

Primary Battery File

National Archives, Washington D.C.

Record Group 77

Correspondence of the Chief of Engineers

Entry 103

File, Fort, Battery:

20298

44796

Ft. Monroe

Btty Church

SUBJECT: Emplacements, experimental carriages.



*Office of the Chief of Engineers,
United States Army.*

Washington, D. C., March 12, 1897.

Brig. Gen. D. W. Flagler,
Chief of Ordnance, U. S. Army.

General:

Replying to your letter of the 9th instant, relative to providing emplacements for the experimental 8-inch and 10-inch carriages, L. F., I have the honor to inform you that these carriages will be provided with emplacements to be constructed in the present year with funds appropriated by the Act of March 3, 1897. The emplacement for the 10-inch carriage will be located at Fort Monroe and the emplacement for the 8-inch carriage at the mouth of the Columbia River.

The emplacement at Fort Monroe will constitute a separate battery, but the one at the mouth of the Columbia will not be so strictly, as it constitutes one emplacement of a four-gun battery. It is, however, separated by an interval of several hundred feet from the remaining guns of the battery and thus approximates to the condition desired.

Should the above arrangement meet with your approval the necessary instructions will be issued to the constructing officers.

In this connection I have to ask whether these experimental carriages will require platforms different from those now used for

2.

8-inch and 10-inch disappearing carriages, L. F., model 1894.

Very respectfully,

Your obedient servant,

John M. Wilson
Brig. Gen., Chief of Engineers,

U. S. Army.

19850

OFFICE OF CHIEF OF ORDNANCE
 FEB 13 9 25 5
 WAR DEPARTMENT

Engineer's Office,
 Feb. 12, 1894

Chief of Ordnance

In reply to inquiry of 9th inst. states that independent for Dr. Brimwell 10" Carr. will be located at Ft. Monroe Va. for the 5" Carr. at the mouth of Columbia River. Desires proposed location. A note will be satisfactory. Also if the platform required for these Carrs. will have to be shipped from there over road for 8" & 10" Dia. Carr. etc. dated 1894. Note will be paid for from funds appropriated by the Act of Aug. 9/94. Feb. 16/94. Chf. of Ordnance informed that said platform will be shipped from there by the same as arranged.

Capt Thos. L. Casey,
Corps of Engineers U S A

U. S. ENGINEER OFFICE,
106 GRANBY STREET,

Norfolk, Va., May 7, 1897.

Brig. Gen. John M. Wilson,
Chief of Engineers, U. S. Army,
Washington, D. C.

General, -

In answer to Department Letter of April 6, 1897 (20298) I have the honor to submit herewith plans and estimate for a 10-inch gun-battery, for the Buffington-Crozier depressing carriage.

In designing this battery, which it is proposed to place about 200 feet to the south of the southern traverse of the new mortar battery, special reference has been had to a large and commodious terre-plein about the loading platform, on a common level with the floors of the magazines, the reference of all being +5 feet. With this reference, there will be 11 feet of concrete cover over the crests of the magazine arches. The maximum angle of fall which a chance shot fired from a distance of five or six miles could have is assumed to be 10° , and, with this angle of fall and correspondingly reduced velocity, no great effect could be produced upon the horizontal concrete cover of the magazines.

There are but few points which apparently need be referred to in explanation of the two accompanying tracings. The well is rendered accessible through a tunnel shown in dotted outline. A bomb-proof is provided in the left breast-height wall, shown in

broken outline, and a rear ascent to the loading platform is shown at the left as well as in the center.

The rear defense of the battery is to be obtained by means of an enclosing parapet with provision for flank fire, to be built behind the work, similar to that enclosing the completed 2-gun redoubt near the main work, this parapet to be extended to the southward, enclosing all the single gun batteries as they are successively completed.

An estimate for this battery may be given as follows:

Emplacement.

Clearing site and laying out work, -----	\$	250.00	
Removing about 6500 cubic yards of sand @ 50¢, -----		3,250.00	
45,000 ft. B.M., lumber, boards, scantling, etc. for sheathing, bracing, centers, etc., @ \$12, --		540.00	
30 kegs of nails, 8, 10 & 12d. @ \$2.90 per keg, --		87.00	
Labor erecting sheathing, bracing, centers, etc., @ \$6.50 per thousand, -----		292.50	
About 6,500 cubic yards of concrete @ \$5.50	\$35,750.00		
Stone sills and hinge blocks for 3 outside doors, @ \$150 each, -----		450.00	
Stone sills and hinge blocks for 2 inside doors, @ \$100, -----each, -----		200.00	
Five doors, hinges, bolts and locks, -----		500.00	
Ventilator pipe, -----		75.00	
Shot trolley system, -----		500.00	
About 18,000 cubic yards of sand in slope, estimating one-half in dunes that will not require to be handled, 9,000 cubic yards, @ 50¢, -----		4,500.00	
750 cubic yards of clay in position on slope, @ \$1.25, -----		937.50	
750 cubic yards of soil in position on slope, @ \$1.25, -----		937.50	
4,255 square yards of sod in position on slope, @ \$0.40, -----		1,702.00	
Putting down track, arranging plant, etc., --		500.00	
Office expenses, contingencies and repairs, --		1,000.00	\$51,471.50
			\$51,471.50
			FORWARD, -----
			\$51,471.50

FORWARD, -----\$5,471.50

Gun Platform.

Excavating, filling and ramming about 400 cubic yards of sand for foundation @ \$100,-	\$	400.00	
Placing and ramming about 60 cubic yards of sand in rear slopes, @ 50¢,		30.00	
Putting clay, soil and sod on slopes,		75.00	
10,000 ft. B.M. boards, scantling, etc., for sheathing, bracing, etc., @ \$12,		120.00	
Labor for erecting sheathing, etc.,		250.00	
6 kegs nails, 8, 10 and 12d @ \$2.90 per keg,		17.40	
300 cubic yards of Rosendale concrete, @ \$5.50,		1,650.00	
80 cubic yards of Portland concrete @ \$8.50		680.00	
2500 square feet Granite finish @ 30¢		750.00	
2 Granite door sills,		24.00	
2 granite door lintels,		24.00	
4 hinge stones,		32.00	
2 lock stones,		16.00	
44 anchor bolts and nuts,		275.00	
Setting templates and anchor bolts,		60.00	
Setting base-rings and traverse circles,		75.00	
Steel I-beams,		130.00	
Iron plates,		60.00	
Drain pipe,		3.00	
Terra-cotta pipe for tunnel,		18.75	
Iron ladder for vertical wall,		20.00	
Railing for loading platform,		20.00	
Door, hinges and locks,		55.00	
3 ammunition cranes,		316.00	
Putting up cranes,		65.00	
Office expenses and contingencies,		500.00	5,686.15

Total for emplacement and platform, -----\$5,137.65

This estimate is increased somewhat over that for the emplacement in the place of arms, because of the large quantities of sand which must be moved and replaced in the dunes. It is probable that the completed battery will, with rigid economy, show a marked reduction in this estimate, which includes liberal amounts for contingencies.

This work can be done by all means most advantageously by hired labor and purchase of material by contract in the usual manner. In a battery of this kind, changes are liable to occur

during the prosecution of the work, which, under a rigid contract system, would entail vexatious delays. I believe, also, that the work can be done better (and fully as cheaply) by hired labor than by contract.

Respectfully submitted,

615 P. S.
(2 inclos.) tracings in sep. roll.

Captain, Corps of Engineers.

Through:

Colonel Peter C. Hains,

Corps of Engineers, U.S. Army,

Division Engineer, S. E. Division.

reference to the foregoing
endorsement of the Chief of
Engineers.

Peter C. Hains

Colonel Corps of Engineers, U. S. A.
Division Engineer, Southeast Division.

Recd E. O. Noggett, Ga., June 7, 1897.

6th indorsement.

U. S. Engineer Office,

Noggett, Ga., Aug. 20, 1897.

Respectfully returned to the Chief
of Engineers, U. S. Army, with
plans and estimates called for
in the 4th indorsement, ac-
companying.

Tom McCarney

Captain, Corps of Engineers

15 y. M.

6 inclos 3 addnl, 6 ind.

Tracings, see list.

Through: Col. Peter C. Hains

Corps of Engineers

Div Eng. S. E. Div.

mean low tide, the level of
the magazine floors is in
my opinion too low. Storm
waves frequently reach a
much higher level. The
vertical cover over the mag-
azines is 12 feet. This
I do not object to, though
it is less than that pre-
scribed by the Board of
Engineers.

Seeing no reason why
the typical plans of the
Board of Engineers may not
be followed and believing
that they are better, I cannot
recommend these for approval.

Peter C. Hains

Colonel Corps of Engineers, U. S. A.
Division Engineer, Southeast Division.

RECD: OFFICE CHIEF OF ENGRS: AUG 24, 1897

8th Indorsement.

Office Chief of Engineers,
U. S. ARMY,

August 26, 1897.

Respectfully returned to Captain Casey.

No plane of reference is indicated on the revised plans, but it is assumed that Captain Casey will arrange to guard the magazines and passage ways against possible flooding by storm tides. If this point has not been considered the necessary corrections should be made in the references shown on the plans.

The location of the emplacement, its field of fire, the concrete cover and the right-handed position of the magazines are approved.

The Department can not see wherein any advantages will be gained by adhering to the earlier type arrangement of the magazines or ammunition service. The ammunition service by trolley lines and lifts as proposed in the newer type emplacements prepared by The Board of Engineers is regarded in every way superior to the method by traveling shot tongs and cranes. The traveling tongs are only adapted to pick up projectiles from the floor, and these must first be lowered from the piles. After reaching the cranes the projectiles must again be lowered and the shot hooks adjusted before hoisting by

the cranes. The projectiles must then be lowered on the trucks and then wheeled to the guns. The operations involved in transferring a projectile by this method from the piles to the gun are more numerous and clumsy than the method by lifts. The plans show but two cranes, one of which is so far from the magazines as to be of little use in a rapid ammunition service. By the use of the standard ammunition truck of the Ordnance Department a complete charge is hoisted at one operation. In the older method the powder cases, weighing 125 lbs. each, must be transported by hand to the breech of the gun, an operation of serious import even to a strong man, or else they must be hoisted by the cranes, involving separate operations for the projectile and powder. In this connection Captain Casey's attention is invited to the report of The Board of Engineers on the operation of the proposed new ammunition lift at Fort Wadsworth, dated August 19, 1897, copy of which was sent to him on August 25, 1897. It will be noted that a single double lift, costing about \$600, will supply ammunition with all needful rapidity to the 10-inch gun.

The large storage space for projectiles provided for in Captain Casey's plan is regarded of doubtful advantage, inasmuch as the powder magazines will hardly hold 200 rounds. It would be better to devote a portion of the room under the loading platforms to guard rooms and storage battery rooms.

Captain Casey is requested

to revise the arrangement of his magazine rooms and galleries and to provide an ammunition service conforming to the latest type design of The Board of Engineers. In this connection it will be advisable to provide flat ceilings in the rooms and galleries to better provide for the trolley lines.

By command of Brig. Gen. Wilson:

Joseph E. Kuhn
Captain, Corps of Engineers.

20298

1

Inclo. 7 accomp.
Inclos. 2-4, 8-9 in sep. roll.

Through Col. PETER C. HAINS,
Corps of Engineers,
Division Engineer, Southeast Division.

9th indorsement.

U. S. ENGINEER OFFICE,
● PLEASANT STREET, BALTIMORE, MD,
AUGUST 27, 1897.

*Respectfully transmitted
to Capt. Wm. L. Casey,
Corps of Engineers, inviting
attention to the preceding
indorsements.*

Peter C. Hains
Colonel Corps of Engineers, U. S. A.
Division Engineer, Southeast Division.

Recd. E. O. Norfolk, Va. Aug. 28/97

10th indorsement.
U. S. ENGINEER OFFICE,
Norfolk, Va.,
Sept., 9th, 1897.

Respectfully returned to the Chief of Engineers, U. S. Army.

The shot-lift called for by the 8th indorsement hereon is shown on the accompanying tracing immediately opposite the magazine entrance and a transverse section showing the landing upon the loading platform is shown below. The arch extends entirely through the wall and the lift is accessible from both sides by the trolleys shown in red. A double lift can be put in just as well if desired by the department. In reference to the plane of reference it should be stated that the (O) is arbitrarily assumed in the tracing, and the actual level of the magazine floors is the same as that of the mortar battery magazines and platforms, being some 10 feet above mean low water, as shown by the Light house bench mark.

Wm. L. Casey
Captain, Corps of Engineers.

Through Col. Peter C. Hains,
Corps of Engrs.,
Div. Engr. S. E. Div.

615-1 F.M.
(6 inclosures)
5 tracings-sep. pkg.

12th indorsement.
U. S. ENGINEER OFFICE,
9 PLEASANT STREET, BALTIMORE, MD.

SEPT. 20, 1897.

Respectfully submitted to the Chief of Engineers.

*Capt. Casey has not
complied with the orders
of the Chief of Engineers
as I understand them.
I find to find any
revision in the arrange-
ment of his magazine
rooms and galleries
conforming to the latest
type design of the Board
of Engineers.*

Peter C. Hains
Colonel Corps of Engineers, U. S. A.
Division Engineer, Southeast Division.

RECD. OFFICE CHIEF OF ENGRS. SEP 11 1897

12th Indorsement.

Office, Chief of Engineers,
U. S. Army,

Sept. 16, 1897.

Respectfully returned to
Captain Casey, who is informed
that, in the revisions accompany-
ing the 10th indorsement, he has
failed to comply with the orders
of the Chief of Engineers commu-
nicated in the closing paragraph
of the 8th indorsement.

Captain Casey will at once
revise his plans in accordance
with the instructions of the Chief
of Engineers, and will explain
immediately, in a separate letter,
whether his action in the case
has arisen from a misunderstand-
ing of the orders of the Chief of
Engineers, or otherwise.

John M. Wilson

Brig. Gen., Chief of Engineers,
U. S. Army

20298

I
Inclo. 7 accompg.
Inclos. 2-4, 8 and
9 in sep. roll.

Through Col. PETER C. HAINS,
Corps of Engineers,
Division Engineer, Southeast Division.

Jas. M. Craighell
Division Clerk.

Recd. E. O. Norfolk, Va. Sept. 18, 1897
14th indorsement.

U. S. Engineer Office,
Norfolk, Va., Oct. 5, 1897

Respectfully returned to
the Chief of Engineers, U.
S. Army, with accompany-
ing report,

M. H. Casey

Captain, Corps of Engineers

615-1 J. M.

(8 inclos) 2 addtl 14th ind.

to sep. pkge. (tracings)

through

Col. Peter C. Hains.

Corps of Engineers

Div. Engr. S. C. Div.

"Following modifications, viz:-
First, that the pintle of the
gun be set forward about
4.6" and the parapet cut
out on a circle as shown
on the accompanying sketch.

This will give full 60 de-
grees sector of fire to the
right of the capital and about
80 degrees to the left without
bringing the muzzle of the gun
too close to the interior crest.

This being a flank gun should
provide as large a sector of
fire to the left as practicable.

Second, that the steps from the
gun platform to the loading
platform be made less steep.

The advance of the pintle as
above suggested will enable
this to be done.

Third, that the low area
on the right of the gun be
enlarged and an additional
crane put in for raising am-
munition. This is not an
essential matter, but the

Emplacement.

Clearing site and laying out work,-----	\$ 250.00
Removing about 3,500 cubic yards of sand @ 40¢,-----	1,400.00
45,000 feet B.M., lumber boards, scantling, etc.,-----	540.00
for sheathing, bracing, etc., @ \$12.00,-----	87.00
30 kegs of nails, 8, 10 and 12d., @ \$2.90,-----	
Labor putting up sheathing, bracing, etc., @ \$6.50	292.50
per thousand,-----	
About 6,152 cubic yards of Rosendale concrete,	24,608.00
@ \$4.00,-----	
Stone for 4 doorways, sill, hinge and lock stone,	400.00
@ \$100.00 per door,-----	450.00
4 doors, hinges, bolts and nuts,-----	50.00
Ventilating pipe,-----	350.00
Shot trolley system,-----	600.00
Ammunition lift,-----	5,000.00
About 10,000 cubic yards of sand in slope @ 50¢,	
About 450 cubic yards of clay in position on	562.50
slope, @ \$1.25,-----	
About 450 cubic yards of soil in position on	562.50
slope, @ \$1.25,-----	
About 3,000 square yards of sod in position on	1,500.00
slope, @ 50¢,-----	600.00
Putting down track, arranging plant, etc.,-----	1,200.00
Office expenses and repair,-----	450.70
Steel I-beams,-----	100.00
1 set of spiral stairs for tower,-----	
Total for one-half of the emplacement, \$39,003.20	\$39,003.20

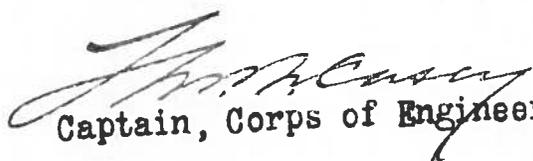
Platform.

Excavating, filling and ramming about 500 cubic	\$ 375.00
yards of sand for foundation, @ 75¢,-----	
Placing and ramming about 320 cubic yards of	160.00
sand in rear slopes, @ 50¢,-----	100.00
Putting sod, soil and clay on slope,-----	
10,000 feet B.M., boards, scantling, etc., for	120.00
bracing, sheathing, etc., @ \$12.00,-----	150.00
Labor for erecting sheathing, etc.,-----	17.40
6 kegs of nails, 8, 10 and 12d., @ \$2.90,-----	1,200.00
300 cubic yards of Rosendale concrete @ \$4.00,-----	680.00
85 cubic yards of Portland concrete @ \$8.00,-----	840.00
2,800 square feet of granolithic finish @ 30¢,-----	60.00
5 granite door sills,-----	24.00
2 granite lintels,-----	80.00
10 hinge stone,-----	40.00
5 lock stone,-----	120.00
10 granite steps,-----	300.00
Anchor bolts and nuts,-----	60.00
Setting templets and anchor bolts,-----	
FORWARD,-----	\$ 4,326.40
	\$39,003.20

GRAND TOTAL, --\$10,000.00--

It is proposed at present to finish the redoubt as far to the right as the line M N.

Respectfully submitted,


Captain, Corps of Engineers.

615 F.M.
(1 inclo.) tracing.

Through Colonel Peter C. Hains,

Corps of Engineers, U. S. Army,

Division Engineer, S. E. Division.

All communications should be addressed to "The Chief of Ordnance, U. S. Army, Washington, D. C."

Subject:

RYV

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ORDNANCE

WASHINGTON

January 17, 1914.

In replying refer to No.

22653/2783

From The Ordnance Office.

To The Chief of Engineers.

Subject: Modification of emplacement, Battery Church, Fort Monroe, Va.

1. It is the intention of this Department to replace two 10" guns, model of 1888-MII, Nos. 25 and 31, formerly emplaced at Battery Church, Fort Monroe, Va., with two 10" guns, model of 1895. The necessary modifications in the carriages have been inaugurated.

2. In this connection, it is noted that, if not already provided, a niche for the rotating crank handle of the latter model guns will be required in the emplacement wall, as shown on drawing 9-10-47, revised October 25, 1913.

William Crozier
Brig. Gen., Chief of Ordnance.

13117/11

1st Ind.

AND-FF

Office C. of E., January 22, 1914 - To the District Engineer Officer, NORFOLK, VA.

To note. *my*

78/9 H. R.

2nd Ind.

EEW/K

U. S. Engineer Office, Norfolk, Va., Jan. 24, 1914.- To the Chief of Engineers, U. S. Army.

1. Noted.

2. It is requested that this office be furnished with a copy of the Ordnance drawing 9-10-47 referred to in paragraph 2 of the foregoing letter, and, in addition, with an Ordnance Department platform sheet of the type of the gun-carriage mentioned, revised up-to-date, if the said drawing referred to in paragraph 2 of the foregoing letter be not this platform sheet referred to.

REC'D. OFFICE CHIEF OF ENGINEERS

JAN 26 1914

E. D. ...
Lt. Col., Corps of Engineers,
U. S. Army.

13117/71

3d Ind.

FWB-FF

Office C. of E., January 28, 1914 - To THE CHIEF OF ORDNANCE.

With request for drawings referred to in the preceding indorsement. The return of this paper is requested.

Wm. B. ...
Colonel, Corps of Engineers,
Acting Chief of Engineers.

22653/2783

4th Ind.

RYW

Ordnance Office, Feb. 4, 1914 - To the Chief of Engineers.

Drawing 9-10-47, revised October 23, 1913, is inclosed herewith.

Bron. print accmpg. *WBM*

~~RECEIVED CHIEF OF ENGINEERS~~ FEB 4 1914

13117/71

5th Ind.

FWB-FF

Office C. of E., February 5, 1914 - To the District Engineer Officer, NORFOLK, VA.

With brown-print for retention.

Inclosure 73 accmpg. *my*

78/9 H. R.

6th Ind.

TEEW/K

U. S. Engineer Office, Norfolk, Va., Feb. 6, 1914.- To the Chief of Engineers, U. S. Army.

1. Noted.

2. The brown print referred to in the preceding indorsement has been received, and has been retained in this office.

F. Robert ...
Lt. Col., Corps of Engineers,
U. S. Army.

~~RECEIVED CHIEF OF ENGINEERS~~ FEB 7 1914