crossing. We are providing three thru spans for the yard layout as now authorized and trestle approach is so arranged that a fourth span can be put in to permit further expansion of the yard.

The estimated cost of the structure as now to be built is about \$20,000.

H. E. Stevens. ✓

Encl.

H. E. Stevens
D 195

2-14
HBS

Saint Paul, September 26, 1911.

Mr. L. M. Perkins:-

As per my recent letter I hand you herewith two prints of unchecked tracing showing bill of material of Auburn bridge. We are now checking this bill and will send you revised prints as soon as complete. The unchecked prints will be O. K. to get requisition started.

H. E. Stevens.

Encl.

Northern Pacific Railway Company

Tacoma, Washington, Sept. 25, 1911.

Mr. H. E. Stevens,
Bridge Engineer,
Saint Paul, Minnesota.

L-14

Dear Sir:-

I did not wire you requesting that you place requisition for material for Auburn bridge, as the Store Department make it a practice to send requisitions out here for the Store Department at this end to check off such material in the way of castings, etc., as they can furnish.

I will, therefore, make requisition here as soon as your bill of material is received, and no time will be lost thereby.

Yours truly,

[Signature]
Engineer of Maintenance of Way.

LMP-w

Est. Cost Auburn Hy. Br.
 24' Clear roadway Overall length 1874'
 Bridged length 1538'

	Labor	Matl.	Total.
80000 F.B.M. Howe Truss Lumber ²⁰ L30 m15	2400	1200	3600
409000 " Lumber 9 L12 m12	4900	4900	9800
12000 lin ft Piling 12 L15 m10 8	1800	1200	3000
Hardware and Castings 80000 (approx) h1 m3	800	2400	3200
Falke work 350 @ 400	700	700	1400
Filling 900 Yds. @ 50¢	450		450
Engineering and Incidentals 10% L	1200		1200
	12250	10400	22650
		AFE ?	19875
			2775
With above revised prices -	1600	1200	2800
	3681	4900	8581
	1440	960	2400
	800	2400	3200
	700	700	1400
	450		450
	867		867
			19698

St. Paul, Minn., September 28, 1911.

HAS.

Mr. L. M. Perkins,
Engineer Maintenance of Way,
Tacoma, Wash.

Dear Sir:

Regarding plans for overhead bridge at
Auburn,

We will have the detail plans of this
structure ready about October first. We expect,
however, to have bill of material completed this week,
and I will forward you copy so that you may place
orders at once, or if you wish, please wire me and
I will place requisitions for the Howe Truss castings
and timber, as there is a considerable number of Howe
Truss castings involved. The principal delay will
probably be in getting these items of material.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company.

Tacoma, September 14, 1911.


Mr. H. E. Stevens,
Bridge Engineer,
St. Paul, Minnesota.

Dear Sir:-

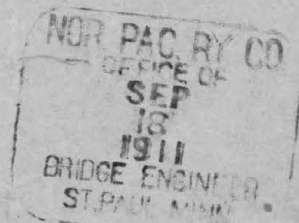
Referring to my letter of August 5th relative to detail plans to cover overhead bridge to carry the county road at Auburn:

Please advise approximately when this may be expected.

Yours truly,


Engineer of Maintenance of Way.

AHW-w



Northern Pacific Railway Company

IN YOUR REPLY PLEASE

1791-11

REFER TO FILE

Saint Paul, August 30, 1911.

Mr. W. C. Smith,

Chief Engineer, Maintenance of Way.

Dear Sir:

Replying to your letter of August 26th, in
reference to over-head crossing at Auburn Yard:

I referred your questions to Division Counsel
Reid, who replies as follows:

"Auburn bridge plan approved by County Commissioners. It was well understood that approach to bridge on West side was to be on county road we are to build. This road is sixty feet wide and there is plenty of room for the approach. It was also understood that no part of the approach was to be in the county road on the east side for it is very narrow. Plans did not contemplate a side walk and there is no reason why one should be built. In conversation over telephone with Wooding this morning he says local engineers on the ground say that under present plans for location of tracks thinks a straight approach could be made on east side without exceeding seven per cent grade. If it is intended to fill the approach on the west side we could not well ask to allow the slopes to cover more than one-half of the road".

Yours truly,

JLW-w

James Cooper
Land Commissioner

*Wishop - 1/2 of new
Co. road*

*W. C. Smith
1/2 of new
Co. road*

8/31

Saint Paul, August 26, 1911.

Mr. Thomas Cooper,

Land Commissioner.

Dear Sir:-

Referring to the authorized overhead crossing at Auburn yard some half mile south of Auburn station:

Does the license which we have from the County permit our occupying one-half of the proposed new roadway with the fill of our approaches to the bridge?

On the East side of the yard grounds the approach to bridge is shown entirely on our property. Am I correct in assuming that negotiations obligated us to place this bridge entirely upon N.P. property and not encroach upon the county road between sections 24 and 19?

Another point is that the sketch plan shows twenty-four feet between trusses, and no provision for sidewalk. Is anything said in the license about providing a sidewalk on the bridge over the yard, and is not part of the twenty-four feet intended to be used for a sidewalk?

Yours truly,

Northern Pacific Railway Company

Saint Paul, August 29, 1911.

Mr. H. E. Stevens:

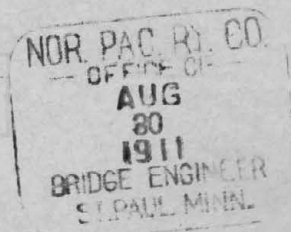
In reference to our conversation about the bridge for the overhead crossing at Auburn:

Mr. Perkins advises that the clearance can be twenty-two feet, but that the spacing of the first yard track with the main track will have to be twenty feet, as shown on the profile sent you.

This is about what I thought on account of providing sufficient margin to take care of the difference in elevation of the two tracks.

W.C. Smith

*T.A.B.
Also note
17 8/30*



Northern Pacific Railway Company

Saint Paul, August 19, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

Dear Sir:-

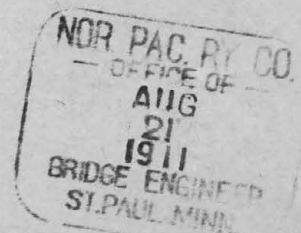
Replying to your memorandum on Mr. Perkins' letter of the 5th regarding overhead bridge at Auburn:
Please note the attached messages. It will be O.K. for you to go ahead on the basis of the sketch. The plan should be gotten out as soon as possible on account of the necessity of prompt action, as mentioned by Mr. Perkins.

Yours truly,

W. C. Smith

W.B.S.
P.A.H.M.
T.A.H.
DICTATED.

*Y.C.B.
Also get started soon
H. 8/21*





FORM 1386

TELEGRAM.

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10.04 by us an

Tacoma Aug. 18, 1911

W. C. Smith

ST. PAUL.

Mr. Nutt has approved General plan overhead viaduct Auburn as per sketch sent you. Anxious to get action quick as possible on this to avoid rebuilding undercrossing burned out Wednesday

L. M. Perkins

1:33PM



Form 1386

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				_____M.		_____M.			_____M.		

FROM Saint Paul TO L. M. Perkins,
DATED August 11, 1911. AT Tacoma.

See your letter fifth to Mr. Stevens re overhead bridge at Auburn Yard. Please secure Mr. Nutt's approval of the spacing of bents and length of spans shown on sketch of plan approved by the County authority.

W. C. SMITH.

Northern Pacific Railway Company

Tacoma, Washington, August 5, 1911.

Mr. H. E. Stevens,
Bridge Engineer,
St. Paul, Minnesota.

Dear Sir:-

A. F. E. covering the new yard at Auburn includes the amount of \$19,879.00 for an overhead bridge to carry the county road.

The location and general conditions are shown on the plan of Auburn Yard, tracing of which is on file in St. Paul. I attach hereto profile, scale 1" to 10', on the line of this viaduct, also a print with a small sketch plan which Mr. Cook submitted to the County authorities, and which they approved as satisfactory to them. This sketch plan shows the general conditions as to the width of roadway, grade on approaches and arrangement of approaches.

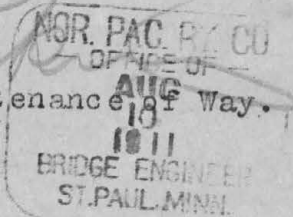
Will you kindly let me have detail plans to cover this structure?

Yours truly,

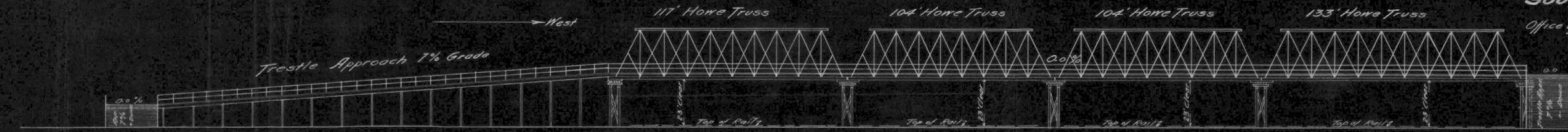
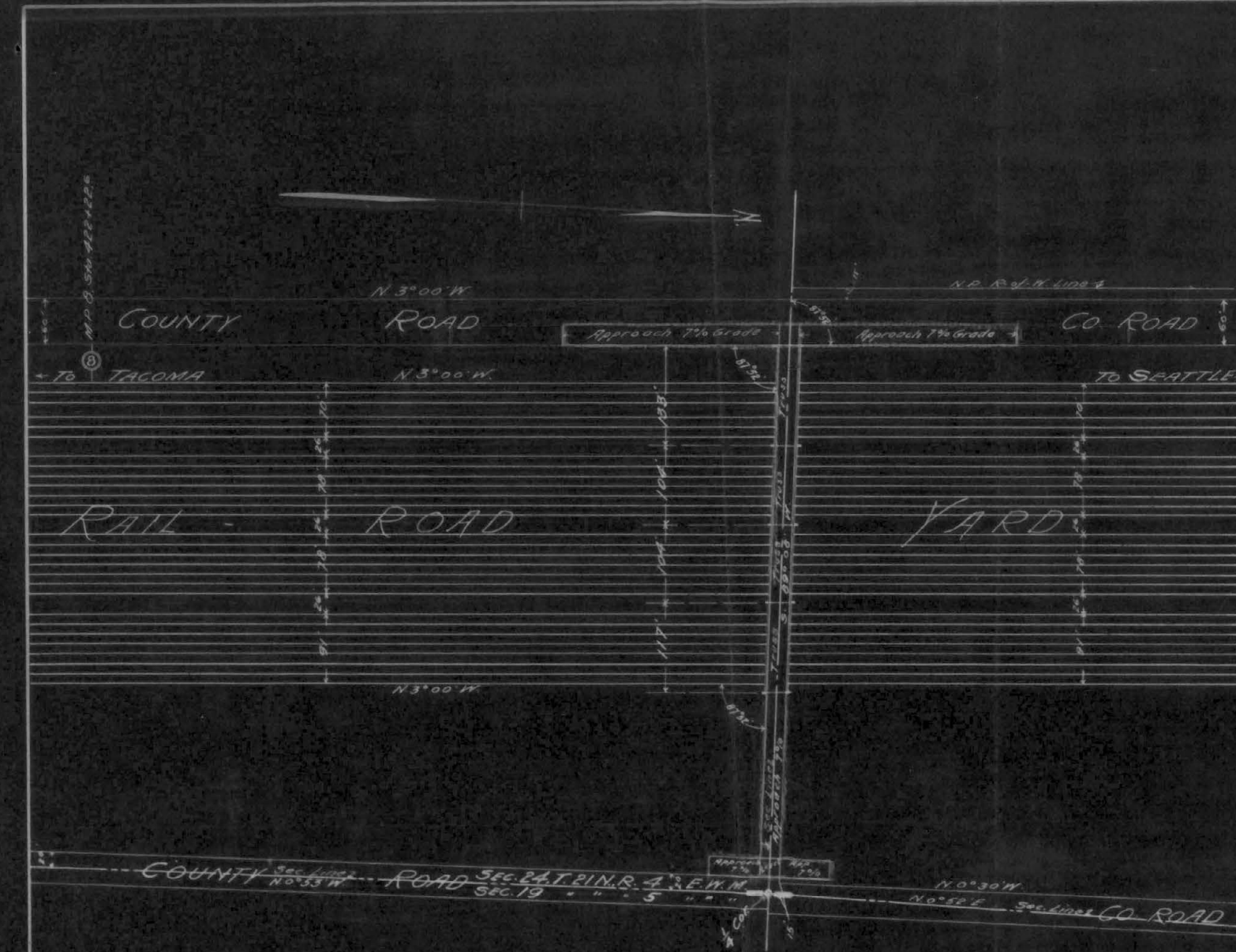
Engineer of Maintenance of Way.

LMP-w

encl.



*Mr. Smith
Is the opening
and length of spans
shown in this
sketch satisfactory
for use in
my final detail plans
for*



N.P.R.
Seattle Div. - Main Line
AUBURN YARD
Sketch showing proposed
Overhead Crossing for County Road
south of Auburn, Wash.
Office of Engr. W. of W. Tacoma, Wash. 3-5-1911

L

SAINT PAUL, March 24, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

I am handing you herewith in triplicate sketch and estimated cost of Highway Bridge to carry County Road over proposed new yard at Auburn.

The location of the bridge and approaches is the same as shown on Mr. Cook's sketch dated, March 5th.

The yard layout has been revised to suit Mr. McIntyre's study plan No. 5, which he tells me is the one likely to be adopted. Account of the decreased number of tracks, one less truss span is required than shown by Mr. Cook. I have shown a 135' span on the West side of the yard and this length will be sufficient to provide clearance for an additional main track should same be required later on.

If desired this first pier could be moved over to the edge of the County Road, thereby leaving yard space entirely clear on the east side.

The Estimated cost of the bridge is \$20761.00. This high cost is due to the extremely long approaches required. Account of their being at right angles to the

Mr. W. C. Smith Page -2-

center line of the bridge the length of the west
approach is doubled.

Yours truly,

Bridge Engineer.

B

NORTHERN PACIFIC RAILWAY COMPANY

-SEATTLE LINE-

Estimated cost of bridge to carry county road over
Proposed new yard at Auburn. Bridge to give 20'
Clear roadway and provide for 24 tracks. Total
Length of bridge and approaches 1,530 feet.
Approaches on 7% grade.

-----oOo-----

12,000 Lin. Ft. Piling L 10¢ M 10¢	\$1200	\$1200	\$2400
436,000 F.B.M. Lumber L \$12.00 M \$12.00	5232	5232	10464
179,000# Iron L 1¢ M 2¢	1790	4475	6265
Painting	300	150	450
Engine & Work Train Service	300		300
Engineering & Incidentals 10% L	882		882
Total	\$9704	\$11057	\$20761

Office of Bridge Engineer,
St. Paul, Minn.,
March 23, 1911.

NORTHERN PACIFIC RAILWAY COMPANY

-SEATTLE LINE-

Estimated cost of bridge to carry county road over
Proposed new yard at Auburn. Bridge to give 20'
Clear roadway and provide for 24 tracks. Total
Length of bridge and approaches 1,530 feet.
Approaches on 7% grade.

-----oOo-----

12,000 Lin. Ft. Piling L 10¢ M 10¢	\$1200	\$1200	\$2400
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Painting	300	150	450
Engine & Work Train Service	300		300
Engineering & Incidentals 10% L	882		882
Total	\$9704	\$11057	\$20761

Office of Bridge Engineer,
St. Paul, Minn.,
March 23, 1911.

Northern Pacific Railway Company

At Missoula, March 15, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

Dear Sir:

I attach file explaining Mr. Cook's letter next attached of March 10th, regarding location and suggested construction of highway bridge across the proposed yard at Auburn--- this being shown in red on the attached sketch.

I wish you would go ahead and make an approximate estimate of the highway bridge as outlined by Mr. Cook.

Mr. McIntyre will give you exact location and any other information which you may require for the approximation. At this time such an estimate will answer.

Will you please hurry this all possible.

Yours truly,

W. C. Smith
MAR 20 1911
BRIDGE ENGINEER
ST. PAUL, MINN.



Form 1386

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				M.		M.			L M.		

FROM St Paul Minn March 23 1911 TO W C SmithDATED _____ AT Car 11 On Line

Approximate cost Highway Bridge over Auburn Yard
Twenty Thousand Seven Hundred and Sixty Dollars

H E Stevens



Form 1386

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283	by us	hn.									
				M.		M.			M.		

FROM

Hartford, 3-20-11.

TO

DATED

AT

H E Stevens,

ST. Paul,

McIntyre is making up revised plan auburn, length of spans should be revised to agree with yard lay out. Location of piers immaterial so long as they do not interfere with our proposed tracks.

W.C.Smith 842pm.



Form 1386

TELEGRAM.

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FROM St Paul Minn March 20 1911 TO W C Smith
DATED AT Car 11 On Line

Re Highway bridge at Auburn Cook's sketch shows one One Hundred thirty three foot two One Hundred Four foot and one One Hundred Seventeen Foot spans McIntyre's plan 5 shows one One Hundred Twenty Two foot one One Hundred Four foot and one One Hundred Seventeen foot Which plan should be used Should first span from County Road be long enough to get pier off NP right of way

H E Stevens