

Primary Battery File

National Archives, Washington D.C.

Record Group 77

Correspondence of the Chief of Engineers

Entry 103

File, Fort, Battery:

98227

New Boston battery

locations 1914-17

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
390 Forts Room 1017 Barristers Hall, 25 Pemberton Square,
Boston, Mass.

September 9, 1914.

From: Col. H. L. Hawthorne, C.A.C., C.O., C.D. of Boston, and Lieut. Col. W. E. Craighill, Corps of Engineers, Dist. Engr. Officer, Boston, Mass.

To: The Adjutant General,
U.S. Army,
Washington, D.C.

Subject: Defensive requirements of Outer Brewster Island, Boston Harbor.

1. In compliance with instructions contained in letter from the Chief of Staff of June 5, 1914, to The Adjutant General (A.G.O. 2172744), the following joint report is submitted upon a preliminary study of Outer Brewster Island, "with a view ultimately to arriving at conclusions as to what defensive features should be located thereon, x x x including in this preliminary study what appears to be desirable in the way of armament, range-finding, searchlight and other accessories."

2. We have had several conferences upon the subject and as incidental to the specific questions under consideration, have studied the general project of the defense of Boston Harbor and the reports of the Endicott and Taft boards. We both have also visited Outer Brewster Island to familiarize ourselves with the topography and questions of approach to the island and supply of the garrison.

3. At the time of the Endicott Board report, upon which the defenses of Boston are essentially based, with additions by the Taft Board, the practical fighting range of the heaviest armament was assumed as two miles, and the typical battleship then considered was the "Benbow" of the British navy. Thirty years of growth of the city and of development in the size of ships and in the power and range of their guns make it necessary to push the first line of defenses farther to the front, even at the loss of some of the advantages of the more retired positions of the existing forts.

4. The present line of the defenses of the harbor would not entirely protect vital points in the city of Boston from long-range bombardment by modern ships. This has arisen partially from the selection of Broad Sound as the future principal entrance for deep ships into the inner harbor. Our harbor chart shows the greater number of works and guns clustered in front of the main ship channel passing between Boston Light and Point Allerton, while fewer works and guns dispute the entrance to that great body of deep navigable water known as Broad Sound. At the main ship channel entrance are Forts Revere and Warren, Standish and certain guns at Strong, with total armament of sixteen 12" mortars and thirty-five guns of all caliber. At the Broad Sound entrance are Forts Banks, Heath, certain batteries at Strong and Standish, with a total existing armament of sixteen 12" mortars and twenty-two guns of all calibers. About four guns common to both entrances are not included in the above. The Taft Board in 1905 recommended for the completion of the existing defenses two 12" guns on Lovells Island, four 12" and six 3" on Deer

Island, and sixteen 12" mortars "north of the present mortar battery at Fort Banks, the existing battery being left intact." Nothing has been done toward providing this increased protection except that two pits of the present mortar battery at Fort Banks have been modernized, and the other two pits will probably be completed within another year; making this a thoroughly up to date mortar battery except that the armament is not of the latest type.

5. An added weakness of the Broad Sound defenses lies in the more distant location of the batteries from the entrance to the channel. This is so great as to existing high-power guns at Forts Strong and Standish as to render them nearly harmless to a modern dreadnought maneuvering at ranges dangerous to vital points in the city of Boston. The installation of lights, stations and armament on Outer Brewster Island places such equipment beyond the present lines of defense and beyond the efficient protection of the existing works. With this situation conceded, there would appear to be but one remedy: to advance the main or strong line of defense to the line extending from Nahant on the north through Great Brewster island in the center to Point Allerton and Strawberry Hill on the south. In the course of our studies we have been impressed with the future value of Great Brewster Island as a part of such line, as well as of its present necessity as a site for armament to defend the searchlight and fire-control stations on Outer Brewster island, which is so far advanced and isolated that it is practically impossible to put on it armament adequately to protect it; and it is so far in advance of the present works that it is possible for deep-draft ships to approach it within easy range of their secondary armament and still lie beyond dangerous fire from the existing forts.

6. The acquisition of Great Brewster island and the equipment of it in a manner similar to that suggested for Outer Brewster island, but with the addition of more powerful batteries than those suggested for the latter, is desirable.

Great Brewster is about 1500 yards southwest from Outer Brewster, and is therefore less advanced toward probable lines of attack than Outer Brewster, and consequently would suffer a certain loss as to efficient searchlight range. As a base-end, however, it answers the purpose of Outer Brewster equally as well. Its maximum height of about 105 feet enables it to command the entire island group of the Brewsters. Furthermore, its position is such relative to the islands, rocks and shoals of this group that they offer without fortifications of any kind an effective barrier against close and enveloping attack by small guns, from directions not adequately covered from present works; and almost insuperable difficulties against hostile landing parties. Added to this, its position gives it a sheltered side on the western or inner shore, thus leaving open in all weathers an unbroken line for reinforcements and military supplies. It furnishes also a more elevated site for searchlights and stations, better possibilities for the concealment and protection of both, and more commanding locations for gun emplacements and their armament. It has a seawall on the outer face built by the United States in connection with the harbor improvement. It is owned by the city of Boston, but is not used for any purpose. The instructions calling for this report apparently did not contemplate extending its scope beyond reporting upon the necessary armament, range-finding, searchlight

and other accessories necessary for Outer Brewster island, but for the full and proper solution of the problem of the defense of this harbor it will probably be necessary to adopt the advanced line of defense suggested in par.5; and for the reason stated, we strongly urge the acquisition of Great Brewster island, which would form part of such advanced line. The acquisition of this island would solve some of the difficulties of the proper defense of Outer Brewster, and would modify the equipment which it would be recommended be installed there; so if the suggestion for the purchase of Great Brewster is favorably considered it would require material modification in the recommendations in Par. 8, infra, as to the location of defenses, searchlight and range-finding equipment on Outer Brewster.

7. Outer Brewster is a barren rock with little vegetation on it and no adequate water supply. On account of its exposed position it is difficult of access except in good weather, and we have assumed that it is inadvisable to attempt to maintain even a small garrison on it in winter time, or permanently at any time during peace. A small detachment of caretakers could be housed in the existing wooden house on the island, with some improvements. At such time as a garrison on the island may be necessary it had better be housed under canvas.

8. We assume that a wharf (\$50,000), two 60" searchlights (\$14,000), and two fire control stations (\$1,550), on Outer Brewster Island have been decided upon. (This estimate for the fire control stations includes a searchlight control observation station of sufficient size to accommodate two controllers with their operators and observers.) To defend these, we recommend the emplacement of -

Four 6" guns on barbette mounts;
 Six 3" guns in three-2-gun batteries, to resist landing parties.
 Two 36" searchlights, one on each side of the island to illuminate the immediate foreground for the 6" and 3" batteries.
 A distilling plant, as there is no water on the island;
 A breakwater in the best location that can be selected to make it possible to approach the wharf under reasonable weather conditions

9. The following rough estimate is submitted of the cost of the proposed works. Necessary cable connection and accommodations for the garrison are not included. The costs are necessarily high because of the barrenness of the island, which will necessitate bringing to it the necessary sand and earth for parapets for the batteries; and because of the isolated position, which will increase the cost of transportation of materials and men.

Estimate.

Four 6" guns, @ \$34,000----	\$136,000
Six 3" guns 12,000-----	72,000
Two 36" searchlights-----	7,500
Distilling plant-----	5,000
Breakwater-----	18,000
	<u>\$238,500</u>

10. A blue print sketch, in duplicate, is inclosed showing proposed location of the suggested defensive works.

H. L. HAWTHORNE.

W. E. CRAIGHILL.

IAK

1 inclo., in dup., accomp.

SEP 11 1914 16350

Serial 3104 in Dist

U.S. MARINE CORPS

SEP 12 1914

COAST AND GEOD. SURV.

NO. 314

959

A. L. 2192744

OFFICE CHIEF OF STAFF
COAST AND GEOD. SURV.

SEP 12 1914

File with

95227127

Inc #11 - 4 lines

ADDRESS, REPLY TO
THE DISTRICT ENGINEER OFFICER,
U. S. ENGINEER OFFICE,
25 PEMBERTON SQUARE,
BOSTON, MASS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
ROOM 1017 BARRISTERS HALL, 25 PEMBERTON SQUARE
BOSTON, MASS.

REFER TO FILE NO. 446 Forts

September 10, 1915.

From: The District Engineer Officer, Boston, Mass.

To: The Chief of Engineers, U.S.A., Washington, D.C.

Subject: Additional batteries.

1. The following report is submitted in compliance with E.D. letter of July 7, 1915 (98227).

2. After consultation with the Coast Defense Commander, as directed, and visits with him to the various sites on both sides of the city, I recommend the location of two 16" guns north of the city near Phillips Point, and two south of the city on Scituate Neck; four mortars, understood to be 12" guns mounted for high angle fire up to 30,000 yards ranges, on the Bass Point reservation, Nahant; and four on Little Hog Island, in rear of Point Allerton. The Coast Defense Commander is substantially in accord with these views, except that he is uncertain whether the guns or the mortars should occupy the outer positions. There is so much uncertainty at the present time on the subject of artillery that it is impossible with the information before us to decide this point. We are, however, agreed that the acquisition of the sites near Phillips Point, about 40 acres; Little Hog Island, about 9 acres above mean high water and about 28 acres above mean low water; and on Scituate Neck, about 80 acres, would be wise at this time, as they will certainly be needed. The Coast Defense Commander, however, is of opinion that East Point, Nahant, should be purchased, but, while I think this will be eventually desirable, I do not believe there would be any economy in purchasing it now. The sites at Phillips Point, Little Hog Island, and Scituate Neck are at present not much occupied by houses and such spots are becoming hard to find on the Massachusetts coast near Boston. It is impracticable to determine the value and ownership of sites at Phillips Point and Scituate Neck without exciting publicity so as to cause speculative values, but from an examination of the tax valuation, county records, etc., I estimate the Phillips Point site at from \$5,000 to \$10,000 per acre, and the one on Scituate Neck at \$2,500 per acre. The land at both sites is all in private ownership; that at Phillips Point is in a fashionable summer residence section and comprises quite a number of holdings, and the one at Scituate Neck is understood to be held by a single owner as a country estate. It does not seem advisable to go further into ownership and values until the sites receive at least tentative approval. Little Hog Island is nearly all owned by one person and can probably be bought for about \$25,000, and with improvements including seawall, etc., to fill it to low-water mark, would total about \$150,000, for about 28 acres, or say roughly \$5,000 per acre.

3. Heretofore in considering the latest developments in the defense, it has been assumed that Nahant would be the northern limit of the line of defense. This

guns for gun batteries, the occupation of East Point, which is now the home of Senator Lodge and his sister's heirs, with a closely-built-up summer residence section immediately in rear. The Lodge property totals twenty-four acres and would probably cost in the neighborhood of \$250,000. This site is contracted in extent, so that the guns would be too much concentrated. It can be easily isolated, by fire across Lynn Beach. It is not accessible to railroad communication, an important consideration in handling 16" guns and their ammunition. For these various reasons I do not recommend the further consideration of this site for acquisition at this time.

4. An alternative proposition which has been considered is the location of one or more guns of the primary armament on either Great or Outer Brewster Island. The Hawthorne-Craighill report dated September 9, 1914, recommended armament for Outer Brewster because it was understood the Department required it. It consisted of 6" and 3" guns. This report stated that if the acquisition of Great Brewster were to be made, the heavier armament, i.e., 6" guns, would go on Great Brewster and the recommendations as to location of defenses, searchlight and range-finding equipment would be materially modified. In preparing this report the question of primary armament on the Brewsters was considered and decided against; and since the report was written there have been rapid developments in ranges attained, going even farther to indicate that the location of primary armament on either one of the Brewsters would be a mistake, and confirming the view that all that is needed here is guns of lesser calibre to protect whatever is decided upon in the way of searchlights, lookout or range-finder stations. At ranges of 21,000 yards and upwards primary armament on the Brewsters has little, if any, advantage immediately to the front, over guns on the flanks, and is much inferior on both flanks, against one of which the attack would certainly be made as being the weakest points in the line.

5. In recommending two 16" guns near Phillips Point, I have considered that Phillips Point has the advantage, gaining 4,000 yards over East Point on Nahant in range toward the left flank. By placing the battery back a little on the low ground east of the point, it will be hard to find (assuming we can keep the airmen away) at ranges of 20,000 yards and upward on account of the curvature of the earth, formula being D in yards = $2000 \times \sqrt{\text{Height in feet}}$. (See also inclosed data for RIVADAVIA). With elevated range-finder stations 225 feet high or more, the battery could fire indirectly before the ship (say at ranges from 30,000 down to 22,000). The battery would have rail connection. It would not be subject to enveloping fire.

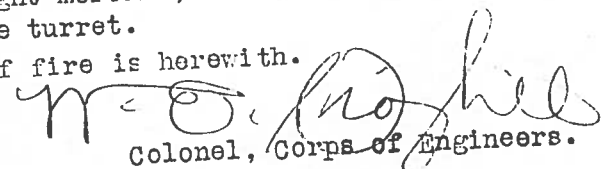
6. I recommend two 16" guns near Scituate Neck - for reasons similar to those advanced for Phillips Point.

7. While not definitely included in my instructions it would be desirable that locations for the range-finder stations on elevated sites at a distance from the battery sites be now acquired. In making the selections of these sites, I have considered that gun batteries should be kept low and slightly back from the water's edge so that the spotters on the ships cannot make their brackets so easily, i.e., by a splash in the water in front and a dust-cloud behind the battery. The present proposed division of the heavy armament into two parts of two guns and four mortar each should be regarded only as an expedient. More should be later added, so as to make possible salvos of three guns, or eight mortars, so as to meet the most recent naval arrangement of three guns in the turret.

8. Chart showing locations and fields of fire is herewith.

IAK

Inclo.12, and copy of inclo.10, accompanied by


Colonel, Corps of Engineers.

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Address reply to
CHIEF OF ENGINEERS, U. S. ARMY,
Washington, D. C.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
WASHINGTON.

CEW-JHS

Refer to File No. 98227.

Nov. 1, 1915.

From: The Chief of Engineers.

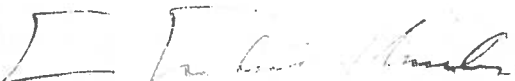
To: The District Engineer Officer, U. S. Engineer Office,
BOSTON, MASS.

Subject: Addition of armament, defenses of Boston, Mass.

1. With reference to W. D. letter of October 20, 1915 (98227), transmitting an extract from proceedings of the War Department Board of Review modifying the existing project for the defenses of Boston, you are requested to consult the Coast Defense Commander informally and to submit a report as to the most advisable locations for the four 12-inch guns mounted for long-range fire as now projected. The instructions contained in W. D. letter of July 7, 1915 (98227) should be followed in this case.

2. It is understood that these guns are to be used in lieu of mortars and that the emplacements to be constructed will be generally along the lines of the latest designs of mortar emplacements, except that only a single gun will be mounted in each pit and that the emplacements will be so designed as to permit of fire as low as 10° of elevation.

By command of the Chief of Engineers:


Lieut. Col., Corps of Engineers.

448/17 Ports

1st Ind.

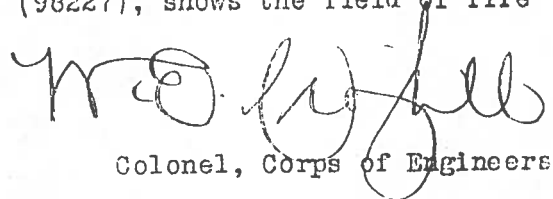
IAK

U.S. Engr. Office, Boston, Mass., Nov. 15, 1915. - To the Chief of Engineers.

1. I recommend the location of the four 12" guns mounted for long range fire on the Government reservation at Nahant. The reservation contains an area of about 45 acres and is sufficient to accommodate these guns without the acquisition of additional land. This is an important consideration under existing conditions as the site is immediately available as soon as the money for construction can be provided.

2. This is the weak end of the Coast Defenses, and is now the side of the main channel of approach through Broad Sound. Four 12" guns mounted for indirect, long range fire would lessen the danger of bombardment of the city from this, the most vulnerable side, (see my letter of May 7, 1915, in reply to E.D.circular letter of April 13, 1915,-97309). They would prohibit landings certainly at Salem, and probably at Gloucester, very materially lessening the difficulties of defending the city from attack by land on the north side. I have consulted the Coast Defense Commander, and he concurs in these views and recommendations.

3. The chart forwarded with my report of September 10, 1915, submitted in compliance with E.D.letter of July 7, 1915 (98227), shows the field of fire from Nahant.


Colonel, Corps of Engineers.

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OFFICE, CHIEF OF POLICE

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Address reply to
CHIEF OF ENGINEERS, U. S. ARMY,
Washington, D. C.

WAR DEPARTMENT.
OFFICE OF THE CHIEF OF ENGINEERS,
WASHINGTON.

DCR-FF

Refer to File No. 98227.....

November 22, 1915.

HQ. E. D. 470. C. D. Boston.
DEC 2 1915 (Armament)

MEMORANDUM for the Chief of Staff.

Subject: Locations for proposed new armament, Boston Harbor, Mass.

1. As the new armament proposed for Boston Harbor seems to have been definitely settled by the War Department Board of Review and approved by the Secretary of War, this new armament to be composed of two 16-inch rifles on disappearing carriages, and four 12-inch rifles mounted for long-range fire, it is recommended that the Board of Review now take up and definitely decide upon the exact location for these guns, for until this is done no detailed drawings can be prepared and no estimates of cost can be made other than those which should be considered as mere guesses.

2. After careful consideration, it is my opinion that the most advisable distribution of these guns would be as follows: two long-range 12-inch guns on Hog Island, immediately in rear of Nantasket Beach; two long-range 12-inch guns on the Nahant Reservation; and two 16-inch guns on disappearing carriages on Outer Brewster Island.

3. It is understood that the Nahant reservation and the Outer Brewster reservation are both owned by the United States and are available for construction purposes. Hog Island is not owned by the United States. The Island above high water is about nine acres in extent; the surrounding waters are very shallow, and there are fully twenty-eight acres above mean low water. It is understood that this Island can be purchased for about \$25,000 and can be improved by filling and seawall to a total area of twenty-eight acres at a total cost not exceeding \$150,000, including cost of purchase. If improved area be less, the cost will be less.

4. As an alternative to Hog Island, a site near Point Allerton would offer almost the same advantages, but here also a site must be purchased, as neither the reservation here nor at Fort Revere is large enough to provide a site for these guns.

Dan F. Ingman
Chief of Engineers, U. S. Army.

To
THE ADJUTANT GENERAL
O. C. S. C. A. Div. NOV 24

REC'D NOV 28 1915 C.A. DIV.

OFFICE CHIEF OF STAFF
REC'D NOV 22 1915

REPRODUCED FROM THE NATIONAL ARCHIVES

2345208

1st Indorsement.

War Dept., A. G. O., Dec. 1, 1915 - To the Comdg. Gen., Eastern Dept.,
for remark and recommendation. By order of the Secretary of War:

Wm. M. Wright
Adjutant General.

Rec'd Hq. Eastern Dept. DEC 2 - 1915

5/12/16/15.

was-mr

470.CD Boston.

2d Ind.

HQ. EASTERN DEPT., Dec. 3, 1915.---To Comdg. Officer, C.D. of Boston, Ft.
Warren, Mass., for consideration and recommendation. This letter to be
returned through Comdg. Gen., N.A.C.A. District, for similar action. By
comd. of Maj. Gen. Wood:

Wm. M. Wright
Adjutant General,
Adjutant.

Rec'd Coast Defense of Boston DEC 4 1915

CONFIDENTIAL

2476-H

3rd Ind.

H.Q.C.D. OF BOSTON, Dec. 10, 1915. -- To Comdg. General, Eastern District
(through Comdg. General, N.A.C.A. District). Returned.

1. Information on file at these headquarters is to the effect that, under date of June 7 and 9, 1915, the War Department Board of Review recommended that the existing armament in this coast defense command be supplemented by the installation of four 16-inch guns and eight 12-inch mortars, or their equivalent, which recommendation was approved by the Secretary of War.

2. In view of the differences between this proposed addition to the existing armament and that enumerated in the within letter of Chief of Engineers and in view of the fact that the Chief of Engineers states that "the new armament for Boston Harbor seems to have been definitely settled" as stated, information is requested as to what additional armament has actually been approved for Boston Harbor, in order that the available sites may be intelligently allotted.

3. It is further requested that information be supplied as to just what is meant by a 12-inch rifle mounted for long range fire. This information is considered necessary to enable the proper selection of a site for same to be made.

Thos. Pinkney

Colonel, Coast Artillery Corps.

RECEIVED HQ. N.A.C.A. DIST. DEC 14 1915

470.

4th Ind.

Hq. N.A.C.A. DIST., Dec. 14, 1915 - To C.O., C.D. of Boston.

1. It is understood that the new armament mentioned in this letter does not agree with the copy of the approved project of the War Department Board of Review furnished, but the Department Commander desires to carry out the instructions of the War Department and obtain a recommendation as to the location of the new armament mentioned herein.

2. The 12-inch rifle referred to will be mounted on a barbette carriage and will give a range of 30,000 yards with 700-lb. projectile and 27,300 yards with 1070-lb. projectile.

By cmd. of Brig. Gen. Hodges:

J. C. Proctor
Capt., C.A.C., Actg. Adjt.

98227/36

5th Ind.

NEW-MEL

Office, C. of E., January 2, 1917. -- THROUGH THE CHIEF OF COAST ARTILLERY, To The Adjutant General.

1. Attention is invited to the paper herewith (inclosure 38), with accompanying tracings (inclosures 39, 40).

2. In view of the requirement that horizontal fire be rendered possible (E.D. 95991/41; O.C.C.A. 5834/62-5; A.G.O. 2373807), the location shown on tracing (inclosure 39) is regarded as the best that can be found on the reservation. The dead areas, shown on the tracing (inclosure 40) can be reduced to some extent if desired, by grading down certain hills.

3. The location previously chosen for this battery is shown on the drawing (inclosure 14) and affords much better concealment and protection. This position was selected when it was expected that these guns would be mounted for fire between 10° and 30° of elevation. For guns mounted so as to be fired horizontally it offers many advantages, but the dead spaces are slightly greater than in the other position.

4. A definite settlement of location is necessary as a preliminary to the preparation of detailed plans and early action is therefore requested.

W. M. Clark
Chief of Engineers, U. S. Army.

Inclos. 14, 38-40 accomp.

2-
BAGK JAN 6-1917 O. C. C. A.
3 incls. & 1 to 5403/21-A acfgy
Total 4

5838/162-D

6th Ind.

War Department, O.C.C.A., January 12, 1917. - To The Adjutant General.

Reference of this paper to the Commanding General, Eastern Department, for remark is recommended.

3 incls. and Incl. 1
to 5403/21-A acfgy.
Total, 4 incls.

W. M. Clark
Major General,
Chief of Coast Artillery.

REC'D BACK A G. O. JAN 13 1917
With 4 incls. to 5403/21-A

8476-H

5th Ind.

HCB-rgr

HQ.C.D.OP BOSTON, Dec. 17, 1915.—To Major William Chamberlaine, C.A.C., president of board of officers, convened to prepare statement of condition of the armament in these defenses, etc. for consideration and recommendation by the board. By order of Colonel Ridgway:

W. Chamberlaine
Captain, C.A.C., Adjutant.

6th Ind.

President of Board of Officers, Ft. Andrews, Mass., Dec 24/15-To C.C., C.D. of Boston, Fort Warren, Mass.

1. Returned, enclosing proceedings of a Board of Officers in triplicate.

3-Incls.

William Chamberlaine
Major, C.A.C.

CONFIDENTIAL

8476-B

7th Ind.

TR-rgr

HQ.C.D.OP BOSTON, Dec. 30, 1915.—To Comdg. General, N.A.C.A. District.

1. Returned, earnestly recommending that favorable consideration be given the opinion of the board before final action is taken on this project.

Thos. Ridgway
Colonel, C.A.C., Comdg.

3 Incls.

MAILED 10 1 1916

4

12

8th Ind.

HQ. N.A.C.A. DISTRICT, Jan. 3, 1916 - To Comdg. Gen., Eastern Department.

1. Prior to this correspondence the latest information as to the action of the War Department Board of Review received at these headquarters was contained in the letter from The Adjutant General of the Army, dated September 4, 1915, which stated that the project for additional armament adopted at Boston consisted of four 16-inch rifles and eight 12-inch mortars, or their equivalent. If, as stated in the within memorandum of the Chief of Engineers, only two 16-inch rifles are to be mounted, these should be emplaced on Great Brewster.

2. If the four 12-inch rifles, mounted for long-range fire, are to replace the other two 16-inch rifles, and are to be designed for indirect fire only, as indicated in the report herewith (page 6), the suggested sites on Hog Island and Nahant Reservation will answer the purpose as well as any others. However, I concur in the opinion of the Board as to the advantages that will be sacrificed by mounting these guns for indirect fire only. If mounted for direct as well as long-range fire, I would put them on Deer Island.

3. If two 16-inch guns are to be emplaced on Great Brewster, I am of the opinion that smaller guns of 6 and 3-inch caliber should also be located on that island for the protection of the major caliber guns against small vessels at short range.

J. T. Stodden,
Brig. Gen., Comdg.

(3) Incls.
H

Rec'd Bk. No. Eastern Dept. JAN 5 1916

→ L. E. Gould (in dupl.) Rec'd. (in dupl. with Henry)

2267187-A-9

7th Indt.

War Dept., A.O.O., Jan. 17, 1917. - To the Commanding General, Eastern Department, for remark. By order of the Secretary of War!

Wm. L. L. L.

Adjutant General.

4 Incls.

20
Rec'd B. H. Comm. Dept. JAN 20 1917

23
645, CD. Boston.

6th Ind.

1/2

24. BUREAU OF WAR, Jan. 21, 1917. - To The Adjutant General of the Army.

1. The location of direct fire major caliber batteries at advanced sites practically unsupported is in my opinion an error.

2. In 478. R.E.D., June 20, 1916, I recommended for Boston Harbor the following additional armaments:

- (a) 5 - 16-inch guns, 3 mortars, 4 - 6-inch guns, and 4 - 5-inch guns on Great Brewster;
- (b) 2 - 16-inch guns on Deer Island;
- (c) 3 mortars, 4 - 6-inch guns, and 4 - 5-inch guns at Nahant;
- (d) 4 - 6-inch guns and 2 - 5-inch guns at Point Allerton;
- (e) 3 mortars at Fort Andrews and 3 mortars at Fort Banks to replace old models.

In that letter the following discussion was submitted:

"The occupation of Nahant and Point Allerton for 16-inch guns was considered but discarded on account of the positions being unsupported by lesser armament and more vulnerable to land attack. Great Brewster and Deer Island are well supported and though the latter is somewhat retired it still has 3000 yards advantage over a fleet attempting the bombardment of the naval station from any navigable waters. Some heavy ordnance in addition to that on Great Brewster is necessary as in case the latter falls the present situation would be restored. It is deemed imperative that one company at least be stationed on Great Brewster for care of the armament thereon and of the stations and searchlights on outer Brewster, also in order that all difficulties in administration and supply in war may be developed in peace and provided for. The sale of the Revere reservation (except the site of Battery Ripley and its fire control stations) is recommended to raise funds for the purchase of Great Brewster and land at Point Allerton."

5. On Sept. 4, 1915, A.G.O. 2321223 announced the decision that the additional armament for Boston Harbor would consist of 4 - 16-inch guns and 8 - 12-inch mortars or their equivalent and called for recommendations as to their location. Subject to the provision of fixed or movable rapid fire guns for advanced sites I recommended 5 - 16-inch guns and 4 mortars be placed on Great Brewster, 1 - 16-inch gun on Deer Island, and 4 mortars at Nahant.

4. On Dec. 1, 1915, there was referred by indorsement (A.G.O. 2345206) a letter from the Chief of Engineers stating that the new armament would be composed of two 16-inch guns and four 12-inch guns mounted for long range fire, the indorsement called for a recommendation as to location. In reply the Boston Board, the Coast Defense Commander, the Artillery District Commander, and the Department Commander all reported the inadequacy of the proposed armament. Subject to this the Boston Board recommended two 16-inch and two 12-inch guns on the Nahant Reservation and two 12-inch on Hog Island; the Coast Defense Commander recommended consideration of the full report of the board prior to final action; the Artillery District Commander recommended the two 16-inch be mounted on Great Brewster, with six and three-inch guns in support, and that the four 12-inch guns should be on Deer Island if given direct fire -- he stated, if indirect fire carriages were to be supplied, that Hog Island and Nahant would answer as well as other sites; the Department Commander recommended two 16-inch and two 12-inch (mounted for direct fire) on Great Brewster and two 12-inch mounted at Deer Island. The indorsement continued:-

"4. The proposed increase in armament is felt to be entirely inadequate for a certain defense. This is evident from every study made by the local board, by the District Commander and at these headquarters. I cannot too strongly urge the reinforcement of the proposed armament by at least 8 of the most powerful mortars, 4 at Nahant and 4 at Great Brewster, and by one additional 16 inch gun on Deer Island.

"5. The importance of a reserve of long range armament on Deer Island has been reported upon before. This site is comparatively safe from land attack, it cannot be surprised and reduced by a close in attack under weather conditions favorable for such an attack on account of the many 12 and 10 inch guns bearing on the waters a fleet would have to occupy to make such an attack, and it is still far enough in advance of the most important utility (the navy yard) to render hazardous any attempt at long range bombardment of that station.

"6. At Boston we must advance the main defensive line in order to cover a debouching area for our fleet. This we secure by the occupation of Great Brewster. We must prevent the long range bombardment of the city and harbor. This also will be ensured as long as Great Brewster holds out, and will be prevented, in all probability, by long range armament on Deer Island, even if the Brewster batteries are silenced. But the lack of mortars, with comparative invulnerability, on the advanced line seriously weakens it. And the lack of at least one 16 inch gun, with its heavy projectile and destructive effect at extreme range, on Deer Island, greatly reduces the effectiveness of this last resort.

"7. I urgently recommend consideration of these conditions, and that we do not commit ourselves to final approval at this time of a defensive scheme which in the opinion of all in this department is unreliable and unsafe, and which ultimately will have to be changed. If appropriations limit the armament

which can now be asked for, we should, in submitting our plans, call attention to the fact that increase will be requested at a later date.

LEONARD WOOD,
Major General, Comdg."

5. On June 5, 1916, A.G.O. 2267187-X stated that, in preparing fire control plans there should be included provision for two 12-inch guns to be mounted at Nahant during the coming year.

6. On July 20, 1916, information was received (14th indorsement, A.G.O. 2345208) that the Chief of Engineers had been called upon to prepare plans and estimates for two 16-inch guns on Calf Island. Attention is invited to 111857-A, O.D. of Boston (H.F.D. 470, O.D. Boston) forwarded by indorsement, this date, which shows this site to possess serious deficiencies.

7. Nothing further as to this project was received at these headquarters until this paper referring to the emplacement of two 12-inch guns mounted for direct fire on the Nahant Reservation. It is not known what the decision as to the other 12-inch guns has been, nor is anything available as to the final action on recommendation for guns of lesser caliber to support the major caliber guns proposed for advanced sites.

8. This subject has been reviewed in full in order to bring to the attention of the War Department the situation as it appears to all in this Department. All concerned have been of the opinion that the Nahant--Brewster--Allerton line should be held but none have recommended that it be occupied by unsupported direct fire major caliber guns. The Boston Board has consistently recommended Nahant and Allerton, giving its reasons against the Brewster Group. The Artillery District Commander and the Department Commander have recommended Great Brewster as the advanced gun position on account of its comparative safety from land attack and the number of guns of the existing forts which sweep all water approaches at comparatively short range; they recommended also mortars on the advanced line. The difficulty of supply of Great Brewster was appreciated, but that could be met by appropriations and by stationing at least one company on the island in time of peace. Calf Island has never been recommended. Both the Department and the Artillery District Commanders have called attention to the advantages of Deer Island and recommended some long range armament to be emplaced thereon.

9. I am now called upon for remark and recommendation as to the exact placing of a direct fire gun battery on a site I have never recommended for such a battery and where I believe a direct fire battery unsupported will be almost certainly put out of action. It is idle to hope that the exact strength and location of any battery or group of batteries we emplace will not be known to all possible enemies long before the guns are mounted. Our fortifications, therefore, must be strong enough to defend themselves from probable attack, or the funds expended will be wasted.

10. In view of the importance of this locality, I called in conference Col. Geo. F. Bartlett, General Staff, Col. F. V. Abbot and Harry Taylor, Corps of Engineers, Col. Wm. C. Ham, C.A. Corps, and Major O. E. Milbourne, General Staff, all of whom are thoroughly familiar with the Boston situation. All of these officers are of the opinion that the proposed increase in armament is insufficient to hold a line so far in advance of the present line and that the only justification for its emplacement on this advanced line will be the intent to reinforce this armament with additional guns and mortars in the immediate future; in these opinions I unreservedly concur. All were equally agreed that Calf Island should not be occupied on account of the limitations to the field of fire, character of the island (practically all rock), difficulty in constructing a sheltered landing, lack of natural cover to protect accessories constructions and expense of installation. All were of the opinion that Great Brewster offered the only suitable site in this group of islands.

11. Colonel W. C. Ham stated that Senator Lodge is now willing to dispose of his property on the north east front of Nahant, if the government needed it for defensive purposes, at a very reasonable price. Securing this land was held to be out of the question during previous consideration of the defense of Boston. It is recommended that effort be made to secure this land and, if it can be done, that the first 16-inch guns be mounted thereon provided the necessary supporting armament be authorized at the same time. It is believed that two 16-inch guns, supported by four mortars on the present Nahant reservation and by four 6-inch and four 5-inch guns flanking the sixteens would make a reasonably secure defense.

12. It is recommended also that effort be made to purchase Great Brewster Island and that site be adopted for emplacement of 16-inch guns — those now authorized if the recommendations of paragraph 11 as to Nahant are not carried out, or by additional 16-inch guns to be obtained later if the Nahant project is adopted. The supporting armament deemed necessary by the report of the Boston Board should be included in the project.

13. Whether or not the Nahant site for 16-inch guns is obtained, it is vitally necessary that mortars be emplaced on the Nahant Reservation (utilizing 1896 model taken from interior forts until more modern types can be provided). Attention is invited to the map inclosed showing that the water areas to the seaward of this site lie at extreme range from most of the established batteries and that this flank on existing defenses is weaker and more retired than the right flank. Without additional major caliber direct fire guns the two 12-inch guns at Nahant should be mounted as originally intended — that is, as indirect fire guns taking advantage of terrain for protection against a close in attack made under weather conditions favoring the enemy. The minimum range of 12-inch guns so mounted is shown in the map and the resulting space, not covered by existing armament, which the proposed mortars would cover and which must be covered if an unprotected area within bombarding range is to be avoided.

14. To sum up:

(a) If we can secure both the sea front of Nahant and Great Brewster Island, I recommend --

2 - 16-inch, 4 - 6-inch, 4 - 5-inch on this seafront site with 4 mortars and the 2 long 12-inch on the present Nahant reservation, the last mounted for direct fire;
2 - 16-inch and at least 2 - 6-inch and 4 - 5-inch on Great Brewster;
2 - 12-inch mounted for long range fire at Fort Standish;
At least one 16-inch on Deer Island.

(b) If we cannot secure the seafront at Nahant, but can secure Great Brewster, I recommend --

2 - 12-inch long range guns mounted for indirect fire and 4 mortars on the present Nahant reservation, with supporting rapid fire guns;
2 - 16-inch, with supporting rapid fire guns, on Great Brewster;
2 - 12-inch guns mounted for long range fire at Fort Standish;
At least one 16-inch at Deer Island.

(c) If we can secure neither the seafront at Nahant nor Great Brewster, I recommend --

2 - 12-inch long range guns mounted for indirect fire and 4 mortars on the Nahant reservation, with supporting rapid fire guns;
2 - 16-inch guns mounted on Deer Island;
2 - 12-inch guns mounted for long range fire on Hog Island.

Where rapid fire armament is called for, either fixed or movable armament will serve provided the latter is made generally available.

15. In mounting the 12-inch long range fire guns it is suggested that plans be drawn permitting these guns to be emplaced so as to be able to bring direct fire over sectors from which an overwhelming hostile fire cannot be brought against these guns and indirect fire over sectors from which such an overwhelming hostile fire can be brought.

16. I recommend also the replacement of the Fort Andrews mortars and also any short range mortars temporarily mounted on the Nahant Reservation by the most powerful type when these can be secured.

17. The various papers on new armament continually refer to elevation of 30°. I have understood that a slightly greater elevation is now contemplated. Unless the carriages furnished are of such character as to permit the maximum range of which the pieces are capable, it will be an indication that the lessons of the European War have been only partially absorbed. The same is true as to all round fire. The Massachusetts maneuvers of 1909 demonstrated that the fortifications are open to land attack and with modern siege artillery and observation of fire by aircraft, limited fire batteries are helpless against such attack. There may be instances where all round fire offers no material advantage, but these are believed to be rare; the major portion of our new high powered armament should be so mounted as to secure the most extended fire of which it is capable on all areas from which attack is possible. Any curtailment is, in my opinion, indefensible and will meet justifiable criticism from those charged with defense.

R. E. Wood

Major General, Commanding.

1 Incl. added.
5 Incls.

REC'D BACK, A.G.O. FEB 5 1917, 10

with 1 Incl. 8' Det.

CONFIDENTIAL
2267187-A-9

9th Ind.

A.G.O., February 6, 1917. - To the Chief of Coast Artillery.

5 incls.

2 ✓ BACK FEB 6 - 1917, C. C. A.
4 Incls. & Incls. 1 to 5403/21-A
accomp; Total 5 Incls.

9th Ind.

CEK/MCC

470. C.D. Boston.
(Armament)

HQ. EASTERN DEPT., Jan. 8, 1916- To The Adjutant General of the Army.

1. It is recommended that the proposed armament be emplaced as follows:
 - (a) Two 16 inch and two 12 inch on Great Brewster Island.
 - (b) Two 12 inch guns on Deer Island.
2. The 12 inch should be capable of direct fire. This is not so important for those at Deer Island but is vital for those mounted on advanced sites such as Great Brewster where the maximum fire to oppose a close in attack, made under weather conditions which would minimize the effect of the supporting forts, should be available.
3. The necessity for smaller supporting guns on Great Brewster, noted by the District Commander in the preceding indorsement, has been reported upon before. They should be included in the project, transferring them from retired points if necessary.
4. The proposed increase in armament is felt to be entirely inadequate for a certain defense. This is evident from every study made by the local board, by the District Commander and at these headquarters. I cannot too strongly urge the reinforcement of the proposed armament by at least 8 of the most powerful mortars, 4 at Nahant and 4 at Great Brewster, and by one additional 16 inch gun on Deer Island.
5. The importance of a reserve of long range armament on Deer Island has been reported upon before. This site is comparatively safe from land attack, it cannot be surprised and reduced by a close in attack under weather conditions favorable for such an attack on account of the many 12 and 10 inch guns bearing on the waters a fleet would have to occupy to make such an attack, and it is still far enough in advance of the most important utility (the navy yard) to render hazardous any attempt at long range bombardment of that station.
6. At Boston we must advance the main defensive line in order to cover a debouching area for our fleet. This we secure by the occupation of Great Brewster. We must prevent the long range bombardment of the city and harbor. This also will be ensured as long as Great Brewster holds out, and will be prevented, in all probability, by long range armament of Deer Island, even if the Brewster batteries are silenced. But the lack of mortars, with comparative invulnerability, on the advanced line seriously weakens it. And the lack of at least one 16 inch gun, with its heavy projectile and destructive effect at extreme range, on Deer Island, greatly reduces the effectiveness of this last resort.
7. I urgently recommend consideration of these conditions, and that we do not commit ourselves to final approval at this time of a defensive scheme which in the opinion of all in this department is unreliable and unsafe, and which ultimately will have to be changed. If appropriations limit the armament which can now be asked for, we should, in submitting our plans, call attention to the fact that increase will be requested at a later date.

1 incl.

Samuel D. ...
Major General, Comdg.

REC'D BACK JAN 11 1916 A.G. 8
with 1 Incl. 8" incl.
5 BACK JAN 12 1916 C.A. DIV.
1 new C.A. memo

Wm. W. ...
Chief of Engineers, U. S. Army.

To
THE ADJUTANT GENERAL, with memo.
O.C.S., C.A. Div. NOV 26 1915

REC'D NOV 22 1915 C.A. DIV.

Received A.G.O. NOV 27 1915

OFFICE CHIEF OF STAFF
REC'D NOV 23 1915

3838/169-D

10th Ind.

War Department, O.C.O.A., February 15, 1917.- To The Adjutant General.

It is recommended that these papers be referred to the War Department Board of Review for consideration and recommendation.

4 Incls. & Incl. 1
to 5405/21-1 except:
Total: 5 Incls.

[Signature]
Major General
Chief of Coast Artillery

RECEIVED FEB 18 1917 A.M. 3

CONFIDENTIAL
2267187-A-9

11th Ind.

A.C.O., February 15, 1917.- To the War Department Board of Review.

5 Incls.

ADDRESS REPLY TO
THE DISTRICT ENGINEER OFFICER,
U. S. ENGINEER OFFICE,
25 PEMBERTON SQUARE,
BOSTON, MASS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
ROOM 1017 BARRISTERS HALL, 25 PEMBERTON SQUARE
BOSTON, MASS.

REFER TO FILE NO

From: The District Engineer Officer, Boston, Mass.

June 16, 1916

To: The Chief of Engineers, U.S.A., Washington, D.C.

Subject: Practicability of gun emplacement on Brewster or Calf Isds.

1. Replying to E.D. telegram of the 12th inst. relative to the practicability of emplacing 2 heavy guns on either Great Brewster, Middle Brewster, Outer Brewster or Calf Islands:

2. The group of islands at the entrance to Boston Harbor, of which the Brewsters form the greater part, are Outer Brewster, Middle Brewster, Great Brewster, Little Brewster (occupied by the Light-house Establishment) and Calf Island with its dependency Little Calf Island. All are without natural water supply, and none have wells of any value.

3. Outer Brewster is owned by the U.S. for War Department purposes. It is a barren rock, inaccessible except in good weather and too small for a battery of heavy guns. On account of its advanced position it is subject to enveloping fire.

4. Middle Brewster, on account of its shape, the major axis being at right angles to the proper front of a battery of heavy guns in this location, is not suitable for a battery. It is a rocky island with some of its area covered by grass. It is owned and assessed as follows:

Owner		Assessed Valuation	
Melvin O. Adams.	House,	\$2,000.	
	Cottage,	300.	
	Boathouse,	300.	
	Land,	<u>2,000.</u>	\$4,600.
Benjamin P. Cheney.	House,	3,000.	
	Land,	<u>250.</u>	3,250.
Richard S. Whitney.	House,	1,500.	
	Billiard room,	1,000.	
	Cottage,	500.	
	3 small buildings,	250.	
	Land,	<u>500.</u>	<u>3,750.</u>
Total,.....			\$11,600.

While not needed for construction purposes, it should be acquired if either of the islands in rear of it are occupied by batteries, as it is immediately in their field of fire.

5. Great Brewster Island is different from the others of the group in that a large part of its area is occupied by a hill of gravel and boulders rising to a height of about 105 feet above M.L.W. A battery of two 16" guns might be emplaced upon it, but as the battery would probably occupy the entire area of the island, it is unsuited for the purpose. On account of its elevation it is a favorable location for a base-end station and for quarters for the garrison of a battery located on Calf Island.

<u>Owner</u>		<u>Assessed Valuation</u>
City of Boston.	Land,	\$15,000.
	Buildings,	1,950.
Total,.....		\$16,950.

In this connection, attention is invited to par.2 of my letter of Aug.20,1915, submitting data for annual estimates on fortification work; in which further details are given as to this island.

6. Calf Island is a low, rocky island with maximum elevation of about 45 feet above low water. It is generally covered with grass, but has but little soil covering the rocks. It is owned and assessed as follows:

(Including Little Calf Island)

<u>Owner.</u>		<u>Assessed Valuation</u>
Benjamin P. Cheney.	House,	\$12,000.
	Boathouse,	3,000.
	Observatory,	500.
	Cottage,	500.
	Icehouse,	200.
	Henhouse,	150.
	Shed,	50.
	Stable,	250.
	Bungalow,	1,000.
	Calf Island Land,	5,000.
Little Calf Island Land,		100.
Total,.....		\$22,750.

It is large enough to take a battery of 2 heavy guns, and on account of the direction of its greater axis, affords room for such a battery facing to the front of attack, and having its flanks protected from enfilade fire by the mainland on either side. It is the best location of any of the group for a battery of heavy guns. In connection with a site here for a battery to fire at extreme ranges it is necessary to consider places for fire control stations, which will be of sufficient height to see ships at distances which may be used. A location of range stations on the hill on Great Brewster, on Winthrop Head and on Strawberry Hill may be considered available. On account of their heights, the bridge or other part of a ship 50 feet high would be visible at about 26,000 yards. For this reason, if Calf Island is occupied by a battery, Great Brewster Island should also be acquired, primarily as a range station. Secondary batteries upon it would also protect any stations to be

Outer Brewster.

7. Little Brewster and Little Calf Islands are rocky islets of value for defensive purposes.

8. In the above cases, the assessed valuation represents approximately the fair commercial value of the properties.

9. Plan is inclosed showing the relative size and location of these islands.

W. E. Loughill
Colonel, Corps of Engineers.

GWG

1 inclo. (tracing) accomp.

98227/51

1st Ind.

LEW-JHS

Office C. of E., July 12, 1916 - To the CHIEF OF STAFF.

The above report and the inclosed tracing are forwarded for the action of the Board of Review in connection with other papers relating to the location of new gun emplacements in Boston Harbor forwarded to The Adjutant General by my indorsement of May 8, 1916, on E. D. 98227/17, which papers are now understood to be before the Board of Review.

W. M. Black
Chief of Engineers, U. S. Army.

Inclo. 32 accomp.

98227

98227.

31

WAR DEPARTMENT

1 no. 6.2 (free)

22

2



While not
acquired in
batteries, as
In Great
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be

HEADQUARTERS COAST DEFENSES OF BOSTON,
Fort Warren, Mass.

8476-Z

October 30, 1916.

From: Coast Defense Commander.

To: Comdg. General, N.A.C.A. District. 4

Subject: Range Data for Guns and Mortars.

665.
CD. Boston. (Range Data)

~~1. Reference my letter October 25, 1916, (8476-U) and your~~
letter October 28, 1916, (665.B) on the above subject, information is requested as to the exact proposed location of the battery in question and the limiting azimuths of its field of fire. This information is necessary before any action can be taken with respect to the location of fire control stations for use in connection with this battery.

J. R. Quincy
Colonel, C.A.C.

Received, Hq. N.A.C.A. Dist. OCT 31 1916

665. B

1st Ind.

HQ. N.A.C.A. DIST., Nov. 1, 1916 - To Comdg. Gen., Eastern Department.

1. Recommending that the information requested be furnished.
2. This letter has reference to the proposed 12" battery, to be located at Nahant, mentioned in paragraph 5, 29th indorsement on A.G.O. 2267187-X; H.E.D. 16861.

#1 on 665. *Exp. Boston.*

J. F. Stodole
Brig. Gen., Comdg.

11
1
2
NOV 3 1916

665.C.D.Boston (Range Data)

2nd Ind.

HQ.EASTERN DEPT. Nov. 4, 1916 - To The Adjutant General of the Army, requesting that the information be furnished. The latest record in this office as to the location of the proposed new armament in Boston harbor is contained in A.G.O. 2345202, 14th indorsement, July 20, 1916. It is requested that copies of all later decisions be furnished.

[Signature]
Major-General
Commanding

Received A.G.O. NOV 7 1916

2267187-A-9

3d Ind.

A.G.O., November 9, 1916.-To the Chief of Coast Artillery.

RECEIVED NOV 9 1916 O.C. C. A.

3838/169-D

4th Ind.

War Department, O.C.C.A., November 13, 1916.- To Chief of Engineers.

It is requested that a location sketch be furnished.

[Signature]
Major General,
Chief of Coast Artillery.

Office, C. of E., January 2, 1917. -- THROUGH THE CHIEF OF COAST
ARTILLERY, To The Adjutant General.

1. Attention is invited to the paper herewith (inclosure 38),
with accompanying tracings (inclosures 39, 40).

2. In view of the requirement that horizontal fire be rendered
possible (F.D. 9591/41; O.C.C.A. 5834/62-5; A.G.O. 2373807), the lo-
cation shown on tracing (inclosure 39) is regarded as the best that
can be found on the reservation. The dead areas, shown on the tracing
(inclosure 40) can be reduced to some extent if desired, by grading down
certain hills.

3. The location previously chosen for this battery is shown on the
drawing (inclosure 14) and affords much better concealment and protection.
This position was selected when it was expected that these guns would be
mounted for fire between 10° and 30° of elevation. For guns mounted so as
to be fired horizontally it offers many advantages, but the dead spaces are
slightly greater than in the other position.

4. A definite settlement of location is necessary as a preliminary
to the preparation of detailed plans and early action is therefore request-
ed.

N. M. Clark
Chief of Engineers, U. S. Army.

Inclos. 14, 38-40 accomp.

9 JAN 5 1917
3 incls & Inc 1 to 5403/21-A accpg
Total 4

3838/169-D

6th Ind.

War Department, O.C.C.A., January 12, 1917. - To The Adjutant General.

Reference of this paper to the Commanding General, Eastern Department,
for remark is recommended.

3 incls. and Incl. 1
to 5403/21-A accpg.
Total, 4 incls.

W. H. Weaver
Major General,
Chief of Coast Artillery.

NOTED BACK, A.G.O. JAN 13 1917
With 4 incls to 5th indt

7th Indt.

War Dept., A.G.O., Jan. 17, 1917. - To the Commanding General, Eastern Department, for remark. By order of the Secretary of War:

Wm. L. Smith

4 Incls.

Adjutant General.

DD

665. CD. Boston.

8th Indt.

/pmf

HQ. EASTERN DEPT., Jan. 31, 1917 - To The Adjutant General of the Army.

1. The location of direct fire major caliber batteries at advanced sites practically unsupported is in my opinion an error.
2. In 470. H.E.D., June 25, 1915, I recommended for Boston Harbor the following additional armament:

- (a) 3 - 16-inch guns, 8 mortars, 4 - 6-inch guns, and 4 - 3-inch guns on Great Brewster;
- (b) 2 - 16-inch guns on Deer Island;
- (c) 8 mortars, 4 - 6-inch guns, and 4 - 3-inch guns at Nahant;
- (d) 6 - 6-inch guns and 2 - 3-inch guns at Point Allerton;
- (e) 8 mortars at Fort Andrews and 8 mortars at Fort Banks to replace old models.

In that letter the following discussion was submitted:

"The occupation of Nahant and Point Allerton for 16-inch guns was considered but discarded on account of the positions being unsupported by lesser armament and more vulnerable to land attack. Great Brewster and Deer Island are well supported and though the latter is somewhat retired it still has 3000 yards advantage over a fleet attempting the bombardment of the naval station from any navigable waters. Some heavy ordnance in addition to that on Great Brewster is necessary as in case the latter falls the present situation would be restored. It is deemed imperative that one company at least be stationed on Great Brewster for care of the armament thereon and of the stations and searchlights on outer Brewster, also in order that all difficulties in administration and supply in war may be developed in peace and provided for.

"The sale of the Revere reservation (except the site of Battery Ripley and its fire control stations) is recommended to raise funds for the purchase of Great Brewster and land at Point Allerton."

3. On Sept. 4, 1915, A.G.O. 2321233 announced the decision that the additional armament for Boston Harbor would consist of 4 - 16-inch guns and 8 - 12-inch mortars or their equivalent and called for recommendations as to their location. Subject to the provision of fixed or movable rapid fire guns for advanced sites I recommended 3 - 16-inch guns and 4 mortars be placed on Great Brewster, 1 - 16-inch gun on Deer Island, and 4 mortars at Nahant.

4. On Dec. 1, 1915, there was referred by indorsement (A.G.O. 2345206) a letter from the Chief of Engineers stating that the new armament would be composed of two 16-inch guns and four 12-inch guns mounted for long range fire, the indorsement called for a recommendation as to location. In reply the Boston Board, the Coast Defense Commander, the Artillery District Commander, and the Department Commander all reported the inadequacy of the proposed armament. Subject to this the Boston Board recommended two 16-inch and two 12-inch guns on the Nahant Reservation and two 12-inch on Hog Island; the Coast Defense Commander recommended consideration of the full report of the board prior to final action; the Artillery District Commander recommended the two 16-inch be mounted on Great Brewster, with six and three-inch guns in support, and that the four 12-inch guns should be on Deer Island if given direct fire -- he stated, if indirect fire carriages were to be supplied, that Hog Island and Nahant would answer as well as other sites; the Department Commander recommended two 16-inch and two 12-inch (mounted for direct fire) on Great Brewster and two 12-inch mounted at Deer Island. The indorsement continued:-

"4. The proposed increase in armament is felt to be entirely inadequate for a certain defense. This is evident from every study made by the local board, by the District Commander and at these headquarters. I cannot too strongly urge the reinforcement of the proposed armament by at least 8 of the most powerful mortars, 4 at Nahant and 4 at Great Brewster, and by one additional 16 inch gun on Deer Island.

"5. The importance of a reserve of long range armament on Deer Island has been reported upon before. This site is comparatively safe from land attack, it cannot be surprised and reduced by a close in attack under weather conditions favorable for such an attack on account of the many 12 and 10 inch guns bearing on the waters a fleet would have to occupy to make such an attack, and it is still far enough in advance of the most important utility (the navy yard) to render hazardous any attempt at long range bombardment of that station.

"6. At Boston we must advance the main defensive line in order to cover a debouching area for our fleet. This we secure by the occupation of Great Brewster. We must prevent the long range bombardment of the city and harbor. This also will be ensured as long as Great Brewster holds out, and will be prevented, in all probability, by long range armament on Deer Island, even if the Brewster batteries are silenced. But the lack of mortars, with comparative invulnerability, on the advanced line seriously weakens it. And the lack of at least one 16 inch gun, with its heavy projectile and destructive effect at extreme range, on Deer Island, greatly reduces the effectiveness of this last resort.

"7. I urgently recommend consideration of these conditions, and that we do not commit ourselves to final approval at this time of a defensive scheme which in the opinion of all in this department is unreliable and unsafe, and which ultimately will have to be changed. If appropriations limit the armament

which can now be asked for, we should, in submitting our plans, call attention to the fact that increase will be requested at a later date.

LEONARD WOOD,

Major General, Comdg."

5. On June 5, 1916, A.G.O. 2267187-X stated that, in preparing fire control plans there should be included provision for two 12-inch guns to be mounted at Nahant during the coming year.

6. On July 20, 1916, information was received (14th indorsement, A.G.O. 2345208) that the Chief of Engineers had been called upon to prepare plans and estimates for two 16-inch guns on Calf Island. Attention is invited to 11287-A, C.D. of Boston (H.W.D. 470, CD. Boston) forwarded by indorsement, this date, which shows this site to possess serious deficiencies.

7. Nothing further as to this project was received at these headquarters until this paper referring to the emplacement of two 12-inch guns mounted for direct fire on the Nahant Reservation. It is not known what the decision as to the other 12-inch guns has been, nor is anything available as to the final action on recommendation for guns of lesser caliber to support the major caliber guns proposed for advanced sites.

8. This subject has been reviewed in full in order to bring to the attention of the War Department the situation as it appears to all in this Department line should be held but none have recommended that it be occupied by unsupported direct fire major caliber guns. The Boston Board has consistently recommended Nahant and Allerton, giving its reasons against the Brewster Group. The Artillery District Commander and the Department Commander have recommended Great Brewster as the advanced gun position on account of its comparative safety from land attack and the number of guns of the existing forts which sweep all water approaches at comparatively short range; they recommended also mortars on the advanced line. The difficulty of supply of Great Brewster was appreciated, but that could be met by appropriations and by stationing at least one company on the island in time of peace. Calf Island has never been recommended. Both the Department and the Artillery District Commanders have called attention to the advantages of Deer Island and recommended some long range armament to be emplaced thereon.

9. I am now called upon for remark and recommendation as to the exact placing of a direct fire gun battery on a site I have never recommended for such a battery and where I believe a direct fire battery unsupported will be almost certainly put out of action. It is idle to hope that the exact strength and location of any battery or group of batteries we emplace will not be known to all possible enemies long before the guns are mounted. Our fortifications, therefore, must be strong enough to defend themselves from probable attack, or the funds expended will be wasted.

10. In view of the importance of this locality, I called in conference Col. Geo. T. Bartlett, General Staff, Col. F. V. Abbot and Harry Taylor, Corps of Engineers, Col. Wm. G. Haan, C.A. Corps, and Major C. E. Kilbourne, General Staff, all of whom are thoroughly familiar with the Boston situation. All of these officers are of the opinion that the proposed increase in armament is insufficient to hold a line so far in advance of the present line and that the only justification for its emplacement on this advanced line will be the intent to reinforce this armament with additional guns and mortars in the immediate future; in these opinions I unreservedly concur. All were equally agreed that Calf Island should not be occupied on account of the limitations to the field of fire, character of the island (practically all rock), difficulty in constructing a sheltered landing, lack of natural cover to protect accessory constructions and expense of installation. All were of the opinion that Great Brewster offered the only suitable site in this group of islands.

11. Colonel W. G. Haan stated that Senator Lodge is now willing to dispose of his property on the north east front of Nahant, if the government needed it for defensive purposes, at a very reasonable price. Securing this land was held to be out of the question during previous consideration of the defense of Boston. It is recommended that effort be made to secure this land and, if it can be done, that the first 16-inch guns be mounted thereon provided the necessary supporting armament be authorized at the same time. It is believed that two 16-inch guns, supported by four mortars on the present Nahant reservation and by four 6-inch and four 3-inch guns flanking the sixteens would make a reasonably secure defense.

12. It is recommended also that effort be made to purchase Great Brewster Island and that site be adopted for emplacement of 16-inch guns — those now authorized if the recommendations of paragraph 11 as to Nahant are not carried out, or by additional 16-inch guns to be obtained later if the Nahant project is adopted. The supporting armament deemed necessary by the report of the Boston Board should be included in the project.

13. Whether or not the Nahant site for 16-inch guns is obtained, it is vitally necessary that mortars be emplaced on the Nahant Reservation (utilizing 1896 model taken from interior forts until more modern types can be provided). Attention is invited to the map inclosed showing that the water areas to the seaward of this site lie at extreme range from most of the established batteries and that this flank of existing defenses is weaker and more retired than the right flank. Without additional major caliber direct fire guns the two 12-inch at Nahant should be mounted as originally intended — that is, as indirect fire guns taking advantage of terrain for protection against a close in attack made under weather conditions favoring the enemy. The minimum range of 12-inch guns so mounted is shown in the map and the resulting space, not covered by existing armament, which the proposed mortars would cover and which must be covered if an unprotected area within bombarding range is to be avoided.

14. To sum up:

(a) If we can secure both the sea front of Nahant and Great Brewster Island, I recommend --

2 - 16-inch, 4 - 6-inch, 4 - 3-inch on this seafront site with 4 mortars and the 2 long 12-inch on the present Nahant reservation, the last mounted for direct fire;
2 - 16-inch and at least 2 - 6-inch and 4 - 3-inch on Great Brewster;
2 - 12-inch mounted for long range fire at Fort Standish;
At least one 16-inch on Deer Island.

(b) If we cannot secure the seafront at Nahant, but can secure Great Brewster, I recommend --

2 - 12-inch long range guns mounted for indirect fire and 4 mortars on the present Nahant reservation, with supporting rapid fire guns;
2 - 16-inch, with supporting rapid fire guns, on Great Brewster;
2 - 12-inch guns mounted for long range fire at Fort Standish;
At least one 16-inch at Deer Island.

(c) If we can secure neither the seafront at Nahant nor Great Brewster, I recommend --

2 - 12-inch long range guns mounted for indirect fire and 4 mortars on the Nahant reservation, with supporting rapid fire guns;
2 - 16-inch guns mounted on Deer Island;
2 - 12-inch guns mounted for long range fire on Hog Island.

Where rapid fire armament is called for, either fixed or movable armament will serve provided the latter is made surely available.

15. In mounting the 12-inch long range fire guns it is suggested that plans be drawn permitting these guns to be emplaced so as to be able to bring direct fire over sectors from which an overwhelming hostile fire cannot be brought against these guns and indirect fire over sectors from which such an overwhelming hostile fire can be brought.

16. I recommend also the replacement of the Fort Andrews mortars and also any short range mortars temporarily mounted on the Nahant Reservation by the most powerful type when these can be secured.

17. The various papers on new armament continually refer to elevation of 30°. I have understood that a slightly greater elevation is now contemplated. Unless the carriages furnished are of such character as to permit the maximum range of which the pieces are capable, it will be an indication that the lessons of the European War have been only partially absorbed. The same is true as to all round fire. The Massachusetts maneuvers of 1909 demonstrated that the fortifications are open to land attack and with modern siege artillery and observation of fire by aircraft, limited fire batteries are helpless against such attack. There may be instances where all round fire offers no material advantage, but these are believed to be rare; the major portion of our new high powered armament should be so mounted as to secure the most extended fire of which it is capable on all areas from which attack is possible. Any curtailment is, in my opinion, indefensible and will meet justifiable criticism from those charged with defense.

Kenneth Wood

Major General, Commanding.

1 Incl. added.
5 Incls.

RECORDED, A.G.O. FEB 6 1917, 10

with 1 Incl 8" Dist

CONFIDENTIAL
2267187-A-9

9th Ind.

A.G.O., February 6, 1917.-To the Chief of Coast Artillery.

5 incls.

2 BACK FEB 6-1917. C. G. A.
4 Incls. & Inc. 1 to S403/21-A
accomp; Total 5 Incls.

3838/169-D

10th Ind.

War Department, O.C.C.A., February 13, 1917.- To The Adjutant General.

It is recommended that these papers be referred to the War Department Board of Review for consideration and recommendation.

4 Incls. & Incl. 1
to 5403/21-A accpg.;
Total: 5 Incls.

Putnam
Major General,
Chief of Coast Artillery.

RECEIVED MAR 23 1917 12:31 PM

CONFIDENTIAL
2267187-A-9

11th Ind.

A.G.O., February 15, 1917.- To the War Department Board of Review.

5 incls.

RECEIVED MAR 16 1917 11:10
with staff memo.

CONFIDENTIAL.
2267187-A-9.

12th Ind.

War Dept., A.G.O., Mar. 19, 1917.- To the Comdg. Gen., Eastern Dept., with the information that the approved project of the Board of Review for additional seacoast armament at Boston Harbor contemplates the installation of 2-16" guns on Calf Island, 2-12" guns on Little Hog Island, and 2-12" guns at Nahant. The reasons advanced by the commanding general, Eastern Department, in support of his recommendations have been considered heretofore by the Board of Review, and the board at its meeting on March 6, 1917, decided to recommend that its project for additional armament for Boston Harbor be modified only to the extent of transferring 4-12" mortars from Fort Banks to the present Government Reservation at Nahant, these mortars to be emplaced with intervals sufficient to permit of their subsequent replacement by 16" mortars, and their emplacements for the present to consist of gun blocks only. This transfer would advance these mortars about 5,000 yards to the seaward of their present position. The cost of the work involved in this transfer is estimated at approximately \$20,000. The Secretary of War has approved the action of the Board. The return of these papers is desired. By order of the Secretary of War,

5 Incls.

RECEIVED MAR 22 1917

MAR 22 1917

10

Wm. M. Smith
Adjutant General.

Additional 29 NOV 8 1916

2267187

1916
353
353-0
WAR DEPARTMENT
NOV 13 1916

98227
236

NOV 13 1916

REC'D. OFFICE CHIEF OF ENGRS.

Incl. 8 8th Jan
Total 57

448
112
Forts

✓
Spec. Engr. to 5th Div
Spec. Engr. to 121st Div
MAY 28 1917

Report of the Chief of Engineers, Department of the Army, for the year ending June 30, 1916, in relation to the work of the Engineers in the construction of the Panama Canal, and the work of the Engineers in the construction of the Panama Canal, and the work of the Engineers in the construction of the Panama Canal.

665.C.D.Boston (Range Data)

2nd Ind.

HQ.EASTERN DEPT. Nov. 4, 1916 - To The Adjutant General of the Army, requesting that the information be furnished. The latest this office has to the

IN REPLY
REFER TO
665, CD Boston

HEADQUARTERS EASTERN DEPARTMENT
GOVERNORS ISLAND, NEW YORK CITY

March 30, 1917.

From: Department Adjutant

To: Commanding Officer, C.D. of Boston, Fort Warren, Mass.
(Through Comdg. Gen. N.A.C.A.D.)

Subject: Location of batteries.

1. With reference to your 8476-P/1 of March 19th, 1917, your attention is invited to the fact that in A.G.O. 2267187-A-9, at Nahant a mortar battery also was authorized for that locality.

2. The Department Commander directs that, after consultation with the District Engineer, you submit recommendation as to the locations of the two batteries.

3. Prompt report is desired.

H. A. Simpson
Adjutant General

665. B

1st Ind.

HQ. N.A.C.A.DIST., 6 April 1917 - To C.O., C.D. of Boston, Fort Warren, Mass.

1. The within letter directs that you submit recommendations as to location of:

(a) Two 12" B.L.R. at Nahant.

(b) Four 12" B.L.M. to be transferred from Fort Banks to present Government reservation at Nahant (see 12th Ind., A.G.O., 19 March 1917, 2267187-CONFIDENTIAL -A.G.).

2. In connection with the report to be submitted by you in compliance with 3d Ind., (665B, N.A.C.A.D., 16 March 1917) on letter from Chief of Coast Artillery, dated 3 March 1917 (Study of fire control system for 12 long range batteries) the Commanding General directs that you include recommendations as to the installation of the fire control system for the proposed mortar battery on the present Government reservation at Nahant.

3. In this connection, your request for information contained in 4th Indorsement, 8476-P1, C.D. of B.) was forwarded to the War Department.

By command of Brig. Gen. Hodges:

Chamberlain
Lieut. Col., Coast Arty.,
Adjutant.

CONFIDENTIAL.
8476-P-1-A.

2d Ind.

HQ: C.D. OF BOSTON, April 11, 1917. - To Commanding General, N.A.C.A. Dist., inclosing approved proceedings of board of officers, in triplicate, and maps and blueprints accompanying the same.

9-Incls.

Thos. O'Leary
Colonel, C.A.C., Commanding.

RECEIVED, "C" DIST. APR 13 1917

665.B

3rd Ind.

HQ. N.A.C.A. DIST., 13 April 1917. To Commanding General, Eastern Department.

1. The exact location of the mortar battery is contingent upon the location of the 12" battery. Due to the high ground on Nahant Point there appears to be no suitable location for the 12" gun battery on the existing government reservation at Nahant which will permit the guns to cover with direct fire the important waters of Nahant Bay, from which, at a range of about 14000 yards, the Boston Navy Yard can be shelled. A suitable location for the 12" battery can be found near East Point.

2. The site proposed for the mortar battery by the B/O is open to the objection that the battery would be visible from the southeast. If the 12" battery be located near East Point it is thought a better and more concealed site for the mortar battery on the present reservation can be found under the brow of the hill now proposed as a site for the 12" battery.

J. F. Stodol

Brigadier General,
Commanding.

3
Incls. (in map.)

REC'D BACK, SIG. B. EASTERN DEPT. APR 16 1917

662.2 (ODE)

4th Ind.

HQ., EASTERN DEPARTMENT, May 4, 1917 - To Comdg. Gen.,
Northeastern Department, Boston, Mass.

WAS
2 encls.

RECD. HQ. N. E. DEPT. MAY 9 - 1917

5th Ind.

HQ. NORTHEASTERN DEPARTMENT, May 14, 1917. To the C. O., North
Atlantic Coast Artillery District.

For remark and recommendation.

By command of Brigadier General Edwards,

2 Incls. added.
6 Incls.

J. H. Edwards
Adjutant General,
Adjutant.

Recd May 10/17 J. H. Edwards.

CONFIDENTIAL.
665.B

6th Ind.

HQ. N.A.C.A.DISTRICT, Boston, Mass., May 22, 1917 - To Commanding
General, Northeastern Department.

1. The following points are at issue:

(a) The advisability of locating the 12" B.L.R. battery
with modified D.C. upon the ~~Government~~ reservation at Nahant,
taking into consideration the fact that over a certain sector
of the field of fire it will be necessary to give an elevation
of approximately 3 degrees in order to fire over an intervening
hill.

(b) The advisability of locating the 12" B.L.R. battery
at East Point, taking into consideration

(1) The delay incident to acquiring title to the
necessary site, now private property.

- (2) The possible interference, by such location, with a possible future location of 16" or other guns.
- (3) The delay incident to providing supporting small caliber guns for such a location.

2. The location 1-a results in a dead space lying, generally speaking, between Spouting Horn and Egg Rock where large vessels might lie and with heavy armament bombard the city of Boston. This space cannot be reached either by the mortars to be installed at Nahant nor by any guns or mortars of these coast defenses without an additional range finding system which must be located upon what is now private property, Breeds Hill, Bakers Hill and High Rock.

3. As to the objection, b-1, to the East Point location it is understood that the property belongs to Senator Lodge and can be readily acquired at any time at a fair price.

As to the objection, b-2, to the East Point location it may be stated that the defense of the area under consideration, Nahant Bay, requires no other guns than the proposed 12" B.L.R. and mortars.

The requirements of supporting small caliber guns would be satisfied by ordinary field guns.

4. In my opinion the danger arising from the existence of the cited dead space resulting from the location of the 12" guns on the Government reservation is a much more serious matter than the temporary objections ascribed to the East Point location and that therefore these guns must be located at East Point. Future safety is more important than present temporary delay.

5. The foregoing discussion is based on the assumption that these 12" guns are intended, primarily, as an adjunct to the mortars in preventing the occupation of Nahant Bay for the purposes of bombardment. If, however, it is accepted that the mortar fire provided for is sufficient to prevent such occupancy, if these 12" guns are to exercise only incidental functions as to Nahant Bay proper but are primarily intended for seaward long range firing in conjunction with the proposed armament of Calf Island, then the issue stated in 1-a becomes negligible and because of the local protection afforded the proposed site on the government reservation is admissible.

6. In connection with the issues stated in 1-b-1 and 1-b-3, it is proper to invite attention to the fact that the efficient service of the mortars demands the installation of searchlights upon East Point, that these searchlights require adequate protection in the form of rapid fire batteries and that for the installation of these adjuncts it will be necessary to purchase adequate sites. These protecting batteries for searchlights would equally furnish the protection required for the 12" battery if located on East Point. It would thus appear that no delay due to purchase of site and installation of protective batteries would affect the installation of the 12" battery on East Point more than must accompany the installation of the mortars.

Chas. L. Phinney

Colonel C. A. C. Cmdg.

COPY to accompany 2d Ind., of Jan. 31, 1917, on H.R.D., #470. CD. Boston

APR 3 1917
P. CO. OFFICE CHIEF OF ENGINE

98127/72

DD
666. CD. Boston.

8th Ind.

/pmf

HD. NAVALY DPT., Jan. 31, 1917 - To The Adjutant General of the Army.

1. The location of direct fire major caliber batteries at advanced sites practically unsupported is in my opinion an error.
2. In 470. H.R.D., June 25, 1915, I recommended for Boston Harbor the following additional armament:

- (a) 3 - 16-inch guns, 8 mortars, 4 - 6-inch guns, and 4 - 3-inch guns on Great Brewster;
- (b) 2 - 16-inch guns on Deer Island;
- (c) 8 mortars, 4 - 6-inch guns, and 4 - 3-inch guns at Nahant;
- (d) 6 - 6-inch guns and 2 - 3-inch guns at Point Allerton;
- (e) 8 mortars at Fort Andrews and 8 mortars at Fort Banks to replace old models.

In that letter the following discussion was submitted:

"The occupation of Nahant and Point Allerton for 16-inch guns was considered but discarded on account of the positions being unsupported by lesser armament and more vulnerable to land attack. Great Brewster and Deer Island are well supported and though the latter is somewhat retired it still has 3000 yards advantage over a fleet attempting the bombardment of the naval station from any navigable waters. Some heavy ordnance in addition to that on Great Brewster is necessary as in case the latter falls the present situation would be restored. It is deemed imperative that one company at least be stationed on Great Brewster for care of the armament thereon and of the stations and searchlights on outer Brewster, also in order that all difficulties in administration and supply in war may be developed in peace and provided for.

"The sale of the Revere reservation (except the site of Battery Ripley and its fire control stations) is recommended to raise funds for the purchase of Great Brewster and land at Point Allerton."

3. On Sept. 4, 1915, A.G.O. 2531255 announced the decision that the additional armament for Boston Harbor would consist of 4 - 16-inch guns and 8 - 12-inch mortars or their equivalent and called for recommendations as to their location. Subject to the provision of fixed or movable rapid fire guns for advanced sites I recommended 3 - 16-inch guns and 4 mortars be placed on Great Brewster, 1 - 16-inch gun on Deer Island, and 4 mortars at Nahant.

4. On Dec. 1, 1915, there was referred by indorsement (A.G.O. 2345206) a letter from the Chief of Engineers stating that the new armament would be composed of two 16-inch guns and four 12-inch guns mounted for long range fire, the indorsement called for a recommendation as to location. In reply the Boston Board, the Coast Defense Commander, the Artillery District Commander, and the Department Commander all reported the inadequacy of the proposed armament. Subject to this the Boston Board recommended two 16-inch and two 12-inch guns on the Nahant Reservation and two 12-inch on Hog Island; the Coast Defense Commander recommended consideration of the full report of the board prior to final action; the Artillery District Commander recommended the two 16-inch be mounted on Great Brewster, with six and three-inch guns in support, and that the four 12-inch guns should be on Deer Island if given direct fire -- he stated, if indirect fire carriages were to be supplied, that Hog Island and Nahant would answer as well as other sites; the Department Commander recommended two 16-inch and two 12-inch (mounted for direct fire) on Great Brewster and two 12-inch mounted at Deer Island. The indorsement continued:-

"4. The proposed increase in armament is felt to be entirely inadequate for a certain defense. This is evident from every study made by the local board, by the District Commander and at these headquarters. I cannot too strongly urge the reinforcement of the proposed armament by at least 8 of the most powerful mortars, 4 at Nahant and 4 at Great Brewster, and by one additional 16 inch gun on Deer Island.

"5. The importance of a reserve of long range armament on Deer Island has been reported upon before. This site is comparatively safe from land attack, it cannot be surprised and reduced by a close in attack under weather conditions favorable for such an attack on account of the many 12 and 10 inch guns bearing on the waters a fleet would have to occupy to make such an attack, and it is still far enough in advance of the most important utility (the navy yard) to render hazardous any attempt at long range bombardment of that station.

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"7. I urgently recommend consideration of these conditions, and that we do not commit ourselves to final approval at this time of a defensive scheme which in the opinion of all in this department is unreliable and unsafe, and which ultimately will have to be changed. If appropriations limit the armament

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Major General, Comdg."

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7. Nothing further as to this project was received at these headquarters until this paper referring to the emplacement of two 12-inch guns mounted for direct fire on the Nahant Reservation. It is not known what the decision as to the other 12-inch guns has been, nor is anything available as to the final action on recommendation for guns of lesser caliber to support the major guns proposed for advanced sites.

8. This subject has been reviewed in full in order to bring to the attention of the War Department the situation as it appears to all in this Department. All concerned have been of the opinion that the Nahant—Brewster—Allerton line should be held but none have recommended that it be occupied by unsupported direct fire major caliber guns. The Boston Board has consistently recommended Nahant and Allerton, giving its reasons against the Brewster Group. The Artillery District Commander and the Department Commander have recommended Great Brewster as the advanced gun position on account of its comparative immunity from land attack and the number of guns of the existing forts which sweep water approaches at comparatively short range; they recommended also mortars on the advanced line. The difficulty of supply of Great Brewster was appreciated, but that could be met by appropriations and by stationing at least one company on the island in time of peace. Galf Island has never been recommended. Both the Department and the Artillery District Commanders have called attention to the advantages of Bear Island and recommended some long range armament be emplaced thereon.

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- 6 -

10. In view of the importance of this locality, I called in conference Col. Geo. T. Bartlett, General Staff, Colo. F. V. Abbot and Harry Taylor, Corps of Engineers, Col. Wm. G. Mann, C.A. Corps, and Major O. T. Kilbourne, General Staff, all of whom are thoroughly familiar with the Boston situation. All of these officers are of the opinion that the proposed increase in armament is insufficient to hold a line so far in advance of the present line and that the only justification for its replacement on this advanced line will be the intent to reinforce this armament with additional guns and mortars in the immediate future; in these opinions I unreservedly concur. All were equally agreed that Gull Island should not be occupied on account of the limitations to the field of fire, character of the island (practically all rock), difficulty in constructing a sheltered landing, lack of natural cover to protect accessories, constructions and expense of installation. All were of the opinion that Great Brewster offered the only suitable site in this group of islands.

11. Colonel W. G. Mann stated that Senator Lodge is now willing to dispose of his property on the north east front of Nahant, if the government needed it for defensive purposes, at a very reasonable price. Securing this land was held to be out of the question during previous consideration of the defense of Boston. It is recommended that effort be made to secure this land and, if it can be done, that the first 16-inch guns be mounted thereon provided the necessary supporting armament be authorized at the same time. It is believed that two 16-inch guns, supported by four mortars on the present Nahant reservation and by four 6-inch and four 3-inch guns flanking the sixtons would make a reasonably secure defense.

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14. To sum up:

(a) If we can secure both the sea front of Nahant and Great Brewster Island, I recommend --

2 - 16-inch, 4 - 6-inch, 4 - 3-inch on this seafront site with 4 mortars and the 3 long 12-inch on the present Nahant reservation, the last mounted for direct fire;
 2 - 16-inch and at least 2 - 6-inch and 4 - 3-inch on Great Brewster;
 2 - 12-inch mounted for long range fire at Fort Standish;
 At least one 16-inch on Deer Island.

(b) If we cannot secure the seafront at Nahant, but can secure Great Brewster, I recommend --

2 - 12-inch long range guns mounted for indirect fire and 4 mortars on the present Nahant reservation, with supporting rapid fire guns;
 2 - 16-inch, with supporting rapid fire guns, on Great Brewster;
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Where rapid fire armament is called for, either fixed or movable armament will serve provided the latter is made quickly available.

15. In mounting the 12-inch long range fire guns it is suggested that plans be drawn permitting these guns to be replaced so as to be able to bring direct fire over sectors from which an overwhelming hostile fire cannot be brought against these guns and indirect fire over sectors from which such an overwhelming hostile fire can be brought.

16. I recommend also the replacement of the Fort Andrews mortars and also any short range mortars temporarily mounted on the Nahant Reservation by the most powerful type when these can be secured.

17. The various papers on new armament continually refer to elevation of 30°. I have understood that a slightly greater elevation is now contemplated. Unless the carriages furnished are of such character as to permit the maximum range of which the pieces are capable, it will be an indication that the lessons of the European War have been only partially absorbed. The same is true as to all round fire. The Massachusetts maneuvers of 1909 demonstrated that the fortifications are open to land attack and with modern siege artillery and observation of fire by aircraft, limited fire batteries are helpless against such attack. There may be instances where all round fire offers no material advantage, but these are believed to be rare; the major portion of our new high powered armament should be so mounted as to secure the most extended fire of which it is capable on all areas from which attack is possible. Any curtailment is, in my opinion, indefensible and will merit justifiable criticism from those charged with defense.

LEONARD WOOD
Major General, Commanding.

1 Incl. added.
5 Incls.

ADDRESS REPLY TO
THE DISTRICT ENGINEER OFFICER
U. S. ENGINEER OFFICE
25 PEMBERTON SQUARE
BOSTON, MASS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
ROOM 1017 BARRISTERS HALL, 25 PEMBERTON SQUARE
BOSTON, MASS.

REFER TO FILE NO. _____

From: The District Engineer Officer, Boston, Mass.

To: The Chief of Engineers, U.S.A., Washington, D.C.

Subject: Transfer of mortar batteries from Fort Banks to Nahant.

~~1. Referring to E.D. indorsement of Jul. 19, 1917 (98227/128),~~
which directs that a location sketch and estimate of cost be submitted for mounting four 12" mortars on the government reservation at Nahant; it is noted that the 12th indorsement on the same paper requires "these mortars to be emplaced with intervals sufficient to permit of their subsequent replacement by 16" mortars, and their emplacement for the present to consist of gun blocks only."

2. In E.D. indorsement of Apr. 6, 1917 (98227/60), it is stated that it is not contemplated that the blocks for the 12" mortars will be available for the installation of 16" mortars.

3. Your instructions are therefore requested as to whether an arrangement of the blocks for the 12" mortars in general agreement with Engineer Department type plans of 1914 for two-gun pit mortar batteries will be satisfactory. If such arrangement will not be satisfactory, it is requested that instructions or type plans of the 16" mortar battery emplacement, if any are now available, be furnished.

GWG

Chas. L. Potter
Colonel, Corps of Engineers

ADDRESS REPLY TO
DISTRICT ENGINEER OFFICER
U. S. ENGINEER OFFICE
25 PEMBERTON SQUARE
BOSTON, MASS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
ROOM 1017 BARRISTERS HALL, 25 PEMBERTON SQUARE
BOSTON, MASS.

REFER TO FILE NO. 448 Forts

August 13, 1917

From: The District Engineer Officer, Boston, Mass.

To: The Chief of Engineers, U.S.A., Washington, D.C.

Subject: Emplacements for 12-inch mortars, Nahant, Mass.

1. In compliance with instructions contained in par.2 of E.D.indorsement of July 19, 1917 (98227/128), a tracing showing location sketch and plan of four emplacements for 12" mortars at Nahant, Mass., is submitted herewith.

2. The following is an estimate of the cost of the emplacements:

Excavation - 525 cu.yds. at \$4.00 -----	\$2,100.
Concrete - 585 " " " \$11.00 -----	6,435.
Drainage and water installation -----	1,000.
Electric ducts, installation -----	300.
Anchor bolts, " -----	450.
Roadway construction -----	500.
Overhead charges -----	715.
	<u>\$11,500.</u>

3. This estimate is based on doing the work in connection with the construction of the 12-inch battery to be built at Nahant, using the wharf to be built for the battery and the same plant.

Chas. L. Potter
Colonel, Corps of Engineers

LAK
Inclo.124 accomp.

ADDRESS REPLY TO
DISTRICT ENGINEER OFFICER
U. S. ENGINEER OFFICE
25 PEMBERTON SQUARE
BOSTON, MASS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
ROOM 1017 BARRISTERS HALL, 25 PEMBERTON SQUARE
BOSTON, MASS.

REFER TO FILE NO. 448 Ports

August 13, 1917

From: The District Engineer Officer, Boston, Mass.

To: The Chief of Engineers, U.S.A., Washington, D.C.

Subject: Emplacements for 12-inch mortars, Nahant, Mass.

1. In compliance with instructions contained in par. 2 of E.D. indorsement of July 19, 1917 (98227/128), a tracing showing location sketch and plan of four emplacements for 12" mortars at Nahant, Mass., is submitted herewith.

2. The following is an estimate of the cost of the emplacements:

Excavation - 525 cu.yds. at \$4.00	\$2,100.
Concrete - 585 " " " \$11.00	6,435.
Drainage and water installation	1,000.
Electric ducts, installation	300.
Anchor bolts, " "	450.
Roadway construction	500.
Overhead charges	715.
	\$11,500.

3. This estimate is based on doing the work in connection with the construction of the 12-inch battery to be built at Nahant, using the wharf to be built for that battery and the same plant.

Chas. L. Potter
Colonel, Corps of Engineers.

IAK
Inclo. 124 accomp.

98227/150

0
1st ind.

EEW/FJS.

Office, C. of E., August 22, 1917. - To THE CHIEF OF COAST ARTILLERY.

1. Remark invited.
2. The mortar pit details require revision to adapt them for mounting armament from Fort Banks.
3. It is understood that removal and remounting of the armament will be handled by coast artillery troops.

W. M. Black,
Brig. Gen., Chief of Engineers,
By


Colonel, Corps of Engineers.

Inclo.151 accompg.

2/ RECEIVED AUG 24 1917 O.C. A
1000

3838/169-G

2nd Ind.

War Department, O.C.C.A., September 27, 1917. -To the Chief of Engineers.

1. Approval recommended.

2. It seems that the necessary shelters at the battery, viz., a simple and protected service powder magazine and a light fire-proof building for projectiles, should be considered in the project herewith. A plotting room, at least protected, is also a necessary adjunct but should be also considered in connection with the establishment of the B. C. station for this battery, as well.

3. It is understood that the dismounting, removal and remounting of the 12-inch mortars concerned will be handled by Coast Artillery troops, except the detaching and re-setting of the base rings, which it was expected would be accomplished by the Engineer Department.

1 incl.

Emmerson
Major General,
Chief of Coast Artillery.

BACK OFFICE CHIEF OF ENGRS.

SEP 28 1917
Inc. 151 accpg.

98227/150

6
3rd Ind.

NEW/TJS.

Office, C. of E., October 2, 1917. - To THE DISTRICT ENGINEER OFFICER,
Boston, Mass.

1. Attention is invited to the 1st and 2nd indorsements above.
2. The details shown on tracing should be revised, if necessary, to suit the base-rings to be accommodated.
3. Plans and estimates for the utilities described in paragraph 2, 2nd indorsement, are requested.

By command of the Chief of Engineers:

Inclo. 151 by reg. mail.

[Signature]
Colonel, Corps of Engineers.

U.S. Engr. Office, Boston, Mass., Nov. 6, 1917. - To the Chief of Engineers.

1. A new drawing showing the four emplacements for 12" mortars at Nahant, with foundations to suit the base rings for the mortars at Fort Banks, is herewith. The plan provides for a powder magazine, having some protection, with a capacity of 100 rounds per gun; a projectile room, fireproof on the outside, to hold 100 rounds per gun; and a concrete plotting room. As the location of the battery is such that the field of fire is not visible from any ground on the reservation in the immediate vicinity, a B. C. station cannot be located near the battery.

2. The revised estimate is as follows:

Concrete,	1268	cu. yds., @	\$12.00	-	\$15216.00
Excavation,	635	" "	@ 4.00	-	2540.00
Sand Fill,	2800	" "	@ 1.00	-	2800.00
Steel Door	-	-	-	-	100.00
Anchor Bolts	-	-	-	-	450.00
Drainage & Water	-	-	-	-	1000.00
Electric Lighting	-	-	-	-	500.00
Mechanical Data Device-	-	-	-	-	400.00
Projectile House	-	-	-	-	1500.00
Roadway	-	-	-	-	500.00
Overhead	-	-	-	-	994.00
					<u>\$26000.00</u>

3. This estimate is based on doing the work in connection with the construction of the 12" gun battery to be built at Nahant, using the wharf to be built for that battery and the same plant.

Lewis R. Monte

Colonel, Corps of Engineers.

Inclos. 2, and 448/124 Forts, accomp. (by reg. mail)

REC'D. BACR. OFFICE CHIEF OF ENGRS.

NOV 10 1917

Inc. 151 + 164 accy.

98227/150

5th Ind.

EEW/KTC

Office, Chief of Engineers, November 16, 1917 - TO THE CHIEF OF COAST ARTILLERY.

1. Remark is requested relative to the features indicated on the new drawing (inclosure 164).

2. It would appear that for a temporary battery of this character, a plotting room about 16' x 18', with one mechanical indicator, might be found sufficient.

W. M. Clark

Major General, Chief of Engineers.

Incls. 151, 164 accomp.

5 ✓
RECD NOV 13 1917 G. O. A.
3 Incls.

3838/169-G

6th Ind.

War Department, O.C.C.A., February 27, 1918. To the Commanding Officer, North Atlantic Coast Artillery District.

1. The views of the Commanding Officer, Coast Defenses of Boston, are desired with reference to the type, character of construction, protection, and location of the plotting room and of the B.C. station for this battery.

2. Early action and return to this office direct is desired.

F. T. Gamm

3 incls.

Brigadier General, N.A.,
Acting Chief of Coast Artillery.

RECD. HQ. NACAD. MAR 2 - 1918

662.2

7th Ind.

S.3/18/18

P:CFW/ied

HQ. N.A.C.A.DISTRICT, Boston, Mass., March 4, 1918 -- To the Commanding Officer, Coast Defenses of Boston, Fort Warren, Mass., for compliance with the preceding indorsement.

These papers will be returned direct to this office.

By order of Colonel Bennett:

W.H. Rach

3 incls.

1st Lieut., C.A.N.A., Adjutant.

N.S.S.

Rec'd Back C. D. of Boston MAR 5 1918

14254

8th Ind.

TAS

HQ. C.D. OF BOSTON, MASS., April 29, 1918 - To Commanding Officer, North Atlantic Coast Artillery District.

1. The inclosed proceedings of board of officers together with action taken thereon gives the views of the present coast defense Commander.

1 incl.

Morris K. Barroll

MORRIS K. BARROLL

Colonel, C.A.C. Commanding.

RECD. BACK HQ. MACAD. APR 30 1918

662.2

9th Ind.

B:CFW/ied

HQ. N.A.C.A.DISTRICT, Boston, Mass., May 4, 1918 -- To the Acting Chief of Coast Artillery, Washington, D.C.

1. Attention is invited to the inclosed Proceedings of the Board of Officers, and the action of the Coast Defense Commander thereon.

2. The recommendations of the Board of Officers are approved with the following amendment to the 5th recommendation:

That entrances to powder magazines be not in prolongation of magazines, whereby projectiles may enter.

3. The following recommendations and remarks are made upon the views of the Coast Defense Commander:

Par. 1 - Concurred in. D.P.F. instruments at B' and B".

Par. 2 - Concurred in.

Par. 3 - There being nothing herein to indicate that subsequent installation of 16-inch mortars is contemplated, and this being referred to in 5th indorsement as a temporary battery, this recommendation of the Coast Defense Commander is not concurred in for the foregoing reasons.

Par. 4 - Concurred in; plotting rooms to have communication with mechanical data booths located behind mortars.

Par. 5 - Should receive consideration, with a view to increase of distance if considered advisable.

Par. 6 - Concurred in.

Par. 7 - Delivery table considered a convenience; not a necessity. Trolleys should admit of prompt supply of projectiles of kind desired.

Par. 8 - Not concurred in.

C.A. Bennett

C.A. BENNETT

Colonel, C.A.C., Commanding.

H.S.S.

4 incls.

✓ BACK MAY 6 - 1918 C.C.C.A.
Inc 1 + 3 - 6, Total 5 incls

3838/169-G

/ Q
10th Ind.

War Dept., O.C.C.A., July 19, 1918. - To The Adjutant General.

1. It is recommended that the project for moving four 12-inch mortars from Fort Banks to Nahant be abandoned. The cost of construction for emplacing these mortars is now estimated at \$26,000. It is evident from the 12th Ind., (A. G. O. 2267187-A-9; 98227-36 O.C.E.) dated March 19, 1917, that when the Board of Review approved this project, it was believed that the construction work could be utilized at a later date for emplacements of 16" mortars. I am informed that the Engineer Department does not think that any such utilization can be made of the construction now contemplated.

2. I believe it is very desirable to reenforce the long range 12-inch rifles which are to be located at Hog Island and Nahant, as well as the 16-inch rifles which are to be located at Calif Island, by the fire of long range mortars located at Nahant. However, the field of fire of the mortars which it is proposed to transfer from Fort Banks to Nahant, and which have a range of only 15,000 yards, will not add significantly to the defensive strength of these coast defenses.

3. Of the 16 mortars at Fort Banks, four have already been designated for use in France, and it is quite possible that additional withdrawals may be necessary. Should the number of mortars at Banks be reduced to eight, I believe that they would fulfill their functions of defense better if grouped at that point than if divided between that point and Nahant.

Inc. 1 & 3-6
Total 5 Incls.

J. W. COE
F. W. COE
Major General
Chief of Coast Artillery.

Received A.G.O. JUL 19 1918

RECEIVED MISCEL. DIV.
JUL 19 1918

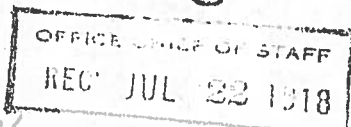
472.4 Ft. Banks, Mass. (Misc.Div.)

11th Ind.

A.G.O., July 20, 1918.-To the Chief of Staff.

(Synopsis made)

5 Incls.
jew/nay



REC'D W.D.O.C. JUL 22 1918

-8- REC'D BACK A.G.O JUL 27 1918

472.4 Ft. Banks (Misc. Div.)

12th Ind.

JAM/IEK

War Department, A. G. O., August 1, 1918.- Through the Chief of Coast Artillery, to the Chief of Engineers-

The views of the Chief of Coast Artillery as expressed in the 10th indorsement are concurred in. No further action will be taken in this matter. This paper will be filed in the office of the Chief of Engineers.

By order of the Secretary of War:

P. B. Harper
Adjutant General.

5 incls.

9/BACK AUG 1-1918 O.C.C.A.
Incls 1, 3-6 Total 5

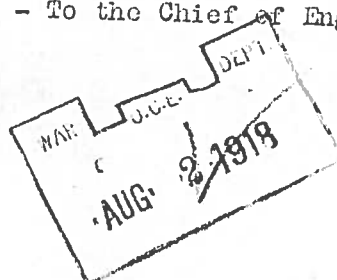
3838

169-G

13th Ind.

War Dept., O.C.C.A., August 2, 1918 - To the Chief of Engineers.

Incls. 1, 3-6
Total 5.



*Incls 151 & 164 & 2 add'l
incls (165 & 166) accomp.*