

Primary Battery File

National Archives, Washington D.C.

Record Group 77

Correspondence of the Chief of Engineers

Entry 103

File, Fort, Battery:

11978

13117

Ft. Monroe

Btty Bomford

SUBJECT: Estimates for Platforms, Fort Monroe, Va.

United States Engineer Office,

601 Eighteenth Street, N. W.,

Washington, D. C.,

July 20, 1895.

Brig. Gen. W. P. Craighill,

Chief of Engineers, U. S. Army,

Washington, D. C.

General:

In compliance with department letter of May 28, 1895, (11204), I have the honor to submit herewith an itemized estimate of the cost of constructing a platform for a 10-inch service high-power gun mounted on a Crozier-Buffington disappearing carriage, at the batteries at Fort Monroe, Va.

EMPLACEMENTS AT REDOUBT.

Estimated Cost of one Platform.

Filling, 750 cu. yds. sand, @ 50¢	\$ 375
Sheathing for concrete, 11 M ft. lumber @ \$40	440
Concrete American cement, 315 cu. yds. @ \$6	1,890
" Portland " 72 " " " \$10	720
Stone steps, lintels, &c., 113 cu. ft. @ \$3	339
Excavation of concrete now laid, 26 cu. yds. @ \$2	52
16 Anchoring bolts, base ring, @ \$6	96
28 " " " traverse circle, @ \$4	112
Setting bolts (with template)	40
Steel I beams, 3,600 lbs. @ 4¢ laid	144
Iron plates for bearing of beams, 750 lbs. @ 4¢	30
3 Cranes @ \$40	120
Drainage (iron pipe)	80
Iron steps at rear of platform	240
Superintendence and contingencies	468
	<u>\$5,146</u>

Estimated cost of two platforms

\$10,292

-2-

EMPLACEMENT IN SALIENT, PLACE OF ARMS.

Estimated cost of one Platform.

Filling, 520 cu. yds. sand @ 50¢	\$ 260
Sheathing for concrete, 11 M ft. lumber @ \$40	440
Concrete, American cement, 315 cu. yds. @ \$6	1,890
" Portland " 72 " " " \$10	720
Stone steps, lintels, &c., 113 cu. ft. @ \$3	339
Excavation of concrete now laid, 26 cu. yds. @ \$2	52
16 Anchoring bolts, base ring, @ \$6	96
28 " " traverse circle, @ \$4	112
Setting bolts (with template)	40
Steel I beams, 3,600 lbs. @ 4¢ laid	144
Iron plates for bearing of beams, 750 lbs. @ 4¢	30
3 Cranes @ \$40	120
Drainage (Iron pipe)	80
Iron steps at rear of platforms	240
Superintendence and contingencies	457
	<u>\$5,020</u>

RECAPITULATION.

Cost of 2 Platforms, Redoubt, @ \$5,146	\$10,292
" " " 1 " Salient	5,020
Total,	<u>\$15,312</u>

Very respectfully,

Your obedient servant,



Major, Corps of Engineers.

Through Lieut. Colonel P. C. Hains,

Corps of Engineers, Division Engineer,

Southeast Division, Baltimore, Md.

34
M.M.
F.M.

OFFICE OF CHIEF OF ENGINEERS

14078

100

WAR DEPARTMENT

Washington, D. C.

July 20, 1895

E. L. B. Davis.

Estimate of cost of constructing a
platform for a 10 inch gun at
Fort Monroe, Va.

Total cost for the \$15,312.00

Forward by Div. Engi

\$15,312 attached ~~by~~ ^{by} Davis advised,
July 26, 1895.

July 22, 1895.

1st Assistant.

23. 1895,

and approval recommended.

Edw. A. Blair

Division Engineer, Southeast Division.

SUBJECT: Details of construction of 10-inch gun platforms.

United States Engineer Office,

601 Eighteenth Street, N. W.,

Washington, D. C., September 6, 1895.

Brig. Gen. W. P. Craighill,

Chief of Engineers, U. S. Army,

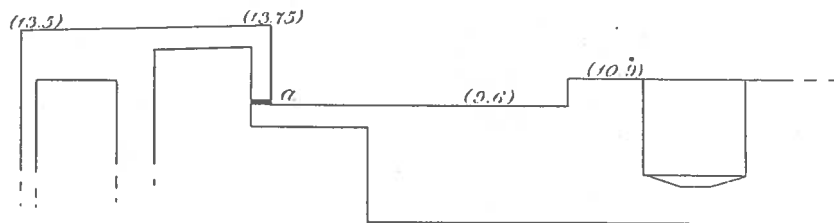
Washington, D. C.

General:

In obedience to instructions contained in Department letter of September 4, 1895, I have the honor to submit the following report of my views and recommendations as to the details of construction of the three platforms for 10-inch guns mounted on disappearing carriages at Fort Monroe, Va., and the two at Fort Washington, Md., for which allotments have been made.

The rear wall of the semi-circular shell recess is too thin, being but 8 inches in thickness; it should be increased to at least one foot.

Concrete is not well adapted to resist repeated shocks and it seems to me that it would be well, instead of having the entire platform one monolithic structure, to have the platform under the gun separated from the semi-circular loading platform, thus:



the joint at "a" to be filled with asphalt, or some elastic material, that will give under the explosion and will not communicate the shock, at least in its full intensity, to the thin vertical wall of the loading platform.

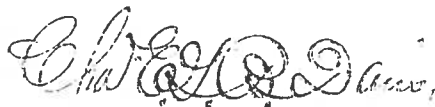
In constructing the emplacements at both Forts Washington and Monroe a high grade of Rosendale cement was used, the Brooklyn Bridge brand. The Norton cement could not stand the tests required by the specifications and some 5,000 barrels were rejected and the contract annulled. This is mentioned to show that the concrete used was of good materials and quality, but it has been found at both localities, although much care was used, the exposed surfaces, particularly the tops of the emplacements, have not weathered well, being roughened up and scaled off badly in places. It is therefore recommended that all of the upper horizontal surfaces of the platform for at least a depth of six inches be covered with a granolithic surfacing, the granolithic material, made of a high grade of Portland cement, being mixed and ready to put in place as soon as the ordinary Rosendale concrete has reached within six inches of the top surface and before the latter has had time to commence to set, so as to form one continuous mass and to prevent the tendency to separate along the plane joining the two grades of material; the granolithic surface to be divided into flags by radial and circumferential joints by driving a blunt cutting edge into the concrete to a depth of at least $2\frac{1}{2}$ inches, so that the cracking due to expansion and contraction will take place along these lines of least resistance and not disfigure the platform, the

top surface to be also roughened in the customary manner.

While all of the above changes are of minor importance, it is believed that will add greatly to the durable appearance of the platforms, which otherwise will require constant repairs to the exposed surfaces.

Very respectfully,

Your obedient servant,



Major, Corps of Engineers.

61
M.M.
F.M.

OFFICE OF CHIEF OF ENGINEERS

SEP 7 11978 1895

WAR DEPARTMENT

Washington D.C.
Sept. 6, 1895

Davis, Maj. E. E. L. B.

Confering with E. A. instructions of Sept. 4/95. Submit report of his views on construction of the 3 plat forms for 10 guns mounted on discharging carriages at Ft. Monro, Va., the two at Ft. Washington, Md. for which elements have been made.

See letter of Oct. 3/95, & opinion concerning 10" batteries (Dec 23 or 12710).

The

U. S. ENGINEER OFFICE,
106 GRANBY STREET

Norfolk, Va.,

September 12, 1896.

Brig. Gen. William P. Craighill,
Chief of Engineers, U. S. Army,
Washington, D. C.

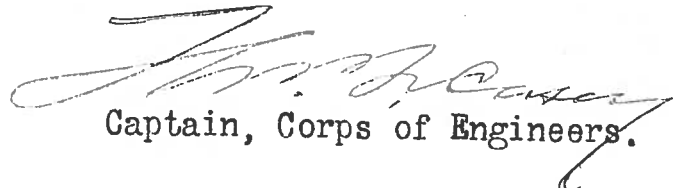
General,-

I have the honor to state that the operation of mounting the two 10-inch guns in the Redoubt at Fort Monroe, Va. has arrived at a point which requires some expenditure of money. The expenditure is absolutely required in building a temporary track across the slough bounding the exterior slope of the redoubt and in the defile beyond. Lieut. Duvall, who has rendered most efficient service in the prosecution of the work, having no funds whatever for the mounting of these guns and doing all the work thus far with such inadequate material as I have been able to lend him, states that it will be impossible for him to further prosecute the necessary operations unless some expenditure is made in the direction above stated. I agree with him thoroughly in the matter but am unable to aid him as there are no funds from which I can draw. The money remaining on hand for the construction of emplacements will be needed in constructing shot cranes, trolleys and electric plant, and the fund allotted for preservation and repair of fortifications is practically used up, because of the unusually heavy demands upon it this year in strengthening bridges and in connecting quarters

(2)

with the new sewer system. I would respectfully urge that an additional allotment of \$400 be granted me from the appropriation for preservation and repair of fortifications, to be used principally for necessary construction in mounting the new ordnance on hand.

Very respectfully,
your obedient servant,


Captain, Corps of Engineers.

OFFICE, CHIEF OF ENGINEERS

11978

1896

SEP 14
10
WAR DEPARTMENT

Mylock, Va.

Sept. 12, 1896.

Casey,

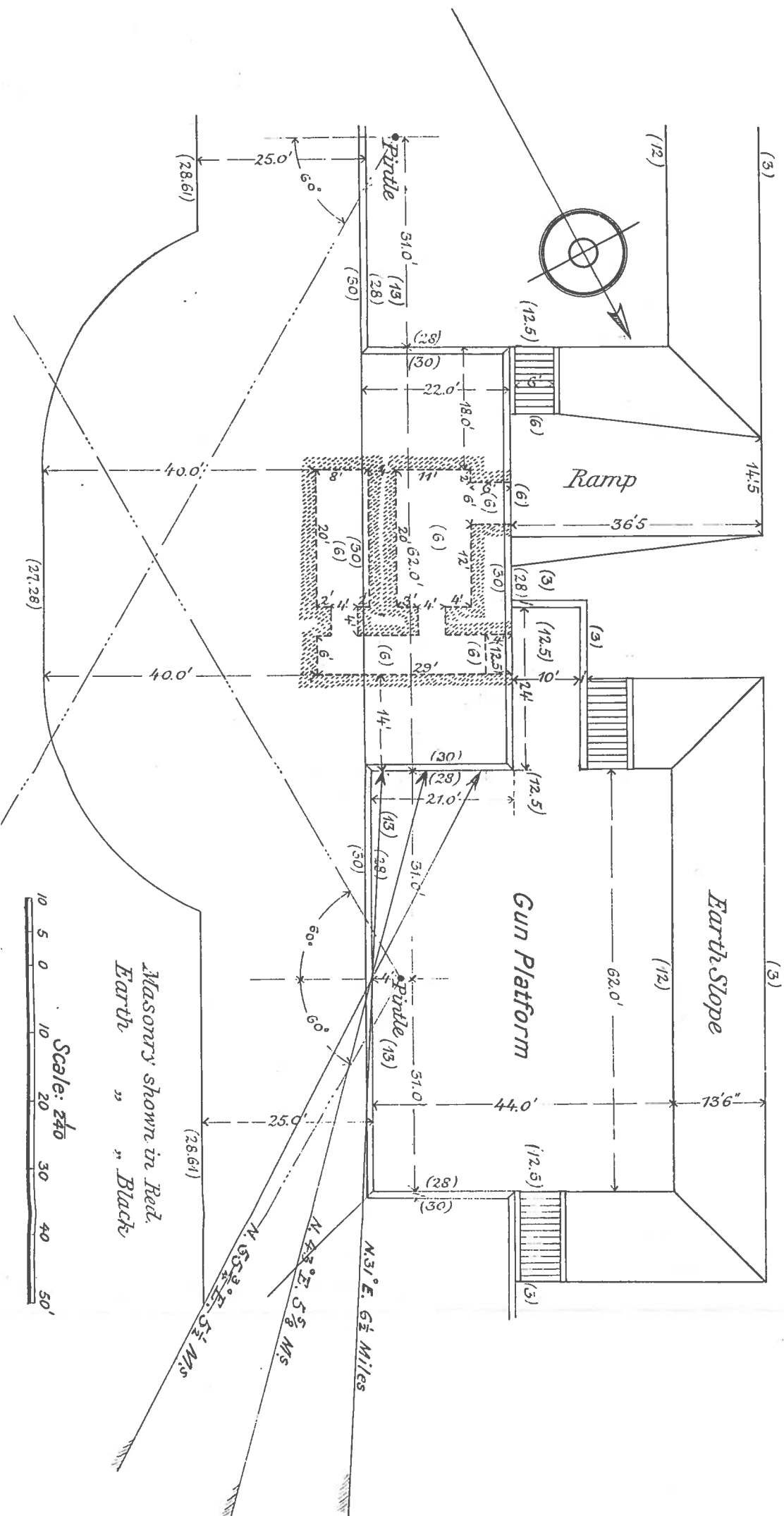
Capt. U. S. A.

Ref. to the mounting of
2-10" guns in Detroit at the
Monroe Park, reg. and. at-
tachment of \$400 from the
Rep. of Virginia, to be used
principally for necessary
construction in mounting
new ordnance on hand.

Sept. 14/96-126, & letter, enclosing
\$400.

Y. 100. 64. 3163 of 1891, filed
in the records.

Drawer 58.
Sheet 243.
6





John Adams

Lieut. Colonel of Engineers

51 H. R.
132 H. R.

War Department. EEW/K
UNITED STATES ENGINEER OFFICE,
ROOM 2, CUSTOMHOUSE,
Norfolk, Virginia. November 6, 1912.

From: The District Engineer Officer.

To: The Commanding Officer, Artillery District of Chesapeake Bay,
Fort Monroe, Virginia.

Subject: Platform extension and modernization of Battery Bomford.

1. In connection with our conversation on the subject of the modifications at Battery Bomford, I am mailing to you, in a separate package, three blue-prints, marked A, B, and C, showing different methods of improvement.

2. Sheet A shows the most comprehensive modifications, consisting of the widening of both loading platforms, their connection by iron walk-ways, and the construction in rear of the central traverse of a separate house containing a plotting room approximately on the loading platform level, and a B. C. station at a sufficient elevation to enable the occupants to see over the battery.

3. No cover is shown for the B. C. station, as it is understood that the question as to whether or not B. C. stations should have permanent covers, or be fitted with a removable canvas cover, is still under consideration by the Chief of Coast Artillery.

4. The estimated cost of the work shown on Sheet A, including the extension of the loading platforms, the construction of a plotting room in a separate house, a B. C. station thereon, and of a communicating walk, is \$6,200.

5. Sheet B shows a plan providing for the extension of the loading platforms, the construction of a walk connecting the loading platform, and provision for a plotting room by cutting a space for it within the concrete of the traverse, and the construction over it of a Battery Commander's station. The cost of this work is estimated at \$5,750.

6. By omitting the plotting room, but keeping the other features of this plan, the cost is reduced to \$4,900.

7. Sheet C shows the plan of modifications somewhat similar to that shown on Sheet B, except that the plotting room is done away with, and the B. C. walk is cut in the concrete instead of being built as a separate structure. The estimated cost of this work is \$4,150.

8. The plans described in paragraphs 6 and 7 above require that the plotting room remain in the tower in rear of the battery, as is provided for by the approved plans for the fire-control installation

at Fort Monroe, Va.

9. The estimated cost of making the platform extensions alone, the walk-way connecting the platform remaining as at present, and no B. C. station being provided, is \$3,650.

[Signature]
Lt. Col., Corps of Engineers,
U. S. Army.

3 bl.pts.in sep.pkge.

1607-ODAE 1st Ind
H.A.D.C.B., Ft. Monroe, Va., 11-8-12 To: Dist. Engineer, Norfolk, Va.

1. Returned.
2. The plan outlined in sheet "B" is recommended.
3. It is very necessary that these alterations be made. The Ordnance Dept. has remodeled the carriages of the battery at a very considerable expense and the battery is used in practice by visiting companies. If this battery is to be continued in use it should be placed in a more serviceable condition.

[Signature]
col., C.A.C., comdg.

3 blue prints in separate pkg.

NORFOLK VA. NOV 9 1912

51/15 H. R.

2nd Indt.

EEW/K

U. S. Engineer Office, Norfolk, Va., Nov. 14, 1912.- To the Chief of Engineers, U. S. Army.

1. The question of widening the platforms at Battery Bomford, Fort Monroe, Va., has been under discussion many times within the past few years. The last special report on this subject was submitted to the Chief of Engineers under date of July 25, 1908, and this item has been included on the fortification estimate data sheets each year, at an estimated cost of \$9,710. No allotment has, however, been made for the work.

2. Several weeks ago, the Commanding Officer of the Artillery District of Chesapeake Bay brought up this matter, and, after consultation with him, I have given study to several plans for the work, of

less comprehensive character than that previously estimated for. These plans were then shown on drawings, and a few days ago I submitted them to and had a consultation with the Artillery District Commander on the subject, and he recommended the plan shown on Sheet "B" in its entirety, the estimated cost of which is \$5,750.

3. The Ordnance Department has recently, at considerable expense, remodeled the carriages of this battery, and there is about to be installed in it the first of the widened projectile hoists; and it would appear desirable that these improvements be accompanied by an improvement which will make the platforms wide enough so that the guns can be loaded at almost any position, and without traversing them to a special azimuth. An allotment of the estimate, \$5,750, is, therefore, recommended.

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

3 tracings (132/1-3 H.R.) in sep.pkge.

13117/66

3d ind.

EB/TDJ

Office C. of E., November 30, 1912, To THE CHIEF OF COAST ARTILLERY.

1. Your views as to the desirability of the above-mentioned work are requested.

2. This office concurs in the recommendations of the District Engineer of-
ficer, as contained in paragraph 3, 2d indorsement, that the improvement should
be carried into effect.

3. Funds are available for doing the work.

Ataylor
Lieut. Col., Corps of Engineers,
Acting Chief of Engineers.

Inclos. 67-69 accompg.

RECD. DEC 2-1912 C.A.DIV.

4819/27

4th Ind.

War Dept., O.C.S., C.A.D., Dec. 27, 1912.-To the Chief of Engineers, U.S.A.

It is desired that the work of modernizing Battery Bomford, according to the plans
shown on sheet "B", be undertaken.

W. Weaver
Chief of Coast Artillery,
Assistant to the Chief of Staff.

3 Inclosures.

RECD. OFFICE CHIEF OF ENGRS.

JAN. 2 1913

13117/66

5th Ind.

FWB/RDW

Office C. of E., January 7, 1913 - To LIEUT. COL. WINSLOW.

1. In accordance with the desire of the Chief of Coast Artillery, as indicated in the preceding indorsement, the modernizing of Battery Bomford, in accordance with plan "B", is authorized.

2. For this purpose, the following allotments are hereby made:

From appropriation for "Gun and Mortar Batteries"
(for modernizing older emplacements):

act of March 2, 1907,	\$ 42.31
act of March 3, 1909,	4,894.57

From appropriation for "Preservation and Repair
of Fortifications":

act of June 6, 1912,	\$ 813.12
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Total, \$5,750.00

3. Should any portion of the amount above allotted not be required for the purpose for which allotted, prompt report should be made of the amount which may be withdrawn for application to other purposes.

By command of the Chief of Engineers:

Robert S. Ralston
Captain, Corps of Engineers.

Incls. 67-69 in
sep. roll by
regd. mail.

*Send back
Eng'g Off., U. S. Army.*

NORFOLK, VA. JAN 9 1913

51/15 H. R.

6th indorsement.

JEW/K

U. S. Engineer Office, Norfolk, Va., Jan. 18, 1913.- To the Chief
of Engineers, U. S. Army.

Noted, and necessary record made for files of this office.

E. T. Ralston
Lt. Col., Corps of Engineers,
U. S. Army.

3 tracings (132/1-3 H.R.) in sep.pkge.,
by regd. mail.

RECEIVED OFFICE OF THE CHIEF OF ENGINEERS

JAN 20 1913

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51/15 H. R.

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WAR DEPARTMENT
CHIEF OF STAFF
COAST ARTY. DIVISION

DEC 3 4 48 PM '27
WAR DEPARTMENT.
1912

3. implant track!

Inclos. 67-69 in Map Files, Dr. 58, Sh. 243

3 B. Ps. (132/1-3) accomp.

RECEIVED, BUREAU OF INVESTIGATION
JAN 20 1918

READ BACK. MESSAGE CHIEF OF ENCL. 2 03

Enc. 67-69 accfpg

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