



Fort Snelling papers

Copyright Notice:

This material may be protected by copyright law (U.S. Code, Title 17). Researchers are liable for any infringement. For more information, visit www.mnhs.org/copyright.

Records of the War Department
Office of the Chief of Engineers

Maps and Plans of Fort Snelling
1835-1890

National Archives and Records Service
General Services Administration

Washington: 1957

United States Quartermaster's Department.

Barracks, State of Minnesota, county of Hennepin,
 Location, 7 miles south of Saint Paul, at the junction of the Minnesota and Mississippi Rivers;
 Capacity, men and officers;
 Stables for 710 horses;

Buildings a, b, c, d, e, f, g, i, m, n, o, p, q, r, rough stone;
 Roofs, shingles;

Built, commenced 1819, completed 1822;

Condition, fair;

Buildings A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, frame, clapboarded;

Roofs, shingles;

Built 1822;

Condition, fair;

Buildings Q, R, S, frame, clapboarded;

Roofs, shingles;

Built, June, 1862;

Condition, good;

Buildings T, U, rough boards set upright and battened.

Roofs, shingles;

Built, 1862;

Condition, good;

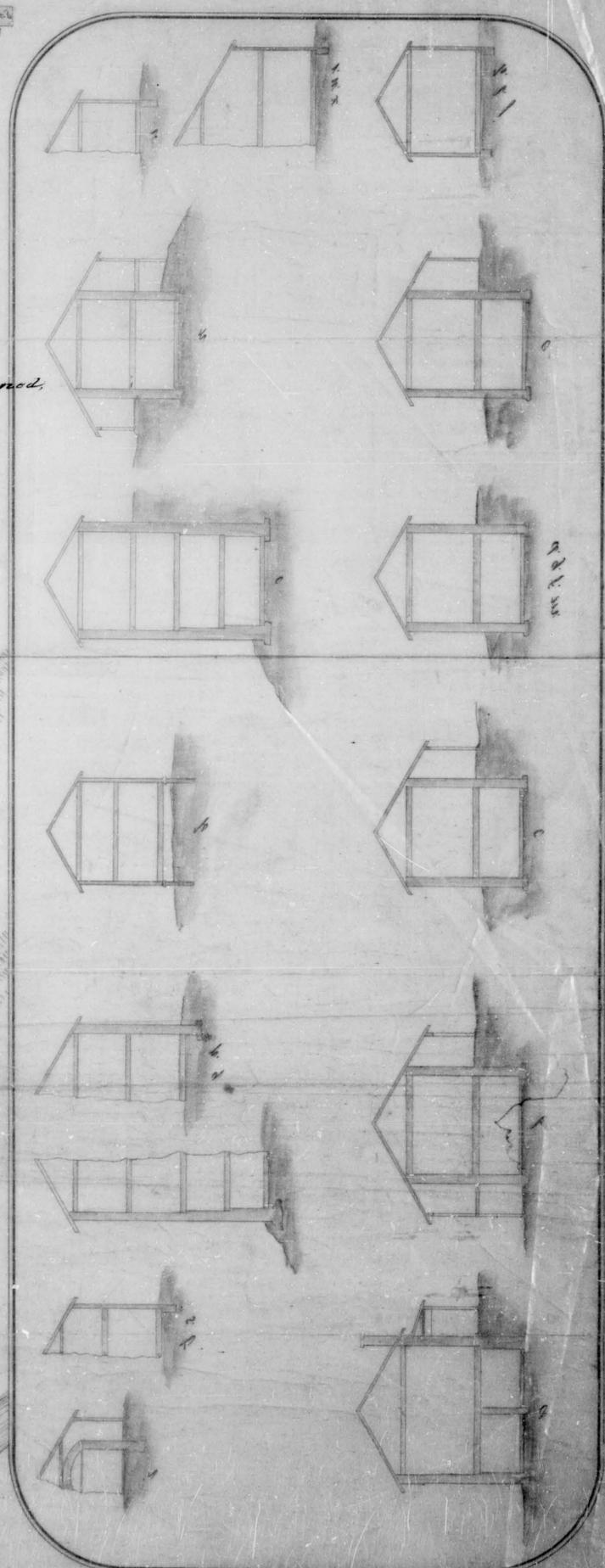
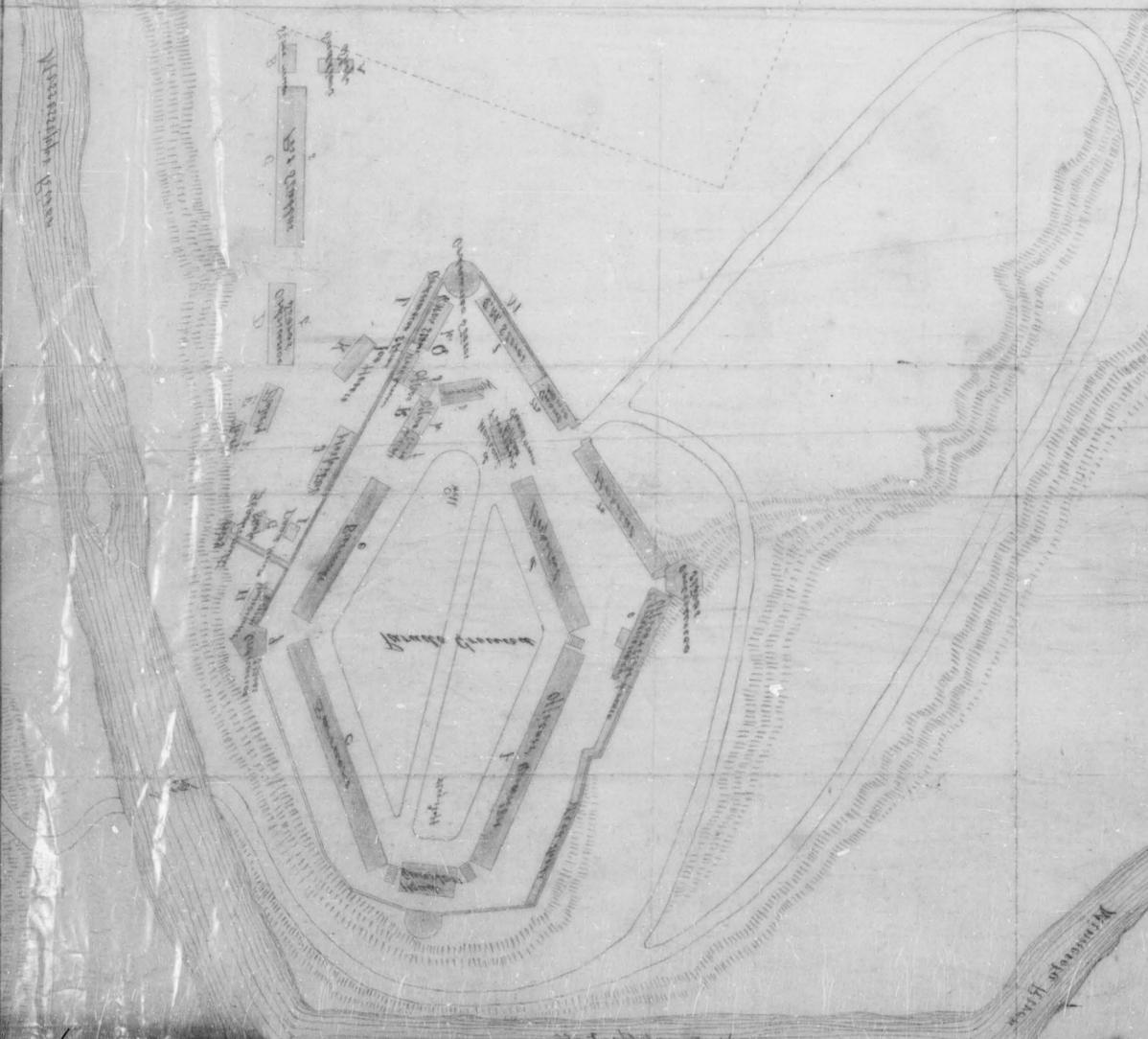
Buildings V, W, X, Y, rough boards part set upright and part horizontal, not battened.

Roofs, rough boards and battened

Built, 1862;

Condition, good;

Occupied 7th May, 1864 by 510 Minnesota Infantry Volunteers.



Vertical text on the right side of the page, possibly a title or description of the drawings.

MINNESOTA
 FORT SNEELLING

Plan of the
DRAFT RENDEZVOUS.

—at—
FORT SNELLING MINN.

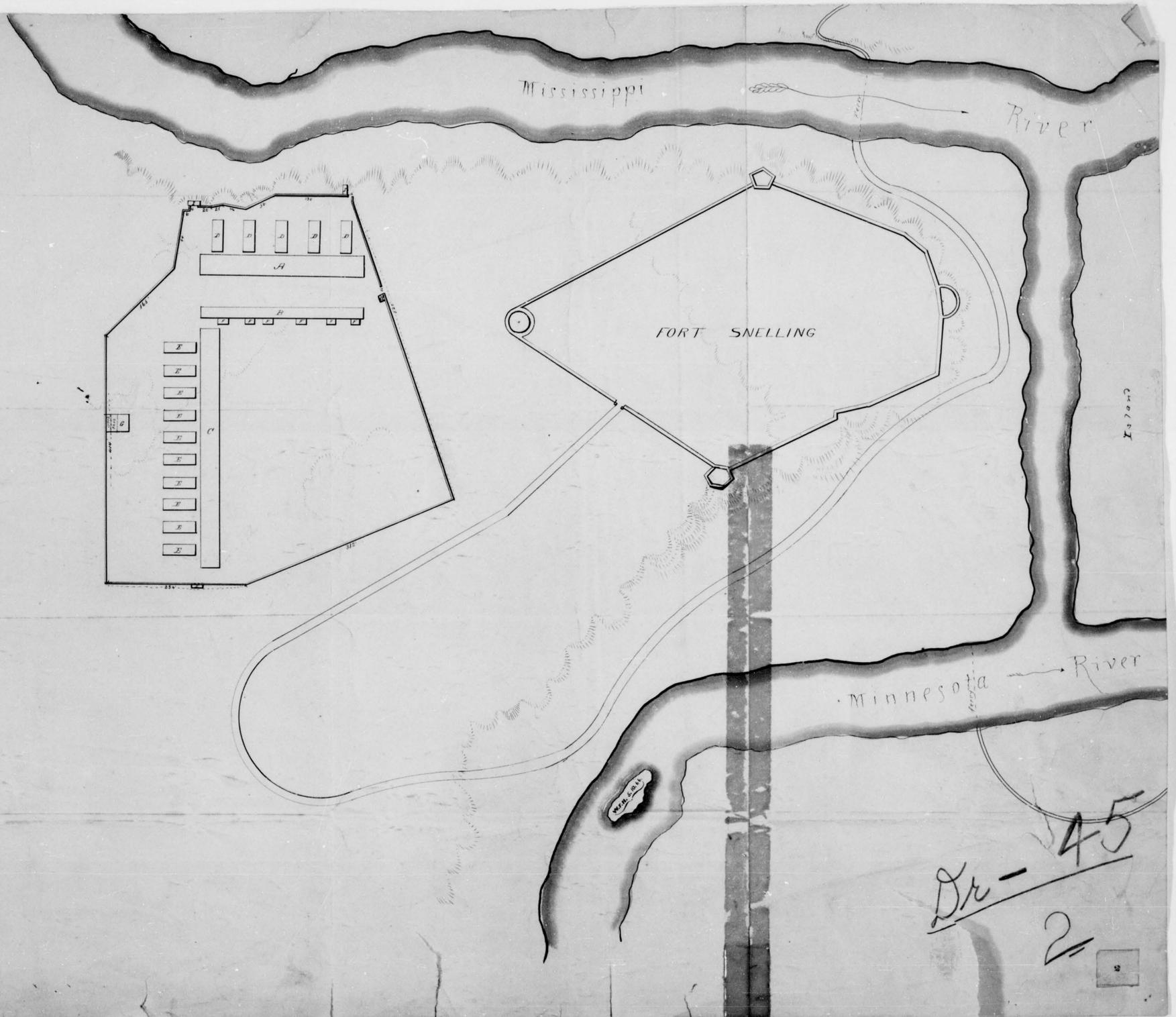
References.			Cubic Content Dimension.	
A. Troop's Quarters	275' x 32'	15 to eaves 22' high.	at 100 feet 25000	feet
B. Officers'	275' x 18' 1"	15'	15000	14000
C. Troops'	400' x 30' 12"	19'	36000	38000
D. 5 Kitchens	56' (11000) x 18'	16'	32000	17500
E. 10 "	56' x 18' - 8"	15'	6000	30000
F. 6 Sheds	16' x 12' - 6"	8'	3000	600
G. Sattlers Store	30' x 20' 8"	14'	3000	2000
H. Guardhouse (shed)	12' x 6' 10"	16'	300	100
I. Privies - 3	16' x 6' 8"	12'	1500	300
Fence enclosing Rendezvous, 12' high.			25000	16000
Total			240000	140000

Remarks.

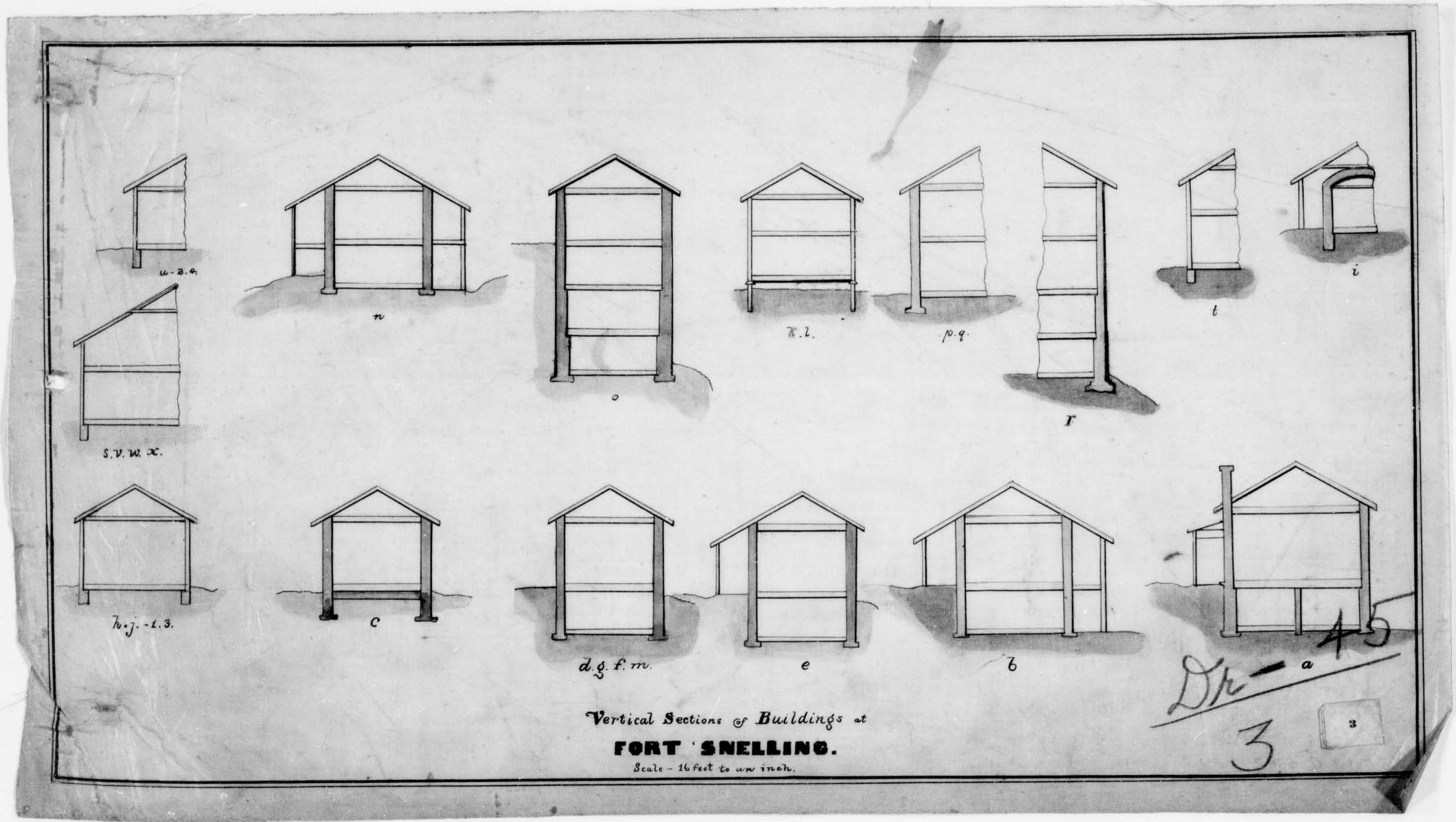
The above buildings, with the fence enclosing the camp should be sold, after the muster out of the Volunteer troops in this District - say in July next. Such lumber as can be used to the advantage of the service should be retained.

Wm. A. Smith
Capt. U. S. A.

Fort Snelling, Minn.
May 10th 1866.



Dr-45
2



u-s-a

n

o

k-l

p-q

r

t

i

s-v-w-x

h-j-l-s

c

d-g-f-m

e

b

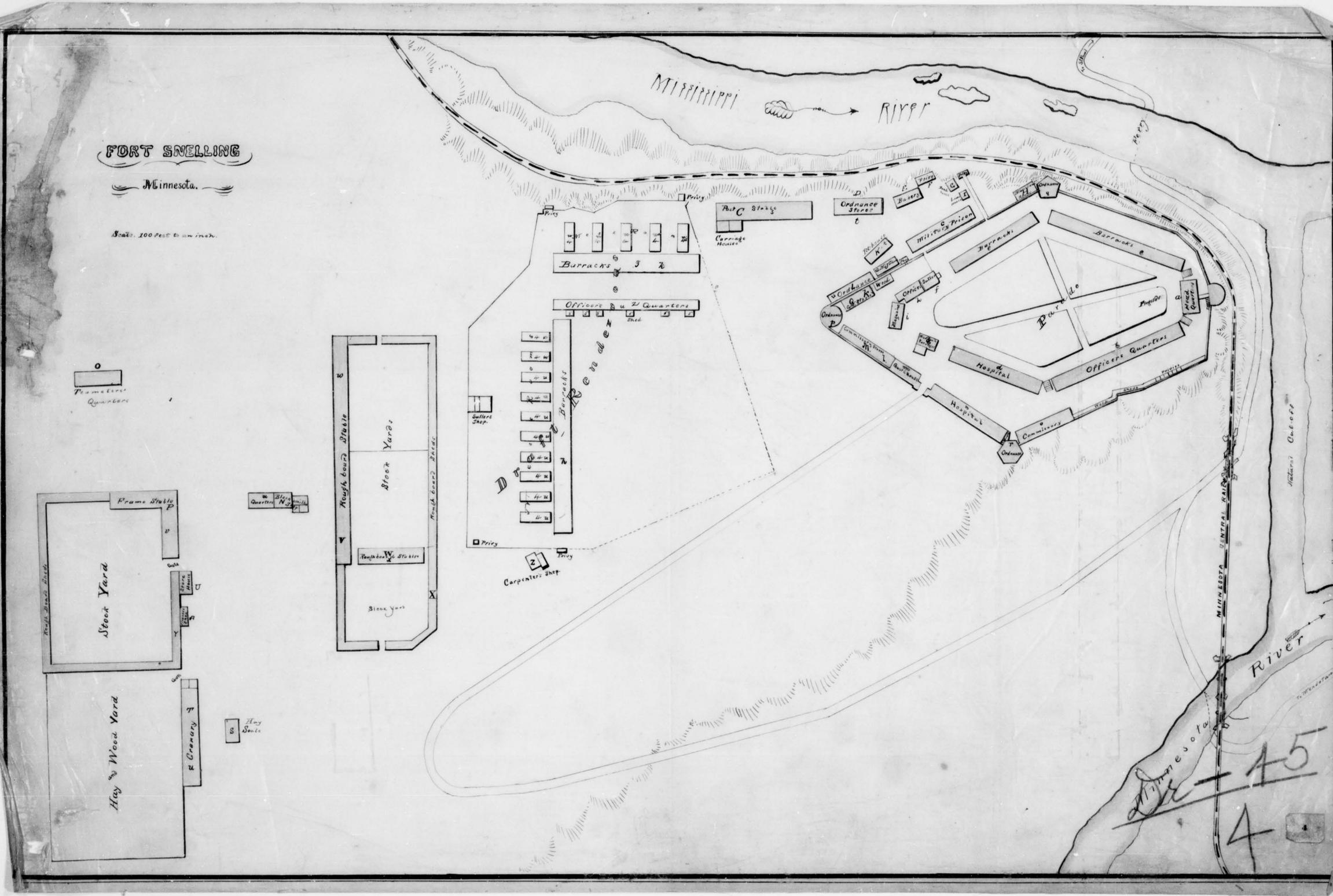
Vertical Sections of Buildings at
FORT SNELLING.
Scale - 16 feet to an inch.

Dr - a 45
3

FORT SNELLING

Minnesota.

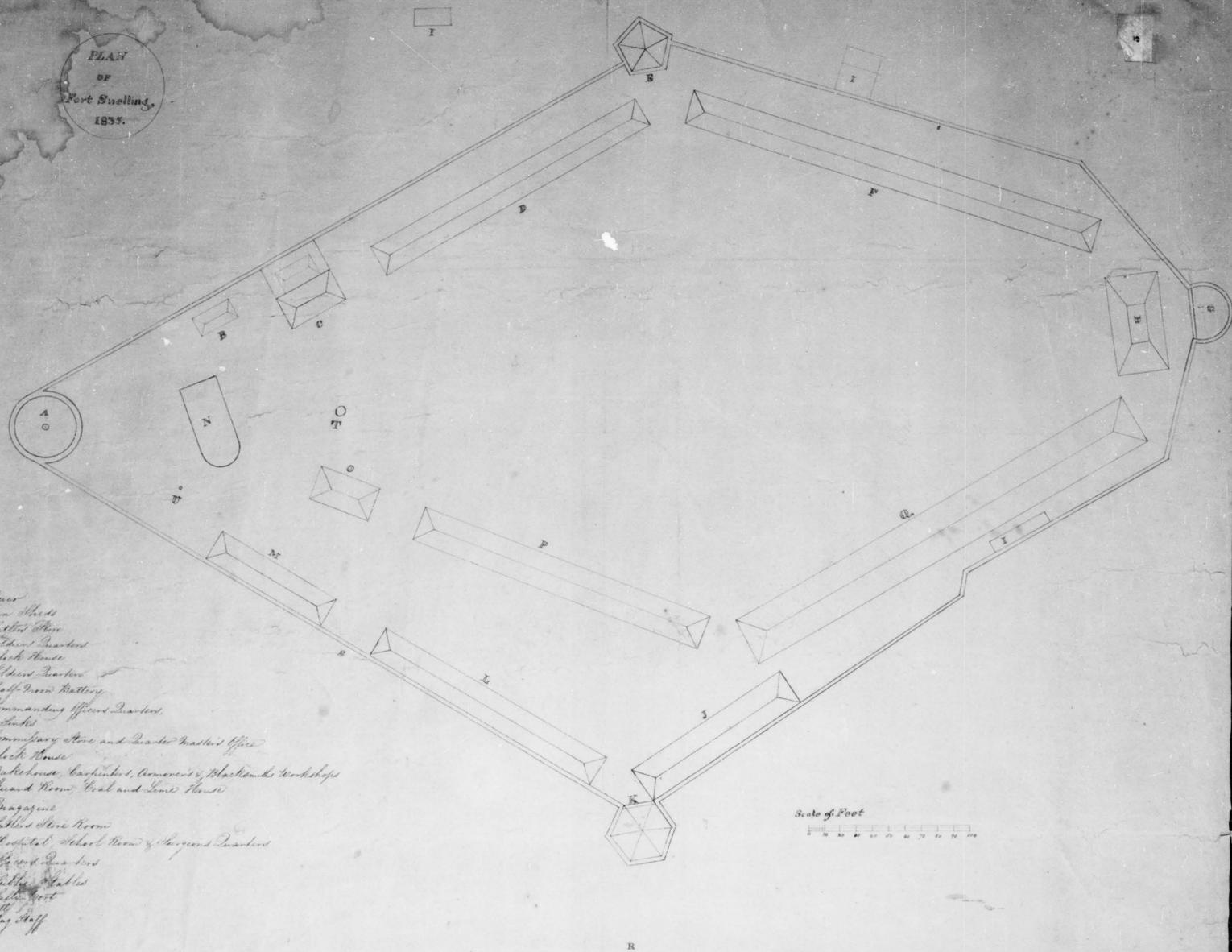
Scale. 100 Feet to an inch.



45
4

PLAN OF Fort Snelling, 1855.

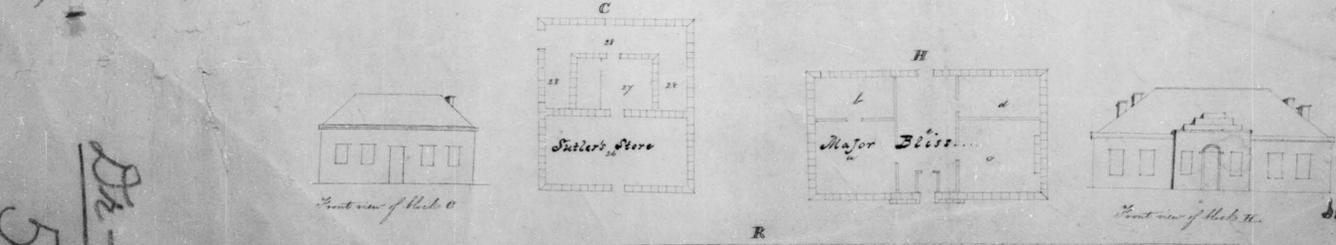
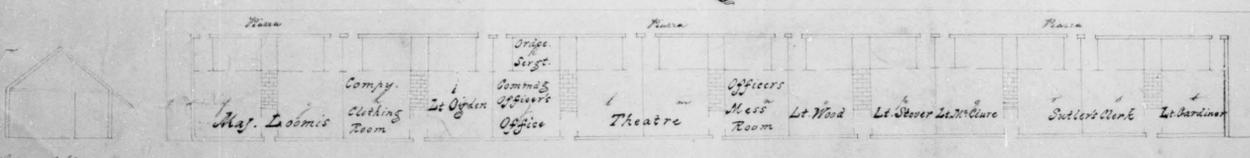
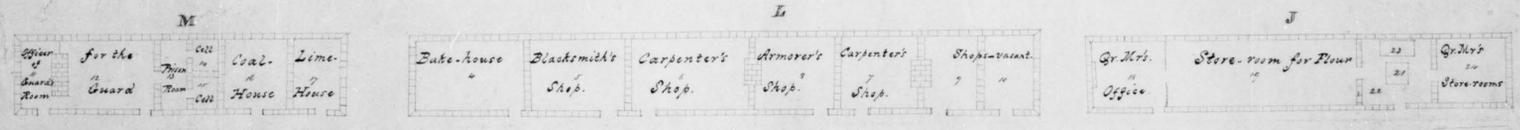
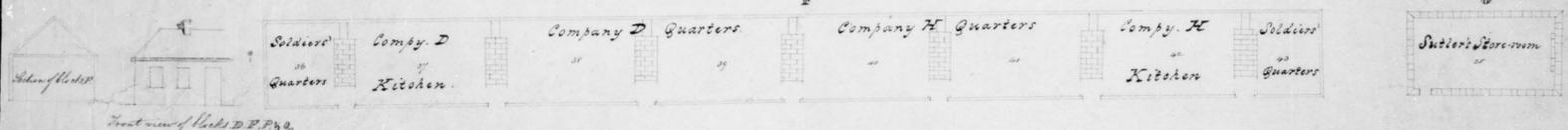
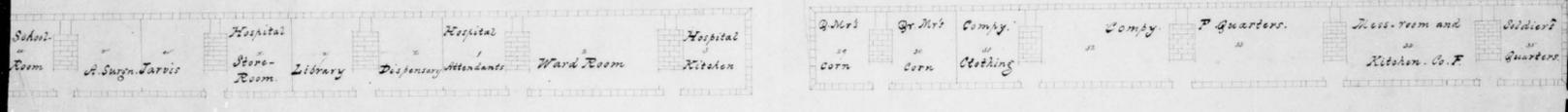
March 3



- A. Store
- B. Gun Store
- C. Soldier's Store
- D. Soldier's Quarters
- E. Black House
- F. Soldier's Quarters
- G. Half-Drum Battery
- H. Commanding Officer's Quarters
- I. Chapel
- J. Company Store and Quarter Master's Office
- K. Black House
- L. Blackhouse, Carpenters, Turners, Blacksmiths Workshops
- M. Guard Room, Coal and Lime House
- N. Magazine
- O. Soldier's Store Room
- P. Hospital, School Room & Surgeon's Quarters
- Q. Officer's Quarters
- R. Battery
- S. Soldier's Quarters
- T. Hall
- U. Flag Staff

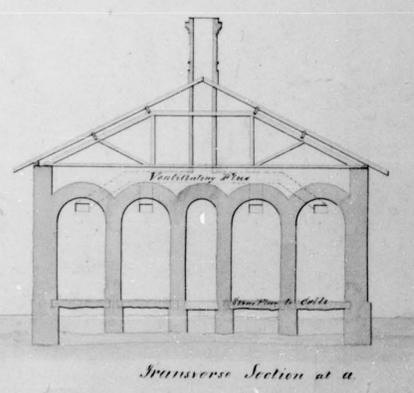
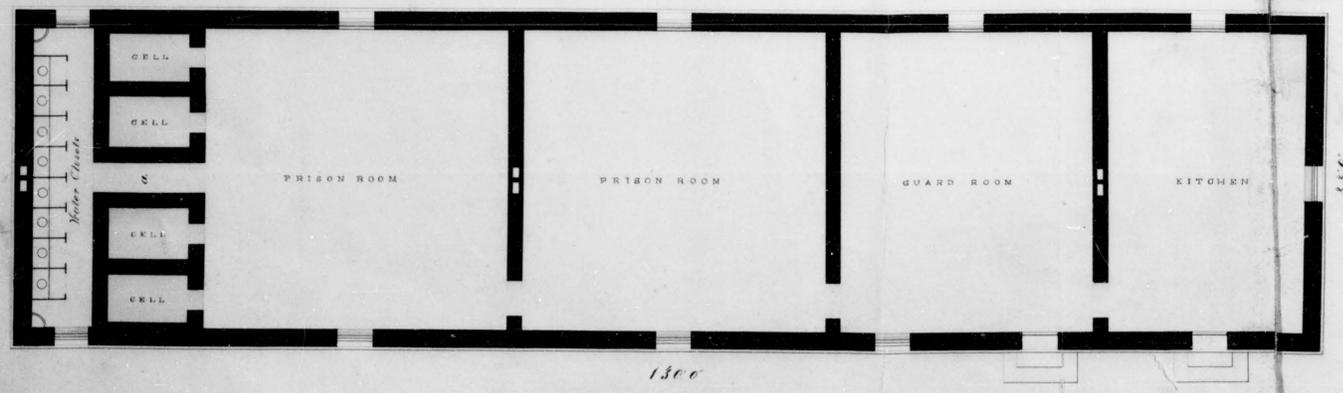
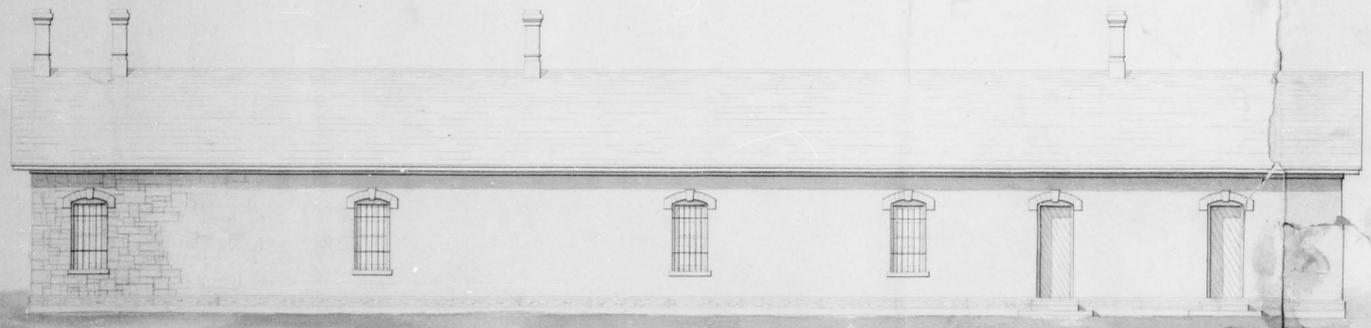
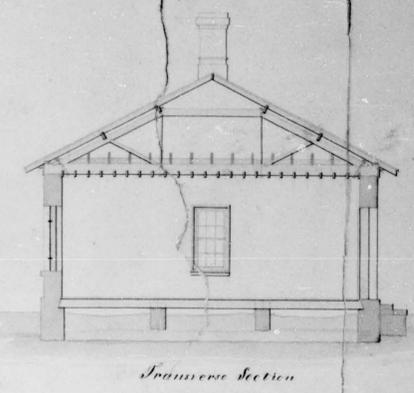
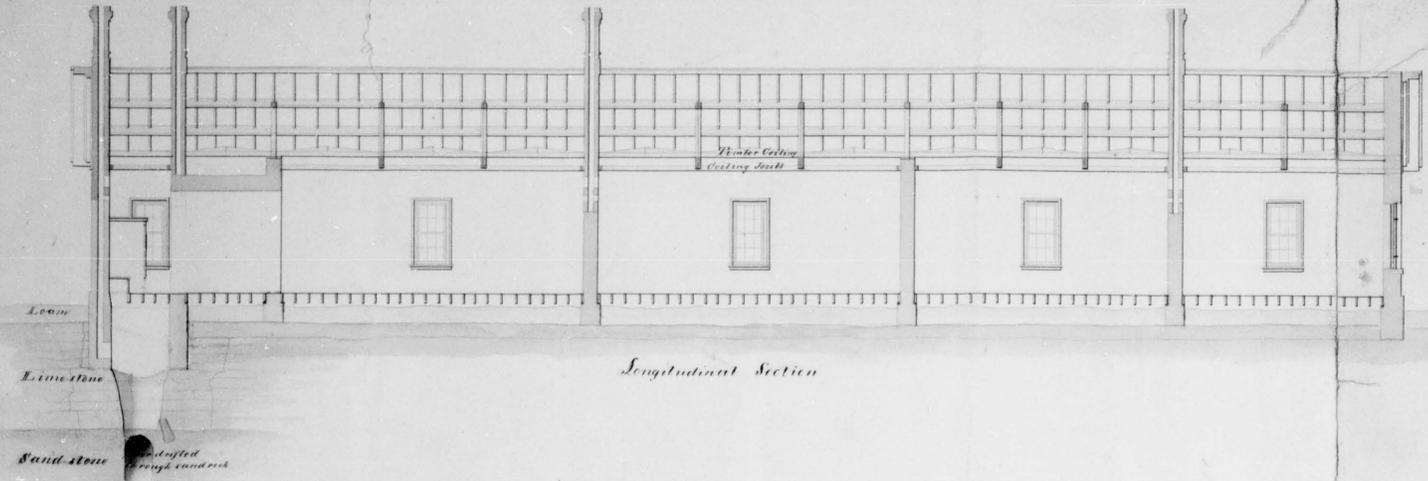
Scale of Feet
0 10 20 30 40 50 60 70 80 90 100

N^o 2.



5
D-45

See also No. 28.
Book No. 152 (Apr. 655)



MILITARY PRISON,
 FORT SIELLING,
 MINNESOTA.

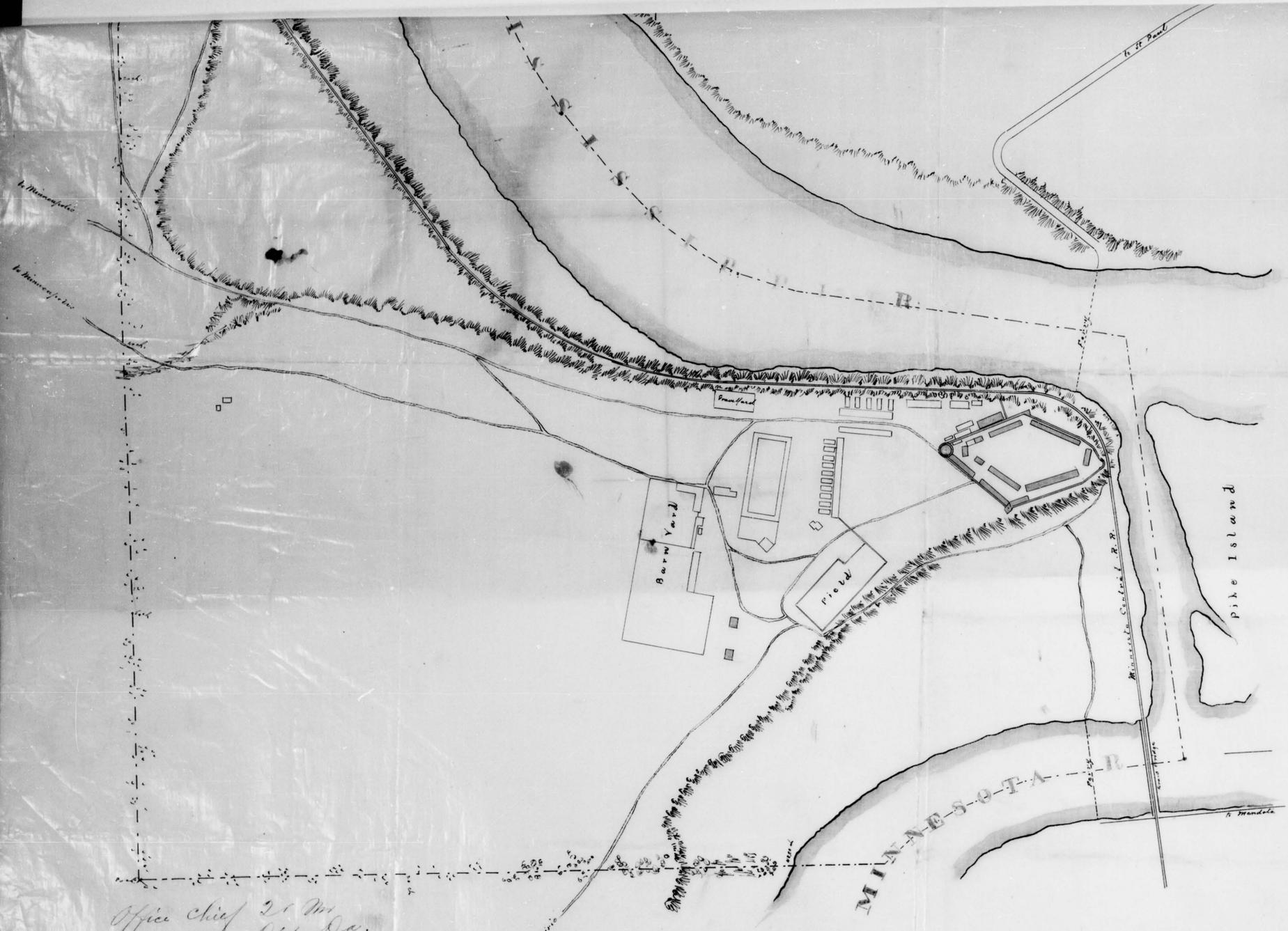
Dr-45
 7

Minnesota

Scale 1: 5500

Reference

- Stone Structure
- Frame Building
- Rail Road
- Wagon Road
- Prairie
- Timber
- Swamp or Marsh



Office Chief 2^d M^o
 Lt. Col. D. A.
 St. Paul Minn
 May 1st 1869

No. 50. B. 287

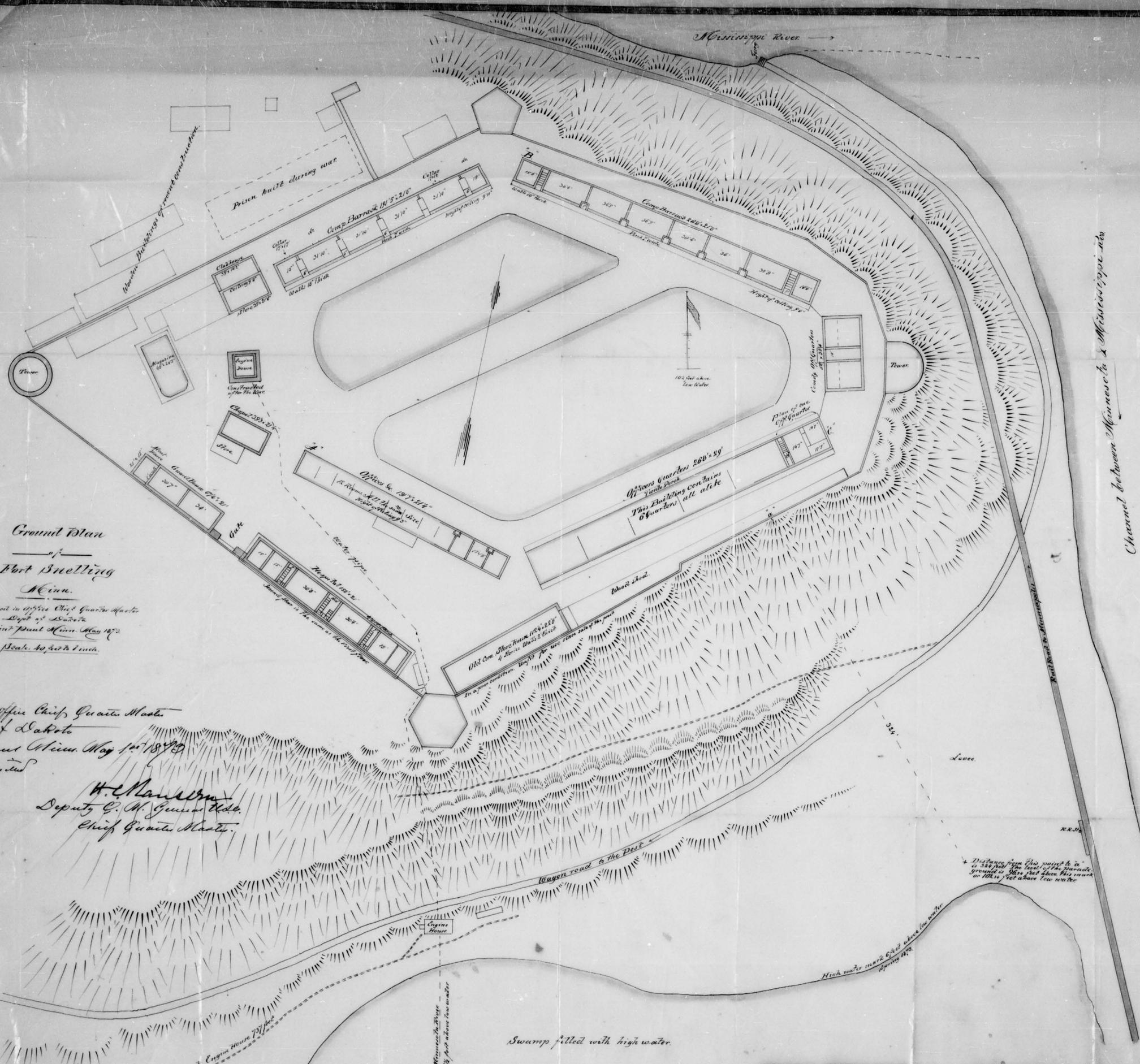
Remarks.
 This Post is situated at the confluence of the
 Mississippi and Minnesota Rivers, 6 miles
 above Saint Paul Minn. Enclosed by Stone
 parapet 1625 ft long, 10 ft high, 2 ft on wide,
 with Stone Blockhouses 20' x 20' on East and North,
 and Stone Tower on the West, 40' x 40'. The parapet
 is of pentagonal shape having 5 sides, one of
 1400 ft, 1 of 275 x 1 of 150 ft.

Head Quarters District of Minnesota
 Col. E. B. Alexander 10th Regt
 Capt. Aug. Geat USA Commanding
 2^d Lt. J. J. Schell 10th Regt
 A. S. D.
 Garrison 1 Company, 10th U. S. Infantry

Lumber Stores	12
" Mules	264 in Mules
The Q. Mr. Mule team Mules at this Post	
During the past season 1868, timber has been	
expended at this Post.	
For repairs to, including the River	\$2,000.00
" Forriage	769.70
Other purchases for this Post	5207.75
500 cords Wood Contract @ 5.14 m d (price for nothing)	
212 " Split maple	" 7.55 "
100 lbs Hay	" 7.57 "
Distance to	
St Paul Minn	6 miles
" Cloud "	51 "
" Ripley "	131 "
" Abbeville D. T.	251 "

This post is at present a depot of clothing
 under Capt. W. P. Martin M. A. who is in charge
 for Q. M. depot in charge
 No. of Employees in Mules 70

8



Ground Plan
of
Fort Snelling
Minn.

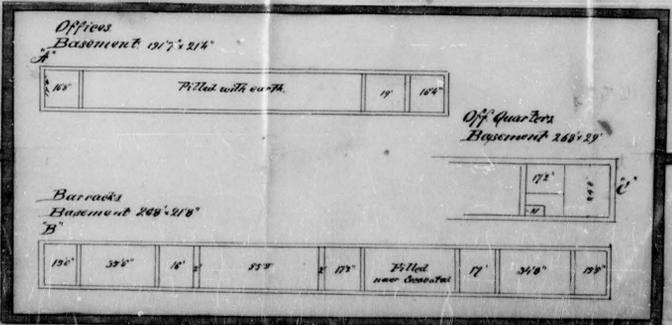
Prepared in Office Chief Quarter Master
Dept of Defense
Saint Paul Minn. May 1873
Scale: 40 feet to 1 inch.

Prepared in Office Chief Quarter Master
Dept of Defense
Saint Paul Minn. May 1873
And Paper July 1873

H. C. Marshall
Deputy C. M. Quarter Master
Chief Quarter Master

This tracing was furnished May 2-73
to Lt Col L. C. Hanson for file

in QM EO - 2221 873



Channel between Minnesota & Mississippi rvs

Levee

Swamp filled with high water

Distance from this point to a
is 284 feet. The level of the barracks
ground is 10 feet above low water
or 10 feet above low water.

Water pipe from Minnesota River
Engine house is 1/2 mile above low water

From Spring to Engine House 1/2 mile

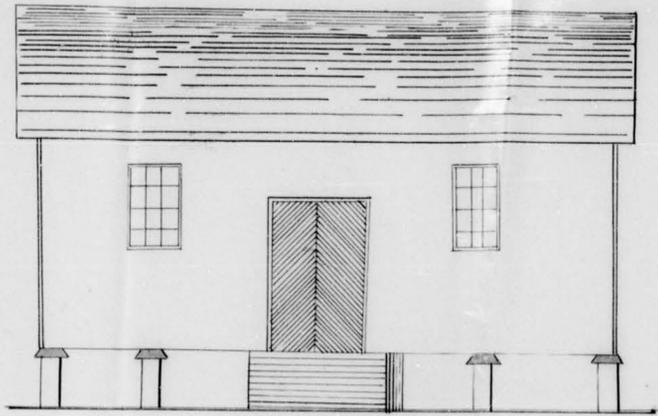
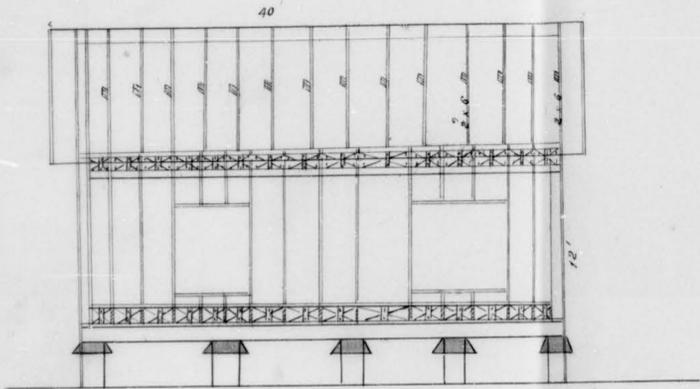
High water mark 6 1/2 feet above low water
Spring 1873

9

9

2221-873

- GRANARY -
 FORT SNELLING, MINN.
 SIZE 24' x 40' 12' HIGH.



The origin of this accompanied the Annual Report of Sr Lovel ^{dated Aug 28/75}
 in which it is stated that this Building was constructed in Sept 1874
 under authority of Div Commander in letter to Sr Lovel of Sept 7/74
 Estimated cost \$325

See 4210 QMCO-1875
 in Inspection Branch

Dr-45
10

June 3rd 78 - The Sec. of War authorized the following improvements at this post

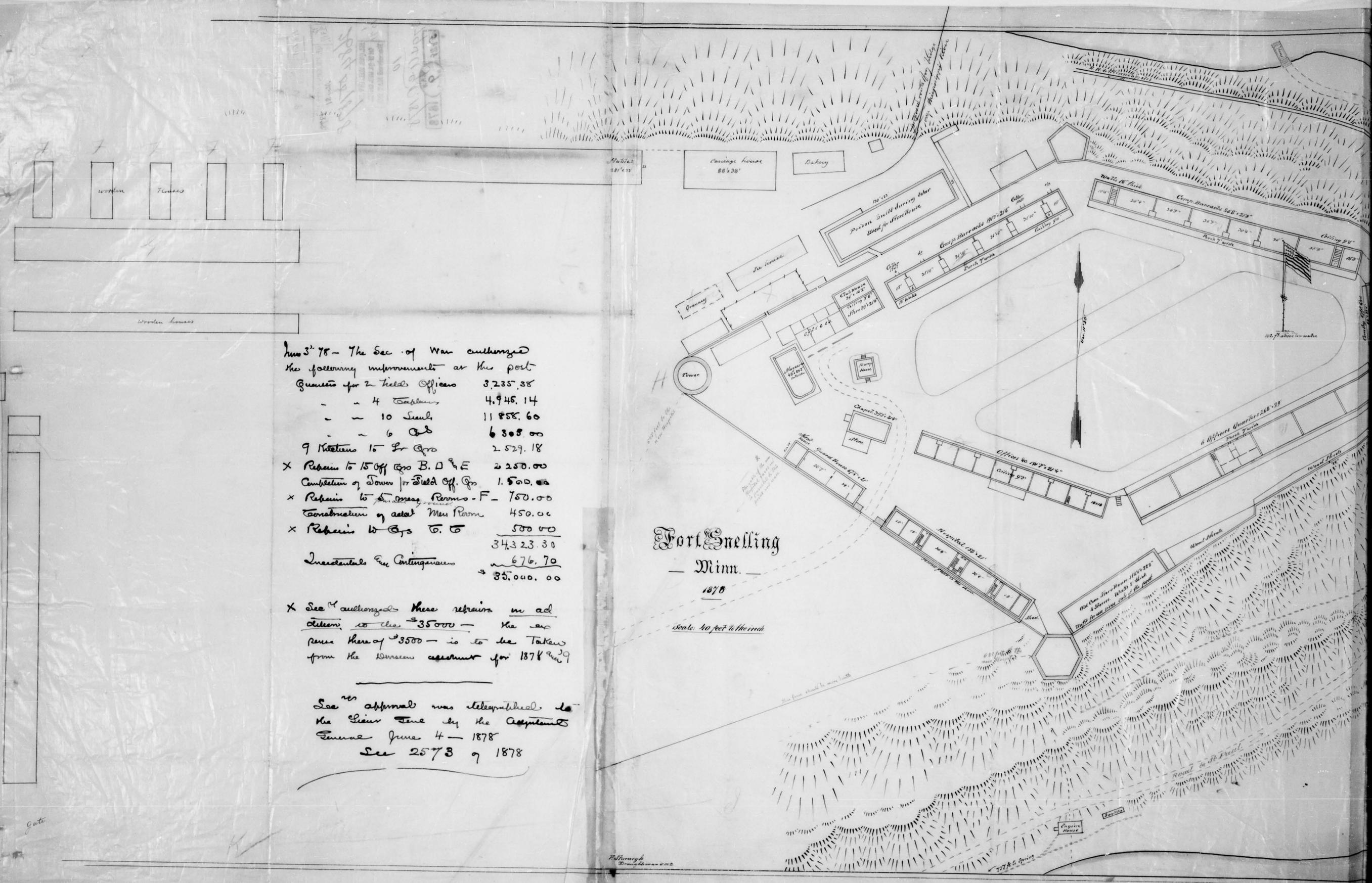
Quarters for 2 Field Officers	3,235.38
- - 4 Captains	4,945.14
- - 10 Sergeants	11,858.60
- - 6 Qd	6,305.00
9 Kitchens 15 Pr Qrs	2,529.18
X Repairs to 15 Off Qrs B, D & E	2,250.00
Completion of Tower for Field Off. Qrs	1,500.00
X Repairs to Mess Rooms - F -	750.00
Construction of actual Mess Room	450.00
X Repairs to Qrs G. G.	500.00
	34,323.30
Incidental Exp Contingencies	676.70
	\$ 35,000.00

X Sec^y authorized these repairs in addition to the \$35,000 - the expense there of \$3500 - is to be taken from the Bureau account for 1878

See approval was telegraphed to the Sec^y June 4 - 1878
See 2573 of 1878

Fort Snelling
Minn.
1878

Scale: 40 feet to the inch



Plan
No 3

Estimate of Material and Cost of One Double
Building for Two Captains Quarters at Fort Snelling
Minn.

Qty	Dim	Length	Number	ft. B. M.
	6x8	450	lft. Sills, guides etc.	1720
	4x6	150	" Sills & plate for porches	260
8	4x4	9'	Posts for porches	96
244	2x10	16'	Floor joists both stories (main & wings)	6507
25	2x8	8'	" porches	267
115	2x8	16'	Ceiling joists, upper story (main & wings)	2454
325	2x6	13'	Outside Studding	4225
140	2x4	10'	Inside Studding 1 st Story	954
140	2x4	9'	" " 2 nd "	840
	2x6	1800	lft. Wall plate (double)	1800
	2x4	2000	" Ribbon & plate and for dormers	1334
	1x2	800	" Bridging	134
310	2x6	9'	Perpend ^{lar} Rafters	2790
110	2x6	21'	Top Rafters (for wings cut in three)	2310
14	2x4	8'	Porch Rafters	75
14	2x4	10'	" "	94
55	2x6	5'	Braces to Rafters (main only)	275
5	2x8	26'	Hip rafters (main)	174
	1"		Con. boards for underfloor 1 st floor	2200
	1"		" " " Sheathing walls (out)	2700
	1"		" " " " Roof, including porches	4800
	1"		1 st Tongued flooring, both floors (& porch floors & ceiling)	5300
	1"		Clear dressed boards for cornice, base, wash board, Casings, Door & W. frames, Stairs etc.	5500

Plan
No 3

Estimate of Material & Cost of One Double Building
for Two Lieutenants Qtrs. at Ft Snelling Minn.
December.

Qty	Dim	Length	Number	ft. B. M.
	6x8	410	lft. Sills, guides etc.	1640
	4x6	150	" Sills & plate for porches	260
8	4x4	9'	Posts for porches	96
226	2x10	16'	Floor joists both stories (main & wings)	6027
25	2x8	8'	" porches	267
104	2x8	16'	Ceiling joists, upper story (main & wings)	2219
318	2x6	13'	Outside Studding	4134
135	2x4	10'	Inside " 1 st Story	900
140	2x4	9'	" " 2 nd "	840
	2x6	1800	lft. Wall plate (double)	1800
	2x4	2000	" Ribbon & plate, and for dormers	1334
	1x2	800	" Bridging	134
300	2x6	9'	Perpend ^{lar} Rafters	2700
100	2x6	21'	Top rafters	2100
14	2x4	8'	Porch rafters	75
14	2x4	10'	" "	94
50	2x6	5'	Braces to Rafters (main only)	250
5	2x8	26'	Hip rafters (main)	174
	1"		Con. boards for underfloor 1 st floor	2100
	1"		" " " " Sheathing walls (out)	2600
	1"		" " " " Roof (include porches)	4600
	1"		1 st Tongued flooring for both floors, (porch ceiling & floor)	5000
	1"		Clear dressed board for cornice, base, wash board, Casings, Door & W. frames, Stairs etc.	5300

2' Clear dressed plank for Hair strings, steps etc. 350
 Siding 3000
 Total 50,139

39,000 Shingles xx
 29,000 Lath
 970 yds building paper for roof (except porches) walls x 1st floor
 3500 Brick in Chimneys
 1634 yds plastering
 37 Br's brown Lime
 16 " white "
 240 \$ Hair -

Door & Sash.

6 outside 4 panel 2 1/2 y. doors 1 1/2" Size: 2'10" x 6'10"
 20 Inside " " " " " 2'6" x 6'8"
 2 pair folding doors each door " 4' x 8'
 28 pair 6 light top sash glass 10' x 16" " 2'9 1/2" x 5'9"
 8 " 2 " " " 9' x 16" (each side of hall door) " 1' x 5'9"

Hardware

1/2 Box Tin
 2 1/2 doz Door Strikers
 3 " Sash Locks
 20 Rim Locks, ord. size.
 8 Mortise Locks (for outside doors & folding doors)
 16 Stone pipe thimbles, 7" diam. for chimneys
 4 Safety caps 7" diam - 6" deep - for walls -
 36 (or 18 pair) Ord. Door Butts
 6 Door Bolts (6")
 4 Brass Bolts for folding doors (6")

Nails

Surface of

1/2 keg 3" Shingle } 1st floor - 1,965⁰⁰ ft.
 2 1/2 " 3" Lath } 2nd floor - 1,965 "
 3/4 " 6" } Two porch floors - 224 "
 2 1/2 " 8" } Two " ceilings - 224 "
 2 3/4 " 10" } Whole Roof - 4,000 "
 4 1/2 " 20" } Two porch Roofs - 288 "
 Outside Walls - 2,420 "
 Inside walls & ceiling } (with stairs) - 14,704 "
 17 kegs.

Cost.

35,989	ft. Com. board & Dim.	@ 12.00	\$ 431.87
5,300	" 1 st Flooring Tongued	" 24.00	" 127.20
3,000	" Siding	" 24.00	" 72.00
5,850	" Clear board 1" and 2"	" 31.00	" 181.35
39,000	Shingles xx	" 3.00	" 117.00
29,000	Lath	" 2.00	" 58.00
970	yds Paper	" 0.03	" 29.10
3500	Brick (hair)	" 18.00	" 63.00
1634	yds Plastering	" 0.20	" 326.80
37	Br's br. Lime	" 0.95	" 35.15
16	Br's wh. Lime	" 1.45	" 23.20
240	\$ Hair	" 0.03	" 7.20
	Doors		" 69.50
	Sash		" 71.20
	Hardware		" 42.00
17	Nails	" 4.00	" 68.00
	Carpenter work		" 750.00
			Total \$ 2,472.57

2' Clear dressed plank for Hair strings, steps etc. 300
 Siding 2900
 Total 47,844

37,000 Shingles xx
 28,000 Lath
 930 yds building paper for roof (except porches) walls x 1st floor
 3500 Brick in Chimneys
 1563 yds plastering
 35 Br's brown Lime
 16 " white "
 225 \$ Hair

Door & Sash.

6 outside 4 panel doors 2 1/2 y. 1 1/2" Size: 2'10" x 6'10"
 20 Inside " " " " " 2'6" x 6'8"
 2 pair folding " " " each door " 4' x 8'
 28 pair 6 light top sash glass 10' x 16" " 2'9 1/2" x 5'9"
 8 " 2 " " " 9' x 16" (each side of hall door) " 1' x 5'9"

Hardware

1/2 box Tin
 2 1/2 doz Door Strikers
 3 doz Sash Locks
 20 Rim Locks, ord. size.
 8 Mortise Locks (for outside doors & folding doors)
 16 Stone pipe thimbles 7" diam for chimneys
 4 Safety caps 7" diam - 6" deep - for walls -
 36 (or 18 pair) Ord. Door Butts
 6 Door Bolts (6")
 4 Brass Bolts for folding doors (6")

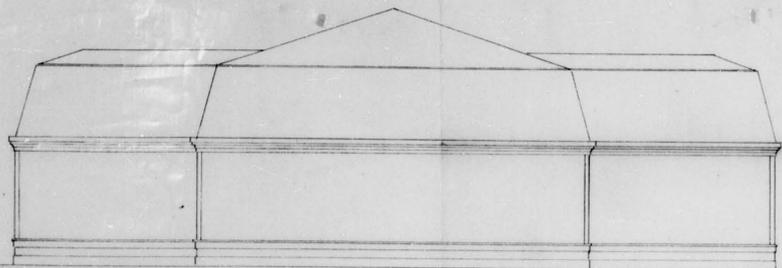
Nails

Surface of

1 1/4 keg 3" Shingles } 1st floor - 1830⁰⁰ ft.
 2 1/4 " 3" Lath } 2nd floor - 1830 "
 3/4 " 6" } Two porch floors - 224 "
 2 1/4 " 8" } Two " ceilings - 224 "
 2 1/2 " 10" } Whole roof - 3820 "
 4 " 20" } Two porch roofs - 288 "
 Outside Walls - 2,360 "
 2 " 40" } Inside walls & ceiling } (stairs) - 14,064 "
 17 kegs.

Cost.

34,344	ft. Com. board & Dim.	@ 12.00	\$ 412.12
5,000	" 1 st Flooring Tongued	" 24.00	" 120.00
2,900	" Siding	" 24.00	" 69.60
5,600	" Clear board 1" and 2"	" 31.00	" 173.60
37,000	Shingles xx	" 3.00	" 111.00
28,000	Lath	" 2.00	" 56.00
930	yds paper	" 0.03	" 27.90
3500	Brick (hair)	" 18.00	" 63.00
1563	yds Plastering	" 0.20	" 312.60
35	Br's brown Lime	" 0.95	" 33.25
16	Br's white Lime	" 1.45	" 23.20
225	\$ Hair	" 0.03	" 6.75
	Doors		" 69.50
	Sash		" 71.20
	Hardware		" 42.00
15	Nails	" 4.00	" 60.00
	Carpenter work		" 720.00
			Total \$ 2,371.72



Plan of
Quarters for Two
Captains
at
Fort Snelling, Minn.
Scale, 1/8" = 1' inch.

Estimated cost - 2,472.57 each

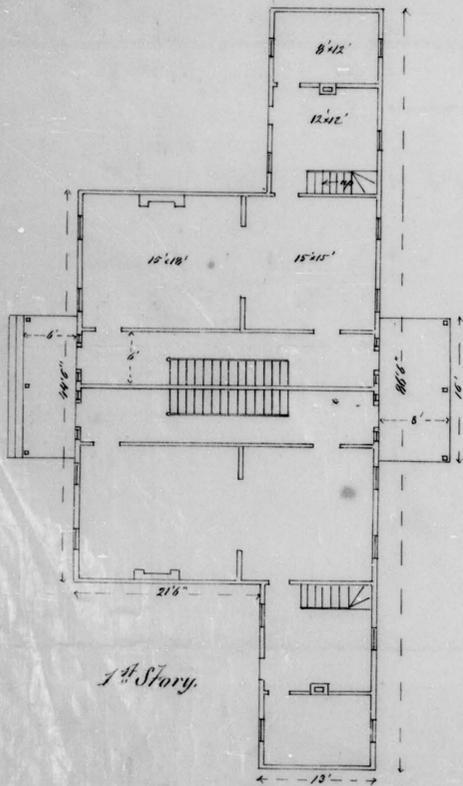
June 3/78

See of War authorized
2 such Buildings

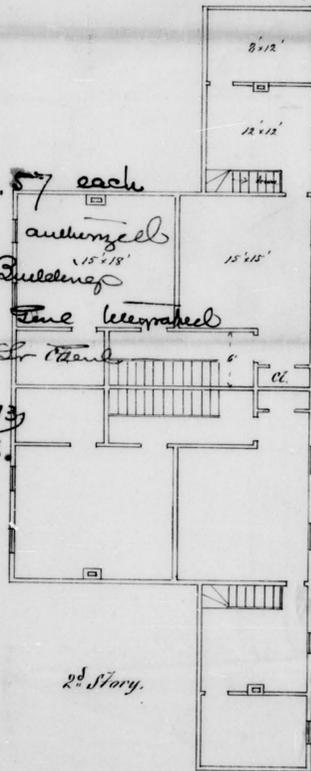
June 4/78

authorized same telegraphed
to the Sr. Genl

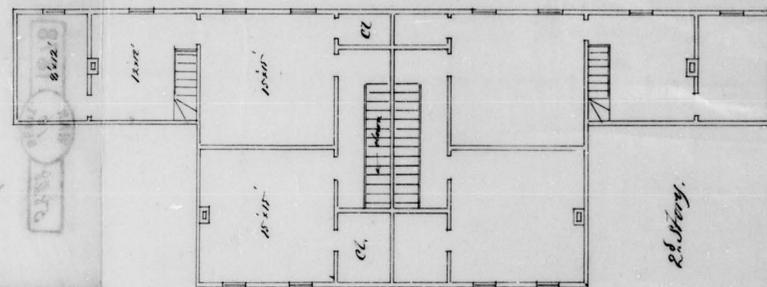
See 2573
1878.



1st Story.



2nd Story.



2nd Story.

Plan of
Quarters for Two
Lieutenants
at
Fort Snelling, Minn.
Scale, 1/8" = 1' inch.

Estimated cost 2,371.72

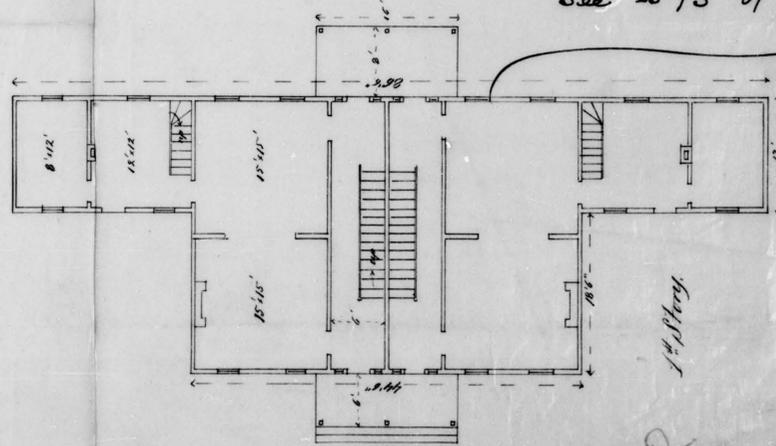
5 such Bldgs authorized 11,858.60

June 3, 78 App by Sec of War

" 4-78 Appr same telegraphed

to Genl Genl

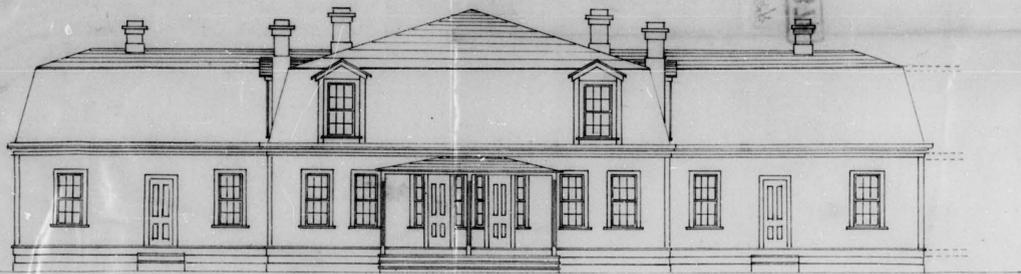
See 2573 of 1878



1st Story.

Dr-45
12

No 2



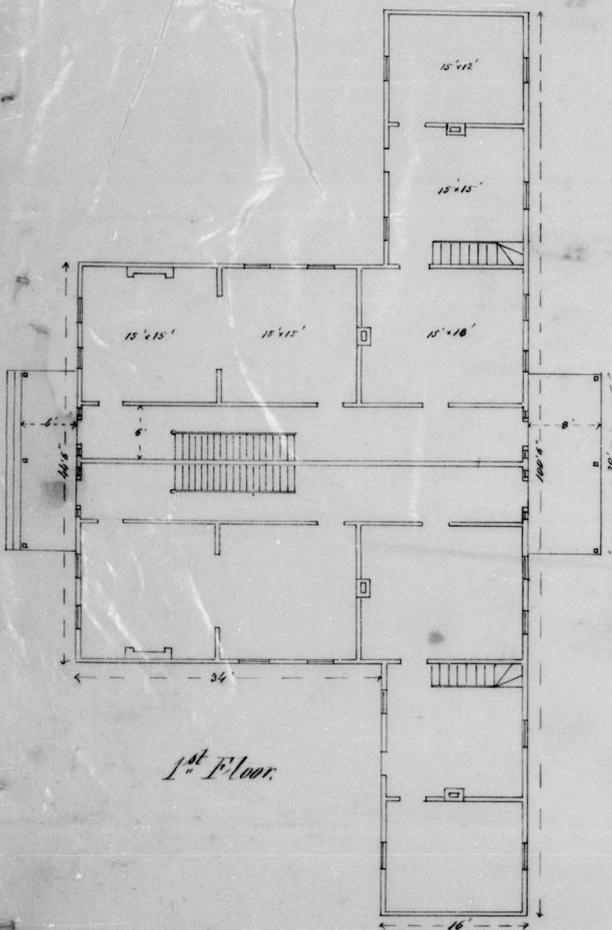
Elevation.

Plan
of
Quarters for Two
Field Officers
at
Fort Snelling, Minn.

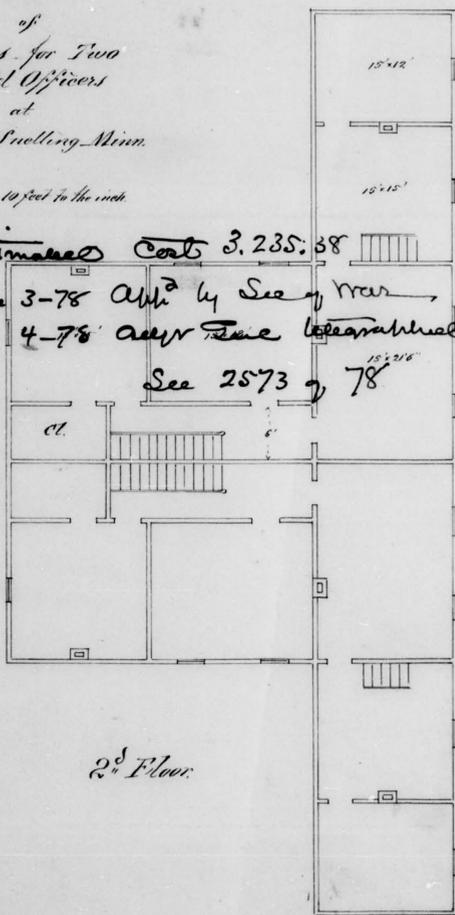
Scale: 1/4 inch to the foot

Estimated Cost 3,235.38

June 3-78 App'd by Sec of War
" 4-78 Act of June 1878
See 2573 of 78



1st Floor.



2^d Floor.

DR-45
13

Plan
No 2

Estimate of Materials and Cost of One double
Building for Two Field Officers' Quarters at Fort Snelling
Minn.

Lumber

Qty	Dim	Length	Description	Pr. B. Ct.
	6x8	520	1/2" Sills, girders etc.	2080
	4x6	160	" Sills & plate for porch	320
	8	4x4	posts for porch	96
390	2x10	16'	Floor joists both stories (main & wings)	7734
25	2x8	10'	" porch	334
135	2x8	16'	Ceiling joists upper story (main & wings)	2880
370	2x6	13'	Outside Studing	4810
195	2x4	20'	Inside " 1 st Story	1300
195	2x4	9'	" " 2 ^d "	1170
	2x6	2000	1/2" Wall plate (double)	2000
	2x4	2500	" Ribbon & plate & for dormers.	1667
	1x2	1000	" Bridging	167
350	2x6	9'	perpendicular Rafters	3150
100	2x6	21'	Top Rafters (for wings cut in them)	2730
18	2x4	8'	Porch Rafters	96
18	2x4	10'	" "	120
64	2x6	5'	Braces to Rafters (main only)	320
5	2x8	26'	Hip rafters (main)	174
1			Com. Boards for underfloor 1 st floor	3300
1			" " " Sheathing walls int	3400
1			" " " " Roofs (includes porches)	6500
1			1 st Tongued flooring for both floors (porch floors & ceiling)	8000
1			Clear dressed board for cornice, base, eave board, casing,	
			Door & window frames, sills etc.	8000

		60,348
2"	Clear dressed Plank for Hair stringers, steps & Siding	350
		3,900
		Total 64,598
53,000	Shingles XX	
40,000	Lath	
1,350	Yd' Building Paper for Roof (except porches) walls & 1 st floor.	
4,500	Brick in Chimneys	
2,276	Yd' Plastering	
49	Bbls brown Lime	
22	" white Lime	
330	# Hair	

Door & Sash

6	Outside 4 panel O.G. Doors 1 1/2"	Size 2'0" x 6'10"
22	Inside " " "	" 2'6" x 6'8"
2	pair folding doors	each door " 4' x 8'
34	pair of 6 light top sash glass 10" x 16"	" 2'9 1/2" x 5'9"
8	pair " 2 light " " each side of front door. glass 9" x 16"	" 1' x 5'9"

Hardware

1/2	box Tin
2 1/2	doz Door Pickers
3	" Sash Locks
2	" Rim Locks ord. size
8	Mortise Locks (for outside doors and double doors.)
20	Stone pipe thimbles 7" diam.
3	doz (or 18 pair) Ord. Door Butts
6	Door Bolts 6"
4	Brass Bolts for folding doors 6"

Nails		Surface of	
2	Keys 3 ^d Shingle	1 st Floor	2966 sq. ft.
3 1/2	" 3 ^d Lath	2 ^d "	2966 "
1	" 6"	Two porch floors	280 "
3 1/2	" 8"	Two " ceilings	280 "
3 1/2	" 10"	All roof	5562 "
6	" 20"	Two porch roofs	360 "
4	" 40"	Outside Walls	3010 "
2 1/2	Key.	Inside walls & ceilings (2 stories)	20,482 "

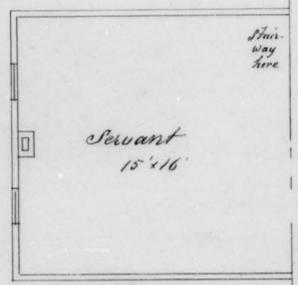
Cost

44,348	ft. Com. Boards & Dim.	@ 12.00	\$ 532.18
8,000	" 1 st Flooring Tongued	" 24.00	" 192.00
3,900	" Siding	" 24.00	" 93.60
8,350	" Clear boards 1" and 2"	" 31.00	" 258.85
53,000	Shingles XX	" 3.00	" 159.00
40,000	Lath	" 2.00	" 80.00
1,350	Yd' Paper	" 0.03	" 40.50
4,500	Brick (laid)	" 18.00	" 81.00
2,276	Yd' Plastering	" 0.20	" 455.20
49	Bbls brown Lime	" 0.95	" 46.55
22	" white Lime	" 1.45	" 31.90
330	# Hair	" 0.03	" 9.90
	Doors		" 73.50
	Sash		" 86.80
	Hardware		" 40.40
	Nails	" 4.00	" 94.00
	Carpenter work		" 960.00
			Total \$ 3,235.38

105

8781

1878

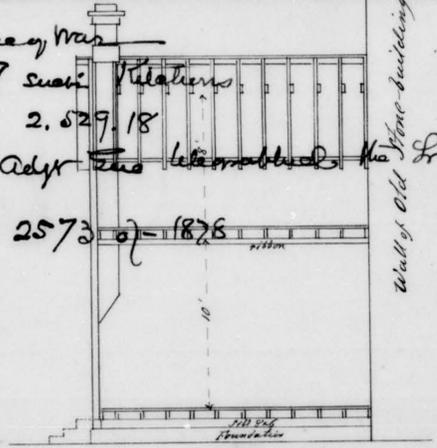


old stone building

wall of

Plan
of
Kitchen
to be added to the
Old Office Building
and Hospital at
St. Snelling, Minn.
Scale 6" to 1"

June 3-78. See of War
authorizes 9 square feet
Eav corn 2.529.18
June 4/78 Adv. The ~~War~~ ~~Dept~~ ~~to~~ ~~be~~ ~~re-~~ ~~built~~ ~~the~~ ~~to~~ ~~be~~ ~~re-~~ ~~built~~
See 2573 of - 1878



Dr-45

14

Plan
No 5

Estimate of Materials cost of additional Kitchen
to Office Building and Hospital at Fort Snelling Minn.

Qty	Dim	Length	Material	Est. Cost
	6x8	75	lfr. Sills	300
25	2x10	16'	Floor joists both stories	667
45	2x6	16'	Studding	720
3	1x4	16'	Ribben	16
5	2x6	16'	Wall plate (dormer)	80
25	2x6	12'	Rafters	300
13	2x6	6'	Collar or Ceiling beams	78
1	2x8	16'	Ridge board	22
1x2	105		lfr. Bridging	33
1'			Con. board for underfloor 1 st floor	270
1'			walls	860
1'			Roof	450
1'			Tongue flooring	600
1'			Clear board for finish frames etc.	400
2"			plank for stairs steps	100
			Siding	1000
				Total 5896

4000 Shingles xx
3000 Lath
174 yd³ Building paper for 1st floor, walls & Roof
500 Brick one chimney
(162 yd³ plastering)
5 bbls brown Lime
2 " white "
20 to Hair

Door & Sash.

2 4 Panel Doors 1 3/8" Size: 2'10" x 6'10"
4 Pair 6 light top sash, glass 9' x 15" " 2'6 1/2" x 5'5"

Hardware.

2 Stone pipe Thimbles 7' diam.
4 Sash Latches
2 Rim Locks ord. size.
4 Door Butts ord. size

Nails.

Surface of.

15 lb 3" Shingles } 1st floor 240 0/100
25 " 3" Laths } 2nd floor 240 "
25 " 6" } Roof 408 "
25 " 8" } Outside walls 783 "
40 " 10" } plastering 1458 "
40 " 20"
20 " 40"

Cost

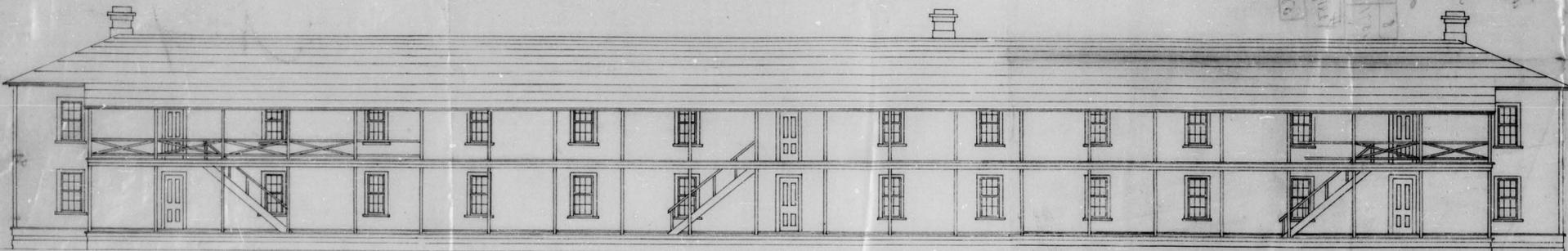
3896 ft. com. board & Dim. @ 12.00 \$ 46.75
1000 " Siding " 24.00 " 24.00
600 " Flooring " 24.00 " 14.40
400 " Clear dried " 31.00 " 12.40
4000 Shingles " 3.00 " 12.00
3000 Laths " 2.00 " 6.00
174 yds Paper " 0.03 " 5.22
500 Bricks (laid) " 18.00 " 9.00
162 yds plastering " 0.20 " 32.40
5 bbls br. lime " 0.95 " 4.75

2 Bbls white lime " 1.45 " 2.90
20 lb Hair " 0.03 " 0.60
Door & Sash " 12.10
Hardware " 2.50
Nails " 6.00
Carpenter work " 90.00

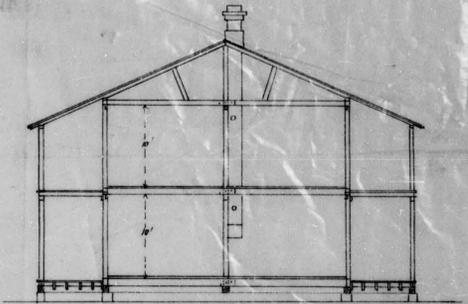
Total \$281.02

1878
 1/21/1878
 1/21/1878
 1/21/1878

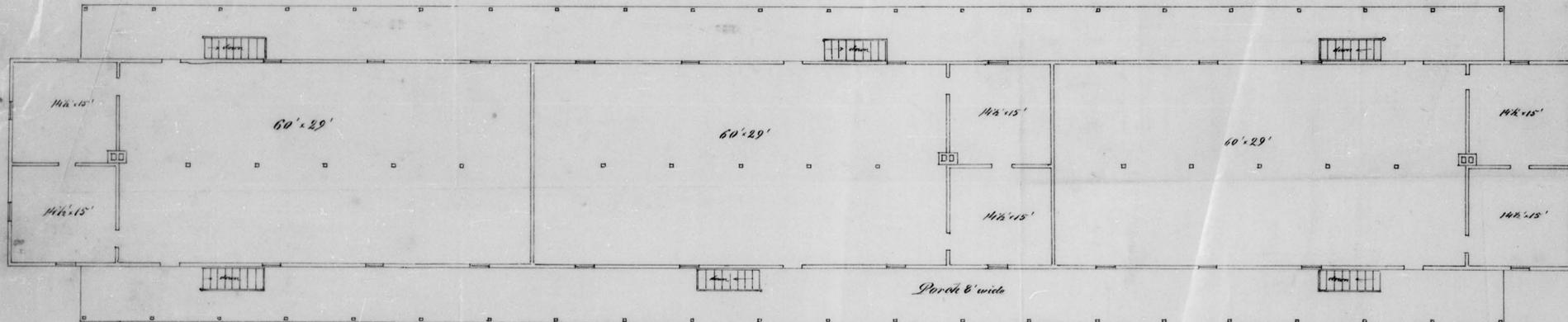
107



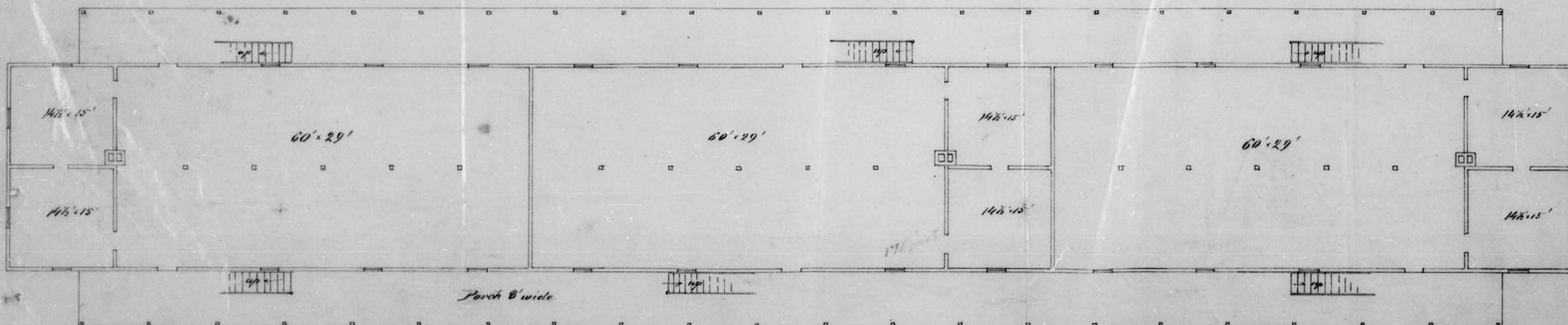
Elevation.



Cross Section.



Upper Story.



Ground Floor.

Plan
 of
 Soldiers Barracks
 (Six Companies)
 at
 Fort Snelling
 Minn.

Scale: 1/2" = 1' 0"

Estimated cost \$6,305
 June 3-78 Approved by Sec of War
 " 4-78 Approved by Dr Fine for
 acquisition fund
 See 2573 of 1878

Dr-45
 15

Estimate of Material and Cost of Barracks for
6 Companies at Ft. Snelling Minn.

Lumber

Spec	Dim	Length	Description	ft. B.M.
	6x8	1400	lft. Sills & girders, center plates	5600
	4x6	2300	" Sills & plates for porches	4600
33	6x6	11'	posts for center of ceiling	1089
50	4x4	11'	posts for lower porches	734
50	4x4	10'	" " upper "	667
700	2x10	16'	Floor joists for both floors	18,667
300	2x8	10'	" " porches	4,000
350	2x8	16'	Picking joists or tie beams (upper story)	7,467
450	2x6	22'	Outside studding	9900
290	2x4	11'	Inside "	2,127
	1x2	4,100	lft. Bridging (2 rows and section)	683
	2x6	560	" Wall plate (double)	560
	2x4	1400	" Ribbon (both stories)	934
370	2x6	18'	Rafters (main)	6,660
340	2x4	10'	" for porches	2,267
350	2x4	5'	Braces to Rafters (main)	1,167
14	2x8	25'	Ship rafters & Ridge board	467
	3x4	900	lft. Raits for upper veranda	900
	2x3	1000	cross rails " "	500
	1"		Com. boards for under floor 1 st story	7,000
	1"		" " " Sheathing walls	10,000
	1"		" " " " Roofs	12,000
	1"		Tongued Flooring 2 nd for both stories, porch floor & ceiling	27,000
	1"		Clear board for cornice, base, wood board, casing,	
F			Door & W. frames, Stairs etc.	9,000

2' Dressed plank for stairs, steps etc. 1400
Siding 12,000
Total 147,389

104,000 Shingles xx
62,000 Lath
2800 yd³ building paper for main roof, walls and 1st floor
7300 Brick for chimneys
3422 yd³ plastering
75 bbls brown Lime for plaster & chimneys
34 bbls white lime
500 ft³ Hair

Door & Sash

30 4 panel doors 1 1/2" size 2'0" x 6'0"
56 pair of 6 light top sash glass 9" x 15" " 2'6 1/2" x 15 1/2"

Hardware

2 1/2 doz Door Stickers

56 Sash Locks

2 1/2 doz Rim Locks, (ord. size)

18 Stove pipe thimbles 7" diam.

60 Ord. Door Butts (30 pair)

12 Door Bolts 6"

1/2 box Tin

4 1/2 keg 3rd Shingle

5 " 3rd Lath

2 1/2 " 6th

7 1/2 " 8th

7 1/2 " 10th

11 " 20th

8 " 40th

46 Nails

Surface of

1st floor 6600 sq. ft.

2nd floor 6600 "

4 porch floor 6650 "

4 " ceiling 7072 "

Main Roof 7360 "

Porch Roofs 4160 "

Outside walls 10,340 "

Inside walls & ceiling 30,804 "

with joints.

Cost.

97,989	ft. Com. board & Dim.	\$12.00	\$1,175.86
27,000	" 2 nd flooring	" 24.00	648.00
10,400	" Clear dressed board 1" x 2"	" 31.00	322.40
12,000	" Siding	" 24.00	288.00
104,000	Shingles xx	" 3.00	312.00
62,000	Lath	" 2.00	124.00
2800	yd ³ paper	" 0.03	84.00
7300	Brick (hair)	" 18.00	131.40
3422	yd ³ plastering	" 0.20	684.40
75	bbls lime brown	" 0.95	71.25
34	" " white	" 1.41	49.30
500	ft ³ Hair	" 0.03	15.00
30	doors	" 2.25	67.50
56	pair Sash	" 1.90	106.80
	Hardware		42.00
46	Nails	" 4.00	184.00
	Carpenter work		2,000.00
			Total \$6,305.71

deduct about \$500.00 old material in present building
 which can be used in the erection of the new barracks.

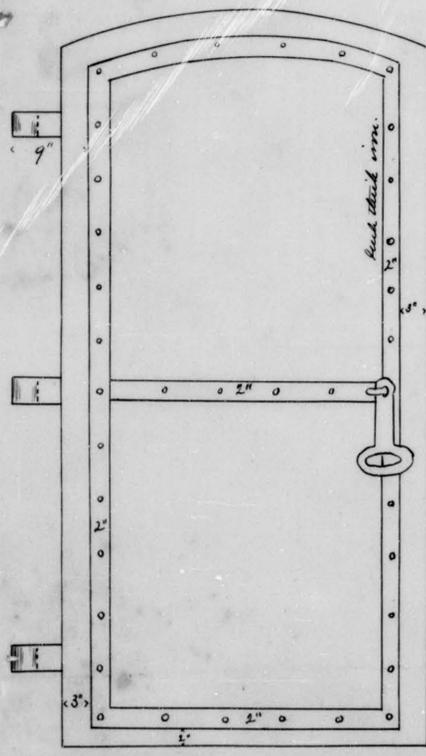
True door for Port Landing Magazine

NOV 23 1878

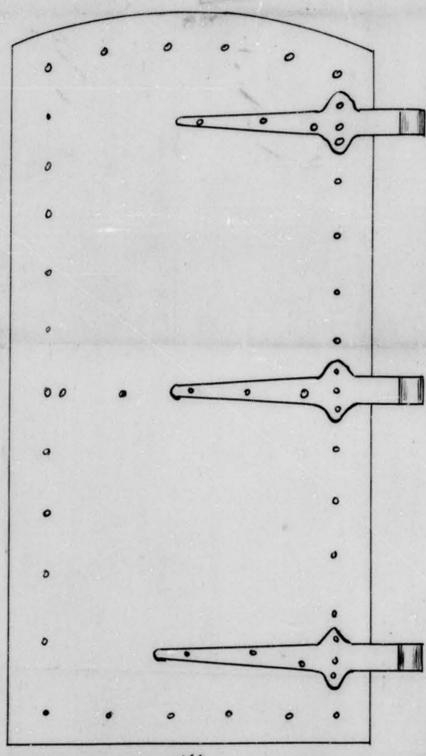
RECEIVED IN THE OFFICE OF THE SECRETARY OF WAR NOV 23 1878

2015/01/18
2015/01/18
2015/01/18

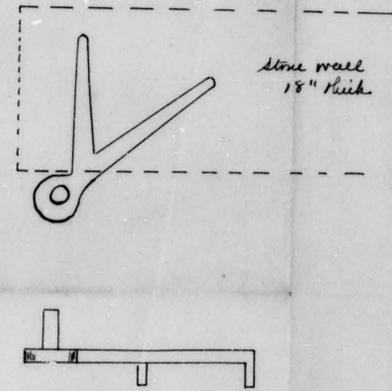
NOV 23 1878



outside view.



inside view.



J. E. Michaelis
Captain of Ordnance
Chief Ordnance Officer
Dept. of War

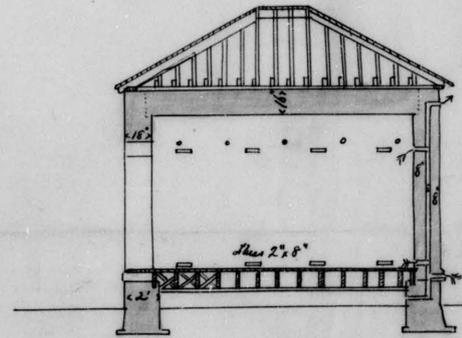
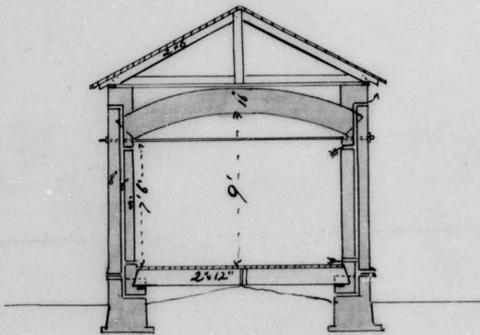
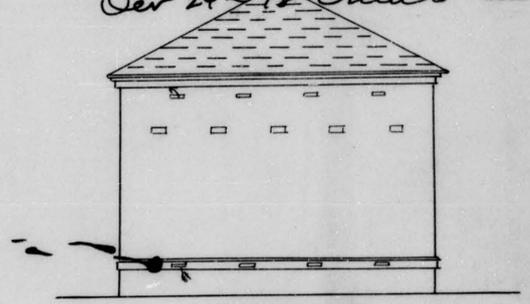
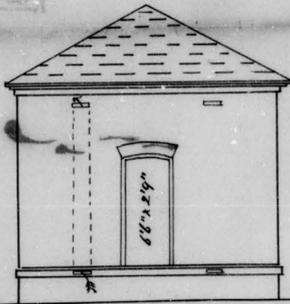
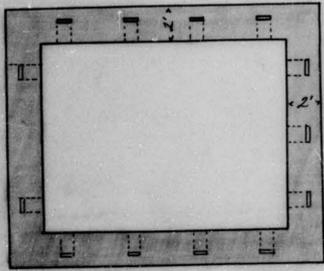
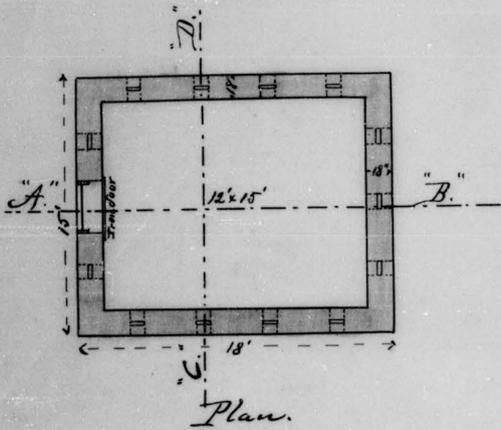
367
78

16

16

Hart Swelling Magazine.

Scale 6 feet to one inch.

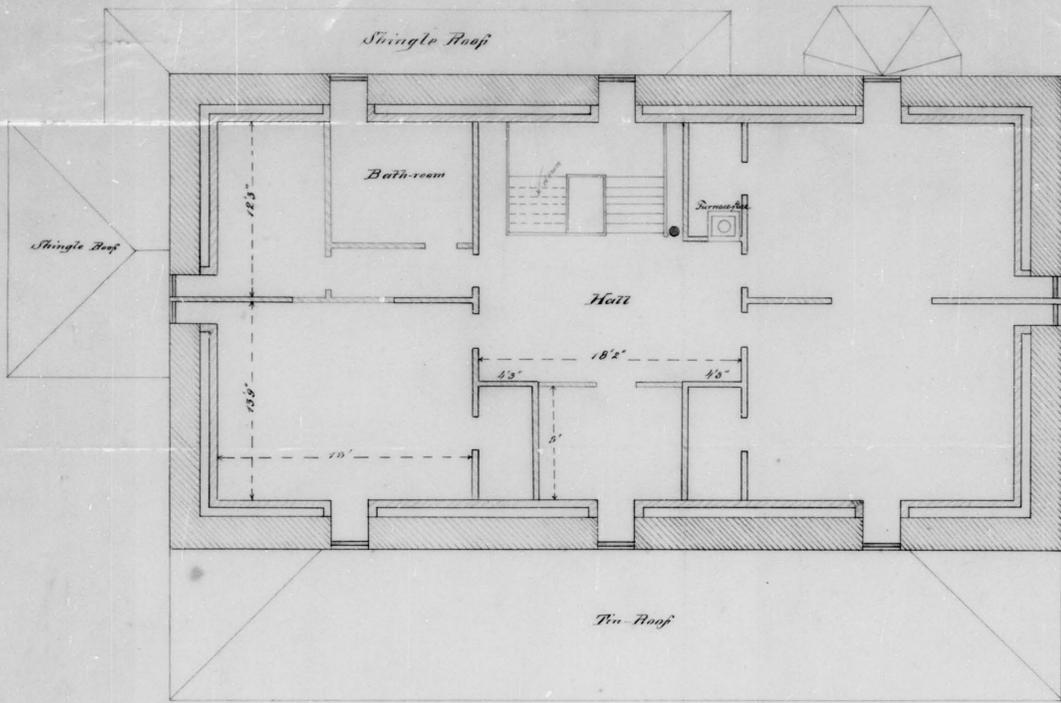


Estimated Cost \$450
 and by Sea War Oct 1878
 Expense to be charged to
 the new allotment
 5367 of March 1876
 Dec 24 78 Credit the finally

RECEIVED
 DEPT. OF THE INTERIOR
 BUREAU OF LANDS
 WASHINGTON
 OCT 18 1878
 00070000
 0.01000000

Dr - 45
 117

D. L. Michael,
 Captain of Ordnance,
 Chief Ordnance Officer,
 Dept. of Ordnance



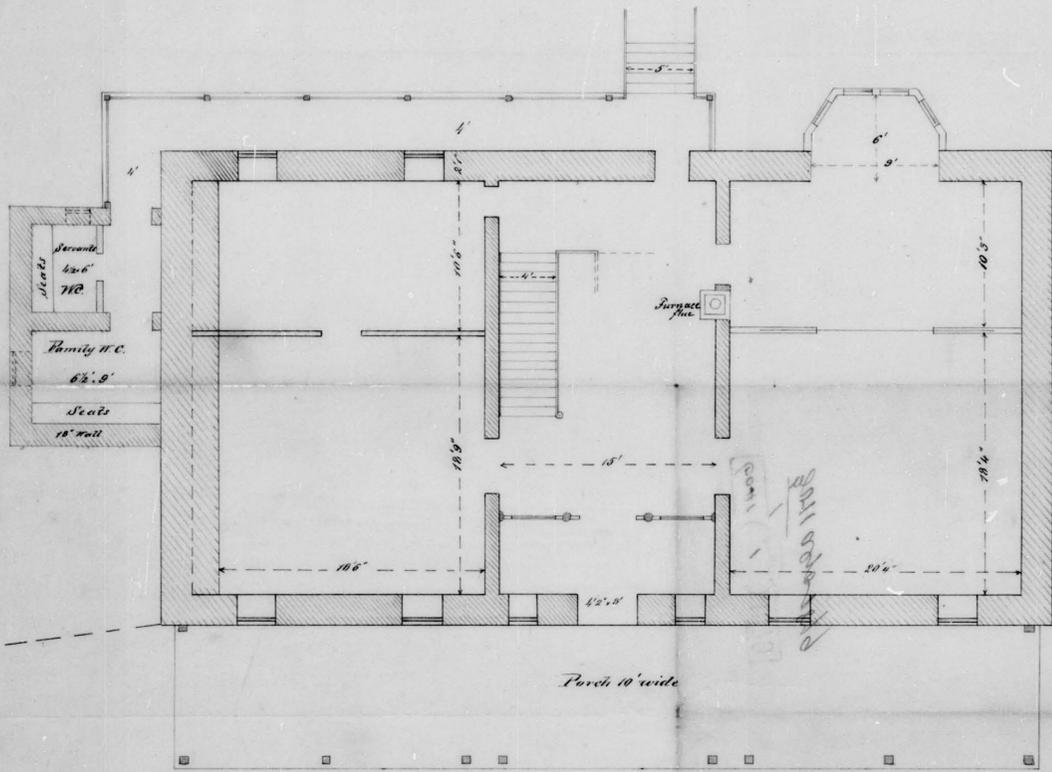
Second Floor.

Plan
of
Comdy Off. Quarters
Fort Snelling
Minn.

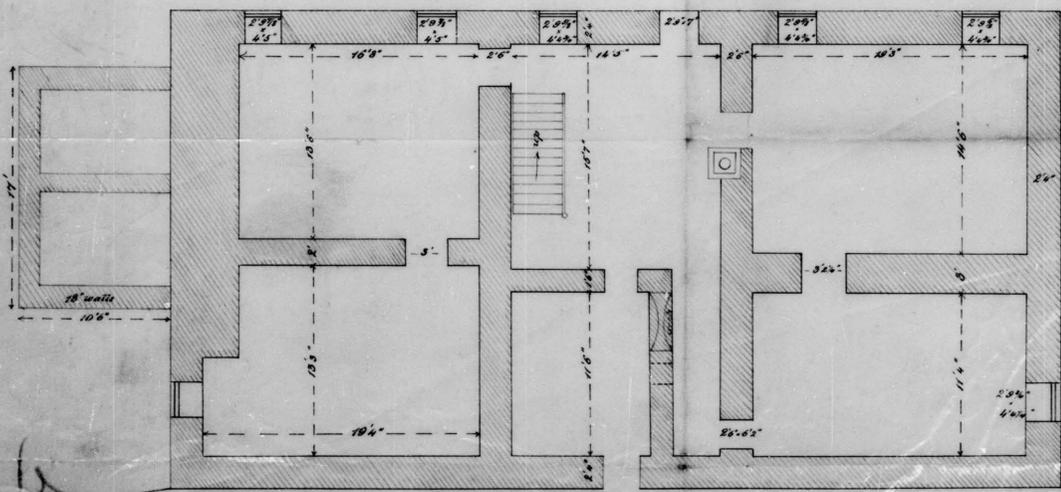
(Red shows prop^d changes)

Scale 8 ft to 1 inch.

Prepared in Office Ch. Crocker, Dept of Defense
St. Paul, Minn. May 17 1879



First Floor.



Basement.

Delivered Oct 23 21. 57
June 6-79 - alt by Leary Man
June 10-79. Order to Cuedy
2684 Q memo 1879

RECEIVED MAY 18 1879
OFFICE OF THE CHIEF ENGINEER
DEPT. OF DEFENSE
ST. PAUL, MINN.

Office Chief Quartermaster
Department of Dakota
St. Paul, Minn. April 22 1879

Respectfully submitted
Wm. D. Tompkins
Deputy Chief Quartermaster

RECEIVED JUN 25 1879
3473
Q. M. GEN'S OFFICE

Headquarters Dept. of Dakota
St. Paul, Minn. April 22 1879

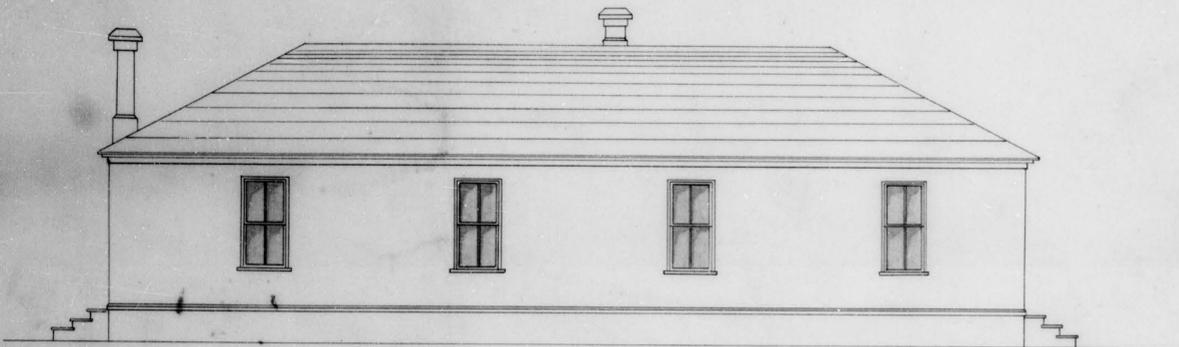
Approved:
A. J. Terry
Brigadier General U.S. Army
Commanding Dept.

No. 6.

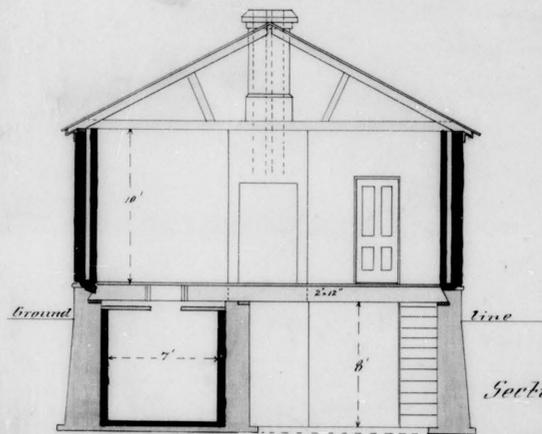
Messhall for Single Employees
Fort Snelling, Minn.

Estimated Cost \$2,100.00

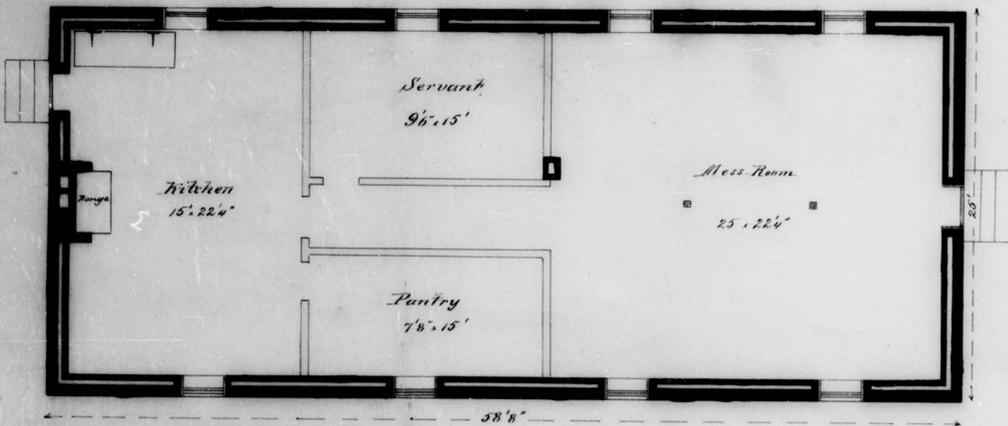
Scale: 6 feet to 1 inch.



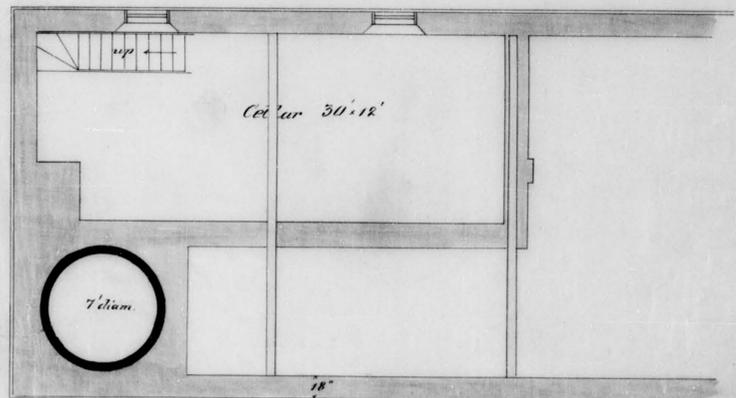
Elevation



Section Through Cistern.



Plan.



Part of Foundation &c.

See 6869 of 78
3413 of 79

June 16-79 approved by Genl of Army

Dr 45
19

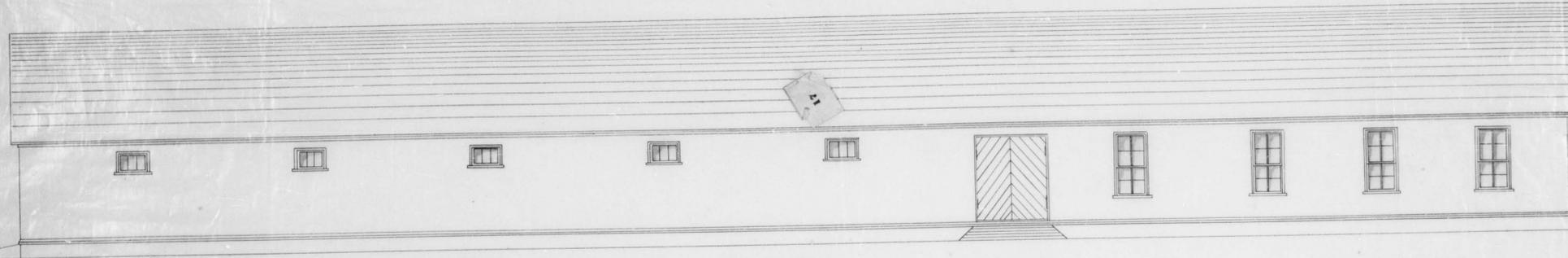
DR. MR. GEN'S OFFICE
3413 RECEIVED JUN 25 1879

RECEIVED
JUN 25 1879

Off. Chief of the Dept. Dakota
St. Paul Minn. April 22 1879
Respectfully submitted
Wm. D. Pomplun
Deputy to the General and
Chief Engineer

Headquarters Dept. of Dakota
St. Paul Minn. April 22 1879

Approved:
Saml. H. Simpson
Brigadier General U.S.A.
Commanding Dept.



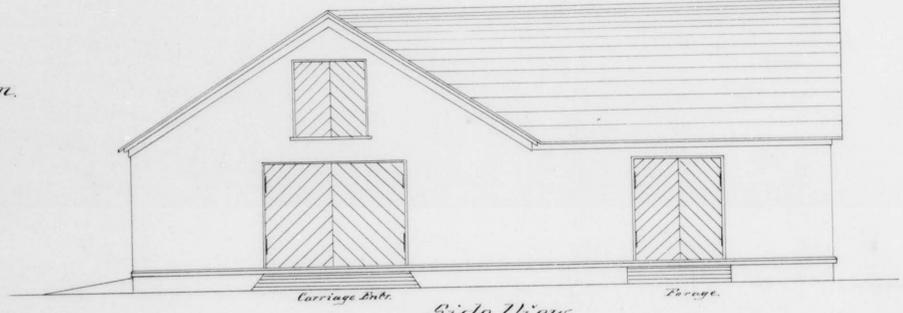
Elevation

No. 7.
Stables [for 40 Animals]
with Carriage and Forage room.
Hq. Ft. Snelling, Minn.

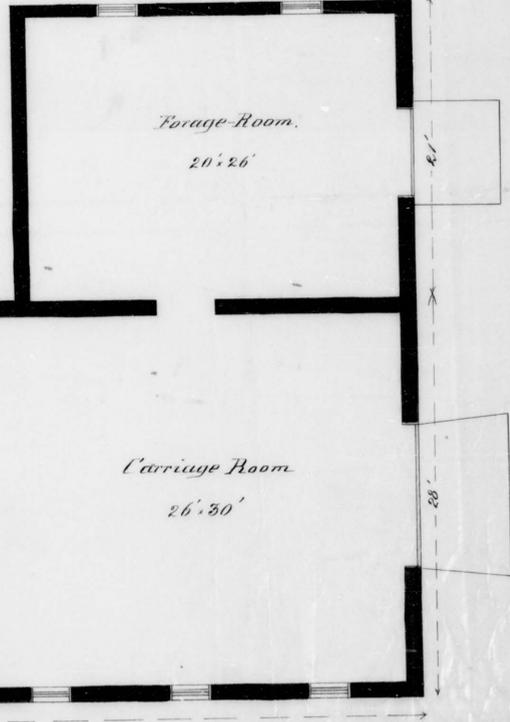
Scale 6 feet to 1 inch.

Small list 84430

817723 8190
931020 1076

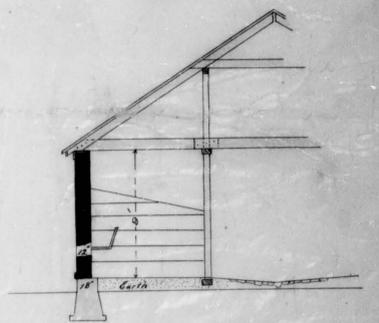


Side View

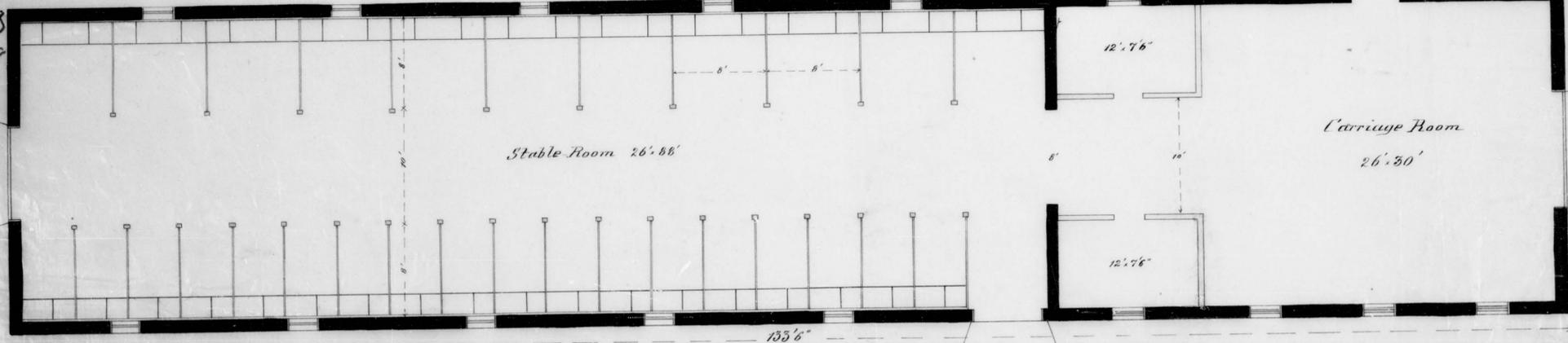


Forage Room.
20' x 26'

Carriage Room.
26' x 30'



Vert. Section.



Stable Room 26' x 88'

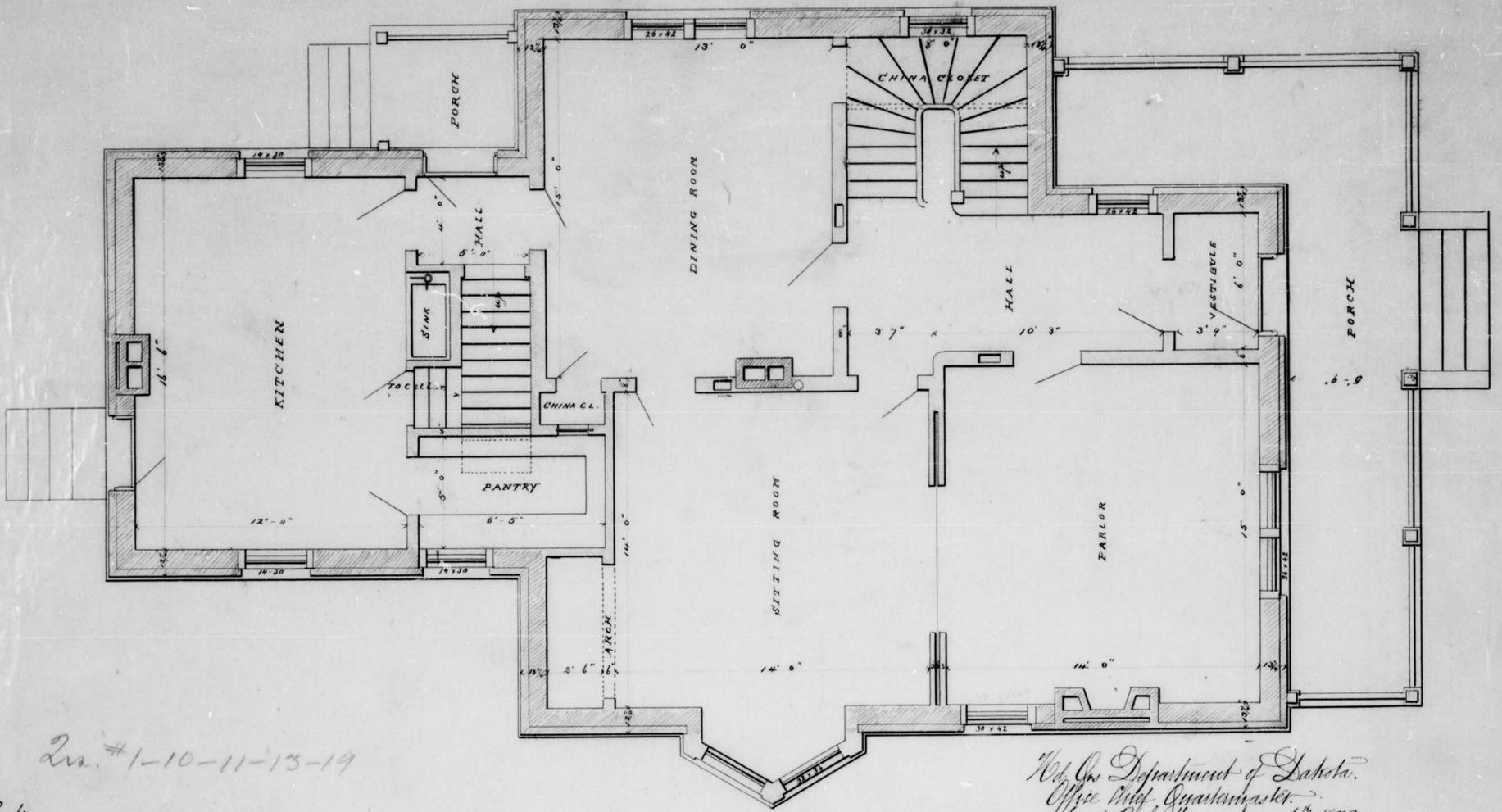
133' 6"

Plan.

6869 of 78
3413 of 79

June 16 79 - plan approved by Genl of Army

Dr. - 15
20



2m. #1-10-11-13-19

No. 4.
Capt Quarters Dept Dakota

Fort Snelling

SCALE 4 FT TO ONE INCH.

Estimated Cost: \$ 5359.⁰⁰

6869 of 78
8413 of 79

Wd Gen Department of Dakota.
Office Chief Quartermaster.
Saint Paul, Minn. June 6th 1879.

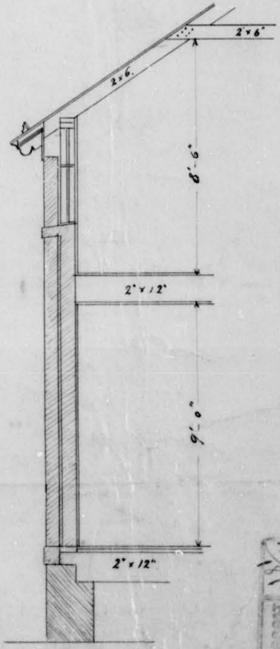
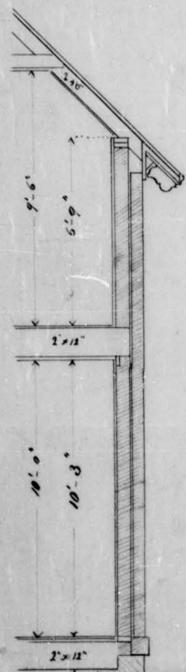
Respectfully submitted.

Chas. H. Tompkins
Deputy Chief General Wg Army
Chief Quartermaster

Wd Gen Department of Dakota.
Saint Paul, Minn. June 6th 1879.

Approved.

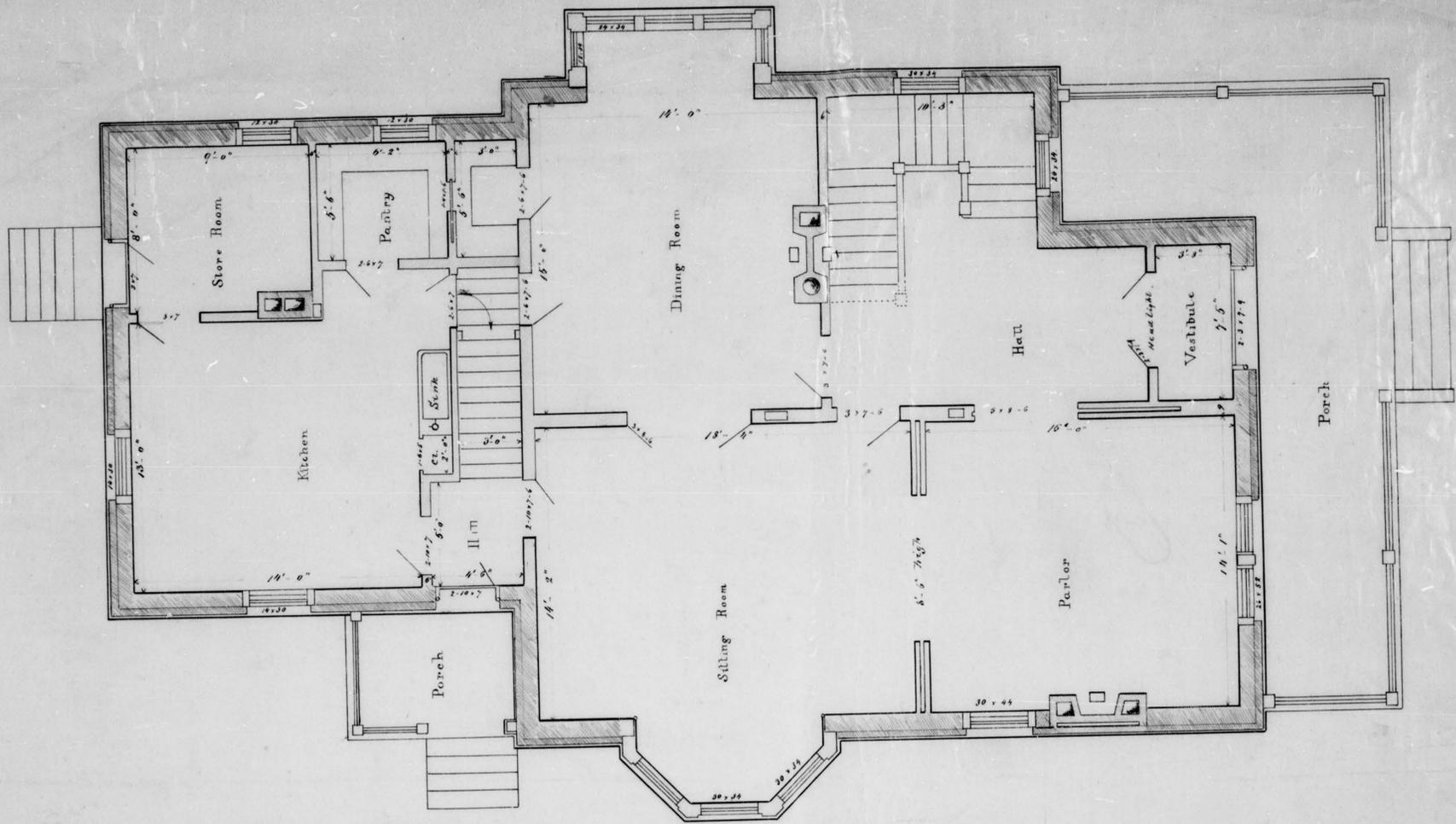
Alfred H. Tracy
Brigadier General Wg Army
Commanding Department.



June 16-79 - Approved by Genl of Army
" 21-79 See various expenditures of the 100000
announced in Sundry Civil Bill of
Mar 3-79 - after 1 July 79

RECEIVED
JUN 10 1879

DR. M. A. GEN. OFFICE
1879
RECEIVED JAN 25



No. 3, 5, 6, 8, 14, 16, 18
 Field Officers' Quarters Dept of Dakota

Fort Snelling Minn
 Scale 4 ft to inch.

Contracted bid \$6472.00

See 6829 of 78
 3413 of 79.

Adj Gen Department of Dakota.
 Office Chief Quartermaster
 Saint Paul, Minn. June 6th 1879.
 Respectfully submitted
 Chas. H. Tompkins
 Deputy Chief General, Military
 Chief Quartermaster.

Adj Gen Department of Dakota.
 Saint Paul, Minn. June 6th 1879.

Approved.
 Gen. S. J. ...
 Adjutant General, U.S. Army
 Department of the Interior

June 21st 79 approved by General of Army
 to be authorized FRONT ELEVATION
 as per enclosure of the 100,000 appropriation
 in Summary Cash Price of Mar 3 - 1879 - of July 79



3413 FOR MR. GEN. S. J. ...
 RECD JUN 1879
 45
 23

*H. G. Dept of Dakota.
Off. Chief Quartermaster.
St. Paul, Minn. June 6. 1879.*

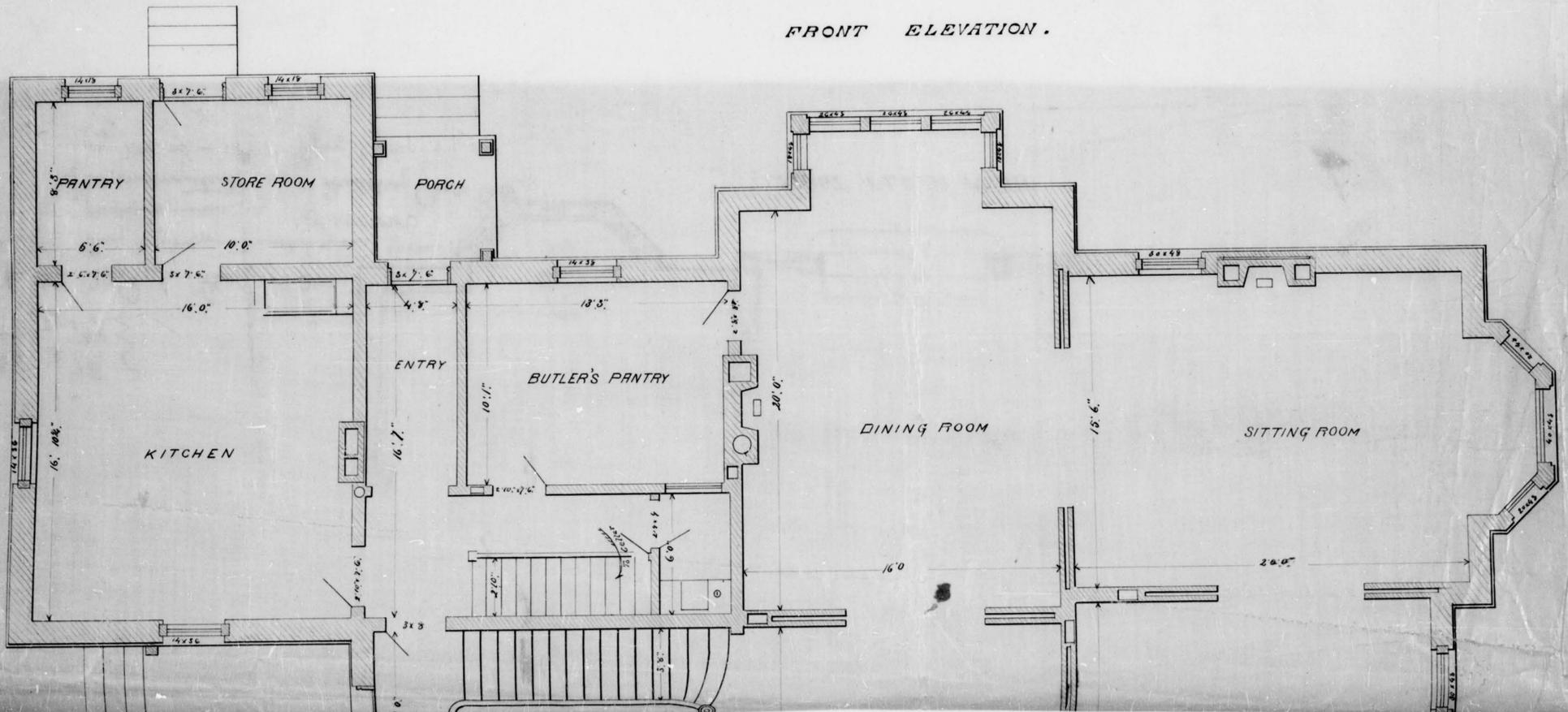
*Respectfully submitted,
Wm. J. Thompson
Deputy Chief Quartermaster.
Chief Quartermaster.*

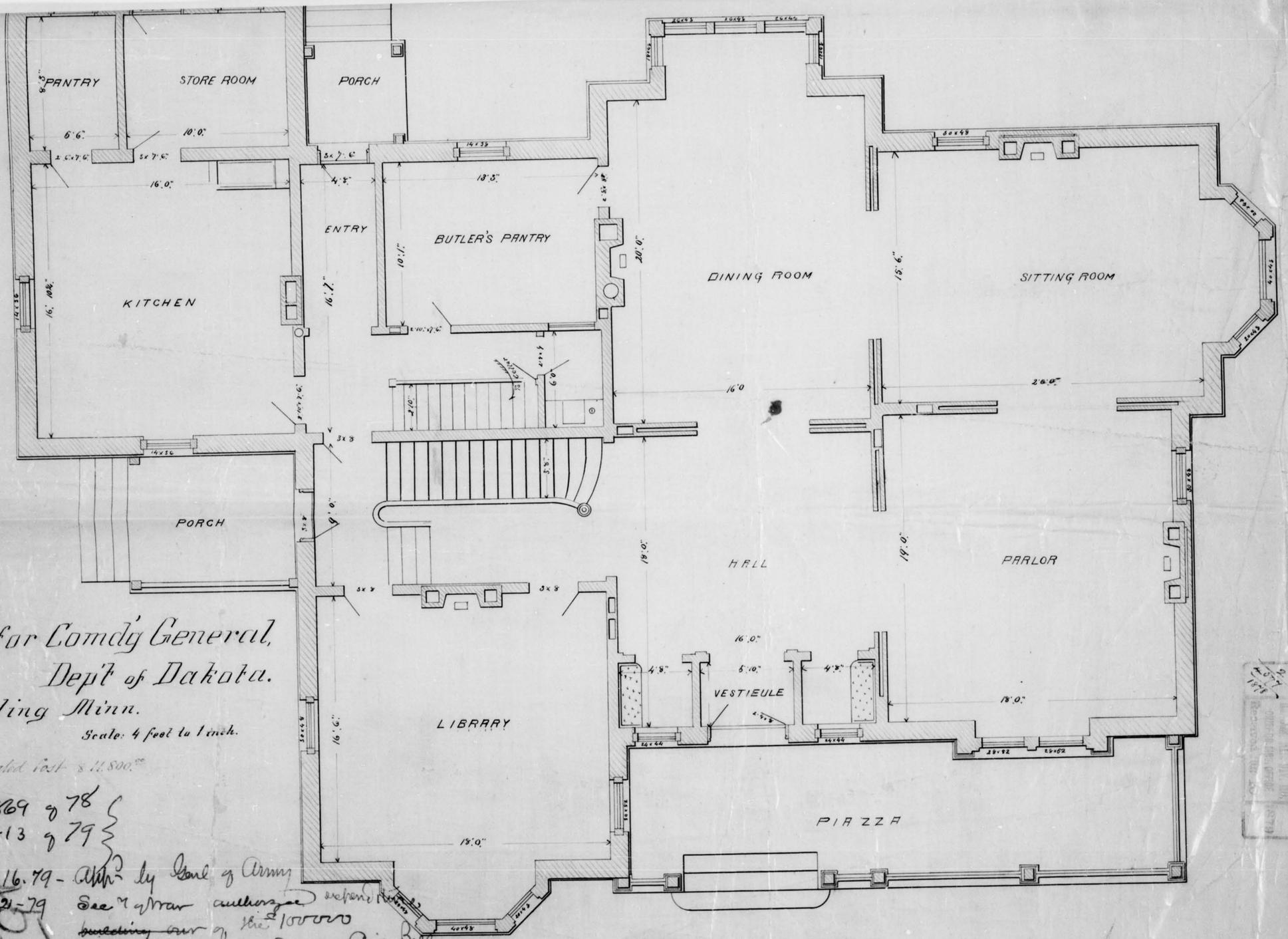
*H. G. Dept of Dakota
St. Paul, Minn. June 6. 1879.*

*Approved:
S. H. S. S. S.
Brigadier General U.S. Army.
Commanding Department.*



FRONT ELEVATION.





No. 2.
 Quarters for Comd'g General,
 Dept of Dakota,
 Fort Snelling Minn.

Scale: 4 feet to 1 inch.

Estimated cost \$11,800.00

See 6869 of 78
 3413 of 79

June 16, 79 - Approved by Genl of Army
 See 7 of Mar authorized expansion
 building out of the 100000
 authorized in Sundry Civil Bill
 of Mar 3 - 1879 after 1 July 79

FIRST FLOOR PLAN

OF THE ARCHITECTURE
 OF THE
 DEPARTMENT OF THE ARMY
 OFFICE OF THE ARCHITECT
 WASHINGTON

6869 978
12/5

SPECIFICATIONS

OF THE MATERIALS AND LABOR REQUIRED IN THE ERECTION OF AN OFFICE BUILDING FOR HEADQUARTERS DEPT. OF DAKOTA, ON THE FORT SNELLING, MINNESOTA, MILITARY RESERVATION, ACCORDING TO PLANS AND DETAILS SUBMITTED BY CHAS. H. TOMPKINS, DEPUTY Q. MR. GENERAL U. S. A., CHIEF Q. MR. DEPARTMENT OF DAKOTA, APPROVED BY THE WAR DEPARTMENT.

EXCAVATIONS.

The earth to be excavated under the entire building for cellar according to plans and section; trenches for footing stone to be below cellar bottom, and of suitable depth to insure a good solid foundation in every respect; excavation made for areas, piers, chimneys, &c., according to plans and sections, or as directed by the Superintendent in charge. All superfluous earth to be graded around the building and walls in a proper manner, or to be removed as may be directed. Excavate for cess-pool of suitable size, to be, when stoned up, eight feet in width, in the inside, and eighteen feet in depth; cess-pool to be not less than forty feet from the building, or as directed; trenches of suitable depth below grade for sewer pipe from building to connect with cess-pool. All earth taken therefrom to be carted away or graded around the premises as required.

MASON WORK.

All the foundation walls and footings to be composed of the best quality of blue limestone, no round or ill-shaped stone to be admitted in the walls; the footing stones to be large flat stones, not less than 8 inches thick and 2 x 4 feet in width and length, all to be well and firmly bedded in good water-lime cement, and concrete trenches when directed, to insure a good and solid foundation in every respect, all to be laid according to plans and section drawings. All piers to have footings 8 inches thick, and of suitable size required. All the walls to be laid up with large flat stone on their proper beds with headers passing entirely through the thickness of the walls, every three feet in the length and two feet in height of the walls. Areas around windows and doors in cellar walls to be first-class rubble masonry; top of area walls covered with 6 x 18 inches stone coping, jointed and squared on edges, top rough-hammered dressed, all to be well bedded in cement on top of walls. All the stone must be of the best quality of blue limestone, cut and put in according to plans. All the stone walls in cellar from the top of footing to top of grade line to be laid in half and half lime and cement mortar of the best quality.

CUT STONE AND RANGE WORK.

The external walls from top of grade line to water table to be rock face range work, laid in courses not less than 8 inches in height, and bed not less than 12 inches on the walls, edges neatly jointed and laid with close fitting joints, and bonded with frequent headers passing entirely through the thickness of the wall, as in rubble work. Stone steps provided and placed in cellar ways, as shown on plans; steps to be about 8 inches thick and 12 inches wide, all to be hammered dressed and ends built in the side walls. Bottoms of areas to be covered with stone flagging 4 inches thick, rough-hammered, dressed on top and edges jointed. All to be well and solidly bedded.

Mortar for range and rubble masonry above grade line to be composed of fresh burnt lime and clean, sharp sand, in good proportions to secure a good strong cement. All face wall in rubble work outside and inside to be neatly pointed with good strong half and half lime and cement mortar. Range work to be neatly pointed with white cement mortar, as shown. Make all necessary openings in walls where required and directed, for the various pipes, &c. All opening in partition walls to be arched with brick. Foundations for vaults to be first-class rubble masonry, built according to plans, finished level with large stone flagging even with top of first story floor, top to be fine bush-hammered stone, not less than 6 inches thick, and in one stone for each vault floor and of suitable width and length to receive brick work. Door jambs to be large stone and faces bush-hammered, top of openings arched or covered with large cut stone cap.

SPECIFICATIONS

OF THE MATERIALS AND LABOR REQUIRED IN THE ERECTION AND COMPLETION OF QUARTERS FOR COMMANDING GENERAL, AND DEPARTMENTAL OFFICERS AT HEADQUARTERS DEPT. OF DAKOTA, FORT SNELLING MILITARY RESERVATION, MINNESOTA, ACCORDING TO PLANS, DETAIL DRAWINGS AND SPECIFICATIONS SUBMITTED BY CHAS. H. TOMPKINS, DEPUTY Q. M. GENERAL U. S. A., CHIEF QUARTERMASTER DEPARTMENT OF DAKOTA, AND

APPROVED BY THE WAR DEPARTMENT.

6869 978

EXCAVATIONS.

The ground to be excavated for the cellar under the whole buildings; and for the construction of the foundations, cisterns, drains, cellar ways, areas to the cellar windows, and all other works so needed about the foundations, and the earth therefrom filled in and firmly beat down about the foundations, and the balance graded around the building and lot as may be directed, and the rubbish carted away, leaving the grounds and building all clear at the conclusion of the work. The foundation trenches to be below the cellar bottom, as shown, or of a sufficient depth to find an even strata of firm earth or gravel, to insure a good and solid foundation.

MASONRY.

All the foundation walls to be composed of the best quality of blue limestone, no round or ill-shaped stone to be admitted in the walls; all footing to be of large flat stones, not less than six inches thick, well and firmly bedded in cement mortar, and laid as shown on plans and section drawings, footing stone not less than 2 x 4 feet for main walls, and 2 x 3 feet for partition walls, for Commanding General's quarters, and 2 x 3½ feet for main walls, and 2 x 3 feet for partitions, for Departmental Officers' quarters. All the main foundation walls commencing on top of footing stones to be twenty inches thick, built according to plans, with frequent headers passing through the thickness of the walls every three feet in the length, and two feet in height of the walls, the work to be well grouted every two feet. All stone work above grade to be rock face range work, laid in courses not less than six inches in height, and bed not less than fourteen inches on the walls, and bound with headers as in rubble work, stone to be jointed and squared, and laid with close fitting joints. Area walls to be first-class rubble masonry. All of the said stone work to be laid in good strong mortar, composed of fresh burnt lime, and clean, sharp sand, in good proportions to insure a good cement. The first four feet of the stone work, commencing on top of footing stone, and the whole of cistern walls, to be laid in half and half lime and cement mortar. All face walls in rubble work to be neatly pointed with cement mortar. Range work to be square pointed with white cement, all to be done in a first-class workmanlike manner. Area walls laid up in cement mortar, top of walls covered with 5x16 inch stone coping, rough-hammered dressed and jointed on edges, well bedded on walls. Cellar steps to be rough cut stone, the ends built in side walls, stone to be first quality of blue limestone, and put in according to plans. Areas covered with hatchway doors, hung complete, in the usual manner. All large openings in stone and brick walls, to be arched. Make all the necessary openings required in stone and brick walls for hot air pipes, and the necessary openings for water pipes, gas pipes, &c., as directed. Build in all wall strips, load timber, and lintels, and set all arch centers required for carrying up stone and brick walls. All the lumber to be perfectly seasoned. Areas paved with brick or flag stone.

CISTERNS.

Built according to plans, with good quarry building stone, laid up in half and half lime and cement mortar as aforesaid; inside to be lined with good hard burnt brick laid in cement, tops arched as shown; man

WATER TABLE.

Window and door sills; caps for cellar windows and doors; sill courses, caps for pilasters; outside steps for front and rear entrance, and plinths and porch floor, to be smooth, cut out of the best quality of blue limestone except porch floor, which will be Kasota stone, all to be cut as shown on plans. Porch floor to be not less than 4 inches thick, all to be well bedded in cement and neatly jointed on edges. Outside steps to have good stone foundation. Cellar steps and coping as aforesaid.

GROUTING.

The whole of the cellar floor, except in printing room, to be covered with grouting three inches thick, composed of small stones, sand and waterlime cement, in proportions of one of cement to two of sand, leveled off in good manner. Wood floor in printing room.

BRICK WORK.

Partition walls in cellar built as shown on plans, with good hard burnt brick laid in good half and half lime and cement mortar; openings to be arched; walls to rest on solid stone foundation, as aforesaid; furnace flue to be carried up with good hard burnt brick, inside to be smoothly plastered with strong mortar, put in complete a 12-inch galvanized pipe, made of No. 18 iron, strongly secured with iron anchors; said smoke pipe to have the necessary connection made for furnace pipe so required and directed; bottom of pipe to rest on a good solid foundation, run up not less than five feet above the roof, as shown; the brick flue covered with a galvanized iron cap, as shown, strongly secured to brick work. Openings made in each story for ventilators, as directed. Smoke flues to be lined with brick in cellar, and well plastered on the inside with good strong mortar; stovepipe thimbles built in each flue, with covers complete, where required. All the chimneys to be built according to plans, and topped out above the roof with first quality of yellow face brick, either of Portage City or Watertown, Wis.; tin or iron flashing built in brick work, to make water-tight between roof and chimneys, where necessary and required.

Outside brick walls, commencing at the bottom of the first story floor joist, to be of the best quality of hard burnt brick, face walls to be Portage City or Watertown, Wisconsin, yellow face brick, selected best quality, of an even color and size, laid in good mortar, composed of clean, sharp sand and fresh burnt Port Byron lime, well worked together in such proportions as will insure the strongest and most durable cement. All the walls to be built perfectly plumb and straight to a line on both sides, and well bound with headers and grouted; the external walls bond with secret headers every sixth course. All the brick to be laid wet. Joints not to exceed $\frac{1}{4}$ of an inch in thickness. The walls of the first and second stories to be fourteen inches thick, with two inch hollow space, and built according to plans. Smoke and air flues constructed in walls as shown; all to be well plastered on the inside. The whole of the aforesaid brick work to be done in the very best manner, and all face walls must be left entirely clean and unsoiled. Any portion of the face of the walls marred, daubed, splashed or washed with mortar, must be made perfectly good before the work can be received.

VAULTS

To be built of good hard burnt brick, laid up according to plans, with air space, brick work to commence on top of stone flagging in first story, as aforesaid; tops of each vault to be covered with 6 inch thick cut stone flagging, said stone to be in one stone each of suitable width and length, to rest on walls. Height of ceilings 10 feet in the clear. Floors of each vault to have stone flagging, the same as first floor aforesaid. Space between floors and ceilings to be filled with grouting, composed of small stone and cement. The top of second story vaults done in the same manner. Brick walls carried up to ceiling. Two inch tin pipes placed in each vault for ventilation where required and directed. All the brick walls to be laid up in good, strong mortar, composed of fresh burnt lime and clean, sharp sand and cement; half and half lime and cement. Inside to be plastered with one good coat of brown mortar and one good coat of white plaster finish. All to be finished complete with iron doors and frame, to cost not less than \$150.00 each, of suitable kind and quality required.

IRON ANCHORS

To be $\frac{1}{2}$ x 2 inches, 2 feet 8 inches long; firmly secured to the walls and joist, and placed about ten feet apart in each tier of joist, including roof.

CESS-POOL.

Build a circular cess-pool at the rear of the building, and sink it below the final grading 18 feet deep, and 8 feet in diameter in the clear; lay the walls with rough stone without mortar, 18 inches in thickness, of similar stone to that in cellar walls, drawn in the walls towards the top in dome form, perfectly substantial, leaving a man hole 2 feet in diameter—cover this with a flagstone 5 inches thick, and bury the whole in the ground.

VENT TO POOL.—Build into the top of pool perpendicularly, as the work goes forward, two 4-inch

2

drain pipes. Leave them standing two feet above ground. Locate the cess-pool about forty feet from building.

SEWER PIPES.—Properly lay an 8-inch stone pipe, joints well cemented, below cellar floor a suitable depth required, and connect with all the water-closets and cess-pool, and put in all the necessary traps and branches &c., required and as directed. Run all water from the roofs to cistern or cess-pool through stone pipe a suitable depth below the ground as directed.

PLASTERING.

All the rooms and walls in the first and second story and two rooms in cellar, used for printing office, to be lathed and plastered with one good coat of brown mortar, and one good coat of white plaster paris finish; compound the mortar in proportion of one cask of lime to two of sand to one bushel of hair—the hair somewhat diminished in quantity in brick walls. Use best quality of pure unslacked Port Byron lime, and clean, sharp, bank sand, free from loam, and best long cattle or goat hair; thoroughly mix the ingredients by continued and faithful working, and slack the mortar in the rough two weeks at least before putting it on; level and float up the brown coat and make it true at all points. Cover all brown mortar with best hard finish, compounded of finishing lime putty and plaster of paris, and clean white sand and marble dust; mix them in proper proportions, so as to secure with sufficient amount of troweling down, a good, handsome and workmanlike job. Carry all lathing and plastering to the floor. Make good all plastering after the various craftsmen, and remove all plaster stains and discolorations at the end of the work.

CARPENTER WORK, &C.

The floor joist for the first and second floors to be 2 x 14. Attic or ceiling joist 2 x 10. Tower joist 2 x 10. Wall plates 2 x 8. Rafters 2 x 6, and 2 x 10 for flats. Floor joist in two rooms in cellar used for printing office 4 x 4. Mud sills 3 x 4. Girders in first story floor to support joist 8 x 12. Posts 8 x 8. Studding for partitions in first and second story, 2 x 4 and 2 x 6. Sills and plates for partitions, 2 x 4 and 2 x 6, double—where necessary—to support floor joist. Mud sills in cellar placed three feet between centres. Joist set two feet between centres, all to be leveled up in good manner and filled up solid and level with top of joist with grouting, composed of small stones, gravel and cement, in proportions of one of cement to three of stones and gravel. The floor in the printing rooms to be second quality of oak or ash. Mill worked flooring 1 $\frac{1}{2}$ inches thick, perfectly seasoned and well nailed. All the floor joist, ceiling joist, studding, and rafters, set 16 inches between centres and properly bridged. When bearings exceed 12 feet they are to have two lines of bridging, and framed and put on walls according to plans, in a good workmanlike manner; lumber to be sound white pine, free from rot and other defects, and well seasoned.

ROOF

To be constructed according to plans. All lumber used to be sound white pine, free from rot and other defects. Roof to be covered with first quality of patent sheet iron roofing, painted three coats of paint on both sides, laid on dry 1 x 6 inch matched flooring of good quality well nailed and laid with close joints. Gutters to be made in cornice with galvanized iron; all joints to be perfectly water tight, put up complete; four 4 inch galvanized iron pipes strongly secured to the walls with iron hooks; water from the roofs to be conducted to the cistern or cess-pool, as directed. Cresting on tower roof to be wrought iron, put up complete, with flag-staff, &c., as shown. Scuttles, 2 x 2 feet, made and hung complete in tower roof.

FLOORS

To be laid in all the rooms and halls in first and second story and tower with first quality of 1 x 6 inch white pine matched flooring, perfectly seasoned. The floor in first story to be double thickness, bottom course to be common 1 x 6 inch matched flooring, dry. Floors in all the halls in each story to be narrow white oak or ash, first quality and perfectly seasoned. All must be laid with close joints and well nailed. Floors in cellar to be as aforesaid.

CORNICE

To be galvanized iron, put up complete, according to plans, well anchored to brick work, and put up in a first-class workmanlike manner. Iron, No. 26.

PARTITIONS

Set with 2 x 4 and 2 x 6 inch studding, 16 inches between centres, and bridged when required. All bearing partitions to have sills and plates; angle studs to be well secured to side walls; all large openings to be trussed; all to be good, sound pine, well seasoned. Partitions in cellar ceiled up with matched flooring on both sides.

FURRING, &C.

The two rooms in cellar for printing office to be furred with 1 x 2 inch strips placed 16 inches between centres for lathing the external walls. Do all necessary furring required in each story, as directed, for lathing

3

holes in tops to have iron frame and covers complete; top of arch grouted with cement; bottom of cistern to have two thicknesses of brick laid in cement; partition built up to the under side of arch; put in complete, all the necessary iron pipe for inlets and outlets; pipes not less than 4 inches each, and put in where directed; inside of cisterns to be well plastered with Louisville cement and warranted perfectly water tight; overflow pipes to connect with sewer or drain; trap it with six inch running traps.

CESS-POOLS.

Build circular cess-pools at the rear or side of each building as directed, and sink them below the grade 18 feet; lay the walls with good quarry stone, without mortar, 18 inches thick; draw in the walls toward the top in dome form, perfectly substantial, leaving a manhole in top; cover this with flag stone 5 inches thick, and bury the whole in the ground; cess-pools to be, when stoned up, each not less than six feet in the clear; locate the pool not less than forty feet from the building; put in a 4 inch iron pipe in top of cess-pools, and carry up the same three feet above ground for ventilation.

DRAINS.

Properly lay below frost a six inch vitrified tile drain jointed in cement; stand them one foot below cellar bottom and make all the proper connections with soil pipes, &c., and cess-pools; lay them on a pitch of $\frac{1}{2}$ inch to the foot; trap the drain with 6 inch running traps; cover up all trenches with earth in good manner.

GROUTING.

Level off all the cellar bottoms and cover with grouting three inches in thickness, composed of small stone, gravel and cement, of three parts of the former to one of the latter; tops to be smoothed off in a good manner with fine cement.

CUT STONE.

All the window sills, door sills, caps for windows and doors, water table, sill courses and outside steps to be the best quality of blue limestone or Kasota stone, cut according to plans; all faces cut smooth for window and door sills, and caps; steps and water table fine bush-hammered; caps and sills must be not less than ten inches on walls, and more where necessary and required. Cellar steps and coping to be as aforesaid.

BRICK WORK.

Partitions in cellars to be built according to plans, with the best quality of common hard burnt brick, laid in mortar composed of half and half lime and cement, and clean, sharp sand. Openings made for hot air pipe, &c., as required and directed. All large openings to be arched. Cisterns lined with brick as aforesaid. Ash pits for fire-places built according to plans, with iron doors and frames complete. All partitions in cellars to be built up to top of floor joist. Mortar for ash pits and foundations for chimneys to be the same as for partitions. Do all the necessary brick work required for hot air furnaces as directed.

CHIMNEYS.

Build the chimneys according to plans. Carry all partitions between flues to the top of chimneys. Inside of each flue to be smoothly plastered with good strong mortar. All chimney breasts carried up to ceiling. Furnace flue to be built around a wood mandrel as shown. Smoke flues to commence not less than four feet below the first floor joist. Stovepipe thimbles built in flues with covers complete, in each story, where directed. Clean all flues on completion of the building. Chimney tops to be of the best quality of yellow Watertown or Portage City, Wis., selected face brick of even color and size. Flash the chimneys with tin. Step flashing those on the roof rake. Cap the flashing and turn the edge of the cap into the mortar joints and point the brick work after finishing the flashing.

BRICK WALLS.

All the walls of the superstructure, commencing at the bottom of the first floor joist, to be of the best quality of hard burnt brick, laid in good mortar composed of clean, sharp sand and fresh burnt white lime well worked together, in such proportions as will insure the strongest and most durable cement; the external walls to be faced with the best quality of Watertown or Portage City, Wis., selected face brick of an even size and color, (yellow,) laid with close joints not to exceed one fourth of an inch in thickness, in white mortar composed of white sand and white lime. All brick to be laid wet. All the walls to be built perfectly plumb and straight to a line on both sides, and well bound with headers every fifth course; the external walls bound with secret headers and grouted every fourth course, and laid up according to plans. All face walls must be left entirely clean and unsoiled. Any portion of the face of the walls marred, daubed, splashed or washed with mortar must be made perfectly good before the work can be received. All square headed openings to have good strong lintels, well seasoned and arched over with brick.

2

PLASTERING.

All the rooms and halls in the first and second story of each building (except cellar and attic,) to be lathed and plastered with one good coat of brown mortar, and one good coat of white plaster paris finish; compound the mortar in proportions of one cask of lime to two of sand and one bushel of hair—the hair somewhat diminished in quantity for brick walls. Use best quality of pure unslacked Port Byron lime, and clean, sharp bank sand, free from loam, and best long cattle or goat hair; thoroughly mix the ingredients by continued and faithful working, and slack the mortar in the rough two weeks at least before putting it on; level and float up the brown coat and make it true at all points. Cover all brown mortar with best hard finish, compounded of finishing lime, putty and plaster of paris, and clean white sand and marble dust; mix them in proper proportions, so as to secure with sufficient amount of troweling down, a good, handsome and workmanlike job. Carry all lathing and plastering to the floor. Make good all plastering after the various craftsmen, and remove all plaster stains and discolorations at the end of the work. All the bond timbers, wall strips, plates, &c., to be well seasoned and properly bedded in mortar. All of the said brick work to be executed in the best workmanlike manner, and if there appears to be an omission of work to be done or materials furnished then shall the contractor perform the same as if fully detailed in this specification.

IRON ANCHORS

To be $\frac{1}{2}$ x 2 inches wrought iron, two feet in length, firmly secured to the joist and brick walls in each story, ten feet apart.

CARPENTER WORK.

Floor joists for the first and second floor 2 x 12, attic 2 x 10, ceiling joist 2 x 6, tower joist 2 x 8, rafters 2 x 6 and 2 x 12 for flats, hip rafters 2 x 8, studding 2 x 4 and 2 x 6, door posts 4 x 4 and 4 x 6; for the balance see plans and section drawing for size. All floor joist and studding to be sized to a uniform width and properly bridged with a double row of bridging between bearings; trimmer joist double. All the floor joist, ceiling joist, studding and rafters set 16 inches between centers, framed and put on according to plan. All the lumber to be good sound pine, well seasoned, free from rot, shakes and other defects.

ROOFS.

To be covered with XX white pine shingles laid on dry common matched flooring well nailed to rafters; shingles laid three thick in $4\frac{1}{2}$ inch courses; valleys to be lined with I. C. roofing tin of suitable width to make them perfectly water-tight. Flats on main roofs, porches, bay windows, &c., to be covered with I. C. roofing tin, best quality, laid on dry matched flooring of good quality, free from rot and loose knots; all to be well nailed. Make and hang, complete, on flats of each roof, where directed, 2 x 2 feet scuttles, with step ladders to same, made in the usual manner. All joints between side walls, chimneys, &c., with roofs to be well flashed with tin. Put up, complete, all the necessary pipes to convey the water from the roofs to the cistern as required and directed. All pipes to be made of galvanized iron, strongly put up with good iron hooks.

CORNICES.

Put on as shown on plans and details. Gutters to be I. C. roofing tin, made perfectly water tight and laid straight to a line, with suitable fall to convey the water to pipes. Lumber for cornice to be 2d clear white pine, well seasoned.

FLOORS

The entire floors in the first story in each building to be double thickness; bottom course to be dry common 1 x 6 inch matched flooring; top course and the floors in the second and third story and tower to be laid with first quality of 1 x 6 inch white pine matched flooring, perfectly seasoned; all to be laid with close joints and neatly smoothed off on top; all to be blind nailed in a good and workmanlike manner; floors in each story to fit up close to brick walls. Top floor in first story not laid until the plastering is all completed and base put down. Porch floors and balcony to be first quality of narrow white pine matched flooring, free from sap, knots, &c.; joints put together with white lead and blind nailed, and perfectly seasoned.

PARTITIONS.

Set as shown on plans, with 2 x 4 and 2 x 6 inch studding, 16 inches between centers and bridged where required. All angle studs must be well secured to side walls. All large openings to be trussed. Main partition to have sills and plates that carry floor joist. All studding must be set plumb and straight to a line on both sides. Door studs to be double. All to be of good sound pine and well seasoned.

FURRING, &C.

Inside brick walls in each story to be furred with 1 x 2 inch strips put on 16 inches between centers for lathing. Furnish and set all arch centres, wall strips, bond timbers and lintels required during the construction of the building. Do all the carpenter work necessary for heating, plumbing and gas fitting as directed.

3

and plastering; also furnish and put in all arch centres, bond timber, wall strips, &c., and do all the necessary carpenter work required for heating, gas pipes and plumbing, as directed, during the progress of the work.

WAINSCOTING.

All the halls in the first and second story, and the two rooms in cellar for printing office, to be wainscoted with narrow matched ceiling, with beaded joints, and cap with round and cove. Lumber to be first quality of white pine, well seasoned. All to finish 3 and 4 feet high when required.

WINDOWS

To be made according to plans. All the sash 1½ inches thick, hung with weights and cords on axle pulleys and secured with good sash fastenings—Tucker bronzed. Sash to be hung with the best hemp cord. Sash in partitions to raise and lower with patent sash catchers. Transom sash to hang on centre pivot, and secured with bolts or buttons of brass. All the sash to be glazed with 26 oz. English sheet glass, except in cellar, which will be common single strength glass.

DOORS

To be the same number and size marked on plans. Door for main entrance to be 2½ inches thick, panels moulded and finished with head light over-hung complete. Vestibule doors to be 2½ thick, glazed with 26 oz. English sheet glass, well bedded in putty, head light the same as outside door. The outside and vestibule doors, first story, to be hung with 4½ x 4½ Tucker bronzed butts, 3 butts to each door, and secured with good Yale locks with pass keys for both; knobs and trimmings to be of suitable size and of good quality; bolts for stationary doors to be Tucker bronzed and of suitable size; cellar doors to be 1½ inches thick, moulded stiles and rails, and raised panels on both sides, hung complete with 4 x 4 inch butts, and secured with strong rim locks with brass bolts and keys, and dark knobs, and trimmings of good quality.

All the inside doors in the first and second story and tower to be 1½ inches thick except for water-closets, which will be 1½ inches thick, all to have moulded stiles and rails and raised panels on both sides. All doors opening into halls, in each story, to have transom sash hung on centre pivots as aforesaid. Water closet doors hung with 3 x 3 inch cast iron butts, and secured with mortice catches, with knobs and bolts of good quality; all other doors in first and second story to be hung with 3½ x 3½ loose joint butts, and secured with good 4 inch mortice lever locks with brass faces and bolts of style and quality, knobs and trimmings to be Tucker bronzed. All the doors to be made of first clear white pine, perfectly seasoned, and hung in a first-class workmanlike manner. All thresholds throughout the first and second story to be hard wood; put in base knobs where necessary, for doors to strike against.

INSIDE FINISH.

Casing for the doors and windows to be 7½ inches wide with band mould, base 10 inches wide, moulded on top, all to be made of first clear white pine, perfectly seasoned, and got out according to details. Halls wainscoted as aforesaid. Corner beads put on to protect the plastering where required.

STAIRS.

To be built according to plans, with hand rail balusters and newels; steps 1½ inch thick, oak or ash; risers ¾ inch thick, white pine; strings, 1½ and 1¼ inch pine; steps and risers tongued together and glued; front edge of the steps rounded and cored; the ends of the steps and risers housed into the wall strings and keyed. Rail 2½ by 4½ inches wide, and moulded; balusters 1¼ inch; newels 8x8 inches; all to be fancy turned; bases square. Rail, balusters and newels to be black walnut lumber, first quality and perfectly seasoned; outside strings to unite with ends of risers and finish with fillet; bottom of string finished with ½ returnbead to receive plastering.

Stairs to tower and roof to be box stairs, as shown, side finished, with narrow, ¾ inch matched ceiling; joints beaded and planed on both sides; door at bottom. Steps 1½ thick; risers ¾ thick; strings 1½ thick; front edge of steps rounded; lumber to be 2d clear white pine, well seasoned. Stairs to cellar finished on side with matched ceiling, planed and beaded on both sides, and capped with hand rail of oak; moulded steps, 1½ oak or ash; risers ¾ pine; front edges of steps rounded; steps and risers tongued and grooved together. All to be put in a good strong manner.

WATER CLOSETS.

Finished complete in the first and second story according to plan, the fronts and partition to be 7 feet high, made with first quality of white pine matched ceiling, planed and beaded on both sides; cap on top moulded. Doors made and hung as aforesaid. Do all the necessary carpenter work required for plumbing;

4

seats to have cover hung complete. All to be 1st clear white pine, well seasoned. Doors leading to water closets to have patent springs.

WASH ROOMS.

Finished with sinks and wash bowls; front of sink and wash stand to be ceiled up with narrow ceiling, joints beaded, each to have small doors under, hung complete; also one shelf each; do all the necessary carpenter work required for plumbing, as directed.

CLOSETS.

Inside of each closet finished with shelves, and a suitable number of clothes hooks, strongly screwed to wall strips, as directed.

Vaults to be furnished with all the necessary shelves, drawers and pigeon-holes required.

BALCONY.

Over front entrance, put up as shown on plan, strongly secured to brick wall; floor to be white pine, joints put together with white lead. Underside covered with narrow matched ceiling; lumber to be dry and clear pine.

IRON RAILING, &C.

Put up complete in a good and substantial manner around area ways to cellar, according to plan; railings to be wrought iron; posts let into stone coping and properly leaded.

VENTILATORS.

Set best patent lever, 8 x 12 and 10 x 14 inch black japanned ventilators, with double cords complete in each room where required, and put in as directed.

PAINTING.

All outside woodwork to have three good coats of lead and oil paint, color as directed; iron work, tin work and railing around areas and on tower, to have two good coats of lead and oil paint. Iron roof as aforesaid. Inside woodwork in cellar to have two coats of paint; in the first and second story and third story of tower to have three good coats of paint and one coat of strong shellac before applying the priming coat. Outside doors to main entrance, including vestibule doors, to be grained oak or walnut in oil and varnished. All to be done in the best workmanlike manner, and materials of the best quality. Hand rail, newels and balusters varnished three coats and rubbed smooth.

MANTELS.

Set up complete four marble mantels, with grates, two in each story, as shown, all to be of good style, and to cost not less than sixty dollars each, and subject to inspection.

PLUMBING.

Put up in second story, over water closet a large tank, lined with three pound sheet lead of suitable size, to contain ten barrels of water; tank to be made of good, sound, two-inch pine plank, front and ends panelled and put up in a good, strong substantial manner. Place in cellar, where directed, a good force and lift pump, of suitable size, to cost not less than twenty-five dollars, to draw water from well or cistern. Excavate and fill the ground, and carry an inch and a quarter section pipe to the well or cistern, within two feet of the bottom, with a large perforated termination; carry one and a quarter inch rising main to the tank, with a check valve just above the sink supply in first story, insert into the rising main just below the bottom of tank a finished brass cock. Put in a ¾ inch tell tale from the tank to pump, or sink in cellar or first story. Put in a one and a half inch overflow, connected with cistern or sink in cellar, as required.

SINKS.

Place in each story as shown, two sinks, lined with 4-pound sheet lead, supply them with cold water from tank with ½ inch lead pipes. Put in a socket strainer and plug of brass. The sink will be closed up beneath with doors as aforesaid.

WASH BASINS.

Set where shown on plans. White marbled overflow basins 14 inches in diameter; supply them with cold water through half inch pipes and three-eighth inch plated swing basin cocks, of suitable size and pattern. Put in an inch and a quarter waste, trapped, fitted with socket strainer and plug, and attach the plug with a plated metal chain. Put up one inch white marble slabs and backs, with moulded edges, the slabs to be counter sunk, the backs eight inches in height.

URINALS.

Set up complete where shown on plans first quality of porcelain urinals, of suitable size, with supply and waste.

5

BAY WINDOWS.

To be built according to plans and details. Roofs covered with I. C. roofing tin laid on dry common matched flooring; openings between window and rooms arched 12 inches; top of arch 10 inches below main ceiling. Jamb and soffit finished with large returned heads with turned base to match base mould in rooms. Windows to have panel backs moulded. Lumber to be 1st clear white pine perfectly seasoned.

DORMER WINDOWS.

Finished as shown on plans. Roofs covered with tin and shingles, the same as main roofs. Gables finished with finials of wood and wrought iron. Balustrade to be wood.

WINDOWS.

To be the same number and size as shown on plans. All the windows except in the cellars and small windows in the attics to be box frames, moulded outside; pulley stiles ¾ thick, head and sills 1½ inch thick, sash 1½ inch thick, hung with weights and best quality of hemp cord. Pulleys to be Tucker bronzed, of suitable size. All the sash to have first quality sash-fasteners to suit door trimmings in each room. All the sash to have first quality of English sheet glass, 26 oz., except for doors which is to be plate glass; that for cellar and small windows in partitions to be single thick French. The glass to be bedded, back-tacked and well puttied. Lumber for the window frames to be 2d clear white pine, perfectly seasoned, 1st clear white pine for the sash. Cellar frames to be made of 1½ inch pine, 2d clear; sash 1½ thick; all well seasoned.

BLINDS.

All the windows, except cellar windows, to have inside blinds made and hung complete, with brass butts and trimmings to suit door trimmings in each room; blinds to be ½ inch thick, four fold each, made in the usual manner; lumber to be 1st clear white pine, perfectly seasoned.

DOORS.

To be the same number and size shown on plans. Vestibule and front doors made according to plans, 2½ inch thick; sliding and folding doors double thickness, of 1½ inch each, when finished to be 2½ inch thick, moulded on both sides and raised panels. All sliding doors hung at the top with patent hangings of best quality. Front and vestibule doors to be hung with 4½ x 4½ inch bronze metal butts, best quality; three butts to each door; folding doors to be hung in the same manner with 4 x 4 inch bronze butts; front and vestibule doors to have first quality of locks and trimmings of bronze metal, P. & F. Corbin's make, No. 0246½ and 0240½ for front and vestibule doors; knobs with rose and escutcheons, No. 2663, as shown in catalogue 1878; bolts for top and bottom to be bronze flush bolts with knob stops, the same style as No. 2547½ and No. 2549; solid bronze metal bolts for folding doors in captain's quarters to be flush brass bolts 6 and 8 inches long; sliding door locks to be astragal front, bronze metal, same style as No. 0295, No. 0675 bronze caps, escutcheons and pulls, nickel plated folding keys; folding doors for field officers' quarters to be like style No. 0275, solid bronze metal, nickel plated keys, bolts 6 and 8 inches, flush bolts bronze metal; knob and rose, bronze metal, same style as No. 2519½; escutcheons like No. 2629—bronze metal. All the knobs and escutcheons for the parlor, sitting room, dining room and halls single doors. For field officers and captain's quarters to be the same as No. 2519½ and No. 2629—bronze metal. All the locks for single doors in the first story of each building to be 4 x 3½ and 3½ inch, brass fronts, strikes, bolts and hubs, 2 tumblers, nickel-plated steel bit keys; mortise knob locks easy spring. Locks for 2d story of each building to be 4 x 3½ inch—the same style and quality as in the first story; use the same quality for kitchen, 1st and 2d story. All the single doors in dining room, library and halls in first story of the Com. Gen. quarters to have solid bronze metal rose and escutcheons like No. 2641½, and knobs No. 2519 of the same. All doors in the second story, main part of each building to be hung complete with 4 x 4 inch Tucker bronzed butts, best quality; kitchen parts, first and second story, 3½ x 3½ inch best wrought iron butts; the outside, rear and side doors to be hung with 4 x 4 inch Tucker bronzed butts, three to each door. Bronze knobs and trimmings for side doors, and Tucker bronzed knobs and trimmings for rear kitchen doors. All outside doors to have good brass and bronze bolts. Knobs and trimmings for kitchen parts in first and second story to be black knobs and bronze metal roses and escutcheons. All the doors in the second story of each building (main part) to be bronze knobs and trimmings like style No. 2517, and drop escutcheons for one side like 2129, and one side like style No. 2191—bronze plate. All single doors in first story main buildings to be hung with 4 x 4½ inch bronze metal butts, three to each door, like style No. 2, for doors in Com. Gen. quarters, and Tucker bronzed butts for captain and field officers' quarters, like style No. 0. Bell pull for captain's quarters to be bronze metal, like style No. 2647. Bell pull for field officers' quarters like style No. 2649—bronze metal. Bell pull for Com. Gen. quarters like style No. 2154—bronze metal. Bell pulls for all side doors to be like style No. 2617—bronze metal; all Corbin's make. All the doors to have four panels each, except outside doors, main entrance, which will be according to plans; also large sliding doors; those to have

4

six panels each, three wide. All to be 1½ inches thick except sliding and folding doors as aforesaid—2½ thick. Doors in first story, main building, to be moulded on both sides and raised panels. All other doors to have moulded stiles and rails, and raised panels on both sides. Small cupboard doors 1½ inch thick. Inside cellar doors plain panel doors 1½ thick, hung complete and secured with good rim locks with knobs and keys. Outside cellar doors to be batten doors made of first quality of matched flooring planed on both sides and hung with good strong iron hinges and secured with good iron hooks and bolts. All panel doors to be made of the best quality of white pine, perfectly seasoned and clear, free from sap and other defects. Sash, doors and head-lights hung complete where shown.

INSIDE FINISH.

Casings for doors and windows in each building to be of first clear white pine, free from sap, rot and other defects, and must be perfectly seasoned, made and put up according to details. Base put down in all the rooms and halls in each story according to detail drawings. Kitchens, pantries, store rooms, bath rooms, water closets, back halls and stair-ways first and second story to be wainscoted with narrow matched and beaded white pine ceiling ½ inch thick, first quality, capped with round and cores, and finish about four feet high, except bath rooms, which will be five feet high. Corner beads put on where directed to protect the plastering.

STAIRS.

To be built as shown on plans for each building. Main stair-ways in first story to have black walnut rails, newels and balusters; rails 2½ x 4 inches, moulded; newels 6 x 6 and 8 x 8 inches square and octagon shafts, moulded bases and necks; balusters 1¼ and 2 inches, fancy turned; steps to be 1½ inches thick, risers ¾ inches thick, tongued and grooved to each other; front edges of steps rounded and cored and returned on strings, and finished with fancy cut bracket and fillet; the ends of the steps and risers let into wall strings and keyed; strings to be 1½ inches and 1½ inches thick, front strings moulded; bottom finished with a ½ returned bead to receive plastering. All to be put up in a first-class workmanlike manner, and lumber to be first clear white pine perfectly seasoned. Back stairs to be boxed as shown. Steps 1½ inches thick, risers ¾ inch thick; front edge rounded and cored; steps and risers tongued and grooved to each other and glued; the ends of steps and risers let into strings and keyed. Strings 1½ inches thick, landing on second floors, finished with hand rail; balusters and newels of oak or butternut lumber, first quality; newels 6 x 6 inches, balusters 1½ inch. All neatly turned rails moulded 2½ x 3 inches.

Attic stairs to be done in the same manner, and finished with rails, balusters and newels, in attic as shown. Back stairs for Comd. Genl.'s quarters built according to plans, with newel rail and balusters in first story. Lumber to be clear white pine for step risers and strings. Cellar stairs to be put up plain with 1½ inch steps, and ¾ inch risers, front edge of step rounded. Strings 1¼ inch, finished on sides with pine rails and posts, all to be planed and posts cornered; lumber to be 2d clear pine well seasoned. Stairs to tower and roofs, steps and risers ¾ inch thick, pine rail, all put up in a good workmanlike manner; lumber to be 2d clear white pine well seasoned. Outside steps to porches, &c., to be first quality of white oak, perfectly seasoned, front edges rounded and cored, steps 1½ inches thick, risers white pine, ¾ inch thick, strings to be two inches thick pine, all to rest on good solid stone foundation, and put up in a first-class manner.

Inside of attics on side walls to be covered with dry common matched flooring, from floor to under side of roof boards.

PORCHES.

Put up complete as shown on plans and details. Roofs covered with I. C. roofing tin laid on dry common matched flooring. Floors to be narrow matched white pine flooring, free from sap, &c. Joints put together with white lead and blind nailed. The under side of ceilings to be covered with narrow matched and beaded white pine ceiling ½ inch thick; all must be perfectly seasoned and first clear. Cornice, posts, &c., to be 2d clear white pine, well seasoned. Columns for drive way to rest on cut stone base blocks as shown. Put up complete all the necessary tin conductors to convey the water from the roofs to the ground or cisterns, through two inch pipe as required. Make the roofs perfectly water tight with tin flashing laid in brick work.

STORE ROOMS.

Finished with wide shelves, bins and drawers, of suitable size and number required and directed. Lumber to be good sound pine, seasoned.

PANTRYS.

Each to be finished complete with shelves, drawers, meal drawers, &c., required, and fit up as directed. All must be done in a first-class manner.

CHINA CLOSETS.

To have shelves and drawers put in as directed and required. All to be done in a first-class workmanlike manner. Lumber to be of good quality and seasoned.

5

SOIL PIPES

To be six inches cast iron, put up complete; joints leaded; traps where required in cellar. Also the necessary vents; all the proper connections made with water closets and cess-pool.

WATER CLOSETS.

Provide and fit up complete, all the water closets as shown on plans, in proper working order; best patent pan valve water closets with large marbled bowls, supplied with cold water through five-eighth inch pipe; to have plated caps and porcelain pulls; put in four inch patent cast lead S from traps properly connected with soil pipe aforesaid; attach an inch pipe of lead or iron just below the soil pipe trap, and above all waste pipes that connect with soil pipe; carry it to the ventilation flue as shown. (Prevent all traps from being sucked dry.)

SAFES.—All water closets and wash basins to be properly safed, with thin bound sheet lead, and waste pipes connected in a proper manner.

PIPES.—All pipes, except soil pipes aforesaid, to be the best quality of lead pipes, strong, and extra strong, where necessary. Waste pipes, light lead. Put up all piping with best hard metal tacks and screws. Connect and supply all basins, water closets, tank, and sink, &c., with all the proper pipes require, and complete the plumbing work in a first-class workmanlike manner.

FINALLY.

The contractor shall furnish all the materials of every kind required in the construction of the building, and which are to be of the best quality, and all the work to be done in a substantial, neat and workmanlike manner, according to these plans and specifications, and according to the full intent and meaning of the same. And if any omission appears to have been made, of work to be done or materials provided, which is evidently an omission, and is essential to a building of this class and character, then the contractor is to perform the same as if fully detailed in this specification and the working drawings. No extra work is to be charged for but such as is agreed upon, and an order given in writing to the contractor. The materials and work to be subject, at all times, to the decision and direction of the architect or superintendent in charge, acting under the orders of the Chief Quartermaster of the Department of Dakota.

CLOTHES CLOSETS.

Each to be fitted up complete with shelves and all the necessary iron hooks strongly screwed to wall strips. Small closets shelved as required. Base knobs of hard wood with rubber tips put on where necessary to protect the plastering.

BATH ROOMS.

All the bath rooms finished according to plans, with tanks to contain six barrels of water each; inside to be lined with sheet lead; tank to be made of 1½ inch white pine placed over bath tubs or as directed. All must be strongly secured to ceiling and side walls with iron rods, &c. Front of tanks to be paneled. Water closet seats to have double covers hung complete, fronts paneled. Fronts of bath tubs and wash bowl stands also paneled. All to be done with black walnut lumber, first quality. Water closet under back hall stairs in first story of the Com. Gen. quarters to be finished up complete in the same manner. Do all the necessary wood work required for plumbing as directed.

SINKS.

Set up complete in each kitchen and one in butler's pantry of Com. Gen. quarters as shown on plans; inside lined with sheet lead. All sinks finished with shelves and enclosed with small panel doors, hung with butts and secured with good Tucker bronzed catches. Sinks to be made of 1½ inch white pine lumber, first quality and well seasoned. Do all the necessary carpenter work for plumbing.

BELLS AND SPEAKING TUBES.

Provide and properly hang in the kitchens, on a board, edges moulded, all the necessary bells to connect with various rooms in first and second story; also hang in each kitchen, or as directed, a six inch gong bell; connect with hall doors—front and side. All bells must be substantially and tightly attached with copper wire carried in quarter inch tubes—the tubes placed on the lathing before any plaster is put on—and have all requisite and sufficient turns, springs, pull-backs, &c. All lever pulls, &c., to be white or silver-plated when required. Speaking tubes to be made of tin, put in in the usual manner; all the proper connections with the various rooms required; mouth pieces of bronze metal, of good style.

PAINTING.

All outside woodwork, including shingle roofs, to have three good coats of lead and oil paint. Iron work and tin work to have two good coats of paint. Inside wood work to be painted as follows, to wit: attic and cellar to have two coats of paint; all the main halls in first and second story of each building, dining rooms and library in Com. Gen. quarters painted three good coats, and one coat of strong shellac before applying the priming coat; then grained, oak or walnut in oil and varnished; the outside main entrance doors and vestibules painted in the same manner and grained. French walnut in oil and varnished—two good coats of coach varnish of the best quality. The side entrance doors done in the same manner. The kitchens, pantries, store rooms, back halls, first and second story and stairs, bath rooms and water closets grained oak and varnished on two good coats of lead and oil paint and one good strong coat of shellac. Parlors and sitting rooms of each building to have four good coats of paint and one of shellac; the last coat finished with pure spirits of turpentine. Closets to have three coats of paint. All the wood work in the second story main part of each building to have one good coat of shellac and three good coats of lead and oil paint; last coat finished with pure spirits of turpentine. Second story kitchen parts of each building to have three good coats of lead and oil paint. Color for the outside wood work to be a light drab or French gray. Sash to be a dark bottle-green, putty black. Balance of the work color as directed. Inside color to be white, light French gray and light buff, or as directed. Inside blinds painted one coat of shellac and three good coats of lead and oil paint. Hand rails, balusters and newels in each building, main stair ways to be oiled, finished in the very best manner, and rails polished. Rails, balusters and newels for back stairs to be varnished—three good coats—and rubbed smooth. Hard wood finish in bath rooms, and water closets to be oiled finished. All sash and sash doors to be well glazed with best quality of 26 oz. English glass, as aforesaid. All the material to be of the very best quality and the work done in a first-class workmanlike manner. Vestibule doors to have polished plate glass, best quality.

MARBLE MANTELS.

Set up complete where shown on plans, good marble mantels of good style, with low down grates for the first story. The mantels for the first story of the Comd. Genl.'s quarters to cost not less than seventy-five dollars each, and mantels for second story to cost not less than sixty dollars each. For field officers' and captains' quarters, to cost not less than sixty dollars each, for first story. All of said mantels to be subject to inspection, as may be required by the Chief Quartermaster of the Department.

GAS PIPES.

Pipe each building with best wrought iron gas pipe of the various sizes required, and use best malleable

6

iron fittings; secure all the piping substantially in its place; joint it in red lead, and supply all necessary elbows, Ts, etc., and test and cap the pipe after it shall have been put in. Avoid all undue cutting of floor joist. The location of burners to be where directed in cellars, first story, second story, and attics. No fixtures included in the contract.

PLUMBING.

Soil pipe to be four inch cast iron, joints leaded, all the proper connections made with cess-pools and water closets, &c., in each building, as shown on plans. Put in all the necessary traps and branches to connect with sinks, &c. Attach one inch pipe of lead, or iron, just below each soil pipe traps and above all waste pipes that connect with soil pipes, carry them to the ventilation flues as shown. (Prevent all traps from being sucked dry.)

WATER CLOSETS

Provide and fit up complete, all the water closets as shown on plans, in proper working order; best patent pan valve water closets with large marbled bowls, supplied with cold water through half inch pipes; to have plated cups and porcelain pulls; put in four inch patent cast lead S from traps properly connected with soil pipe aforesaid.

SAFES.—All water closets and wash basins to be properly safed, with three pound sheet lead, and waste pipes connected in a proper manner.

TANK.—Put up complete, in each building, tanks to contain six barrels of water each, and line the inside with four pound sheet lead.

WASH BASINS.

Set complete where shown on plans, white marbled overflow basins 14 inches in diameter; supply them with cold water from tanks through half inch pipes and three-eighth inch plated swing basin cocks, of suitable size and good pattern. Put in an inch and a quarter waste, trapped, fitted with socket strainers and plugs, and attach the plugs with plated metal chains. Put up one inch thick white marble slabs and backs, with moulded edges, the slabs to be counter-sunk and backs eight inches in height. All waste pipes to have traps and trap screws.

BATH TUBS.

Place in each bath room one 12 oz. planished copper bath tub, as shown on plans; to have Fuller's No. 1 silver-plated combination bath brackets for hot and cold water complete. Plugs and chains to be silver-plated. Make all the proper connections with tanks and hot water boilers in kitchens. Waste pipes to be 1½ inches, the same for overflow. All waste pipes trapped before entering soil pipes.

SINKS.

Put up complete in each kitchen and one in the butler's pantry of the Com. Gen. quarters; insides to be lined with four pound sheet lead; waste pipes to be 1½ inches, traps and trap screws to each, and properly connected with soil pipes. Supply each sink with hot and cold water from tank, cistern pump and boiler. Hot and cold water cocks to be Fuller's patent brass finished, No. 68 bibb cocks. Place on sinks or where directed a good force and lift pump to connect with cisterns, tanks and sinks. Pumps to cost \$20.00 each.

BOILERS.

Set up in each kitchen 30 gallon galvanized iron boiler on cast iron standard, and a 40 gallon boiler in the kitchen for Com. Gen. quarters. Connect the boilers and the water backs with three-quarter inch pipe, and place a three-quarter inch finished brass lever sediment cock at bottom; connect with the sink waste with five-eighth inch pipe. Put in two three-quarter inch finished brass lever cocks over the boilers to shut off the water from above in each house. Connect the boilers and the rising mains with three-quarter inch pipes with tanks, &c. Insert into the rising mains, just below the bottom of tanks, a finished brass cock. Put in ½ inch tell-tale from the tanks to sinks. Put in 1½ inch overflow; connect with cisterns in cellars or as required.

SLOP SINK.

Put in complete in each kitchen or where directed 17 x 22 inch sinks with bell traps and 2 inch waste pipes properly connected with soil pipes or drain.

PIPES.

All pipes except soil pipes to be the best quality of lead pipes, strong, and extra strong where necessary; waste pipes light lead. Put up all piping with best hard metal tacks and screws. Connect and supply all basins, water closets, tanks, sinks, boilers and bath tubs, &c., with all the proper pipes and cocks required, and the size of same. Complete the plumbing work in a first-class workmanlike manner.

Sewer pipes put in as aforesaid properly connected with cess-pools and soil pipes.

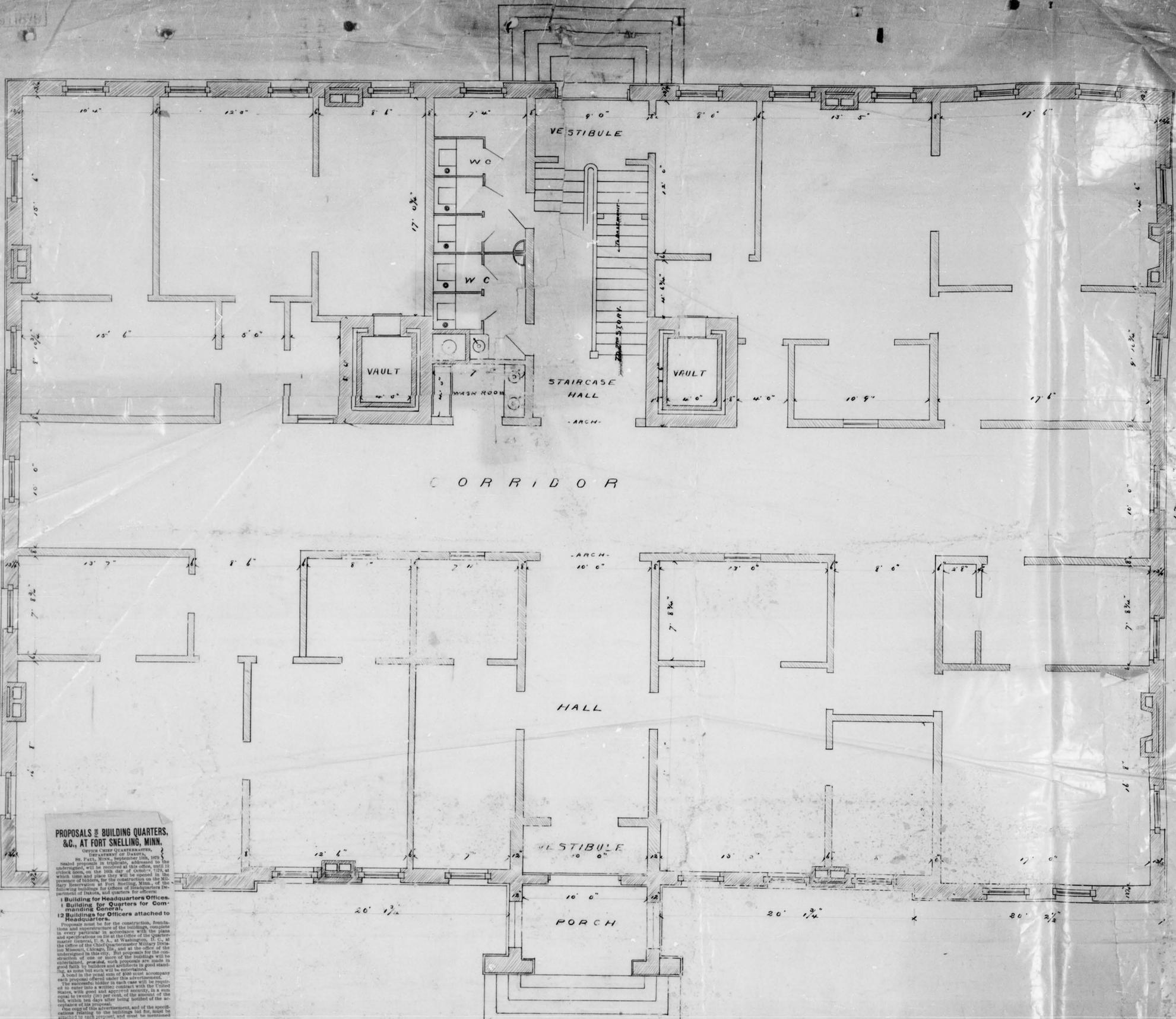
VENTILATORS AND REGISTERS.

Set best patent lever 8 x 12 and 10 x 14 inch black japanned and enameled ventilators with double cords complete in each room required. Registers set as directed.

7

FINALLY.

The contractor shall furnish all the materials of every kind required in the construction of the buildings, aforesaid, and which are to be of the best quality, and all the work done in a substantial, neat and workman-like manner, according to these plans and specifications, and according to the full intent and meaning of the same. And if any omission appears to have been made, of work to be done or materials provided, which is evidently an omission, and is essential to buildings of this class and character, then the contractor is to perform the same as if fully detailed in this specification and the working drawings. No extra work is to be charged for but such as is agreed upon, and an order given in writing to the contractor. The materials and work to be subject, at all times, to the decision and direction of the architect or superintendent in charge, acting under the orders of the Chief Quartermaster of the Department of Dakota.



PROPOSALS FOR BUILDING QUARTERS, &C., AT FORT SNELLING, MINN.

OFFICE CHIEF QUARTERMASTER, DEPARTMENT OF DAKOTA, 1877

Sealed proposals, to be addressed to the undersigned, will be received at the office until 10 o'clock a.m., on the 15th day of October, 1877, at which time and place they will be opened in the presence of bidders, for the construction of the Military Reservation at Fort Snelling, Minn., of the following buildings for offices of Headquarters Department of Dakota, and quarters for officers:

1 Building for Headquarters Offices.

2 Buildings for Officers attached to Headquarters.

Proposals must be for the construction, foundation and superstructure of the buildings, complete in every particular to accordance with the plans and specifications on file at the office of the Quartermaster General, U. S. A., at Washington, D. C., at the office of the Chief Quartermaster Military Division Museum, Chicago, Ill., and at the office of the undersigned in this city. But proposals for the construction of one or more of the buildings will be considered, provided, such proposals are made in good faith by bidders and architects in good standing, and the work will be executed.

A bond in the total sum of \$500 must accompany each proposal offered under the advertisement.

The successful bidder in each case will be required to enter into a written contract with the United States, with good and approved security, as a condition to be ready on the 1st day of the month of the contract to be completed within the limit of the contract, within ten days after the date of the award of the contract.

The sum of the advertisement, and of the specifications relating to the buildings bid for, must be returned to the undersigned, and must be retained as a part of the contract.

The contract for this work will be awarded by the Department Commander.

The United States reserves the right to reject any or all proposals offered.

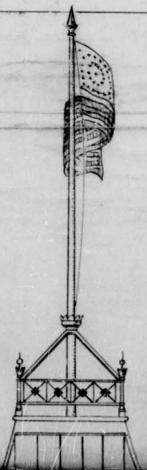
The proposals must be enclosed in sealed envelopes, marked with the building quarters, etc., at Fort Snelling, Minn., and addressed to the undersigned.

CHAS. H. TOMPKINS,
Deputy Quartermaster General, U. S. A.,
Chief Quartermaster.

3761-00-1879

No. 1
Office Building for Head Qrs Dept of Dakota.
Fort Snelling Minn.
Scale 4 feet to 1 inch

Estimated Cost \$21,538⁰⁰

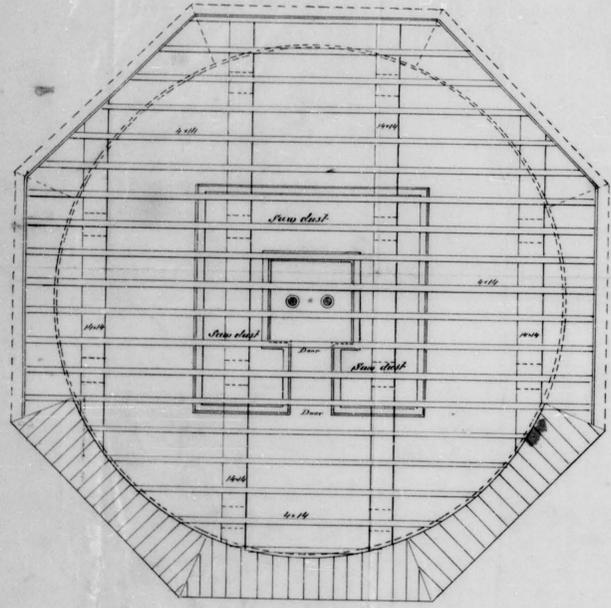


FIRST FLOOR PLAN

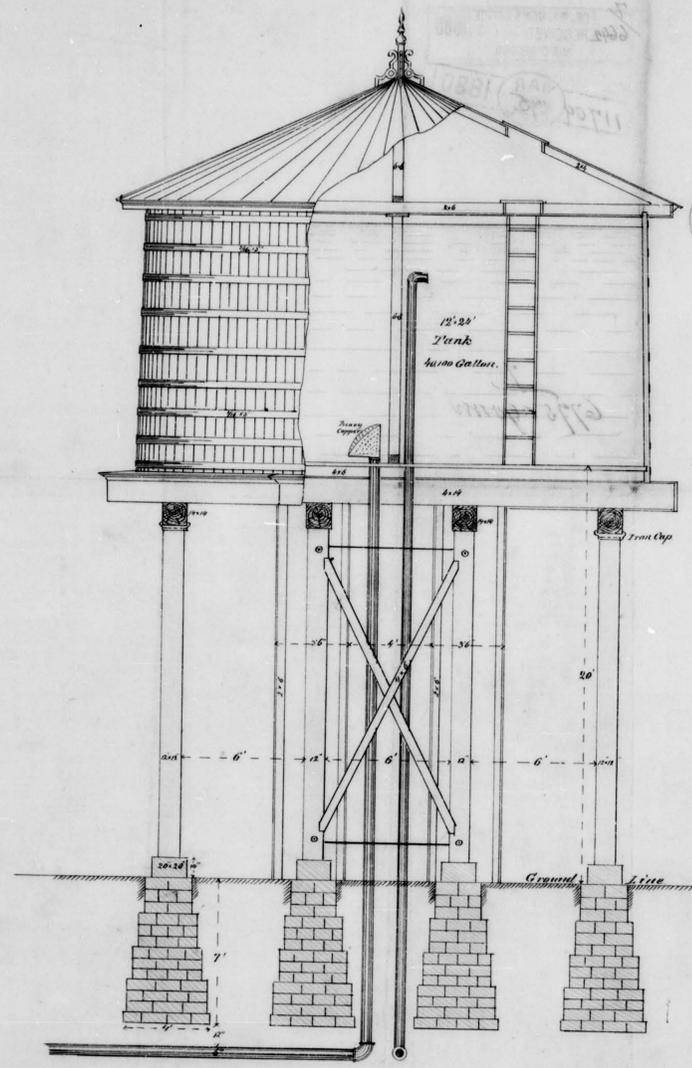
W. O. Department of Dakota
Office Chief Quartermaster
Fort Snelling, Minn. June 6th 1877
Respectfully submitted
Chas. H. Tompkins
Deputy Quartermaster General, U. S. A.
Chief Quartermaster

W. O. Department of Dakota
Office Chief Quartermaster
Fort Snelling, Minn. June 6th 1877

Minn.
 off
 Frost Proof Tank
 for
 Water works at Ft Snelling
 Minn.
 Scale: 4 ft to 1 in.

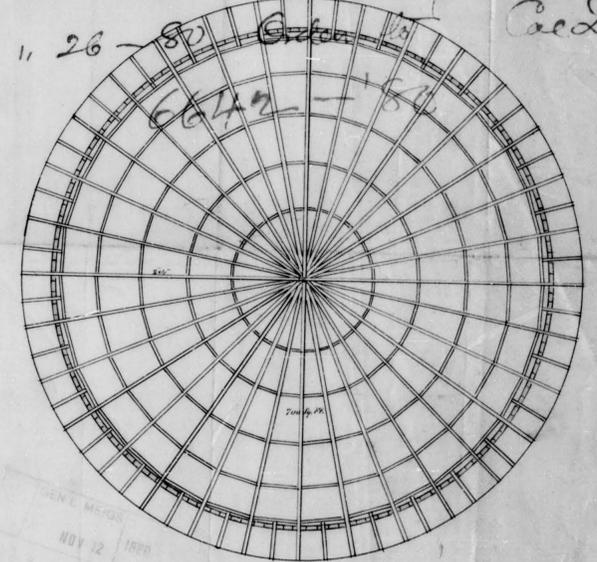


Plan of Support.



Elevation & Section.

4 tracings showing proposed
 Water works at
 Fort Snelling Minn
 Estimated cost \$15,750
 Nov-20-80 Approved by Sec^y of War
 11-26-80 Order of



Plan of Roof.

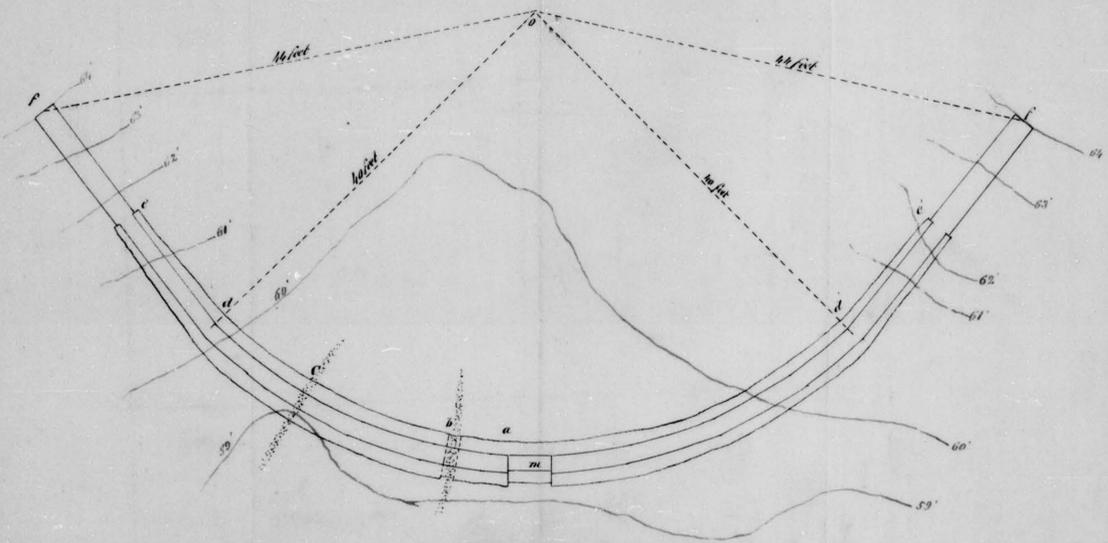
Office Chief Quartermaster
 Department of Dakota
 St Paul Minn Oct. 19, 1880

Respectfully submitted of
 Wm. H. Perry
 Deputy Chief Quartermaster
 Tracing # 4

45
 26

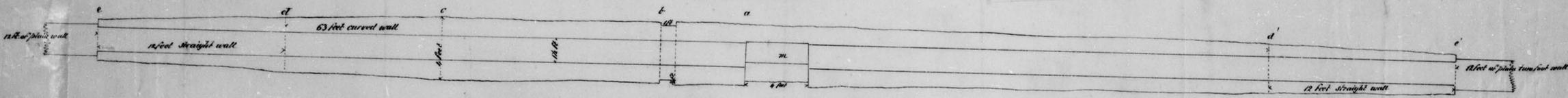
RESERVOIR DAM GROUND PLAN

Scale 8 feet to one inch



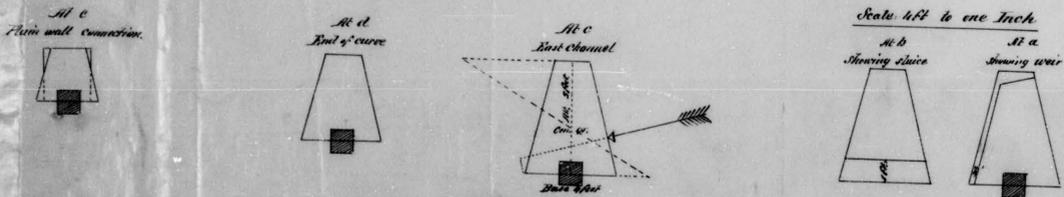
DEVELOPMENT of GROUND PLAN

Scale 4 feet to one inch



VERTICAL SECTIONS

Scale 1/2 foot to one inch



NOTE

The dam is symmetrical with respect to points o and m.
o is situated 31 feet from centre of spring and 142.5 feet from line from spring to tank.
m 4

No. 3.
+ bridge during process
Water Works at
Sok Sullung
Mun
Estimated cost \$10,750
Nov 20-80 App'd by Sec of War
" 26-80 Order to Procure ally
6642

80

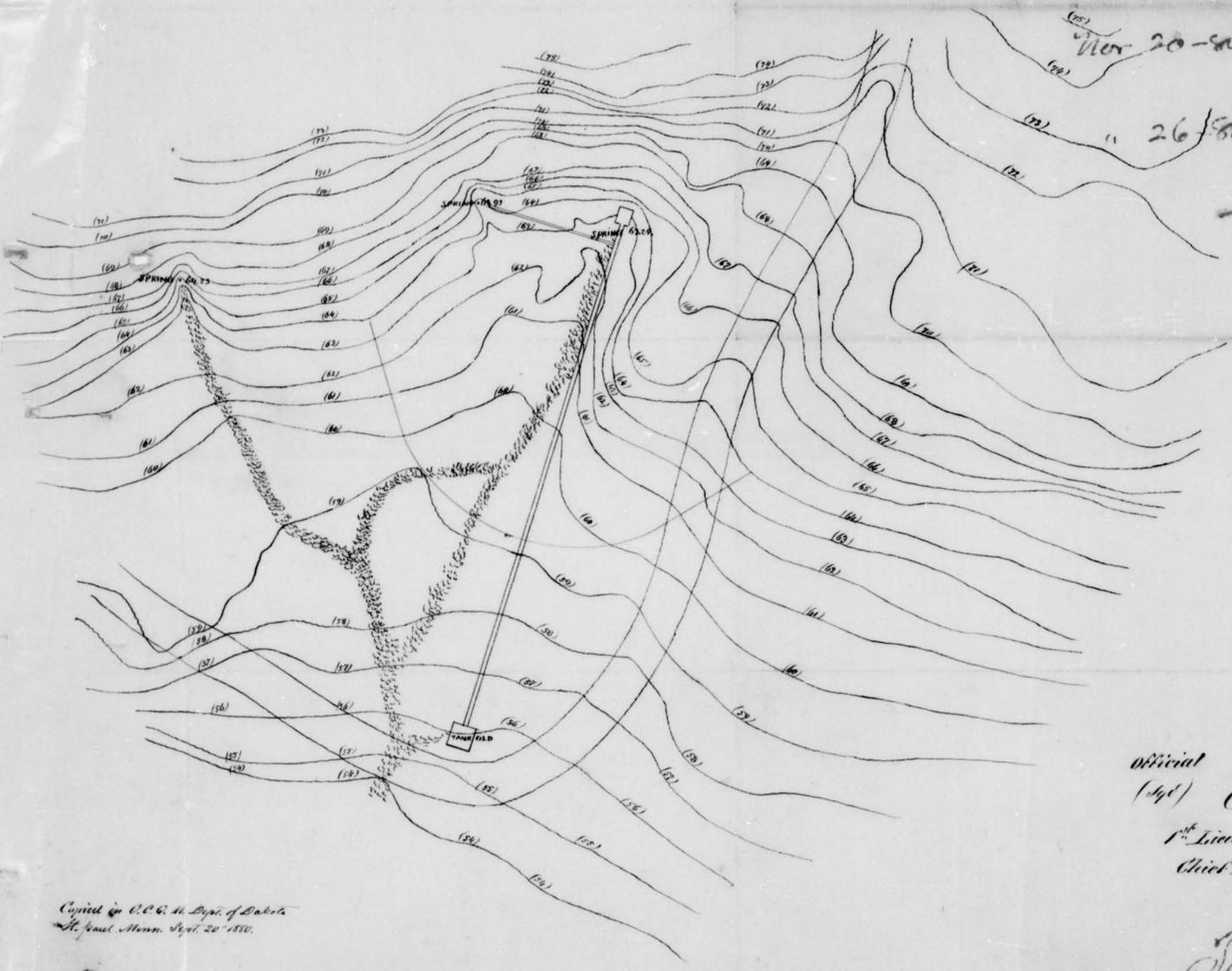
Official
(Sgt) Edw. Maguire
1st Lieut Corps of Engineers, USA
Chief Engineer Dept. of War
L. 3 27

Copyright in U.S.A. Dept. of War
at New Haven April 20 1880

MAP
 Showing location of
 SPRING and DAM
 Scale 20 feet to an inch.
 No. 2

H. Tracing showing
 proposed Water Works
 at
 Fort Snelling, Minn
 Est. Cost \$15,700

Nov 20-50 Auth'd by
 Sec of War
 " 26/50 Order to the Field
 6642
 180



Official
 (41) Chas. Maguire
 1st Lieut Corps of Engineers U.S.A.
 Chief Engineer Dept. of Dakota.

Tracing 2

Copied in C.C.G. of Dept. of Dakota
 St. Paul, Minn. Sept. 20, 1880.

DEPT. OF THE ARMY
ENGINEERING DIVISION
WASHINGTON, D.C.

No 1

Official
1st Lt. Col. E. A. Maguire
Chief Engineer, Dept. of Dakota.



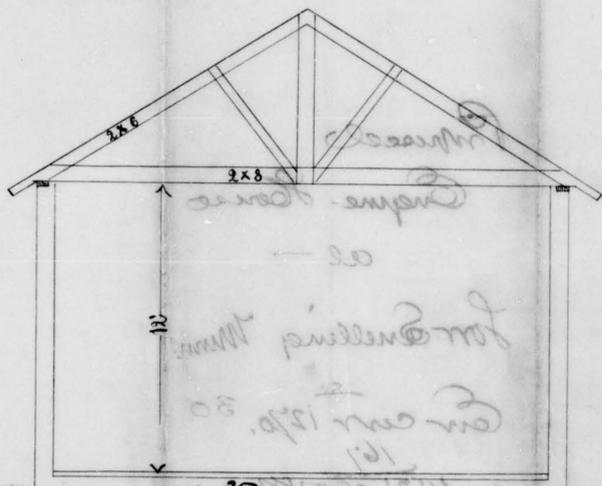
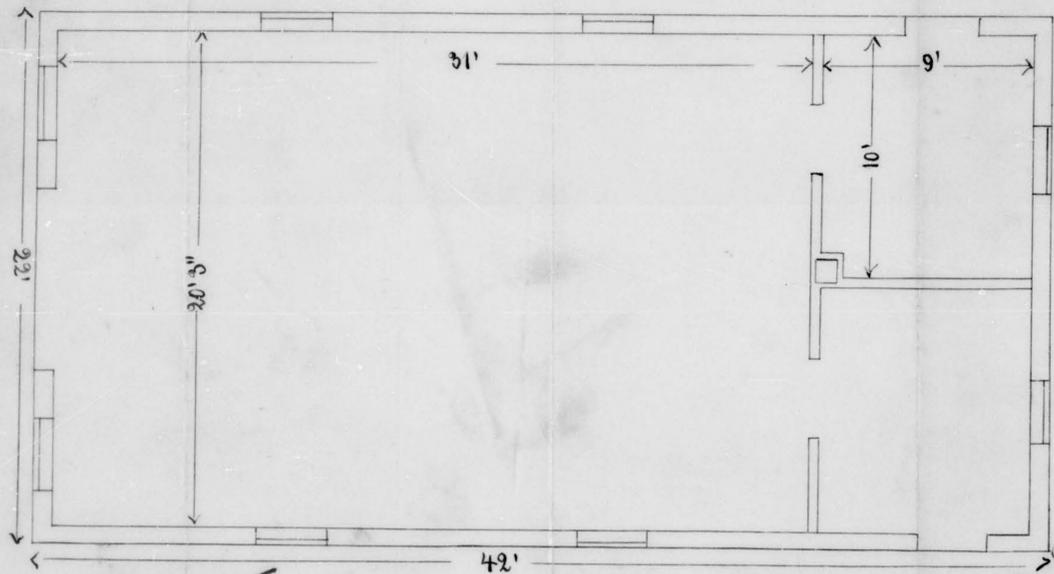
4 tracings showing proposed
Water Works at
Fort Snelling Minn
Est. cost \$15,750

Map of Site
Headquarters Dept. of Dakota.
Showing proposed location of
Water Main
1880
Scale 400 ft. to an inch.

6642-400
Dr 29
Tracing 1

Copied in U.C. & M. Dept. of Dakota
1875. First. Minn. Sept. 21. 1880.

Engine House
 Fort Snelling Minn
 Estimate 1880-81.

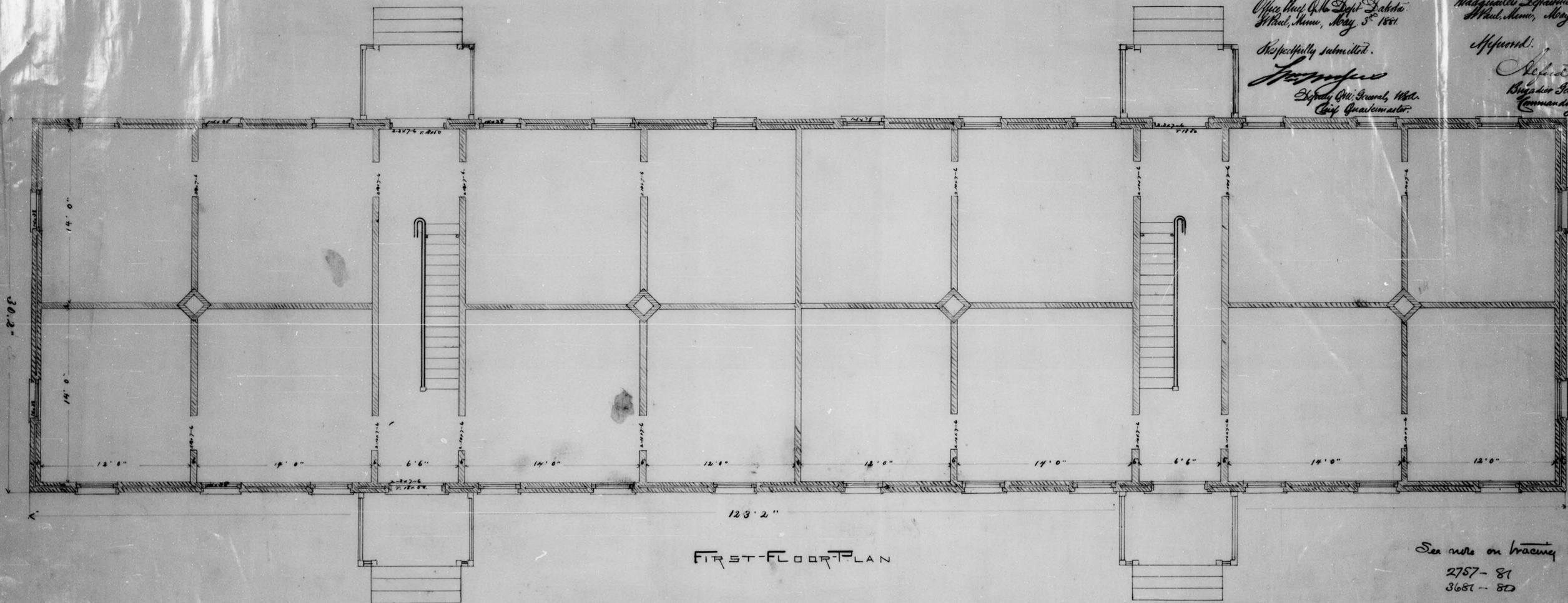


Approved
John Gibbon
 Col. 7th Infantry.
 Commanding

Office A.A.G.M.
 Fort Snelling, Minn.
 January 31 1880.

Estimate of cost
 Aug 10-81
 4203
 81
 Respectfully submitted
[Signature]
 1st Lieut. Infantry
 A.A.G.M.

31



FIRST FLOOR PLAN

Office Bldg. Q. No. 20th Dakota.
 Ft. Paul, Mont., May 3rd 1881.
 Respectfully submitted,
W. H. Jones
 Deputy Q. M. General, 1881.
 Camp Quartermaster.

Headquarters Department Dakota.
 Ft. Paul, Mont., May 3rd 1881.
 Approved:
Richard L. Tracy
 Brigadier General, 1881.
 Commanding Department.

See note on tracing 1
 2757-81
 3687-80

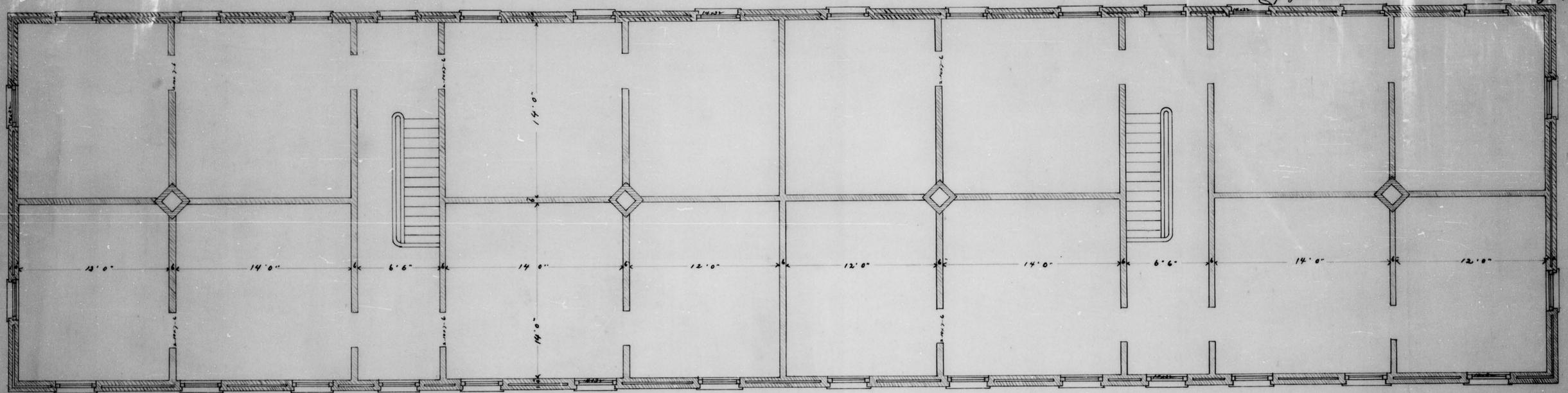
#3

Office Chief Clerk Dept Dakota.
Wash, D.C., May 3rd 1887.

Respectfully submitted,
[Signature]
Special Wagon, Wyoming
Chief Quartermaster.

Headquarters Department Dakota.
Wash, D.C., May 3rd 1887.

Approved:
[Signature]
Inspector General, Wyoming
Commanding Department.



SECOND FLOOR PLAN

See note on tracing 1
2757-81
3687-80

4

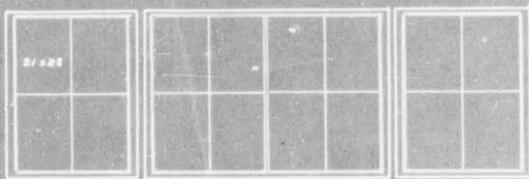
PROPOSED ADDITION

to
Hospital at Fort Snelling, Minnesota.

for OPERATING ROOM.

G. M. OFFICE, ARCHITECTS, 804, 1891.

One Sky light, 20' x 16', 6 lights.

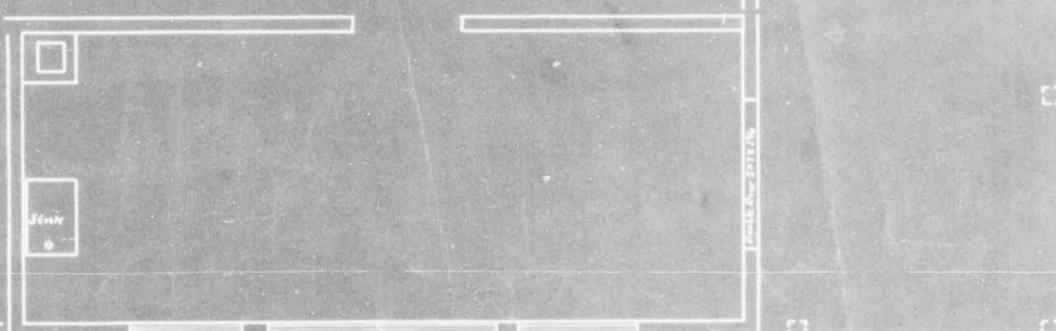


Section of Chimney
1/4

ELEVATION 1/4

EAST WARD.

SERVICE
ROOM.



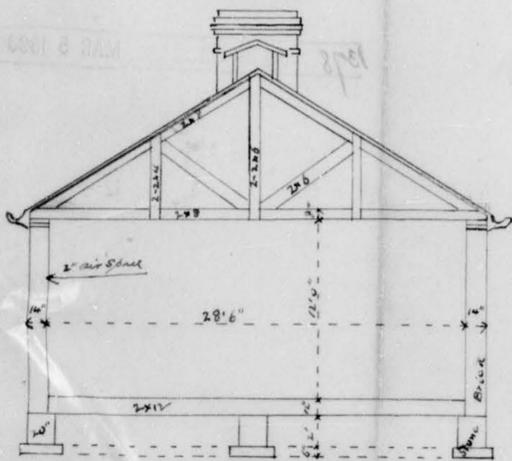
Section of Centre Window.
1/2

PLAN 1/4

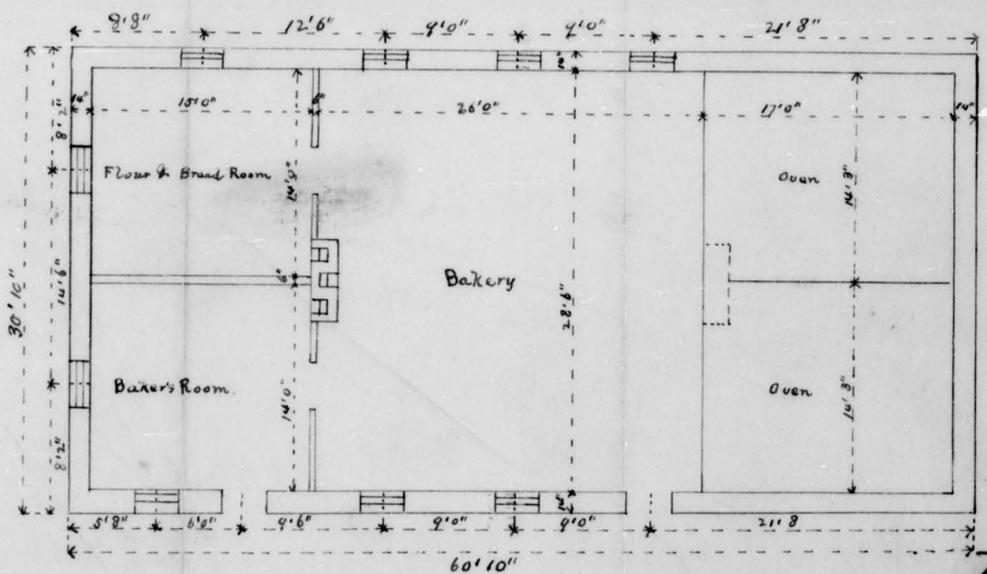
Plan of Bakery
at
Fort Snelling, Minnesota
Scale 1/8 in = 1 foot.



Front Elevation



Cross Section

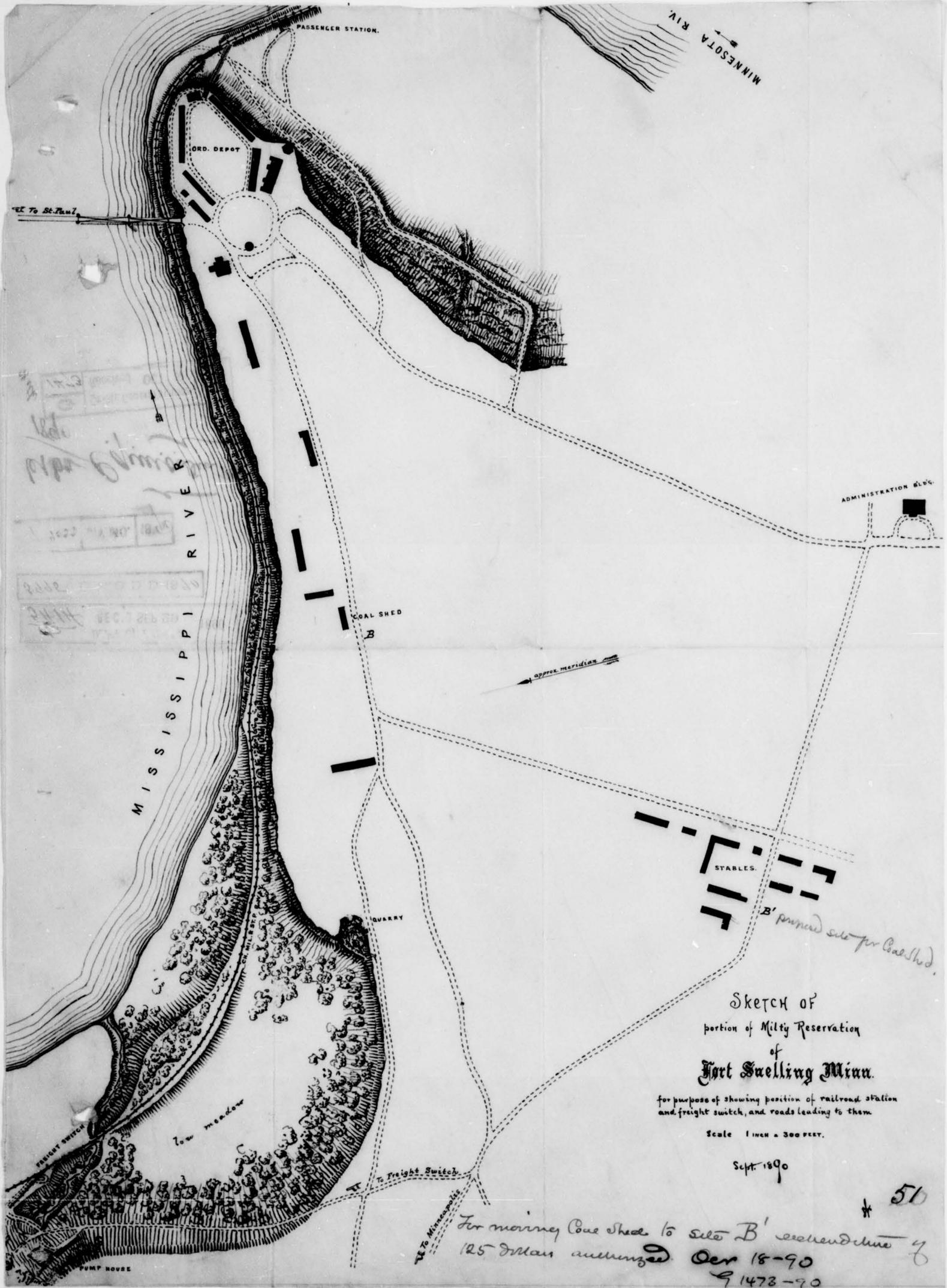


Ground Plan

Estimated cost - 2592. Oct-90 authorized by Sec'y War.

50

502
90



Sketch of
 portion of Miltiy Reservation
 of
Fort Snelling Minn.

for purpose of showing position of railroad station
 and freight switch, and roads leading to them
 Scale 1 inch = 300 feet.

Sept. 1890

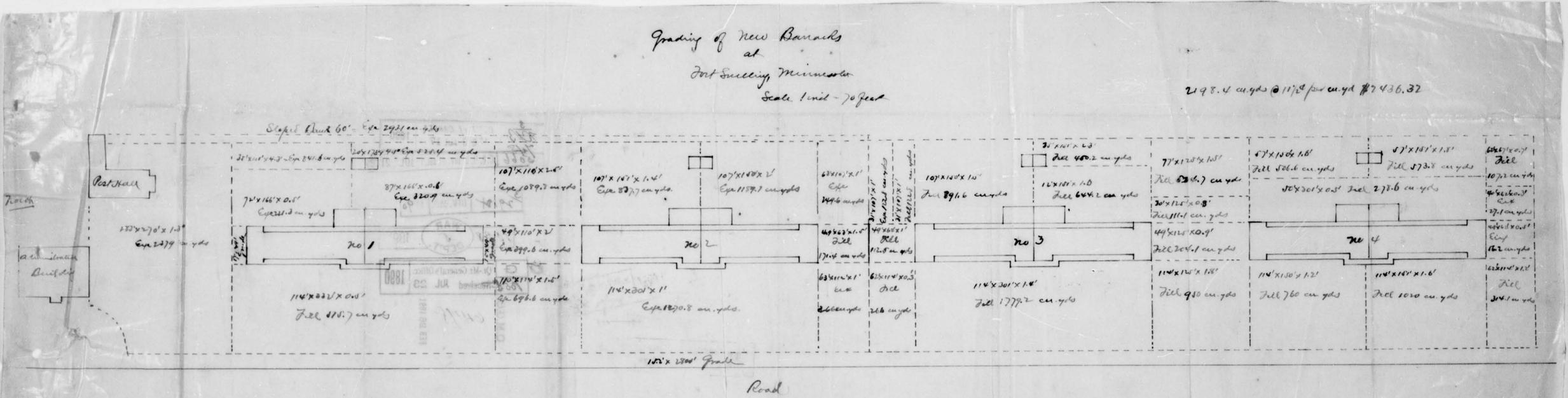
* 50

For moving Coal Shed to site B' expenditure of
 125 Dollars authorized Dec 18-90
 91473-90

Handwritten notes:
 1892
 1893
 1894
 1895
 1896
 1897
 1898
 1899
 1900

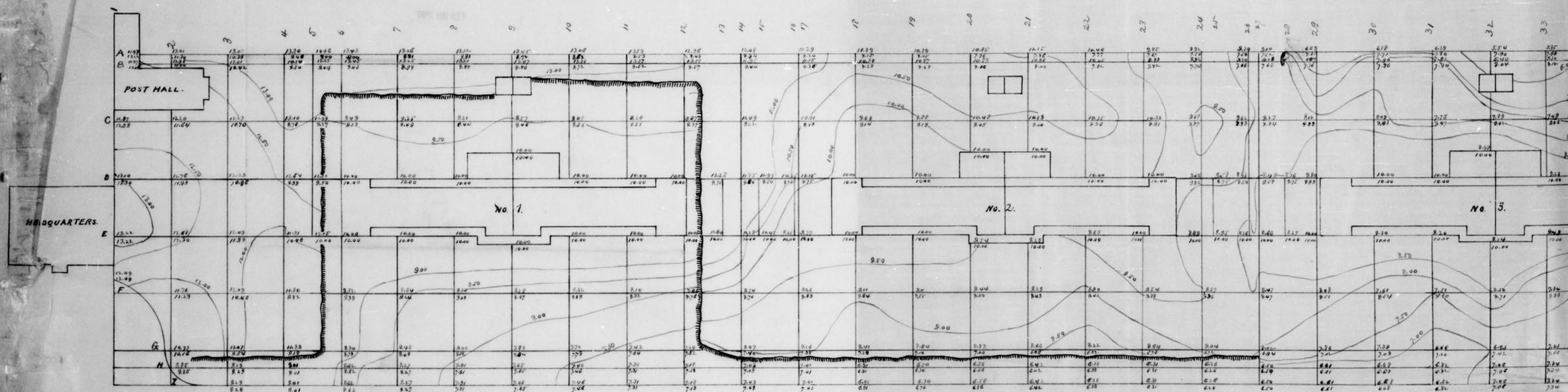
Grading of New Barracks
at
Fort Snelling, Minnesota
Scale 1 in. = 70 feet

2198.4 cu yds @ 11 1/2¢ per cu yd \$252.80



Notes:
 1. All in front of barracks to be from top of coping of area, windows to top of eave line at road, except at south half of No 4, where grade is from 8 inches below water table to top of eave line at road.
 2. Grade in rear of barracks to be from top of coping of area, windows to gutter, 20 feet in rear of water closets, which gutters is to begin 12 inches below top of coping of area windows at a point 25 ft north of north end of No 1 barrack and 62 ft south of south end of No 4 barrack, and runs at a uniform grade to a point midway between Nos 2 and 3 barracks where it is 2 ft 6 inches below top of coping of area windows. From north end of gutter to midway between Nos 2 and 3 barracks slope eastward at an angle of 60°.
 3. Grade between buildings to have a fall of 6 inches from top of coping of area windows to a point midway between them. At south end of No 4 barrack to have a fall of 6 inches at 62 feet from building. At north end of No 1 barrack to have a fall of 6 inches at 25 ft from building and a maximum rise from check to administration building.
 For grading around the barracks, water and drain systems, Secretary of War, Feb 25-91 authorized 2426.04 - 21855-90

CONTOURS OF GRADING, FORT SNELLING, MINNESOTA.



6478 9.m. & o
7 1355 - 1890

1890
G
1890

PROFILES OF GRADING, FORT SNELLING, MINNESOTA.

PROFILE "4"

PROFILE "14"

PROFILE "24"

PROFILE "34"

PROFILE "A"

BARRACKS No. 1

BARRACKS No. 2

PROFILE "C"

BARRACKS No. 3

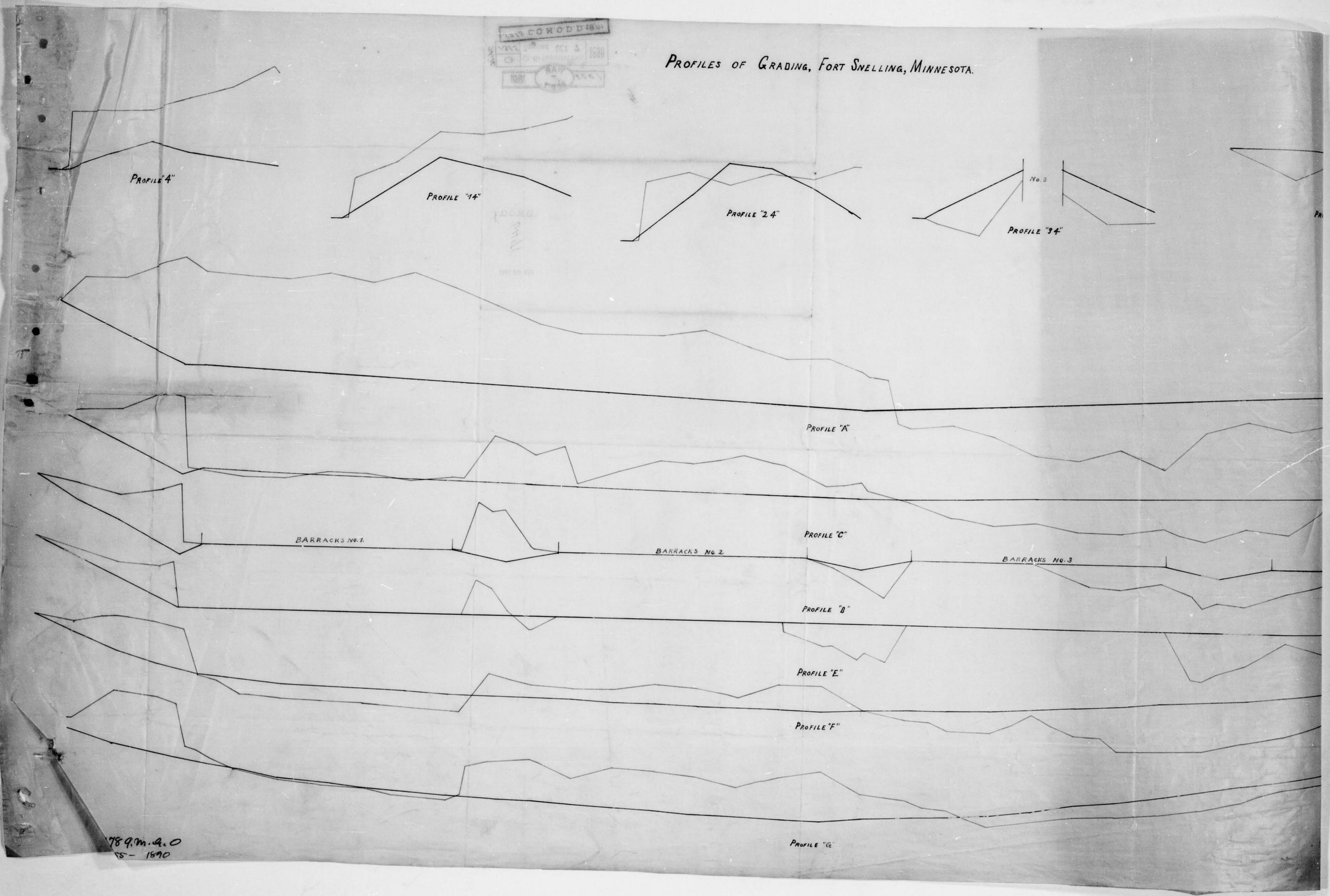
PROFILE "D"

PROFILE "E"

PROFILE "F"

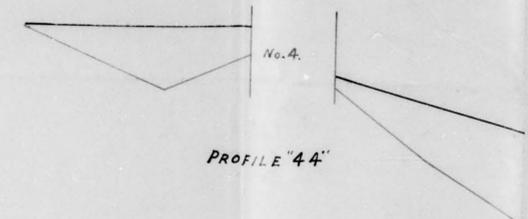
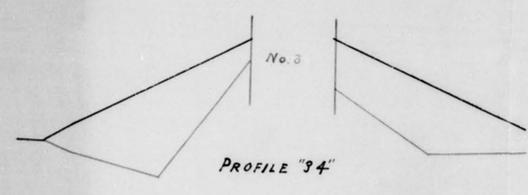
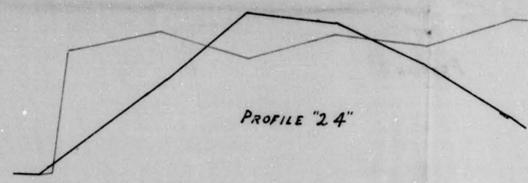
PROFILE "G"

789 M. & O
15-1890

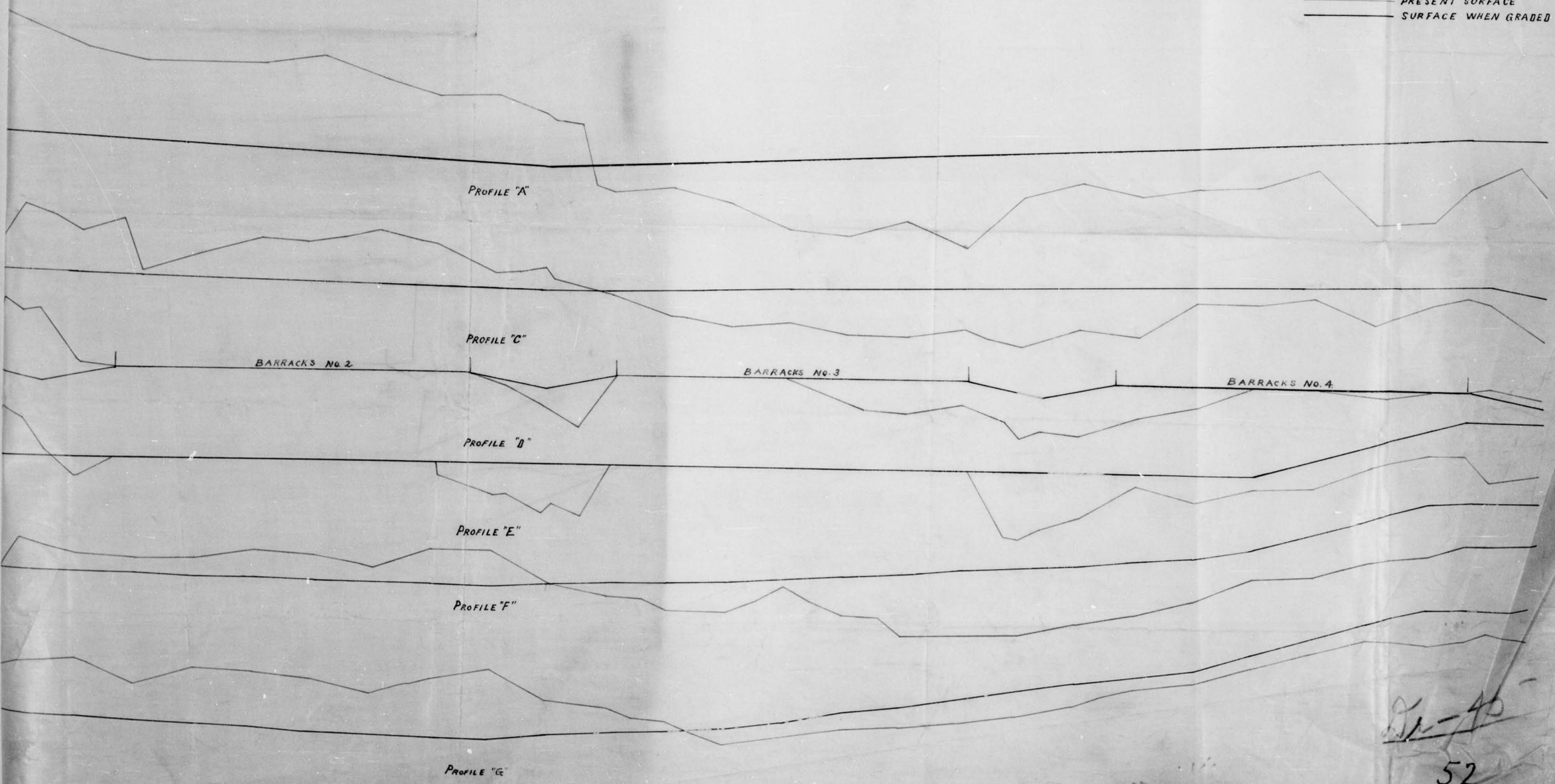


ENGINEER
NO. 1001
1880
RAILROAD
ENGINEER

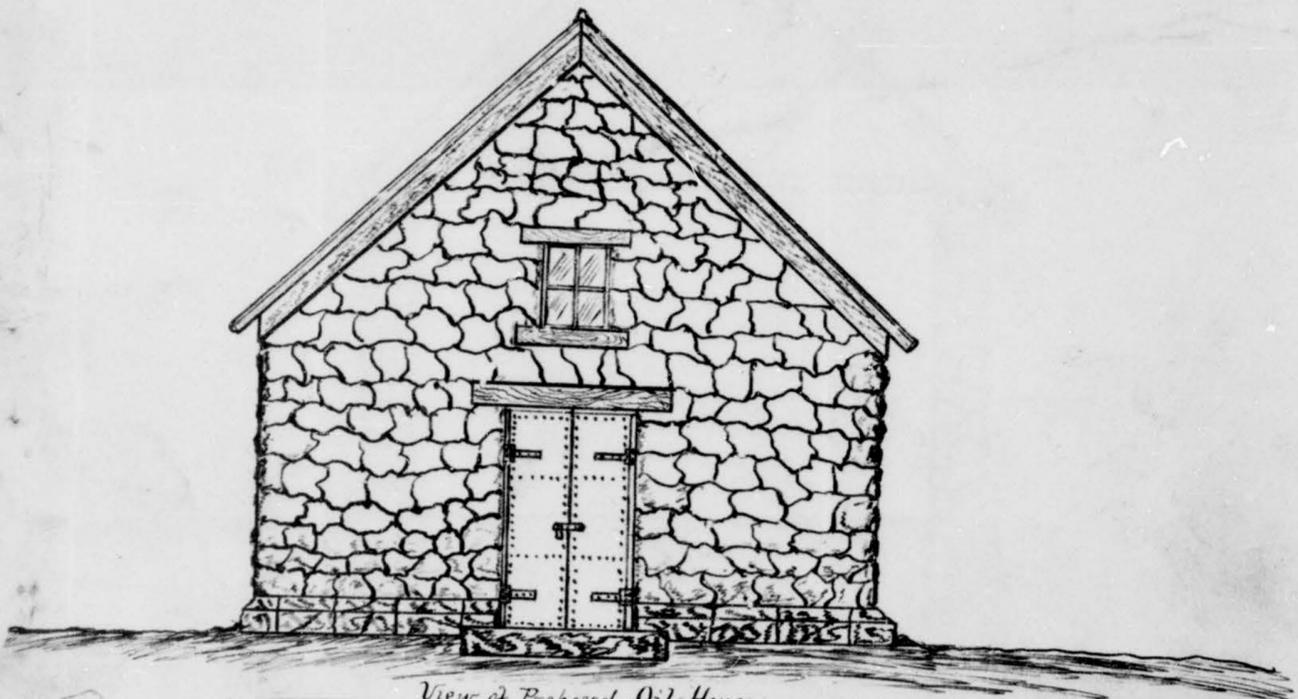
PROFILES OF GRADING, FORT SNELLING, MINNESOTA.



VERTICAL SCALE 2" TO 1"
HORIZONTAL SCALE 50' TO 1"
— PRESENT SURFACE
— SURFACE WHEN GRADED



52

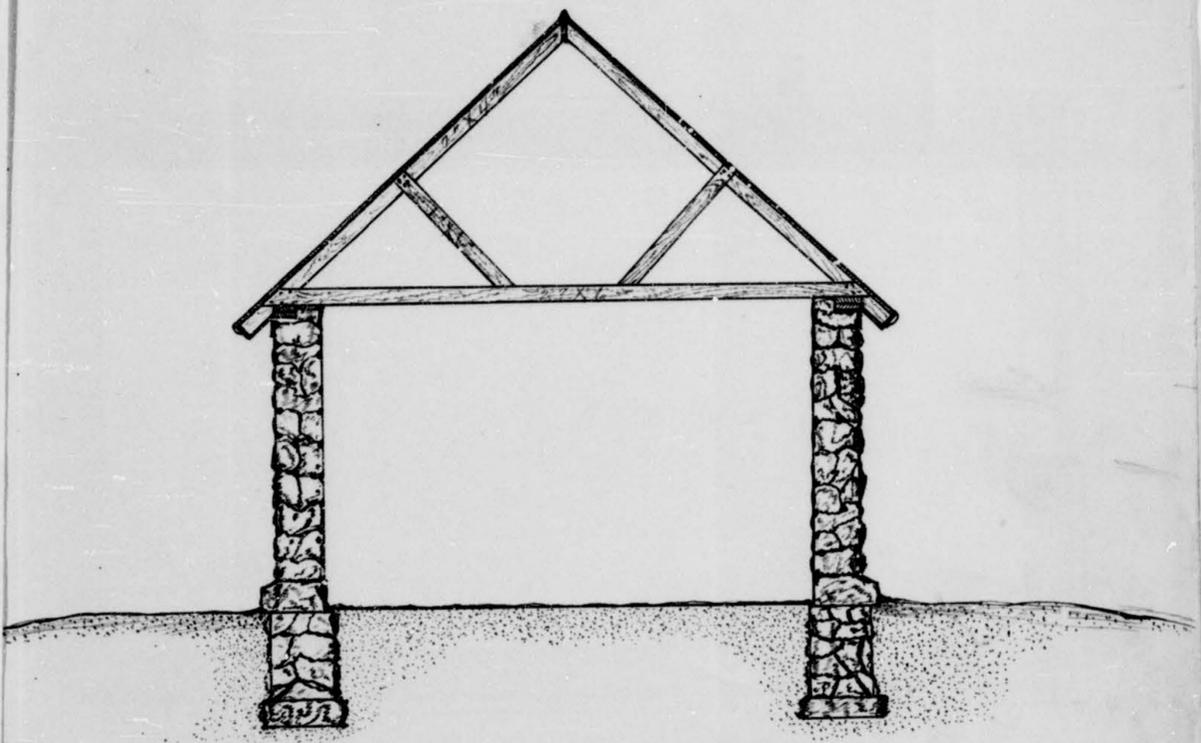


View of Proposed Oil House
Fort Snelling, Minn.

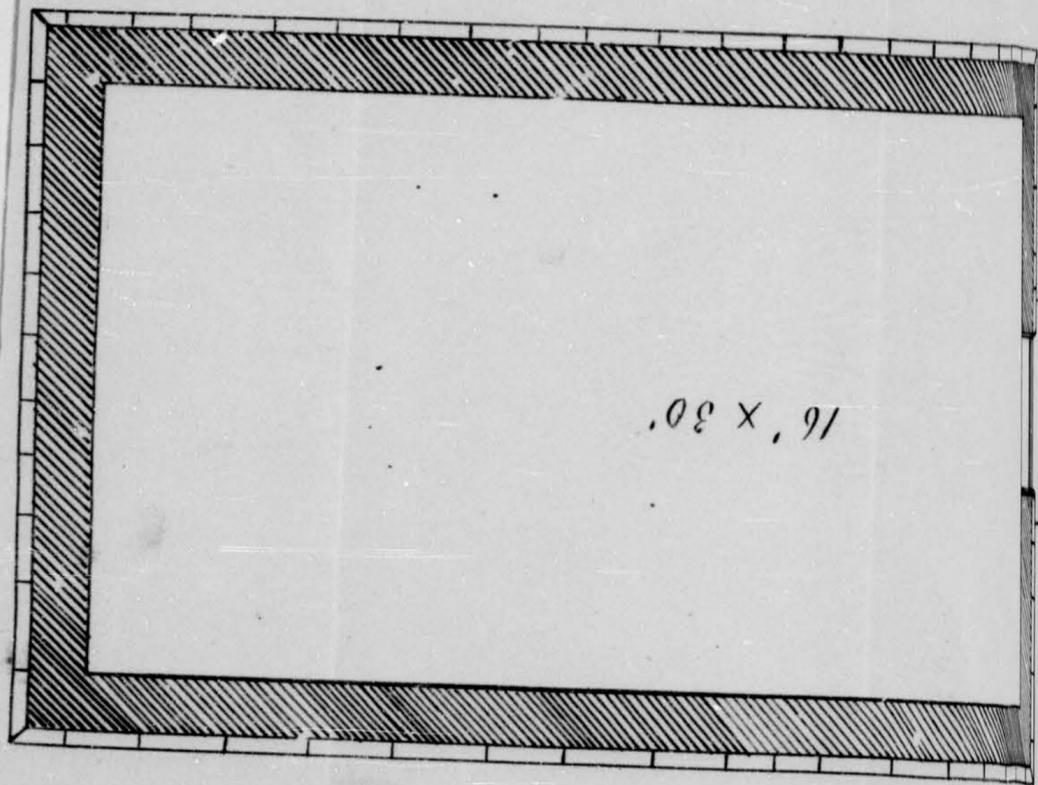
Scale $\frac{1}{4}'' = 1'$

Estimated cost \$33.⁹⁷; authorized June 19-91 16644 Amer.

55.



Sectional view of proposed Oil House
Port Snelling, Minn.
-----Scale, $\frac{1}{4}$ " = 1'-----



—Ground Plan, proposed Oil House—
Fort Snelling, Minn.

—Scale $\frac{1}{4}'' = 1'$ —