



Northern Pacific Railway Company.
Engineering Department Records.

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KNOW ALL MEN BY THESE PRESENTS THAT W. H. Jackson,
and E. W. Crellin, co-partners, comprising the firm known as the
Des Moines Bridge & Iron Company of Des Moines, Iowa as principals,
and _____

_____,
corporation, as surety, are held and firmly bound unto the Northern
Pacific Railway Company, a corporation in the sum of Three Thousand
Five Hundred Dollars (\$3,500.00) lawful money of the United States,
for the payment of which sum well and truly to be made, the said
principals and the said surety do hereby bind themselves, their heirs,
executors, administrators, successors and assigns, jointly and sever-
ally by these presents.

SIGNED BY SAID OBLIGORS AND sealed with their seals this

_____ day of _____ A.D., 1911,

WHEREAS the said W. H. Jackson and E. W. Crellin have entered
into a contract dated the Twelfth day of May, A.D., 1911, with the
Northern Pacific Railway Company, whereby they are to furnish the material
labor, tools and equipment for the fabrication and erection complete
in place on foundations to be furnished by the Railway Company, of
two One Hundred Thousand (100,000) gallon steel water tanks on steel
towers Thirty feet in height, one to be located at Zero, Montana,
and one to be located at Ellensburg, Washington; plans to conform to
the Company's general plans for steel water tanks, except as shown on
sketches attached to the aforesaid contract.

NOW THEREFORE, if the above named principals, W. H. Jackson
and E. W. Crellin, shall well and faithfully keep, perform and carry
out each and all of the covenants, conditions and agreements of said
contract, and shall well and truly pay all laborers, mechanics,
material men and persons who supply such contractors with provisions,
all just dues to such persons or to any persons to whom any part of this
work is given incurred in carrying on such work, then this obligation
shall be null and void, otherwise to be and remain in full force and
effect.

Signed, Sealed and Delivered
in presence of:

Witnesses as to execution of
surety:

STATE OF _____)
COUNTY OF _____)

ss

On this _____ day of _____ A.D., 1911
before me appeared _____
to me personally known, who being duly sworn did say that _____
_____ the _____ the above
named corporation who signed the foregoing bond as surety and that
the seal affixed to said instrument is the corporate seal of said
corporation, and that the said instrument was signed in behalf of
said corporation by authority of its Board of Directors, and the
said _____ acknowledged said instrument
to be the free act and deed of said corporation.

Notary Public

STATE OF _____)
COUNTY OF _____)

ss

On this _____ day of _____ A.D., 1911,
before me personally appeared W. H. Jackson and E.W. Crellin, to me
known and known to me to be the persons described in, and who
executed the within bond, and acknowledged that they executed the same.

Notary Public.

July 20, 1911.

DES.

La

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am handing you herewith in duplicate contract and bond covering the 100,000 gallon steel water tanks proposed for Jamestown and Auburn.

Will you kindly execute and return at your early convenience?

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

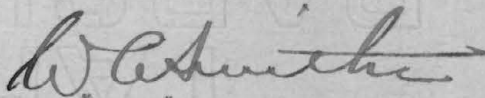
St. Paul, July 28th, 1911

Mr. H. E. Stevens,
Bridge Engineer.
Dear Sir: .

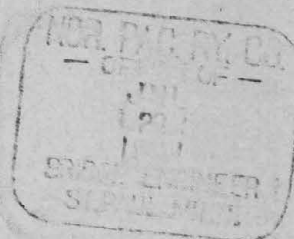
I return herewith for execution by the Contractor, agreement dated July 13th, with the Des Moines Bridge & Iron Company for steel water tanks for Jamestown and Auburn.

As the original bond has to be filed with the County Auditor for the Auburn work, if you will have bond executed in duplicate, we can have one copy certified by the Auditor and ^{returned} retain for filed of the Assistant Secretary.

Yours truly,



c-b



E.W. CRELLIN, PRESIDENT.
W.H. JACKSON, VICE PRESIDENT.
B.N. MOSS, SECY. & TREAS.

DES MOINES BRIDGE & IRON WORKS,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
WORKS DES MOINES, IA.
PITTSBURG, PA.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

~~Pittsburg, Pa.~~

22
Coraopolis Pa. Box 110

July 27th 1911.

Mr H. E. Stevens.

St Paul Minn.

Dear Sir,

We have started to fabricate
the material for the Jamnstown tower
and tank. We have advised
Modjeski and Angier that work
has been started. We will
advise them later when ready
for inspection.

Yours truly,

J. J. Bourne,

DES MOINES BRIDGE & IRON CO.
PER.....

Northern Pacific Railway Company

Saint Paul, June 26, 1911.

Mr. H. E. Stevens:- ✓

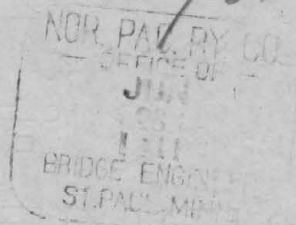
Will you please furnish me with
a complete set of plans for 100,000 gallon steel
tank, as built by the Des Moines Bridge & Iron Co.
I understand that this concern will receive the con-
tract for the new 10,000 gallon tank at Jamestown.

L. YAGER.

?

L.Y.
Plans received today from the Br. Co.
for approval - Will furnish you a
set as soon as corrected up
H.E. Yager

Keep this
in mind
6/29/11



St. Paul, Minn., July 24, 1911.

HES.

Mr. L. M. Perkins,

Engineer maintenance of Way,

Tacoma, Wash.

Dear Sir:-

I am handing you herewith three prints of foundation plan for 100,000 gallon tank to be built at Auburn, Wash.

The balance of the plans covering the superstructure will be forwarded you as soon as received.

Two prints of foundation plan for tank at Ellensburg were forwarded Mr. Cook some time ago. The plans for these two tanks are duplicates.

Yours truly,

Bridge Engineer.

B

St. Paul, Minn., July 24, 1911.

HES.

Mr. L. Yager,

Division Engineer.

Dear Sir:-

As requested in your pencil memo, I am handing you herewith three prints of foundation plan for 100,000 gallon tank to be built at Jamestown, N.D.

The balance of the plans covering the superstructure will be forwarded you as soon as received.

Yours truly,

Bridge Engineer.

B



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 on this blank.

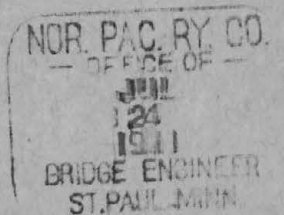
After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

H.C. Stevens

Can you send first set of
plans for 100, or gal. steel tank
at Jamestown?

H.C.

$\frac{7}{24}$
4



La7

MEMO

St. Paul, Minn., July 24, 1911.

FEB.

Mr. W. C. Smith,

Chief Engineer maintenance of Way.

I hand you herewith in duplicate draft of proposed contract and bond with the Des Moines Bridge & Iron Co. for the fabrication and erection complete in place on foundations to be furnished by the Railway Company of two 100,000 gallon steel water tanks on steel towers 30' in height, one to be located at Jamestown, N.D., and the other to be located at Auburn, Wash.

Contract has been approved by the Legal Department.

H. E. Stevens.

July 24, 1911.

HES.

Des Moines Bridge & Iron Co.,
Curry Building,
Pittsburg, Pa.

Gentlemen:-

I have your favor of the 19th with six prints
of foundation plans for tanks at Jamestown, N.D. and
Auburn, Wash.

We will need for the field two complete sets
of prints for each tank or a total of eight complete
sets in all, in addition to the prints we have already
received.

Yours truly,

Bridge Engineer.

B

MEMO

St. Paul, Minn., July 21, 1911.

FEB.

Mr. Emerson Hadley,

Assistant General Counsel.

I hand you herewith in duplicate draft of proposed contract with the Des Moines Bridge and Iron Co. for two hundred thousand gallon capacity steel water tanks on steel towers thirty feet in height; one to be located at Jamestown, North Dakota and one to be located at Auburn, Washington.

If correct as to form will you kindly initial and return?

H. E. Stevens.

B

Northern Pacific Railway Company

MEMO



St. Paul, Minn., July 21, 1911.

FEB.

Mr. Emerson Hadley,

Assistant General Counsel.

I hand you herewith in duplicate draft of proposed contract with the Des Moines Bridge and Iron Co. for two, hundred thousand gallon capacity steel water tanks on steel towers thirty feet in height; one to be located at Jamestown, North Dakota and one to be located at Auburn, Washington.

If correct as to form will you kindly initial and return?

H. E. Stevens. ✓

B

*H. E. S.
Approved and
Returned
CP
July 22/11*

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,
AND WATER WORKS PLANTS.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
WORKS { DES MOINES, IA.
PITTSBURG, PA.

WHEN REPLYING PLEASE REFER TO

635-636

Pittsburg, Pa. July 19th, 1911.

Northern Pacific Railway Company,

Mr. H. E. Stevens, Bridge Engineer,

St. Paul, Minn.

Dear Sir:-

In connection with the towers and tanks at Jamestown, N.D. and Auburn, Wash., we mailed to-day under separate cover for your use, three (3) prints each, of our drawings 635-sheet 1, and 636-sheet 1, covering Foundation plans.

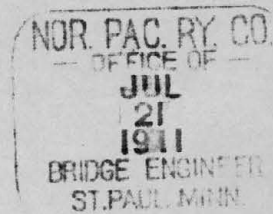
Kindly advise us as to your print requirements for this work, the drawings for which are a duplicate of Zero, Mont. and Ellensburg, Wash. installations.

Very truly,

DES MOINES BRIDGE & IRON CO.

By H. M. Peightel.

HMP/E



DES MOINES BRIDGE & IRON COMPANY,NOT INCORPORATED.
ENGINEERS AND CONTRACTORS**BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,****AND WATER WORKS PLANTS.**

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.WORKS { DES MOINES, IA.
PITTSBURG, PA.ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa, July 19, 1911.

207

H. E. Stevens, Bridge Eng'r, N. P. RY. Co.
St. Paul, Minn.

Dear Sir:-

Replying to your letter of the 17th inst., will say that the writer arranged with one of the other boys in the office to get out the blue prints which you requested in your previous letter, but it appears that he did not furnish the correct ones.

We enclose herewith eight additional prints of the riser details and tank elevation, which we trust you will find satisfactory.

Regreting our mistake in this matter, we remain,

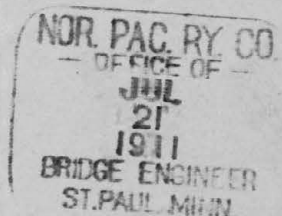
Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Leo G. Smith

CH



St. Paul, Minn., July 19, 1911.

HES.

Mr. A. Gibson,

Engineer maintenance of Way.

Dear Sir:-

As per your pencil request on the attached letter, I am handing you herewith two additional prints of the foundation plan for 100,000 gallon steel water tank to be put in at Zero, Montana.

Two prints of this foundation plan were sent you on June 12th.

Yours truly,

B

Bridge Engineer.

July 19, 1911.

HES. *La 6*

Des Moines Bridge & Iron Co.,

Curry Bldg.,

Pittsburg, Pa.

Gentlemen:-

I am returning you herewith approved sheets 1, 3, 4 & 5 covering 100,000 gallon tanks to be erected at Zero, Mont. and Ellensburg, Wash.

I note that you are willing to guarantee the joint between the packing box collar and head of riser tube, and also that you wish to make the outside diameter of the riser tube 18".

I will approve these details on receipt of same. Sheet 2, which you mention as being ready to go forward within a few days has not yet been received.

Yours truly,

Bridge Engineer.

B

, July 17, 1911.

HES. *ja*

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I have your favor of the 14th with eight prints of a small sketch showing mud drum and riser pipe for elevated tank.

If you will refer to your copy of the contract for the tanks at Zero and Ellensburg, you will note that this sketch is not the one you originally furnished us. I should prefer to have the sketches on the two contracts the same.

I therefore, wish you would send me eight prints each of the sketch showing the tank in elevation, dated 3/27/11, and sketch showing details of the riser pipe and connection dated 3/30/11. The former sketch should be corrected by the addition of the 15' 6" radius for the semi-circular bottom.

Account of the original contract covering only two tanks it appears to be necessary to make up this second contract.

Yours truly,

B

Bridge Engineer.

July 17, 1911. *Lat.*

HES.

Des Moines, Bridge & Iron Co.,

Curry Building,

Pittsburg, Pa.

Gentlemen:-

Your favor of the 14th regarding shipment of tanks for Zero, Ellensburg, Jamestown and Auburn.

Shipment by Lake and rail with delivery to the Northern Pacific at Duluth, as suggested by you will be satisfactory to us.

As we are in a considerable hurry for the tank at Jamestown, I would be glad if you would ship the first tank completed to that point. Also wish you would hurry shipment of anchor bolts and anchorage material to Jamestown so that we may complete our foundation and be ready for superstructure by the time same is received.

Yours truly,

Bridge Engineer.

B



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
31	By	31	To	Mop							

FROM

Lilia 7/17 - 1911

TO

H E Stevens

DATED

July 11

AT

Apaul

OK to have tanks via Lakes first
one should go to Grinnestown
W C Smith



Form 1386

TELEGRAM.

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

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

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

FROM **St. Paul Minn July 17 1911**TO **W C Smith**

DATED

AT **Care Mr Glade's Special**

Des Moines Bridge & Iron Co ask if we have any objection to
their shipping four tanks by Lake and rail delivering to N P
at Duluth instead of making all rail shipment delivering at
St Paul We could arrange to have one of the tanks under the
first contract delivered at Jamestown if you desire Please advise

E Stevens**Cy. W C Smith**

Northern Pacific Railway Company

MEMO

St. Paul, Minn., July 14, 1911.

HES.

Mr. H. A. Cribbs:-

Your memo on my letter to Mr. Smith regarding bond for the two tanks now proposed for Jamestown and Auburn.

I am aware of the fact that the bond now furnished covers only the tanks at Zero and Ellensburg. The price we are accepting, however, is the price bid for four tanks under one contract and it is not fair to ask the Des Moines Bridge & Iron Co. to furnish two bonds for what is virtually one contract.

This matter should be referred to Mr. Smith.

H. E. Stevens.

B

1472. New bond should be furnished.

Stamp: *NEW PACIFIC RAILWAY COMPANY
ST. PAUL, MINN.
JUL 14 1911
OFFICE OF THE
BRIDGE ENGINEER*

E.W. CRELLIN, PRESIDENT.
W.H. JACKSON, VICE PRESIDENT.
B.N. MOSS, SECY. & TREAS.

DES MOINES BRIDGE & IRON WORKS,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
WORKS DES MOINES, IA.
PITTSBURG, PA.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO 571-2

Pittsburg, Pa. July 14, 1911.

Mr. H. E. Stevens, Bridge Engineer,
Northern Pacific Railway,
St. Paul, Minn.

Dear Sir:

Referring to the two tanks which we have for shipment to you at Zero, Monn. and Ellensburg, Wash., would say that our contracts contemplated delivery of this material to you at St. Paul, Minn., and we would be pleased to know whether it will be satisfactory to you if we ship by a Lake and Rail, making delivery at Duluth instead of St. Paul.

We are just in receipt of your orders for two more of these tanks for shipment to Jamestown, N. D. and Auburn, Wash., and would like your advise in regard to them also.

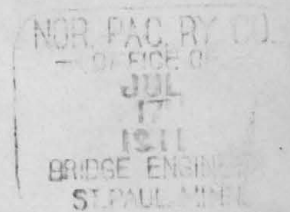
Very truly yours,

DES MOINES BRIDGE & IRON WKS.

H. C. Harmon

Trf. Mgr.

HEH/SK



DES MOINES BRIDGE & IRON COMPANY

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
DENVER, SALT LAKE CITY, OMAHA.
LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
NEVILLE ISLAND, PITTSBURG, PA.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS-JD

Des Moines, Iowa,

July 14, 1911.

Mr H E Stevens, Bridge Engineer,

M P Railway Co.,

St Paul, Minn.

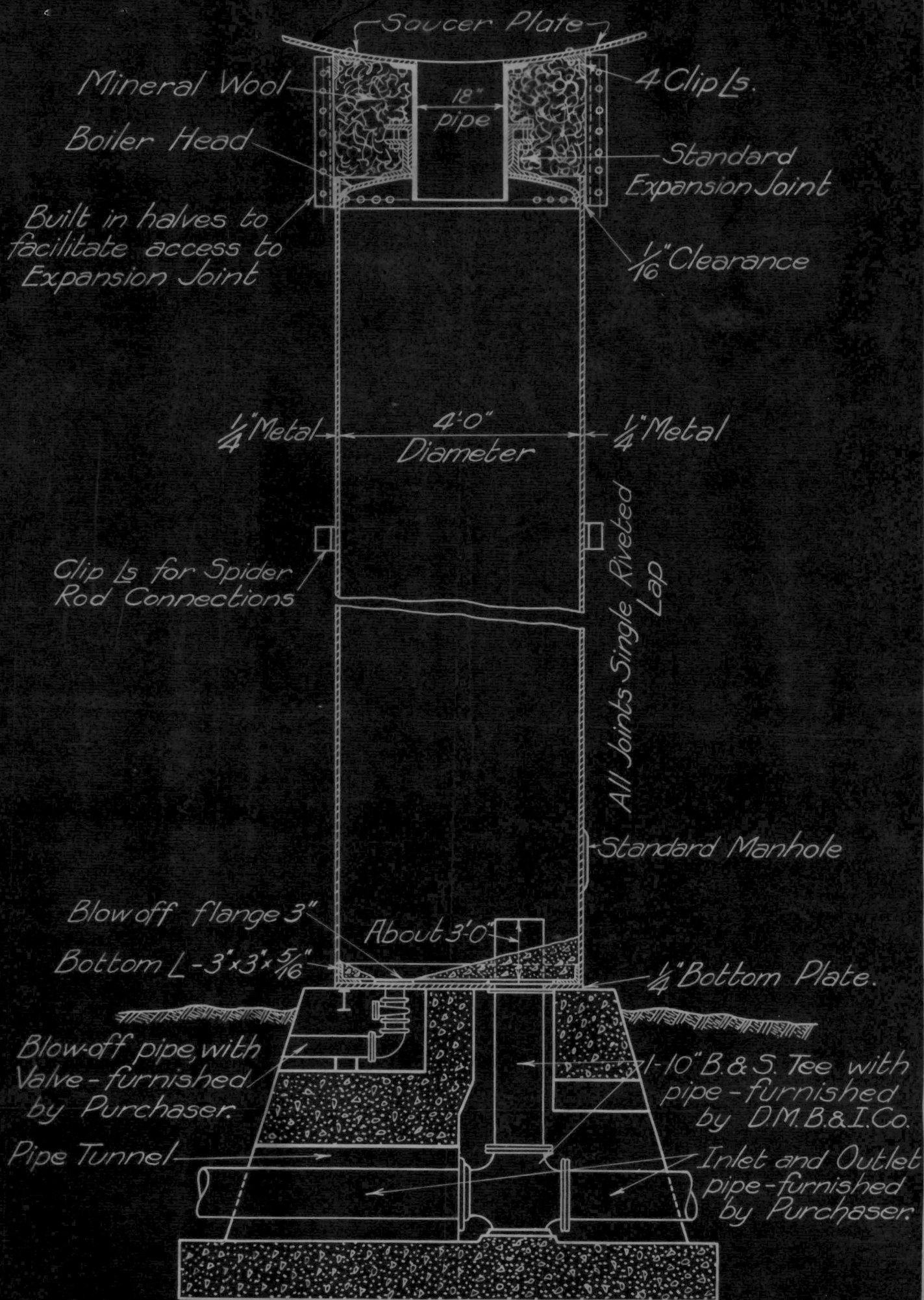
Dear Sir:-

Replying to your esteemed favor of the 12th inst we are enclosing herewith eight blue prints (of water towers) which ~~we~~ are attached to the original contracts for Zero and Ellensburg.

We had understood that the original contract covered the two additional towers and did not expect you to draw up a separate contract for them. We understand from your letter that you intend to arrange a separate contract for the two additional towers and we will be pleased to execute same promptly upon receipt.

Yours very truly,

DES MOINES BRIDGE & IRON CO.
BY Leo A Smith



MUD DRUM & RISER PIPE FOR ELEVATED TANK

~DES MOINES BRIDGE & IRON COMPANY~

Engineers ~ Contractors

Pittsburg Penna. Des Moines Ia.

207
MEMO

St. Paul, Minn., July 14, 1911.

HES.

Mr. H. A. Cribbs:-

Your memo on my letter to Mr. Smith regarding bond for the two tanks now proposed for Jamestown and Auburn.

I am aware of the fact that the bond now furnished covers only the tanks at Zero and Ellensburg. The price we are accepting, however, is the price bid for four tanks under one contract and it is not fair to ask the Des Moines Bridge & Iron Co. to furnish two bonds for what is virtually one contract.

This matter should be referred to Mr. Smith.

H. E. Stevens.

B

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,
AND WATER WORKS PLANTS.

CURRY BUILDING

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL

WHEN REPLYING PLEASE REFER TO #571-72.

Pittsburg, Pa. July 14, 1911.

Northern Pacific Railway Co.,

H. E. Stevens, Bridge Engr.,

St. Paul, Minn.,

Gentlemen:-

Ellensburg, Wash.,

In re Tower & Tank, Zero, Mont.

We mailed today under separate cover for your final approval, three prints each of our drawing, sheets #1, 3, 4 and 5 revised. Will send prints of sheet #2 revised within a few days pending the addition of manhole and flusher details.

We note in yours of the 8th inst. that you question the efficiency of bolted connection of cast packing box and collar to head of riser tube. Our experience and practice has been to bolt this connection with a sheet lead gasket intervening whereby a water tight joint is secured. We will guarantee this joint as shown on our drawings to work satisfactorily and be of ample strength.

In reference to the inside diameter of the expansion sleeve, we note that our Des Moines Office has asked that you accept the detail shown on drawing, which is our standard and trust that you will allow this concession.

Kindly return us at our Pittsburgh Office one set of prints with your judgment noted thereon, and oblige,

Yours very truly,

DES MOINES BRIDGE & IRON CO.

By.....

H.M. Peightel

HMP/MY.

Handwritten notes:
FAB
No check
1/17
1.3.4
27/19/11
HAB

NOTED
JUL
17
1911
BRIDGE ENGINE
ST. PAUL, MINN.

Northern Pacific Railway Company

St. Paul, Minn., July 12, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

Do you consider it necessary to ask the Des Moines Bridge & Iron Co. to furnish bond in connection with the two additional tanks ordered from them for use at Jamestown and Auburn?

We had bond for \$3,500.00 covering the two tanks now under Contract for Zero and Ellensburg.

Yours truly,

H. C. Stevens
Bridge Engineer.

B

H. C. S.
Bond furnished
covers Zero and Ellensburg
and will not apply on
work at Jamestown and
Auburn. Think we should
have another bond.

W. C. S.

7/13/11

St. Paul, Minn., July 12, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

Do you consider it necessary to ask the Des Moines Bridge & Iron Co. to furnish bond in connection with the two additional tanks ordered from them for use at Jamestown and Auburn?

We had bond for \$3,500.00 covering the two tanks now under Contract for Zero and Ellensburg.

Yours truly,

Bridge Engineer.

B

, July 12, 1911.

WES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Will you kindly forward eight prints each of the small sketch sheets attached to previous contract covering 100,000 gallon water-tanks for Zero and Ellensburg?

These prints will be needed for attaching to contract covering the two additional tanks now ordered.

Yours truly,

Bridge Engineer.

B

St. Paul, Minn., July 12, 1911.

FEB.

Mr. Andrew Gibson,

Engineer Maintenance of Way.

Dear Sir:-

As requested in your letter of the 11th,
I hand you herewith three copies of contract & bond
with the Des Moines Bridge & Iron Co., covering the
fabrication and erection of 100,000 gallon water
tanks, one to be located at zero, Mont., and the other
at Ellensburg, Wash.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

St. Paul, Minn., July 11, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

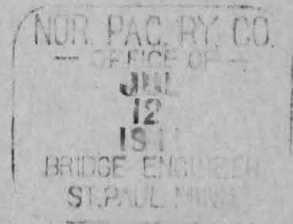
Dear Sir:

Will you please furnish three copies of contract with Des Moines Bridge & Iron Works for erection of steel tank at Zero.

Would like to send two copies to Division Engineer Taylor and retain one copy for our records here.

Yours truly,

Andrew Gibson
m



DES MOINES BRIDGE & IRON COMPANY,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

GENERAL OFFICES, DES MOINES, IA.
 CONTRACTING OFFICES, PITTSBURGH, PA.
 DENVER, SALT LAKE CITY, OMAHA,
 LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
 NEVILLE ISLAND, PITTSBURGH, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
 UPON STRIKES, ACCIDENTS,
 OR OTHER OCCURRENCES
 BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO GAS-JD

Des Moines, Iowa,

July 10, 1911.

Lab

Mr. H. E. Stevens, Bridge Engineer,

St Paul, Minn.

Dear Sir:-

Your letter of the 8th and shop drawings for water tanks under separate cover are received. We had expected that you would return the drawings to our Pittsburgh office, ^{direct} as the matter is now in their hands. In looking over the drawings we note that you have indicated that the expansion joint pipe is to be 8" inside diameter. We would request that you kindly waive this point as our standard pattern is already made up in accordance with drawing. We appreciate the fact that our original drawing indicated this pipe to be 18", but this was an oversight on our part as we did not know at that time the exact dimensions of our patterns. We trust that you will kindly favor us on this point as it will facilitate the work and will also save us considerable expense.

We have referred the ~~proposition~~ ^{drawings} and copy of your letter to our Pittsburgh office asking them to make the changes indicated and furnish you additional detailed

NOR. PAC. RY. CO.
 OFFICE OF
 DRAWINGS
 1911
 BRIDGE
 ST. PAUL, MINN.

Mr H E Stevens #2

drawings covering the parts not shown on the present proposition.
We would suggest that you address your future correspondence
in regard to shop drawings of this structure to our Pittsburgh
office at 806 Vurry Building.

Yours very truly,

DE LOUNES BRIDGE & IRON CO.
By Leo A Smith

DES MOINES BRIDGE & IRON COMPANY

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

GENERAL OFFICES, DES MOINES, IA.
 CONTRACTING OFFICES, PITTSBURG, PA.
 DENVER, SALT LAKE CITY, OMAHA,
 LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
 NEVILLE ISLAND, PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
 UPON STRIKES, ACCIDENTS,
 OR OTHER OCCURRENCES
 BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS-JD

Des Moines, Iowa,

July 10, 1911.

Mr. H. E. Stevens, Bridge Engineer,

St Paul, Minn.

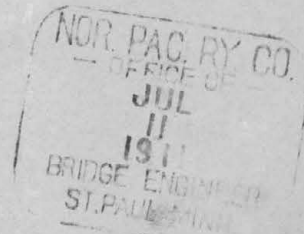
Dear Sir:-

We have your letters of the 8th inst and are pleased to note that you have decided to construct two additional water towers as contemplated by our contract. We understand that the towers are to be located at Jamestown, N.D. and Auburn, Washington, and that you are anxious to have the Jamestown tank constructed as soon as possible. We are instructing our shop to get out two additional tanks as soon as possible and we will arrange to take care of the erection promptly.

Thanking you for the order and assuring you that the same will have our best attention, we remain,

Yours very truly,

DES MOINES BRIDGE & IRON CO.
 By *Leo A. Smith*



FEB

Drawn up by contract

7/11

La 6
, July 8, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:

I am returning you herewith ~~for~~ correction drawings received with your letter of June 23rd, covering 100,000 gallon steel water tanks at Zero, Mont. and Ellensburg, Washington.

On sheet 2, it is not quite clear to me how you expect to make a tight joint between the packing box collar and the bottom of the tank. It seems to me this should be a rivetted joint, same as used for the flange connections of the large inlet pipe.

I presume you intend to fasten the sliding collar with some such arrangement as that we have sketched in black on this print, but if so this would not permit the use of rivets in the balance of the holes.

The outstanding ears on this collar for the four bolts look to me as if they would be a little light.

I want to be very ^{sure} that this detail is of ample strength and proves perfectly satisfactory on these first tanks of this model, as the success of the construction depends upon this feature, as you are doubtless aware, and I should not want to put in anything on these tanks which would

cause prejudice against them.

Will you not therefore, give the detail a very careful study and fit same together in your shop and try out as thoroughly as possible before shipment in order to insure that everything will work satisfactorily when tank is erected in the field.

I do not find any detail for the washout valve and stuffing box, nor detail for the man-hole cover.

I presume these are in accordance with your Standards, but anyway we should have a detail shown for our record.

The other corrections noted are all of a minor character and self-explanatory.

Yours truly,

Bridge Engineer.

B

, July 8, 1911. *Lab*

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am pleased to advise that the Northern Pacific Railway Co. has decided to install two more 100,000 gallon water tanks on 30' towers, one to be located at Jamestown, N.D. and one to be located at Auburn, Washington.

In accordance with letter from your Mr. Bailey, dated April 24th, 1911, you have been awarded the contract for supplying and erecting these two tanks, at a price of \$3,670.00 each, making the total of four tanks to be erected this year \$14,780.00, in accordance with your bid of March 31st and my letter of acceptance of same, dated May 6th.

Will you please get the material ordered as soon as possible and make shipment of the tank for Jamestown at the earliest possible date. We are not in so much hurry for the one at Auburn.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

St. Paul, Minn., July 6, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

Dear Sir:-

The President has authorized award of contract for supplying material and erection of steel water tanks at Jamestown, N. D., *and at Auburn Wash* to the Des Moines Bridge & Iron Company on the basis of their bid of \$3670 each for the third and fourth tanks.

I will be glad if you will notify these people and furnish them with the necessary specifications and write up contract to cover.

The Jamestown tank should be shipped as soon as they can get it out. We are in no great hurry for the one at Auburn.

Yours truly,

W. C. Stevens



7440
3620
3620
14780

FEB
attache correspondence
FEB
7/7

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.

ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,**AND WATER WORKS PLANTS.**GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa, July 1, 1911. *jak*H. E. Stevens, Bldg. Eng'r, N. P. Ry Co.
St. Paul, Minn

Dear Sir:-

We have your favor of the 28th ult. enclosing
copy of contract covering Zero and Ellinsburg water towers
properly executed by your company.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Geo A Smith

CH

NOR. PAC. RY. CO.
OFFICE OF
JUL
3
1911
BRIDGE ENGINEER
ST. PAUL MINN.

DES MOINES BRIDGE & IRON COMPANY,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,

MILL BUILDINGS, TANK AND PLATE WORK.

CURRY BUILDING

GENERAL OFFICES, DES MOINES, IA.
 CONTRACTING OFFICES, PITTSBURG, PA.
 DENVER, SALT LAKE CITY, OMAHA,
 LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
 NEVILLE ISLAND, PITTSBURG, PA.

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 BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

571-572.

Pittsburg, Pa.

June 23, 1911.

Lab

H. E. Stevens, Bridge Engr.,

Northern Pacific Railway,

St. Paul, Minn.,

Dear Sir:-

In connection with our work on the towers and tanks at Zero, Mont. and Ellensburg, Wash., we mailed today under separate cover for your inspection and approval, three prints each of our drawings sheets one to five inclusive, covering details and erection plans.

Kindly pass judgment on these drawings, return us one print of each with same noted thereon, as soon as possible, and oblige,

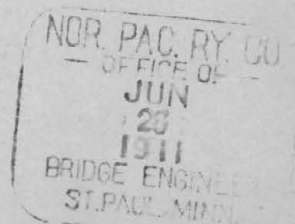
Yours very truly,

DES MOINES BRIDGE & IRON CO.

By

W. M. Beightel

HMP/MY.



, June 28, 1911.

WEB.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am handing you herewith for your file
copy of executed contract covering the furnishing and
placing of one hundred thousand gallon steel water tanks
at Zero and Ellensburg.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

St. Paul, Minn., June 27, 1911.

Mr. H. E. Stevens,

Bridge Engineer.

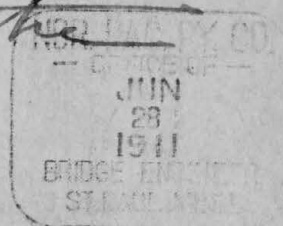
Dear Sir:-

Herewith for delivery to the contractors, one original copy of agreement dated May 12, 1911, with the Des Moines Bridge & Iron Company for furnishing and placing one hundred thousand gallon steel water tanks at Zero and Ellensburg.

Yours truly,

W. E. Smith

C-cr



*FEB
Des Moines
7/2/11*

DES MOINES BRIDGE & IRON COMPANY

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,**MILL BUILDINGS, TANK AND PLATE WORK.**

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
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WORKS { DES MOINES, IA.
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ALL AGREEMENTS CONTINGENT
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WHEN REPLYING PLEASE REFER TO

GAS **Des Moines, Iowa,** June 23, 1911.

H. E. Stevens, Bridge Eng'r, N. P. Ry Co.,
 St. Paul, Minn.

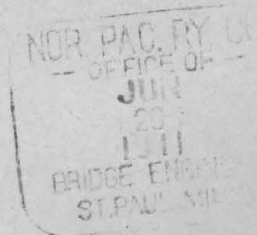
Dear Sir:-

Replying to your letter of the 22nd regarding
 shop drawings for Zero and Ellensburg towers, will say
 that these drawings are being prepared at our Pittsburg
 office and we are referring your letter to them for
 further reply.

Yours very truly,

DES MOINES BRIDGE & IRON CO.
Geo A Smith

CH



, June 22, 1911.

HES.

Lat

The Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I have not yet received from you for approval
the detail plans covering the 100,000 gallon steel
water tanks to be erected at Zero and Ellensburg.

Will you kindly advise when we may expect
them?

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,**MILL BUILDINGS, TANK AND PLATE WORK.**

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
 CONTRACTING OFFICES, PITTSBURG, PA.
 DENVER, SALT LAKE CITY, OMAHA,
 LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
 NEVILLE ISLAND, PITTSBURG, PA.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

June 13, 1911.

fake

ALL AGREEMENTS CONTINGENT
 UPON STRIKES, ACCIDENTS,
 OR OTHER OCCURRENCES
 BEYOND OUR CONTROL.

H. E. Stevens, Bridge Engr.,
 Northern Pacific Ry.,
 St. Paul, Minn.

Dear Sir:

Your letter of the 12th, enclosing approved
 print of foundation plan for water towers at Zero
 and Ellensburg, received. We have asked our office
 to send you additional foundation plan with the shop
 drawings which will be sent you for approval.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

By

MH



St. Paul, Minn., June 12, 1911.

HES.

Mr. L. M. Perkins,

Engineer maintenance of Way.

Dear Sir:-

I am handing you herewith two prints of the foundation plans prepared by the Des Moines Bridge & Iron Company covering the 100,000 gallon steel tank to be erected at Zero, Montana.

The anchor bolts and fastenings , and the steel supporting beam of the pipe cellar were shipped by the Bridge Company last month.

The reinforcing rods are to be furnished by the Railway Company and I have added in ink on each print a bill of this material, but have not made requisition for same.

Plain rods will do and sizes may be varied within reasonable limits to provide for the use of stock if desired.

Yours truly,

Bridge Engineer.

June 12, 1911.

HES.

The Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Dear Sir:-

I return you herewith approved one print of foundation plan for steel water tank at Zero and Ellensburg.

When forwarding the detail plans for approval will you kindly enclose another print of this foundation plan? Those now on hand will be sent to the field.

Yours truly,

Bridge Engineer.

B

St. Paul, Minn., June 12, 1911.

HES.

Mr. A. R. Cook,

Engineer Maintenance of Way,

Tacoma, Wash.

Dear Sir:-

I am handing you herewith two prints of the foundation plans prepared by the Des Moines Bridge & Iron Company covering the 100,000 gallon steel tank to be erected at Ellensburg, Wash.

The anchor bolts and fastenings, and the steel supporting beam of the pipe cellar were shipped by the Bridge Company last month.

The reinforcing rods are to be furnished by the Railway Company and I have added in ink on each print a bill of this material, but have not made requisition for same.

Plain rods will do and sizes may be varied within reasonable limits to provide for the use of stock if desired.

Yours truly,

Bridge Engineer.

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEELWORK, WATER TOWERS,

AND WATERWORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO #571-572

Pittsburg, Pa. June 8, 1911.

Ellensburg, Wash.,
Zero, Mont.,

H. E. Stevens, Chief Engr.,
Northern Pacific R. R.,
St. Paul, Minn.,

Dear Sir:-

As per your recent request, we mailed you today under separate cover five prints of sheet #1, revised, with required corrections made as per notations on print returned us.

Yours very truly,

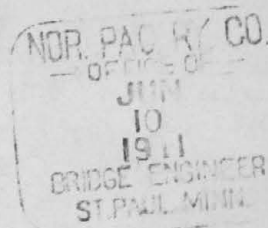
Des Moines Bridge & Iron Co.

By

H. M. Seightel

*F. A. B. check
Ple 6/10*

OK TMB 6/10



HMP/MY.

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,

AND WATER WORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
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OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

June 5, 1911.

H. E. Stevens, Bridge Eng'r, N. P. Ry Co.,
St. Paul, Minn.

Dear Sir:-

Your letter of the 3rd regarding foundation
plans for Zero and Ellensburg tower received.

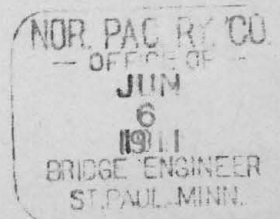
We are forwarding this information to our
Pittsburg office and will furnish the revised drawings
in a few days.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

CH



June 3, 1911.

FBS.

La

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I have your favor of the 1st enclosing foundation plan for steel watertanks at Zero and Ellensburg.

I am returning you herewith one sheet showing in black, notes and corrections which I wish you would have put on your sheet, sending us five corrected prints for approval and use in the field.

Yours truly,

Bridge Engineer.

B

St. Paul, Minn., June 2, 1911.

HES.

Mr. A. R. Cook,

Engineer Maintenance of Way, Tacoma, Wash.

Dear Sir:-

The Des Moines Bridge & Iron Company advise me that they have made shipment of the anchor bolts and channels for steel tank and Ellensburg, this shipment having gone forward on May 20th, consigned to the Northern Pacific Railway at Ellensburg, Washington.

Bill of lading attached.

Yours truly,

Bridge Engineer.

B

St. Paul, Minn., June 2, 1911.

HES.

Mr. L. M. Perkins,

Engineer Maintenance of Way.

Dear Sir:-

The Des Moines Bridge & Iron Co., advise me that they have made shipment of the anchor bolts and channels for steel tank at Zero, Montana, this shipment having gone forward on May 20th, consigned to the Northern Pacific Railway at Zero, Montana.

Bill of lading attached.

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,**MILL BUILDINGS, TANK AND PLATE WORK.**

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
DENVER, SALT LAKE CITY, OMAHA,
LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
NEVILLE ISLAND, PITTSBURG, PA.

ALL AGREEMENTS CONTINGENT
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OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

JE

Des Moines, Iowa, June 1, 1911.

Northern Pacific Ry. Co.,

St. Paul, Minn.

Gentlemen:

Attention Engr. Dept.

We have your letter of the 31st inst. relative to anchor bolts and plates on the Ellensburg and Zero tanks for which we have the contract. Both of these sets of anchor rods went forward from Pittsburgh some time ago. We are enclosing herewith bill of lading covering both shipments. You will note that we have consigned these to the Northern Pacific Ry; at the respective locations of the tanks, however, we will instruct the shop to bill the tank and tower material as you asked for in your letter of the 31st.

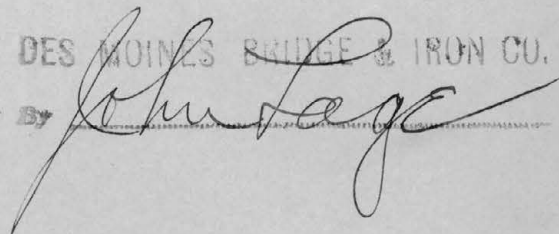
We are also enclosing herewith two blue prints each of foundation plans of the tanks for Zero and Ellensburg. In this connection, we might advise that the shop drawings for both of these tanks have not been approved, but we expect to have the drawing ready to submit to you for approval in the near future. We trust that the anchor rods will reach their respective locations without delay.

Yours very truly,

MH

DES MOINES BRIDGE & IRON CO.

By



, May 31, 1911.

HES.

Lab

Mr. T. R. Wyles,

2nd Vice President Detroit Graphite Co.,

Monadnock Block,

Chicago, Ill.

Dear Sir:-

Your favor of the 29th regarding paint for
the two steel water tanks.

The paint to be used on these tanks is
specified on the general plans and specifications used
in obtaining bids. I do not see, therefore, that we
can consistently change it at this time.

Yours truly,

Bridge Engineer.

B

May 31, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Will you kindly arrange to make advance shipment of the anchor bolts and connections required for imbedding in substructure of two steel water tanks you are to furnish.

We wish to start the work on the substructure of these tanks as soon as possible and before doing so, it will be necessary to have this material.

Material for the Ellensburg tank should be billed :

Northern Pacific Railway Company,
Care of A.R. Cook,
Engineer Maintenance of Way,
Ellensburg, Washington

and material for the Zero tank should be billed

Northern Pacific Railway Company,
Care L. M. Perkins,
Engineer Maintenance of Way,
Zero, Montana.

Yours truly,

Bridge Engineer.

B

2 a 6
St. Paul, Minn., May 31, 1911.

HES.

Mr. A. R. Cook,

Engineer Maintenance of Way,

Tacoma, Wash.

Dear Sir:-

Your favor of the 25th to Mr. Smith regarding shipment of anchor bolts and connections for the steel watertank at Ellensburg.

I have asked the Bridge Company to make advance shipment of this material. Will advise you as soon as shipment is made.

Yours truly,

Bridge Engineer.

B

Cy. W. C. Smith

Detroit Graphite Company.

NEW YORK
BOSTON
CHICAGO
BUFFALO
CLEVELAND
ST. LOUIS
ATLANTA
KANSAS CITY

PAINT MAKERS

MONADNOCK BLDG.

T. R. WYLES,
2ND VICE PRESIDENT

CHICAGO, May 29, 1911.

Mr. H. E. Stevens, Bridge Engineer,
Northern Pacific Railway Co.,
St. Paul, Minn.

Dear Sir:-

I notice that the Des Moines Bridge & Iron Company took some tanks from you and I am wondering whether you made any special request on specifications to them of any particular kind of paint. They advised me in Des Moines to take this matter up with the Pittsburg office but before doing so, I would like to have some idea of what you want for the interior of tanks.

I believe that No. 106 or 501 for the interior and first coat outside are the best paints made. These to be followed on the outside with a coat of No. 30.

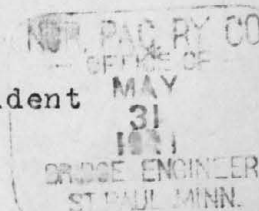
If consistent, would you mind advising me?

Yours very truly,

DETROIT GRAPHITE COMPANY

T. R. Wyles
2nd Vice President

TRW/EH



Northern Pacific Railway Company

Tacoma, Washington, May 25, 1911.

Mr. W. C. Smith,

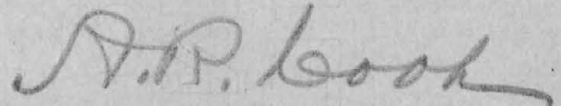
Chief Engineer Maintenance of Way.

Dear Sir:

Referring to your letter of the 5th instant in regard to the construction of 100,000 gallon steel water tank at Ellensburg:

Supervisor Herider advises that according to the plans the contractor is to furnish the anchor bolts, anchor plates and the small I-beam. Will you please arrange to have these shipped as soon as possible, as it is expected to commence work on the foundation as soon as the cement arrives?

Yours truly,



Engineer Maintenance of Way.

P

NORTHERN PACIFIC RAILWAY COMPANY

St. Paul, Minn., June 1, 1911.

Mr. J. G. Woodworth, Traffic Manager,
Mr. H. A. Gray, Comptroller,
Mr. G. J. Mayer, Auditor Disbursements,
Mr. Wm. Richards, Auditor Freight Receipts,
Mr. Geo. Sherriff, Auditor Passenger Receipts,
Mr. W. S. Taylor, Auditor Agencies,
Mr. E. O. Parks, Auditor S. & M. Accts.

Gentlemen:-

Contract has been awarded under date of May 12, 1911, to the Des Moines Bridge & Iron Company for furnishing material for and erecting steel water tanks at Zero, Montana and Ellensburg, Washington. The contract contains the following clause in regard to transportation:

"The Railway Company will furnish free transportation over its own lines and its proprietary lines, subject to the review and instructions of the Chief Engineer, as to the necessity for and proper use of same, for all men, tools, outfit, equipment and material actually used in the work."

Shipments on account of this contract will be consigned to the
NORTHERN PACIFIC RAILWAY COMPANY,
c/o F. J. Taylor, Division Engineer,
Zero, Montana.
c/o L. L. Crosby, Division Engineer,
Ellensburg, Wash.
for Des Moines Bridge & Iron Company

Transportation on account of this contract will be D. H. Operating to the Railway Company on account of improvement work.

Yours truly,

C-cr

cc - L.M.P.
A.R.C.
B.O.J.

J.E.C.
F.J.T.
B.L.C.
H.E.S.

W. C. Smith

MODJESKI & ANGIER
MONADNOCK BLOCK
CHICAGO, ILL.

RALPH MODJESKI, M. AM. SOC. C. E.
W. E. ANGIER, M. AM. SOC. C. E.
J. C. REEVES, MANAGER

Chicago, Illinois, May 27th, 1911.

WATER TANKS.

Mr. H. E. Stevens,
Bridge Engr., Northern Pacific Railway Co.,
St. Paul, Minn.

Dear Sir:-

We acknowledge receipt of your favor of the 25th inst. with enclosed copy of letter to Des Moines Bridge & Iron Company, who have recently been awarded contract for two 100,000 gallon steel water tanks on 30' towers.

Kindly accept our thanks for this commission and assurance that it will receive our close attention.

Yours very truly,

MODJESKI & ANGIER.

JCR/FB

Manager

NOTED BY CO
MAY 29 1911
ST. PAUL, MINN.
J. C. REEVES

Lab
May 26, 1911.

HES.

Chicago Bridge & Iron Works,

105th & Throop Sts.,

Chicago, Ill.

Gentlemen:-

Your favor of the 24th with rough sketch of proposed construction of the Des Moines Bridge & Iron Co. steel tanks.

The construction you have sketched is the one which the Des Moines bridge & Iron Co., have contracted to furnish us.

When this sketch was first presented to me, it was my opinion that it did not in any way infringe upon your patents and I am glad to note that you concur in this conclusion.

Yours truly,

Bridge Engineer.

B

May 25, 1911.

HBS La6

Messrs Modjeski & Angier,
Monadnock Block,
Chicago, Ill.

Gentlemen:-

Please note attached copy of letter to the
Des Moines Bridge & Iron Co., who have recently been
awarded the contract for two 100,000 gallon steel
watertanks on 30' towers.

Will you kindly arrange to give the material
the usual mill and shop inspection?

Yours truly,

Bridge Engineer.

B

, May 25, 1911.

HBS.

La6

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 24th regarding mill and shop inspection of steel watertanks ordered from your Company.

Messrs Modjeski & Angier, Monadnock Block, Chicago, Ill., will look after both mill and shop inspection. Will you kindly see that they are furnished with the necessary notice of rollings and start of fabrication.

Mill certificates will not be satisfactory for mill inspection.

Yours truly,

Bridge Engineer.

B

Cy. Modjeski & Angier.

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS.

**BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,
AND WATER WORKS PLANTS.**

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa, May 24, 1911.

H. E. Stevens, Bridge Eng'r, N. P. Ry Co.,
St. Paul, Minn.

Dear Sir:-

We are advised by your Chief Engineer, Mr. W. C. Smith, that Majeski and Angier will inspect the water towers which we are to furnish for you and that we are to advise you as soon as the material is ready for inspection. We would ask that you kindly advise us if you expect to inspect both at the mill and at our shop. We presume that most of the material is already ordered from the mills so that if you expect to have an inspector at the mills we should know it very promptly. We can of course furnish you the usual mill certificates if these will be satisfactory.

Awaiting your reply, we remain,

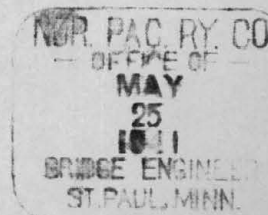
Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Leo A. Smith

CH





CHICAGO BRIDGE & IRON WORKS

STEEL TOWERS, AND TANKS - GASHOLDERS

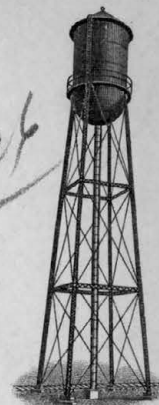
EASTERN OFFICE
30 CHURCH STREET.
NEW YORK.
SOUTHWESTERN OFFICE
PRAETORIAN BLD'G.
DALLAS, TEX.

105TH AND THROOP STREETS,
RAILROAD AND TELEGRAPH, WASHINGTON HEIGHTS, ILL.

CHICAGO

EASTERN SHOPS
GREENVILLE, PA.

May 24th-1911.



Mr. H. E. Stevens, Bridge Engr.,
Northern Pacific Ry. Co.,
St. Paul, Minnesota.

Dear Sir:-

Referring to our recent correspondence in reference to construction of steel tanks by the Des Moines Bridge & Iron Works:-

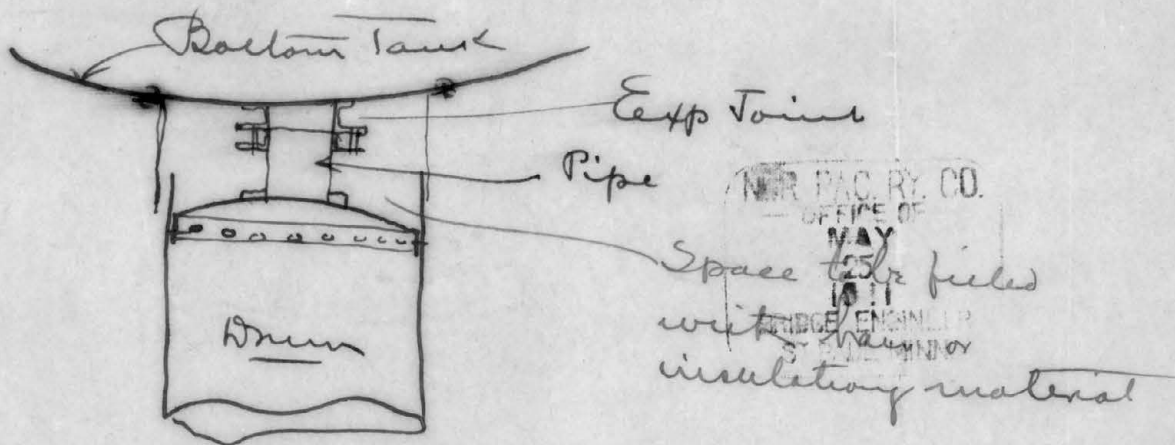
We have a plan from them showing the connection of the mud drum to bottom of tank as we indicate on sketch below.

Will you please advise if this is the form which they are using for you? The writer is free to acknowledge that such form does not infringe any patent which he claims.

Very truly yours,

George Horton

G.T.H./H



St. Paul, Minn., May 22, 1911.

HES.

La6

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

With further reference to my letter of the 17th sending you copies of contracts and correspondence covering proposed watertanks for Zero and Ellensburg, I am attaching copies of letter from the Des Moines Bridge & Iron Co. dated May 20th and from Chicago Bridge & Iron Works, dated May 19th, from which you will note that the latter company practically admits that the proposed construction of the Des Moines Bridge & Iron Co. will not be an infringement of the Chicago Bridge & Iron Works patent.

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEELWORK, WATER TOWERS,
AND WATERWORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

Pittsburg, Pa. May 20th, 1911.

Mr. A. T. Stevens, Bridge Engineer,
Northern Pacific Railway Co.,
St. Paul, Minnesota.

Dear Sir:

Making reply to your request to our Des Moines Office that we submit the plan of our construction, to Mr. Horton, we are pleased to advise that we are today sending Mr. Horton the plan of this connection. We also enclose a copy of a letter from Mr. Horton in which he admits that if we use an expansion joint, our construction would not infringe. We presume that this will close any cause for complaint which he thought he had.

Thanking you for the interest you have taken in this matter and hoping that we will have the pleasure of serving you in many of your other water tower contracts, we remain,

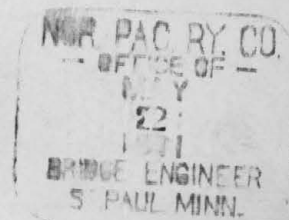
Yours very truly,

DES MOINES BRIDGE & IRON CO.,

By

W.H. Jackson

*FE B
make a file*



WHJ/LW.
Enc.

COPY

CHICAGO BRIDGE & IRON WORKS

Chicago, Ill., May 18th, 1911.

Des Moines Bridge & Iron Works,
Curry Building,
Pittsburgh, Pa.

Gentlemen:-

Replying to Mr. Jackson's letter in answer to mine calling your attention to possible infringement of my patent in the construction of tanks for the Northern Pacific and the City of Townsend, Montana:-

Am I to understand from your letter that you propose to make the connection of the large inlet to the tank proper by means of an expansion joint? If so, the writer will agree with you that such construction would not infringe. If, on the contrary, you propose to rivet the connection solid and merely make the statement that the inlet is not a support because you have figured the posts to carry all the load, I should consider this class of construction an infringement as it would be such a palpable subterfuge to get around the literal wording of my claims.

Please let me hear from you in reference to the same.

Very truly yours,

Signed George Horton

G.T.H./H

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,

AND WATER WORKS PLANTS.

OFFICE NINTH & TUTTLE STREETS.

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BEYOND OUR CONTROL.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

WHEN REPLYING PLEASE REFER TO

GAS Des Moines, Iowa, May 17, 1911.

Northern Pacific Ry Co.
St. Paul, Minn.

H.E. Stevens, Bridge Eng'r.

Gentlemen:-

Your letters of the 15th received.

We note that you have shown the radius of tank bottoms in black on the blue prints. This dimension should have been put on but was overlooked.

Regarding the strut connections, we understand from your letter that you prefer the style of connection shown on your drawings but that our form of connection for sway rods to column base will be satisfactory. We also understand from your letter that you wish the location of pipe connections in bottom of mud drum to be dept as shown on your plan. We had understood from previous correspondence that the arrangement of the pipe connections might be changed somewhat to accomodate our details. We will, however, endeavor to comply with your request on this point.

We are forwarding your letter regarding the request of Chicago Bridge & Iron Works to our Mr. Jackson for attention. We have already given them a rather full explanation of the tower we propose to build and presume that there will be no further controversy in connection with this matter as soon as they realize that we are not building their special style of tower.

We have not yet received the formal contracts on these towers but have turned the orders into the shop so as to gain some time. We presume contracts will be forwarded us in the near future.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Leo A. Smith

CH

REC'D BY CO.
MAY 18 1911
ENGINEER

REC'D BY CO.

St. Paul, Minn., May 17, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

I am handing you herewith contract proposed with the Des Moines Bridge & Iron Co., covering the erection of two steel watertanks at Zero and Ellensburg.

This contract has been approved as to form by the Legal Department.

The Chicago Bridge & Iron Co. is showing an inclination to make trouble account of this Contract having been awarded to other parties than themselves. Copies of their letters of May 10th and 12th are attached.

The Des Moines Bridge & Iron Co. claim that their type of construction does not infringe in any way upon the patents of the Chicago Bridge & Iron Co. and it is my opinion that they are correct in this contention. We have, however, placed a clause in the Contract intended to protect us against any trouble account of possible infringements of patents.

Moreover our Legal Department advised us some time ago that one who manufactures and sells a patented device is liable to his vendees for infringements. It seems to me, therefore, that the question is one to

Mr. W. C. Smith Page -2-

be fought out between the Chicago Bridge & Iron Co. and the Des Moines Bridge & Iron Co. And as the Des Moines Bridge & Iron Co. agrees to deliver the tanks to us on time, it seems to me we should go ahead and close up the contract.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

IN YOUR REPLY PLEASE

REFER TO FILE _____

St. Paul, Minn., May 16, 1911.

Hes.

Mr. Emerson Hadley,

Assistant General Counsel.


Dear Sir:-

I hand you herewith in duplicate contract proposed covering the construction of two steel water tanks.

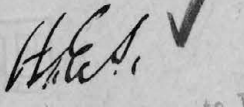

Account of some parties claiming patents on certain features of this construction we have added a clause in the body of the contract intended to protect the Railway Company against any claims or actions on this account.

If correct as to form will you kindly initial and return?

Yours truly,


Bridge Engineer.

B


Approved as to Form


22

La 6

St. Paul, Minn., May 16, 1911.

Hes.

Mr. Emerson Wadley,

Assistant General Counsel.

Dear Sir:-

I hand you herewith in duplicate contract proposed covering the construction of two steel water tanks.

Account of some parties claiming patents on certain features of this construction we have added a clause in the body of the contract intended to protect the Railway Company against any claims or actions on this account.

If correct as to form will you kindly initial and return?

Yours truly,

Bridge Engineer.

B

226

, May 16, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 10th regarding strut connections to columns for the two steel tanks which you propose to furnish to this Company.

As explained personally to your Mr. Bailly this morning, we should prefer to keep the strut and diagonal rod connections as shown on our typical details with the exception that the rod connection alone coming at the bottom of the tower legs may be connected as shown on your sketch.

I believe it will be better to bring the overflow pipe down through the center of the 18" outlet pipe in the bottom of the tank, offsetting the overflow pipe to the location shown on our drawing by means of two 45 degree elbows, placed in the line of pipe at some point inside the mud drum.

This arrangement will permit keeping all the openings in the bottom of the mud drum in the same location as indicated on our drawing.

Yours truly,

B

Bridge Engineer.

Lat
May 16, 1911.

HES.

The Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Please note the attached copy of letter to the Chicago Bridge & Iron Works, in reply to a request from them to furnish prints of the tanks which the Des Moines Bridge & Iron Co. propose to furnish to this Company.

If you have no objections to supplying the necessary prints, will you please do so at your convenience.

As stated in your letter of May 12th, it seems probable that the Chicago Bridge & Iron Co. will drop the matter as soon as they ascertain the details of your design, which it is my understanding will not in any way infringe upon the design on which they claim patents. Copy of their letter of the 12th is attached.

Yours truly,

Bridge Engineer.

May 15, 1911.

HES.

Chicago Bridge & Iron Co.,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

Your favor of the 12th regarding watertanks
proposed to be furnished by the Des Moines Bridge &
Iron Co.

As I have no extra prints and the Des Moines
Bridge & Iron Co., have the tracings of the proposed
construction in their possession, I have written asking
them to send you direct, the blue prints desired.

Yours truly,

Bridge Engineer.

B

May 15, 1911.

HES.

The Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 13th regarding prints
of water tanks.

I find that these prints are still shy on
information regarding radius of tank bottom. I have
therefore added this in ink.

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS.

**BRIDGES, STRUCTURAL STEELWORK, WATER TOWERS,
AND WATERWORKS PLANTS.**

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.
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PITTSBURG, PA.

CURRY BUILDING

ALL AGREEMENTS CONTINGENT
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BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

Pittsburg, Pa. May 15th, 1911.

Mr. A. T. Stephens,
Bridge Engineer N.P. Railway Co.,
St. Paul, Minnesota.

Dear Sir:

Our Des Moines Office has forwarded for my attention, your letter of the 11th instant relative to the claim of Mr. Geo. Horton that the towers we propose to build for your company are infringements of his patent. We also had a letter from Mr. Horton on this point, and enclose herewith, a copy of our reply.

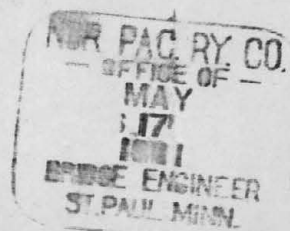
We feel quite confident that Mr. Horton should have no cause for further complaint when he becomes thoroughly familiar with our design.

Yours very truly,

DES MOINES BRIDGE & IRON CO..

By W.H. Jackson

WHJ/LW.
Enc.



COPY.

May 13th, 1911.

Mr. Geo. T. Horton,
c/o Chicago Bridge & Iron Co.,
Chicago, Ill.,

Dear Sir:-

We are in receipt of your favors of the 10th. instant advising that you consider that the tanks and towers which we are to build for the City of Townsend, Montana and for the Northern Pacific Railway, are infringements of your patent No. 857626, and in reply would advise that the writer is not conscious of any infringement of your patent in the towers in question and would state that it is not our desire or intention to in any manner infringe on your patent at any future time.

I have carefully reviewed the claims allowed in your patent, and I find that each of the fourteen claims contains the combination of different things with an inlet pipe, which also serves either as a support or partial support for the tank bottom.

We have always held to the theory that every inlet pipe should be connected to the tank bottom by means of an expansion joint and in this style of structure we can see no way in which the inlet pipe would serve to support the bottom, in fact all our designs are prepared upon the theory that the posts carry all of the load that comes upon the tank bottom, consequently we believe that you will find upon further investigation of our designs that none of them will infringe your patent. In case this supposition is not correct, we would be pleased to hear from you more fully with reference to the manner in which you claim our designs infringe.

Yours very respectfully,

WHJ/LW.

DES MOINES BRIDGE & IRON COMPANY,NOT INCORPORATED.
ENGINEERS AND CONTRACTORS**BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,
AND WATER WORKS PLANTS.**GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

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BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

May 13, 1911.

H. E. Stevens, Bridge Eng'r, N. P. Ry Co.,
St. Paul, Minn.

Dear Sir:-

Referring to the blue print sent you for proposed water towers, will say that we find the ones sent were not correct on account of the change made later in the height of tank by Mr. Baily when at St. Paul. We are therefore enclosing herewith six additional copies with proper correction on this point and have also indicated on the plan the radial rods to riser pipe.

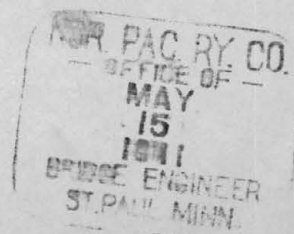
If you have already used the other ones in connection with the contract, it will make no difference as we will forward the shop drawings to you for approval anyway.

Yours very truly,
DES MOINES BRIDGE & IRON CO.

BY

Leo A. Smith

CH





CHICAGO BRIDGE & IRON WORKS

STEEL TOWERS, AND TANKS - GAS HOLDERS

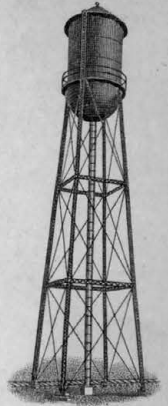
EASTERN OFFICE
30 CHURCH STREET.
NEW YORK.
SOUTHWESTERN OFFICE
PRAETORIAN BLD'G.
DALLAS, TEX.

105TH AND THROOP STREETS,
RAILROAD AND TELEGRAPH, WASHINGTON HEIGHTS, ILL.

CHICAGO

EASTERN SHOPS
GREENVILLE, PA.

May 12th-1911.



Mr. H. E. Stevens, Bridge Engr.,
Northern Pacific Ry. Co.,
St. Paul, Minn.

Dear Sir:-

Replying to yours of the 11th:-

Do you mind informing me the type of water tank the Des Moines Bridge & Iron Works propose to furnish your company?

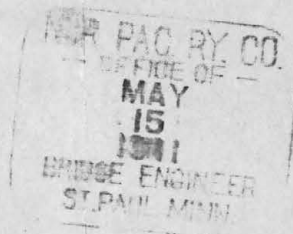
My patents cover a combination of an elevated tank of any form with a large inlet pipe, a supply pipe in the bottom and a blow-off, the inlet acting as a settling basin or as a support to the bottom of the tank.

I, of course, could secure this information later on but merely ask now in order that if possible, trouble for all concerned may be avoided.

Very truly yours,

G.T.H./H

George E. Horton



DES MOINES BRIDGE & IRON COMPANY

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,
AND WATER WORKS PLANTS.

OFFICE NINTH & TUTTLE STREETS.

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PITTSBURG, PA.

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WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa, May 12, 1911.

H. E. Stevens, Bridge Eng'r, N. P. Ry Co.,
St. Paul, Minn.

Dear Sir:-

Replying to your favor of the 11th inst., will say that we have had a similar letter from the Chicago Bridge & Iron Co. in regard to their patent and have referred the matter to our Mr. W. H. Jackson for attention. We believe that they are laboring under the belief that we are constructing their special tower and that as soon as they find out the details of our designs, they will not bother us further regarding infringement.

We consider that we have a better design in most respects than theirs and have no fears whatever as to the outcome of their action in regard to infringement.

We are also referring your letter to Mr. Jackson and possibly you will hear from him in a few days.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Lee U. Smith

CH

ST. PAUL RY. CO.
OFFICE OF -
MAY
13
1911
BRIDGE ENGINEER
ST. PAUL, MINN.

May 11, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Please note the attached copy of letter from the Chicago Bridge & Iron Works regarding infringement of their patent No. 857626, and my reply to same.

Will you kindly advise what action you wish taken in the matter.

Yours truly,

Bridge Engineer.

B

May 11, 1911.

HES.

Chicago Bridge & Iron Works,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

I have your favor of the 10th regarding
placing of order for steel watertanks with the Des
Moines Bridge & Iron Co.

I am assured by the Des Moines Bridge & Iron
Co. that their proposed construction does not infringe
in any way on the construction on which you claim
patents.

I beg to suggest that you take the matter
up with them.

Yours truly,

Bridge Engineer.

B

Cy. Des Moines Bridge & Iron Co.

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

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CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

May 10, 1911.

Northern Pacific Ry Co.,
St. Paul, Minn.

H.E. Stevens, Bridge Eng'r,

Gentlemen:-

Your letter of the 6th and 8th insts. received. We also acknowledge receipt of one complete set of detailed prints covering tank erected at Livingstone, Mont., which will be returned to you as soon as we have secured such information as we need from them.

We are pleased to know that the contracts for your proposed towers will be sent us in a few days for signature. We are turning the order into our shop at once, asking them to furnish detailed foundation plans as soon as possible so that you can start the foundation work. We are also asking them to furnish us complete shop drawings for your approval. We consider our design much more definite in some respects as to stresses and we are confident it will prove entirely satisfactory in service.

Regarding the location of the pipe connections, in the bottom of the mud drum, it will be necessary for us to place the over-flow pipe in the center and the clean-out and main supply just off center. This arrangement is necessary on account of the over-flow pipe passing through the 18" expansion joint at the tank bottom. We could of course place the over-flow off center somewhat, but presume that you have no objection to placing it on center.

Regarding the style of strut connection to columns, we enclose herewith a blue print plan showing details of our standard connection and also our standard connection at bottom and top for the sway rods. We would be pleased to have you advise if this detail will meet with your approval. We thought best to take this matter up with you before having the shop drawings completed.

BRIDGE ENGINEER
ST. PAUL, MINN.

N. P.

-2-

5/10/11.

In regard to the co-partnership of the Des Moines Bridge & Iron Co., will say that it now consists of Messrs. Jackson and Crellin, Mr. Moss having retired from the company the first of the year.

We enclose herewith six blue prints of the sheet which we submitted with our proposal.

We thank you for this order and assure you that it will have our very best attention.

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Geo A Smith

CH



CHICAGO BRIDGE & IRON WORKS

STEEL TOWERS, AND TANKS - GASHOLDERS

EASTERN OFFICE
30 CHURCH STREET,
NEW YORK.

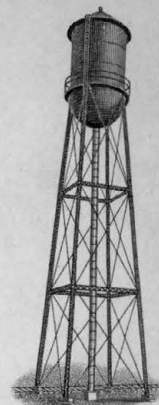
SOUTHWESTERN OFFICE
PRAETORIAN BLD'G.
DALLAS, TEX.

105TH AND THROOP STREETS,
RAILROAD AND TELEGRAPH, WASHINGTON HEIGHTS, ILL.

CHICAGO

EASTERN SHOPS
GREENVILLE, PA.

May 10th-1911.



Northern Pacific Ry.,

H. E. Stevens, Bridge Engr.,

St. Paul, Minnesota.

Gentlemen:-

I understand that you have recently placed an order with the Des Moines Bridge & Iron Works for certain tanks which directly infringe my patent No. 857626 and which the Chicago Bridge & Iron Works only are authorized to construct.

Please take this as notice not to proceed with this construction and that if you do, I shall exact such penalties as are provided under the patent laws.

Very truly yours,

G.T.H./H

Registered.

May 6, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am forwarding you under separate cover one complete set of the detailed prints of 100,000 gallon steel tank erected for us at Livingston, Mont.

This in accordance with verbal request of your Mr. Bailly, who asked that we give you some idea of the style of waibout valve and stuffing box we have been using on these tanks. Please note that patents are claimed on the details shown on these three sheets as noted on the drawings. As soon as the sheets have served your purpose, will you kindly return them to this office?

I am also sending one print of our foundation sheet, plan of 30' diameter tank. Will you kindly check this over and advise if you desire any changes made in same to suit your construction. If not, we will proceed with the construction of the foundations in accordance with plan as it now stands, as soon as we receive from you the necessary anchor bolts and anchor channels which should be forwarded in advance of the balance of the tank.

Mr. Bailly spoke of changing the outlet pipe to the center of the water leg. I do not see that there is

Des Moines Bridge & Iron Co, Page -2-

any necessity for doing this, but the overflow pipe will have to be changed or an elbow put in same.

There is no provision shown on your sketch for this overflow pipe.

Please make up your detail shop plans covering the tank as soon as possible so that we may have time to give them a careful check before starting work. The style of tank you are proposing is rather a new departure and it is important that all details be carefully considered.

Yours truly,

Bridge Engineer.

B

May 6, 1911.

WES

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am pleased to advise that you have been awarded the contract for erection of two 100,000 gallon steel water tanks on 30' towers, one to be located at Zena, Mont., and one to be located at Ellensburg, Washington, at the price of \$7440.00 for the two tanks complete in place, as per your bid of March 31st, and revised sketches attached thereto.

The Railway Company reserves the right to order at any time during the present construction year one additional tank, in which case the price of the three tanks complete in place will be \$11,110.00, or two additional tanks at a price for the four tanks complete in place of \$14,780.00 as per letter of your Mr. Bailly, dated April 24th, making the schedule of your bid of March 31st, good for entire construction year of 1911.

Contract and bond are now being prepared to cover and will be forwarded you for execution as soon as completed.

Yours truly,

Cy. W. C. Smith.

Bridge Engineer.

St. Paul, Minn., May 6, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:-

I have notified the Des Moines Bridge & Iron Co. that they have been awarded the Contract for two water tanks , and the Railway Company reserves the right to order two more at any time during the current year.

The bid of the Bridge Company includes the furnishing of anchor bolts and anchor channels. These will be shipped in advance of the balance of the tank.

The reinforcing rods for the foundations are to be furnished by the Railway Company.

I do not think that any changes will be necessary in our Standard foundation plan. As soon as I hear from the Bridge Company on this point will make the changes , should they ask for any, and provide you with prints for construction. It is my understanding that none of the foundations are now in place.

Yours truly,

Bridge Engineer.

Northern Pacific Railway Company

Saint Paul, May 5, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

Dear Sir:

The Chief Engineer's office advises that the President has approved award of contract to the Des Moines Bridge & Iron Company for erection 100000-gallon steel water tanks on thirty-foot towers at Zero, Montana, and Ellensburg, Washington.

Will you please notify the successful bidder, as well as the unsuccessful bidders, and arrange with the former to furnish the plans for the foundations, giving me at least four copies, so that arrangements can be made to have the work started and ready for the steel when it arrives.

If the contract does not provide for the Iron Company furnishing the anchor bolts etc., please advise what it is necessary to order.

You may also arrange for the contract and bond to cover.

Yours truly,

W. C. Stevens
NOR. PAC. RY. CO.
MAY 6 1911
BRIDGE ENGINEER
ST. PAUL MINN.

La 4

MEMO

St. Paul, Minn., May 10, 1911.

HES.

Mr. L. M. Perkins,

Engineer Maintenance of Way.

I am handing you herewith ten prints of
typical foundation plan for steel watertank.

The foundations required for tank proposed
at Zero will be the same as the foundations used at
Sand Point and Paradise, with the possible exception of
some small variation in spacing of anchor bolts which
cannot be determined until we receive the superstructure
plans.

The diameter of the tank will be 30' and
depth of foundations 8'.

H. E. Stevens.

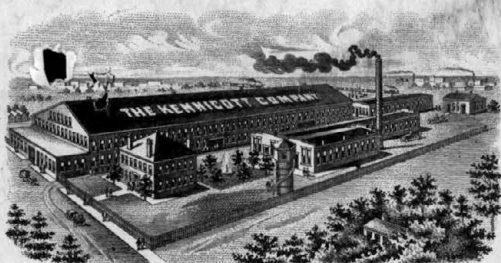
B

CHAUNCEY J. BLAIR,
PRESIDENT.

CASS. L. KENNICOTT,
V. PRES. & GEN. MGR.

EDWIN J. FLEMMING,
SECY. & TREAS.

CHAUNCEY B. BLAIR,
ASST. SECY. & TREAS.



THE KENNICOTT COMPANY

CHEMISTS

MANUFACTURERS

ENGINEERS

CHICAGO
SUITE 602 CORN EXCHANGE BANK BLDG.
CABLE ADDRESS "WATERSOFT" CHICAGO.
TELEPHONE MAIN 4377

NEW YORK
LONDON
PARIS

CHICAGO HEIGHTS, ILL.
TELEPHONE CHICAGO HEIGHTS 69

MAY 8TH, 1911.

MR. H. E. STEVENS, BRIDGE ENGINEER,
NORTHERN PACIFIC RAILWAY COMPANY,
ST. PAUL, MINN.

DEAR SIR:-

WE REGRET TO LEARN BY YOURS OF MAY 6TH, THAT WE
ARE NOT THE FORTUNATE BIDDER ON THE CONTRACT FOR THE 100,000
GALLON STEEL TANKS, BUT TRUST THAT WE MAY BE MORE FORTUNATE
NEXT TIME AND THAT WE MAY STILL CONTINUE TO RECEIVE YOUR IN-
QUIRIES.

THANKING YOU IN ANTICIPATION, WE ARE

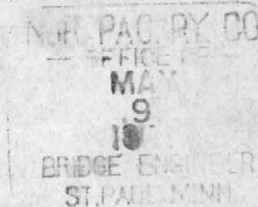
YOURS VERY TRULY,

THE KENNICOTT COMPANY,

Cass L. Kennicott
VICE-PRES. & GEN'L MGR.

CLK/FVP

26008



May 8, 1911.

HES.

The Des Moines Bridge & Iron Co.,

Des Moines, Iowa

Gentlemen:-

I beg to inquire if Messrs Jackson, Moss and Crellin comprise the co-partnership known as the Des Moines Bridge & Iron Co., or if there are other members of the firm.

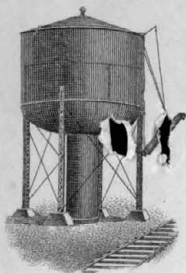
This information is desired in connection with drawing up contract for construction of watertanks, recently awarded you.

Also please send six prints each of the small sketch sheets submitted with your bid.

Yours truly,

Bridge Engineer.

B



CHICAGO BRIDGE & IRON WORKS

STEEL TOWERS, AND TANKS - GASHOLDERS

EASTERN OFFICE
30 CHURCH STREET.
NEW YORK.

SOUTHWESTERN OFFICE
PRAETORIAN BLD'G.
DALLAS, TEX.

105TH AND THROOP STREETS,
RAILROAD AND TELEGRAPH, WASHINGTON HEIGHTS, ILL.

CHICAGO

May 6th-1911.

EASTERN SHOPS
GREENVILLE, PA.



H. E. Stevens, Bridge Engineer,

Northern Pacific Railway Co.,

St. Paul, Minn.

Dear Sir:

Will you kindly advise whether there has been any further progress made in regard to placing orders for 100,000 gallon tanks on which we quoted you March 27th?

Trusting that you will be in a position to favor us with this work at an early date, we remain,

Very truly yours,

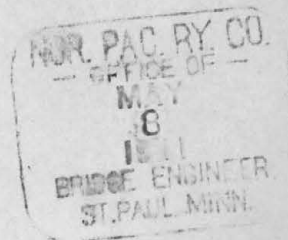
CHICAGO BRIDGE & IRON WORKS

BY

M. J. Trees

T/C

#2852.



May 6, 1911.

HES.

Laf

Chicago Bridge & Iron Works,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

I beg to advise that the contract for 100,000
gallon steel tanks on which you recently bid has been
awarded to the Des Moines Bridge & Iron Co.

Thanking you for your tender, I am

Yours truly,

Bridge Engineer.

B

May 6, 1911.

HES.

La 6

The Wennicott Company,

Chicago Heights, Ill.

Gentlemen:-

I beg to advise that the contract for 100,000
gallon steel tanks on which you recently bid has been
awarded to Des Moines Bridge & Iron Co.

Thanking you for your tender, I am y

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANYNOT INCORPORATED.
ENGINEERS AND CONTRACTORS**BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,****AND WATER WORKS PLANTS.**GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

April 27, 1911.

H. E. Stevens, Bridge Eng'r,
 Northern Pacific Ry Co.,
 St. Paul, Minn

Dear Sir:-

We have your esteemed favor of the 6th and are pleased to note that you have recommended the acceptance of our proposition for steel towers and tanks. We also have a letter from Mr. W. C. Smith of your company asking for confirmation of Mr. Baily's letter of the 24th and we have given him the required confirmation.

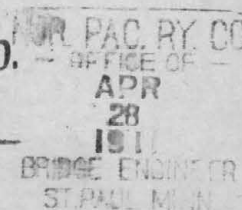
We trust we may receive formal order at once so that the business may be considered as April business.

Thanking you for the information given, we remain,

Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Geo. A. Smith

CH

41 : *Lat*
April 26, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 21st regarding tower and tank proposition.

As explained to your Mr. Bailly, we expect to place the order for at least a portion of these tanks within the next few days. I recommended that your Company be awarded the work.

Yours truly,

Bridge Engineer.

B

48

DES MOINES BRIDGE & IRON COMPANY,

Ninth & Tuttle Streets.

R.W.B.

Des Moines, Iowa, April 24, 1911.

Lat
COPY

TANKS FOR NORTHERN PACIFIC RAILWAY COMPANY.

Mr. H. E. Stevens, Bridge Engineer,
Northern Pacific Ry.,
St. Paul, Minn.

Dear Sir:-

In accordance with our conversation this noon, we wish to say that our schedule of prices for the erection of Railway Tanks for your Company submitted on March 31st, will hold during the entire construction year of 1911, that is to say; that in case you order two tanks at the present time and later in the year should extend the order to three or four the schedule will apply to the total number of tanks ordered at the time of final settlement.

In connection with the matter of infringement of patent rights, will say that we will protect your Company against any suits for infringements of patents, which are due to our type of structure.

We have made you some very low prices hoping to be able to do some of this class of work for you this year, and we will give you the best service in our power.

Very truly yours,

DES MOINES BRIDGE & IRON COMPANY.

(Signed)

By....R.W.Baily:.....

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,

AND WATER WORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

MW

Des Moines, Iowa, April 21, 1911.

H. E. Stevens, Bridge Engr.,

St. Paul, Minn.

Dear Sir:

We have not been advised as to the outcome of the tower and tank proposition on which we quoted you the 21st of March, and trust that you have at last decided on the number you require and that our price is in line to secure the business.

Trusting that you can favor us with the order for part of this work in the near future, and thanking you for any information which you may be kind enough to favor us with, we remain,

Yours very truly,

DES MOINES BRIDGE & IRON CO.

By

Wm. H. White

MH



April 13, 1911. *La*

HES.

Chicago Bridge & Iron Co.,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

Your favor of the 12th regarding disposition
of bids for 100,000 gallon steel watertanks.

This matter has not yet been settled as we
are still undecided as to the number of tanks to be
ordered. Will advise you disposition as soon as
possible.

Yours truly,

Bridge Engineer.

B

CHICAGO BRIDGE & IRON WORKS,
WASHINGTON HEIGHTS STATION,
CHICAGO, ILL.

April 12, 1911

H. E. Stevens, Bridge Engr.,
Northern Pacific Ry. Co.,
St. Paul, Minn.

Dear Sir:-

We are writing at this time to inquire what disposition has been made of the proposition on three 100,000 gallon steel towers and tanks for different locations along your line. We quoted you prices on the construction of these towers and tanks under date of March 27th.

Thanking you in advance for any information you may be able to give us, we are,

Very truly yours,

CHICAGO BRIDGE & IRON WORKS.

By

M. J. Trees

T/B.

#2852

NOR. PAC. RY. CO.
OFFICE OF
APR 13 1911
BRIDGE ENGINEER
ST. PAUL, MINN.

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,

AND WATER WORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa, April 6, 1911.

H. E. Stevens, Bridge Eng'r N. P. Ry Co.,
St. Paul, Minn.

Dear Sir:-

We have your esteemed favor of the 4th inst.
and note that you have not yet reached a decision in
regard to the purchase of steel tanks on which we quoted
you last week.

We trust your decision will be favorable to
us and that we may hear from you in a short time.

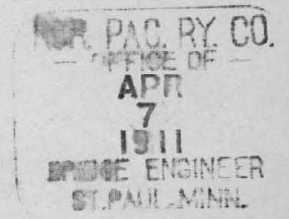
Yours very truly,

DES MOINES BRIDGE & IRON CO.

BY

Leo A. Smith

CH



44
ya 6
April 4, 1911.

HBS.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 3rd regarding disposition of bids for steel tanks.

As I explained to your Mr. Bailey, this matter may be delayed account of the necessity of determining how many tanks will be required. The matter is still being held for this reason.

Will advise you as soon as disposition is made.

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY,

MANUFACTURERS AND CONTRACTORS.

BRIDGES, STRUCTURAL STEEL, WATER TOWERS,**MILL BUILDINGS, TANK AND PLATE WORK.**

OFFICE NINTH & TUTTLE STREETS.

GENERAL OFFICES, DES MOINES, IA.
 CONTRACTING OFFICES, PITTSBURG, PA.
 DENVER, SALT LAKE CITY, OMAHA,
 LOS ANGELES, SEATTLE, SAN FRANCISCO.

WORKS { DES MOINES, IA.
 NEVILLE ISLAND, PITTSBURG, PA.

ALL AGREEMENTS CONTINGENT
 UPON STRIKES, ACCIDENTS,
 OR OTHER OCCURRENCES
 BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO GAS

Des Moines, Iowa, April 3, 1911

H. E. Stevens, Bridge Engineer,
 Northern Pacific Railway Company,
 St Paul, Minnesota.

Dear Sir:-

Our Mr. Bailly reported his second visit with you last Friday in regard to the contemplated steel tanks for your road, and he states that this matter was to be definitely acted upon on the 1st instant. We have made a special effort to make a proposition which will warrant you ~~not~~ giving us this business and we hope that we have been successful. We would be pleased to have you advise when we may expect your order for thest tanks.

Yours very truly,

DES MOINES BRIDGE & IRON CO.
Leo A. Smith

MG

REC'D PAC. RY. CO.
 APR 4 1911
 ENGINEER
 ST. PAUL, MINN.

New Hill
Lab

St. Paul, Minn., March 31, 1911.

HES.

Mr. W. C. Smith,

Chief Engineer Maintenance of Way.

Dear Sir:

I am handing you herewith bids received for the erection of four steel watertanks to be located at Jamestown,

Zero, Ellensburg and Tacoma, as follows:

	Any one Tank	Any two Tanks	Any three Tanks	Any four Tanks
Des Moines B. & I. Co.	\$3745	\$7440	\$11110	\$14780
Chicago B. & I. Co.	\$3950	\$7800	\$11550	\$15200
Kennicott Company				
Jamestown tank	\$4065			
Zero tank	\$4158			
Tacoma tank	\$4249			
Ellensburg tank	\$4249	\$8100	\$12150	\$16200

The bid of the Des Moines Bridge & Iron Co. is the lowest by \$400 in case it is decided to build four tanks and is the lowest by \$205.00 in case only one tank is desired.

These people are making a strong effort to secure the business. They have bid on all the steel tanks we have erected heretofore, but have usually been somewhat higher than the others account of their design requiring more metal than those of the other Companies. This time they have presented a new design which they claim will avoid the patents of the other companies

Mr. W. C. Smith Page -2-

and has at the same time several advantages of its own.

Instead of riveting the water leg to the tank bottom they have fitted it with a flanged boiler head and connected it to the tank bottom by means of an expansion joint. This expansion joint will take care of variation in length of water leg due to the changes in temperature, thereby avoiding the springing of the bottom, due to temperature changes and also permitting a good adjustment of the water leg when first set up.

The bottom is spherical in shape instead of elliptical as called for on our designs, and in order to meet an objection I have heretofore raised to this style of bottom, that is that a higher tower must be used to give an equal head to that secured by an elliptical bottom, they have made the tank of sufficient capacity to carry 100,000 gallons above the 30' level. There is over 5,000 gallons of water left in the tank below the 30' level, which will have an average head of about 28' and is, of course, available for use if we so desire.

The total capacity of their tank is over 106,000 gallons instead of 100,000 gallon tank called for by the design of the Chicago Bridge & Iron Co.

As you are aware, there has been an effort made to monopolize the railroad field by means of patents granted on the elliptical bottom and water legs, and it seems to me it would be desirable to encourage competition. For this reason and those enumerated above, I would recommend accepting the

Mr. W. C. Smith Page -3-

bid of the Des Moines Bridge & Iron Co.

All three companies have submitted better figures than any heretofore received. The Des Moines Co.'s figures being over \$500.00 lower per tank than the lowest figures obtained on the same style of tanks purchased a year ago.

Yours truly,

Bridge Engineer.

B

	any One Tank	any Two Tanks	any Three Tanks	any Four Tanks
11 Des Moines B & I	3745 (3850)	7440 7650	11110 11425	14780 (15200)
Chicago B & I	3950	7800	11550	15200
Kennett & Watson				
Jameson Tank	4065			
Jess Tank	4158			
Tanna Tank	4249			
Albright Tank	4249	8100	12150	16200

March 29, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your Mr. Bailey called at my office this morning leaving sketches and proposal for four steel water tanks of 100,000 gallon capacity.

Mr. Bailey stated that tank shown in your sketch had the following capacities.

Cylindrical portion 13' 1" in height 69,185 Gallons.

Segment of spherical bottom above 30' level 30,930 gals.

" " " " below 30' " 5,330 "

After Mr. Bailey had left my office I attempted to check over these figures and found that sketch did not show sufficient dimensions to enable me to do so.

Taking scale dimensions I found the total capacity of tank ^{be} ~~to~~ 102,600 gallons of which 4,320 gallons are below the 30' level, leaving about 98,300 gallons above the 30' level.

It was my understanding with Mr. Bailey that you would provide 100,000 gallons above the 30' level. Will you kindly check this over and dimension your sketch to show the capacities correctly?

I note that you have apparently used a radius of about 15.4' for the spherical bottom, and that this radius is struck from a point about 4' above the bottom of the cylindrical portion of the tank. Such a construction will make the intersection of the bottom plates with the cylindrical plates at an angle instead of tangent.

It occurs to me that there will be difficulty in making a good job out of such construction. Could you not do better by using three center curve so as to bring the bottom tangent to the sides at the contact point. Wish you would consider this in sending in revised sketch.

Account of your water leg not being rivetted to the bottom of the tank, I assume you will stay the top of same to the tower legs by a set of spider rods same as used in the plate of the horizontal struts.

I am sorry that Mr. Bailey got away before I had an opportunity to discuss these points with him, but will hold the matter open for a few days in order to hear from you.

Yours truly,

Bridge Engineer.

B

March 23, 1911.

HES.

Lat

Chicago Bridge & Iron Co.,

105th & Throop Sts.,

Chicago, Ill.

Gentlemen:-

I beg to acknowledge receipt of your letter of the 27th together with bids for construction of four steel watertanks.

As the time limit set for receipt of these bids was April 1st, all bids have not yet come in. I shall be pleased to advise you the results of canvas of same at the earliest possible date.

Yours truly,

Bridge Engineer.

B

March 27, 1911.

HES.

fa 4

The Kennicott Company,

Chicago Heights, Ill,

Gentlemen:-

I beg to acknowledge receipt of your letter of the 25th together with proposal for the erection of four steel water tanks.

Yours truly,

Bridge Engineer.

B

CHICAGO BRIDGE & IRON WORKS.

WASHINGTON HEIGHTS STATION.

CHICAGO, ILL.

March 22, 1911

H. E. Stevens, Bridge Engr.,
Northern Pacific R. R. Co.,
St. Paul, Minn.

Dear Sir:-

We are in receipt of your invitation of March 18th to quote on standard water tanks for your line. We thank you for the same will have our proposal in on or before April 1st, 1911.

Very truly yours,

E.L/B.

CHICAGO BRIDGE & IRON WORKS.

By *E. L. B.*



226
March 18, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Your favor of the 17th regarding design for
100,000 gallon steel watertank.

In furnishing us a tank of this style the
Kennicott Company guaranteed to protect us against
any claims or infringements of patents which might be
made by any other company.

I do not know as the matter caused them any
particular trouble, but believe that they claim their
style of construction does not infringe on that of
any other company. At any rate no claims were ever
made against the Railway Company so far as I am advised.

Yours truly,

Bridge Engineer.

B

March 18, 1911.

HES.

The Kennicott Company,

Chicago Heights, Ill.

Gentlemen:-

Supplementing my letter of March 15th, asking
bids for four steel watertanks.

The Operating Department request that these
be furnished with indicators showing heights of water.
Will you please include indicator in price bid for
construction of tank.

Yours truly,

Bridge Engineer.

B

March 18, 1911.

HBS.

Des Moines, Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

Supplementing my letter of March 15th, asking bids for foursteel watertanks.

The Operating Department request that these be furnished with indicators showing heights of water. Will you please include indicator in price bid for construction of tank.

Yours truly,

Bridge Engineer.

B

March 18, 1911.

HBS.

The Chicago Bridge & Iron Co.,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

Supplementing my letter of March 15th, asking
bids for four steel water tanks.

The Operating Department request that these
be furnished with indicators showing heights of water.

Will you please include indicator in price bid for
construction of tank.

Yours truly,

Bridge Engineer.

B

DES MOINES BRIDGE & IRON COMPANY,

NOT INCORPORATED.
ENGINEERS AND CONTRACTORS

BRIDGES, STRUCTURAL STEEL WORK, WATER TOWERS,

AND WATER WORKS PLANTS.

GENERAL OFFICES, DES MOINES, IA.
CONTRACTING OFFICES, PITTSBURG, PA.

WORKS { DES MOINES, IA.
PITTSBURG, PA.

OFFICE NINTH & TUTTLE STREETS.

ALL AGREEMENTS CONTINGENT
UPON STRIKES, ACCIDENTS,
OR OTHER OCCURRENCES
BEYOND OUR CONTROL.

WHEN REPLYING PLEASE REFER TO

GAS

Des Moines, Iowa,

March 17, 1911.

H. E. Stevens, Bridge Eng'r, Northern Pacific Ry Co.,

St. Paul, Minn.

Dear Sir:-

We have your letter of the 15th inst. asking for proposal on some steel water towers. You stated in your letter that you were enclosing blue print for 100,000 gal. water tank on 50' tower and one print of modification of same for 30' tower, including one set of specifications. These papers were not included in your letter and if you have not already sent them under separate cover, kindly forward us copies by return mail.

We would be pleased to have you advise if you have ever investigated the patent claims of the Chicago Bridge & Iron Co. covering the Railroad Style of water tower and if so, did you find the patent good? We recall that the Kennicott Water Softening Co. of Chicago built some of these towers for your company a few years ago and we have not heard that they had any serious trouble with the Chicago Bridge & Iron Co. We have understood that it is the usual practice of railroad companies to have all propositions on which patents are claimed carefully investigated by their attorney before awarding contracts and on account of the Kennicott Co. building some of the towers for your road it indicated to us that you did not consider the claims of the Chicago people as being good. If you are in position to give us any information on this matter, we would greatly appreciate the favor. Inasmuch as you are asking for bids on the Chicago Bridge & Iron Co.'s design, we would prefer to bid on that structure without change unless we would be getting into trouble on account of infringement. One plan of tower we are using so as to avoid infringement on Chicago is to provide an 18" expansion joint between the large steel riser pipe and the tank bottom. This large expansion joint is made big enough to permit access of a man for painting purposes and is also easy to protect from freezing. As far as servicability is concerned, this arrangement is fully equal to the other plan in every way and we consider that the use of the hemispherical bottom steel tank is preferable to the elliptical shape as it will no doubt be kept much cleaner from sediment. The elliptical bottom is very flat in the central portion and no doubt a large amount of sediment will collect on the bottom just outside of the riser pipe connection instead of all of the sediment going into the "mud

H.E.S.

#2

3/17/11

drum", as it is called.

We are in position to make very close prices on these towers and we hope we will be able to give you a proposition which will secure the business.

Trusting we may hear from you further by early mail, we remain,

Yours very truly,

DES MOINES BRIDGE & IRON CO.

CH

Leo A. Smith

March 15, 1911.

HES.

Chicago Bridge & Iron Works,
105th & Throop Sts.,
Chicago, Ill.

Gentlemen:-

I am handing you herewith one print of plan for 100,000 gallon watertank on 50' tower, one print of modification of same for 30' tower, one set of specifications for fabrication and erection and one copy of blank form of proposal.

We are considering the erection of 100,000 gallon tanks on 30' towers at the following points: Jamestown, N.D., Zero, Montana, Ellensburg, Washington, and Tacoma, Washington, and I should be pleased to receive a figure from you for furnishing these tanks individually and collectively.

We are not certain that we will require all four of them this year and therefore reserve the right to place such part of the order as may be decided upon later. Price bid to include the overflow pipe, necessary flange connections for inlet and outlet, washout and overflow pipes, 6" I beam anchorage and anchor bolts, etc. That is to say your figure must

Chicago Bridge & Iron Works Page -2-

include the furnishing and erection of the tank complete except the foundations.

The Railway Company will put in the foundations complete, imbedding the anchor bolts in same, these bolts to be furnished by you in advance of the shipment of the rest of the tank.

The modification in our plans to suit your typical construction as built for us at Northtown Jet. will be satisfactory.

In case you care to bid , please have your figure in this office not later than April 1st.

Yours truly,

Bridge Engineer.

B

March 15, 1911.

HES.

Des Moines Bridge & Iron Co.,

Des Moines, Iowa.

Gentlemen:-

I am handing you herewith one print of plan for 100,000 gallon watertank on 50' tower, one print of modification of same for 30' tower, one set of specifications for fabrication and erection and one copy of blank form of proposal.

We are considering the erection of 100,000 gallon tanks on 30' towers at the following points: Jamestown, N.D., Zero, Montana, Ellensburg, Washington, and Tacoma, Washington, and I should be pleased to receive a figure from you for furnishing these tanks individually and collectively.

We are not certain that we will require all four of them this year and therefore reserve the right to place such part of the order as may be decided upon later. Price bid to include the overflow pipe, necessary flange connections for inlet and outlet washout and overflow pipes, 6" I beam anchorage and anchor bolts, etc. That is to say, your figure must include the furnishing and erection of the tank complete except the foundations.

Des Moines Bridge & Iron Co. Page -2-

The Railway Company will put in the foundations complete, imbedding the anchor bolts in same, these bolts to be furnished by you in advance of the shipment of the rest of the tank.

The modification of our plans to avoid certain patented features as proposed by you on previous bids will be considered.

In case you care to bid, please have your figure in this office not later than April 1st.

Yours truly

Bridge Engineer.

B

March 15, 1911.

HES.

The

The Kennicott company,

Chicago Heights, Ill.

Gentlemen:-

I am handing you herewith one print of plan for 100,000 gallon watertank on 50' tower, one print of modification of same for 308 tower, one set of specifications for fabrication and erection and one copy of blank form of proposal.

We are considering the erection of 100,000 gallon tanks on 30' towers at the following points: Jamestown, N.D., Zero, Montana, Ellensburg, Washington, and Tacoma, Washington, and I should be pleased to receive a figure from you for furnishing these tanks individually and collectively.

We are not certain that we will require all four of them this year and therefore reserve the right to place such part of the order as may be decided upon later, price bid to include the overflow pipe, necessary flange connections for inlet and outlet, washout and overflow pipes, 6" I beam anchorage and anchor bolts, etc. That is to say your figure must include the furnishing and erection of the tank complete except the foundations.

The Kennicott Company Page -2-

The Railway Company will put in the foundations complete, imbedding the anchor bolts in same, these bolts to be furnished by you in advance of the shipment of the rest of the tank.

The modification of our plans to avoid certain patented features as done by you in the construction of former tanks will be satisfactory provided we are not called upon to pay for any additional piping such modifications may require.

Please you care to bid, please have your figure in this office not later than April 1st.

Yours truly,

Bridge Engineer.

B

Northern Pacific Railway Company

At Livingston, March 14, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

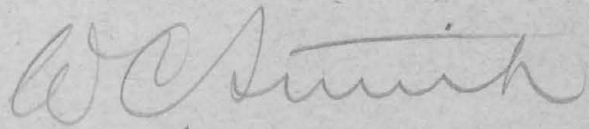
Dear Sir:

It has been suggested that in connection with the steel water tanks that an indicator be provided by the contractor.

This, I think, can be very easily added to the tank without much, if any, additional cost. None of the steel tanks which we have had erected so far provides for such a device and one is necessary.

Mr. Perkins will explain this more at length when he returns. The figures which are being secured on the four tanks should include this item.

Yours truly,





TELEGRAM.

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

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

NUMBER	RECD FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
25 B C B Ci.				M.		M.		<i>Lo</i>	M.		

FROM

Billings Mar 13.

TO

H.E. Stevens.

DATED

AT

Browsing thirty foot towers desired on steel tanks.

W.C. Smith.

203Pm.



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, for 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.		<i>La</i>	M.		

FROM **S t Paul Minn** march 13 1911TO **W C Smith**

DATED

AT **Car 11 On Line-West**

Solidify 9th Do you want Thirty or Fifty Foot towers for
proposed water tanks

H E Stevens

Northern Pacific Railway Company

Saint Paul, March 9, 1911.

Mr. H. E. Stevens,
Bridge Engineer.

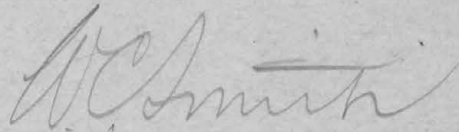
Dear Sir:

I will be glad if you will secure bids for the furnishing of labor and material complete for four 100000 gallon steel water tanks, with the proviso that one or more of the tanks may be required.

The probable locations are Jamestown, Zero, Ellensburg and Tacoma.

Will be glad if you will get the figures and have them at hand by the time I return from the west.

Yours truly,



N. P. RY CO.
OFFICE OF
MAR
11
1911
BRIDGE ENGINEER
ST. PAUL, MINN.

156-3