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Register No. 16

BASIC HARBOR DEFENSE PROJECT

HARBOR DEFENSES OF THE COLUMBIA

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E X H I B I T S

Exhibit No.

~~Primary Armament~~

Secondary Armament

Anti-motor Boat Batteries

Underwater Defenses

W (Sheet 1 & 2)

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HARBOR DEFENSE PROJECT
(BASIC)
for the
HARBOR DEFENSES OF THE COLUMBIA

1. Authority for Project.

This basic project, prepared pursuant to the provisions of Par. 2 a of AR 100-20 dated 18 September 1942, supersedes the project described in document (Short Title CCA-P-PSOR, February 26, 1938) "Harbor Defense Projects (Seacoast Artillery Installations) for the Harbor Defenses included in the Puget Sound-Columbia River Area". Any portions of the following documents that may be in conflict with the project outlined below are rescinded:

a. Letter subject "Modernization of Harbor Defense Projects, Continental United States" dated The Adjutant General's Office, 26 September 1940 (AG 660.2(9-16-40)M-WPD-M).

~~b. Letter subject "Seacoast Modernization Program" dated The Adjutant General's Office, 13 November 1942 (AG 660.2(11-12-42)OB-S-E).~~

c. Letter subject "Defense of Harbors Against Motor Torpedo Boats" dated 13 April 1943 (AG 660.2(4-12-43)OB-S-SPDDO-M) from The Adjutant General's Office.

d. 6th Indorsement dated The Adjutant General's Office, 24 February 1943 on letter subject "Revision of Underwater Defense Projects" dated The Adjutant General's Office 20 October 1942 (AG 660.3(9-29-42)OB-S-E) and (AG 660.3(10-20-42)OB-S-E).

2. Scope of Project.

a. A harbor defense is a highly organized and permanently defended locality provided for the general purpose of protecting an important coastal area (seaport, naval base, or anchorage) and utilities, primarily

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against attack from the sea. Temporary harbor defenses may be organized from available mobile artillery to provide a seaward defense of important water areas not protected by permanent harbor defenses. When sectors and subsectors are activated, harbor defenses both permanent and temporary, operate as provided for in defense command plans (Par. 31, FM 4-5).

b. For the purposes of this project, the "harbor defense" is considered to consist of the fixed and mobile guns and the controlled submarine mines, together with the subsidiary command and fire control installations, equipment, and communications, that are authorized for the defense of a harbor primarily against naval attack by surface and underwater craft. When antiaircraft weapons are included in the project, they are limited to those intended primarily to protect the harbor defense installations from attack from the air.

3. Mission of Harbor Defenses of The Columbia.

a. To deny access to and use of the Columbia River by enemy ships.

b. To support the defense against landing attacks within range of the harbor defense weapons.

4. Seacoast Gun Defense.

a. Primary Armament. - None.

b. Secondary Armament.

Battery	No. of			Battery Type	Location	Note	F/F Exhibit
	Guns	Cal.	Cge.				
#247.	2	6"	BC	Shield	Ft. Canby	(a)	W(Sheet 1&2
#246	2	6"	BC	Shield	Ft. Columbia	(a)	W "
#245	2	6"	BC	Shield	Ft. Stevens	(a)	W "

Note (a) Authorized for construction.

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c. Anti-motor Torpedo Boat Batteries

<u>No. of</u>	<u>Guns</u>	<u>Caliber</u>	<u>Type of Mount</u>	<u>Note</u>	<u>F/F Exhibit</u>
4		90-mm	Fixed Cge AMFB	(a)	X
4		90-mm	M1A1		X
4		37-mm	AA Mobile	(b)	

Note (a) To be emplaced on concrete gun blocks.

(b) To be replaced by 40-mm guns on fixed mounts when developed.

d. Armament outmoded and no longer required. The eventual disposition of this armament will be as directed by the Secretary of War.

<u>Battery</u>	<u>No. of Guns</u>	<u>Caliber</u>	<u>Carriages</u>	<u>Location</u>
Allen	2	6-inch	DC	Ft. Canby
Murphy	2	6-inch	DC	Ft. Columbia
Pratt	2	6-inch	DC	Ft. Stevens
Russell	2	10-inch	DC	Ft. Stevens

5. Initial Maintenance Classification (See Par. 4 of TM 4-245).

a. Except as prescribed in Par. 31 b (8) of Joint Action of the Army and the Navy, as amended by Changes No. 11; each battery listed in Pars. 4 a, b, and c, above is assigned initially to maintenance classification "B".

b. Each battery listed in Par. 4 d above is assigned initially to maintenance classification "C".

c. The Commanding General, Western Defense Command, will determine and prescribe the batteries to be maintained in classifications higher than the initial classification.

6. Underwater Defenses.

a. The underwater defense project for the Harbor Defenses of the Columbia was approved by the Secretary of War in the 6th Indorsement dated The Adjutant General's Office, 24 February 1943 on letter subject

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"Revision of Underwater Defense Projects" dated The Adjutant General's Office, 20 October 1942 (AG 660.3(9-29-42)OB-S-E).

b. The project provides for a total of 12 groups of controlled ground mines arranged in three lines across the Columbia River as follows: (See Exhibit X).

Outer line	4 groups	(13 mines per group)
Second line	4 groups	(13 mines per group)
Inner line	<u>4</u> groups	(13 mines per group)
Total	12 groups	156 mines

7. Antiaircraft Defense. - No fixed antiaircraft gun defense is authorized for this harbor defense

8. The preparation of the supplement to this project, which will present detailed information on the subsidiary installations, is a responsibility of the defense commander as prescribed in Par. 2 a (3), AR 100-20.

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BASIC HARBOR DEFENSE PROJECT
HARBOR DEFENSES OF PUGET SOUND

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PART IV

APPENDIX II

HARBOR DEFENSE PROJECT

HARBOR DEFENSES OF THE COLUMBIA

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HARBOR DEFENSE PROJECT - HARBOR DEFENSES OF THE COLUMBIA

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ANNEXES

- A Seacoast Guns
- B Fire Control Installations
- C Searchlights
- D Underwater Defense
- E Antiaircraft Gun Defense
- F Supporting Aircraft
- G Gas Defense
- H Estimates - Chief of Coast Artillery
- J Estimates - Chief of Engineers
- K Estimates - Chief of Ordnance
- L Estimates - Chief of Chemical Warfare Service
- M Estimates - Chief Signal Officer

INCLOSURE

- 1 Fields of Fire, Seacoast Guns

1. MISSION.

a. To deny access to and use of the Columbia River by enemy ships.

b. To support the defense against landing attack within range of the harbor defense weapons.

2. SEACOAST GUNS.

a. The following table lists the number of guns now installed in the harbor defense grouped by classes:

	: Fort :Stevens:	:Fort :Canby:	: Fort :Columbia:	: Total
Primary, medium range :	8*	4	0	12*
Secondary, medium range:	2	2	2	6

*Includes 4 - 12" railway mortars, now in storage at Ft. Stevens, for use in the Puget Sound - Columbia River Area.

b. (1) From the standpoint of national defense the importance of the Columbia River lies in its possible use as a route of access to the important north and south roads and railroads in the vicinity of Longview, Washington, approximately 50 nautical miles from the mouth of the river. With the exception of Astoria, Oregon, the cities of any importance are so far inland that they can be subjected to naval attack only after the enemy has proceeded well up the river. The water area off Astoria would be of much value as an anchorage for enemy vessels during some of the heavy storms of frequent occurrence during the winter months.

(2) An approved project provides for the maintenance of a 35-foot channel 500 feet wide from the mouth of the Columbia River to Portland, Oregon. While this will permit the navigation of the river by almost all classes of ships, they will be compelled to move at a comparatively slow speed, and there will be practically no maneuver room. Ships proceeding up the river would be vulnerable to the fire of railway or tractor drawn artillery on the railway and highway on the south bank of the river. Ships would have to proceed in column and once committed it would be impossible for large ships to turn until one of the turning basins in the channel was reached. The threat to enemy ships is so great that it appears improbable that it will ever be undertaken.

c. A controlled mine field is provided for the mouth of the river. As long as this is maintained enemy ships can be denied entrance to the river. This mine field is covered by three batteries, Allen, Pratt, and Murphy, each of two 6-inch guns. In addition, Batteries Guenther and Clark, each of four 12-inch mortars, cover the water areas off the mouth of the river to a range which would make it extremely difficult, if not impossible, for enemy ships to neutralize the 6-inch batteries. Neither these batteries nor the two 10-inch batteries - Russell and Mishler - can prevent a bombardment of Astoria by long range naval guns but can keep enemy ships at such range, except to the south, as to make the fire of secondary guns ineffective. Batteries Russell and Mishler are not required in order to carry out the mission of this harbor defense. Battery Russell is used annually for training of National Guard units.

d. (1) The following batteries are required to carry out the mission of the harbor defense:

Location	: Battery	: No. of Guns	: Caliber	: Type of Carriage	: Maximum Range	: Maintenance Class
Ft. Stevens	: Clark	: 4	: 12"	: Mortar	: 14650	: B
	: Pratt	: 2	: 6"	: DC	: 14400	: B
Ft. Canby	: Guenther	: 4	: 12"	: Mortar	: 14650	: B
	: Allen	: 2	: 6"	: DC	: 14400	: B
Ft. Columbia	: Murphy	: 2	: 6"	: DC	: 14400	: B

For details of fields of fire see Inclosure 1, Fields of Fire, Seacoast Guns.

(2) One battery of 4 - 12" mortars on railway mounts is now in storage at Fort Stevens. It is intended for use wherever necessary in the Puget Sound - Columbia River Area.

One battery of 4 - 12" mortars on railway mounts, and intended for installation in the Harbor Defenses of Puget Sound, will be stored at Fort Stevens when transferred there during the Fiscal Year 1938.

One battery of 2 - 3" railway guns, intended for installation in the Harbor Defenses of Puget Sound, will be stored at Fort Stevens when available.

(3) The following batteries now installed are no longer required:

Fort	: Battery	: No. of Guns	: Caliber	: Type of Carriage	: Maximum Range	Remarks
Stevens	: Mishler	: 2	: 10"	: DC	: 14200	This battery will be re-tained in Class B for use in training National Guard units until the project is completed or railway artillery is made available for such training.
	: Russell	: 2	: 10"	: DC	: 13910	

e. The local Board will prepare an annex to cover the details of any changes which may be necessary in existing seacoast gun batteries. The annex will include a statement of the War Reserve ammunition allowance for each seacoast gun battery and of the Battle Allowance as determined by the local Board. When approved, this will be attached to this project as Annex A, Seacoast Guns.

3. FIRE CONTROL INSTALLATIONS.

a. The fire control installations for armament now emplaced is complete and is as shown on the Fire Control Diagram, Harbor Defenses of The Columbia.

b. The local Board will prepare a statement of the requirements for the harbor defense as affected by changes in the armament prescribed in this project. When approved, this will be attached as Annex B, Fire Control Installations.

4. SEARCHLIGHTS.

a. Searchlights now installed in this harbor defense are as follows:

Fort Stevens	4 - 60" fixed lights
Fort Canby	3 - 60" fixed lights
Fort Columbia	2 - 60" fixed lights

In addition, five mobile searchlights have been provided for in Annex C, Harbor Defenses of The Columbia, approved in 19th Indorsement, AG 660.2 (2-21-35)(Misc.) E, June 30, 1937.

5. UNDERWATER DEFENSE.

a. The underwater defense project for this harbor defense approved by the Joint Board on April 11, 1929, by the Secretary of War on April 12, 1929, and by the Secretary of the Navy on April 16, 1929, provides for the following:

- Seven groups of controlled mines.
- Two fixed listening posts.

For details as to location see photostat copy of U.S.C. & G.S.Charts 5902 and 6002 entitled Defensive Coastal Area Limits and Underwater Defense Project for the Columbia River, one copy of which is on file in the Office, Chief of Coast Artillery, one at Headquarters, Ninth Corps Area and one in the Harbor Defenses of The Columbia.

b. (1) The local Board will prepare an annex in accordance with the instructions contained in paragraph 11 b (2), Part III. This, when approved, will be attached as Annex D, Underwater Defense.

(2) When the materiel for use in a fixed listening post has been developed and standardized and the cost determined, the Chief of Coast Artillery will furnish the necessary data for inclusion in the annex.

6. ANTI-AIRCRAFT GUN DEFENSE.

a. (1) There are no anti-aircraft guns now installed in this harbor defense.

(2) One battery of three 3-inch guns will be provided at each of the three forts. The site for each battery will be selected as prescribed in paragraph 30, AR 100-20.

(3) Anti-aircraft searchlights and sound locators are also required. It is estimated that 12 lights and sound locators are sufficient.

b. The local Board will prepare a statement of the requirements to provide for the anti-aircraft gun and machine gun defense. When approved, this will be attached as Annex E, Anti-aircraft Gun Defense.

7. SUPPORTING AIRCRAFT.

Annex F, Supporting Aircraft, will be provided and attached to show the minimum requirements for this harbor defense in aircraft for use in harbor defense artillery fire control and local surveillance, together with information as to availability of emergency or other landing fields from which these planes could operate.

8. GAS DEFENSE.

The gas defense consists of the installations and equipment considered necessary to enable the personnel to operate the armament during a prolonged gas attack. The local Board will prepare a statement of the requirements to provide the gas defense for elements of this harbor defense. When approved, this will be attached as Annex G, Gas Defense.

9. PREPARATION OF ANNEXES.

a. Annexes A to G, inclusive, will be prepared by the local Board. Each annex will include a complete statement of the installations to which it pertains, and details, including estimates of cost, of installations required to complete the project. Tables and charts will be used where practicable to reduce to a minimum the bulk of papers constituting an annex. Complete correspondence pertaining to the subject matter of the annexes will not be included but may be referred to by file numbers of The Adjutant General's Office. When these annexes are approved by the War Department they will serve as the basis for unified estimates to be prepared by the Chiefs of interested Arms and Services.

b. Annexes H, J, K, L, and M will be prepared by the Chiefs of Arms and Services as indicated on the title page of this paper. These annexes will be unified estimates of the cost of the approved project. They will be prepared after the project and Annexes A to G, inclusive, have received the approval of the War Department.

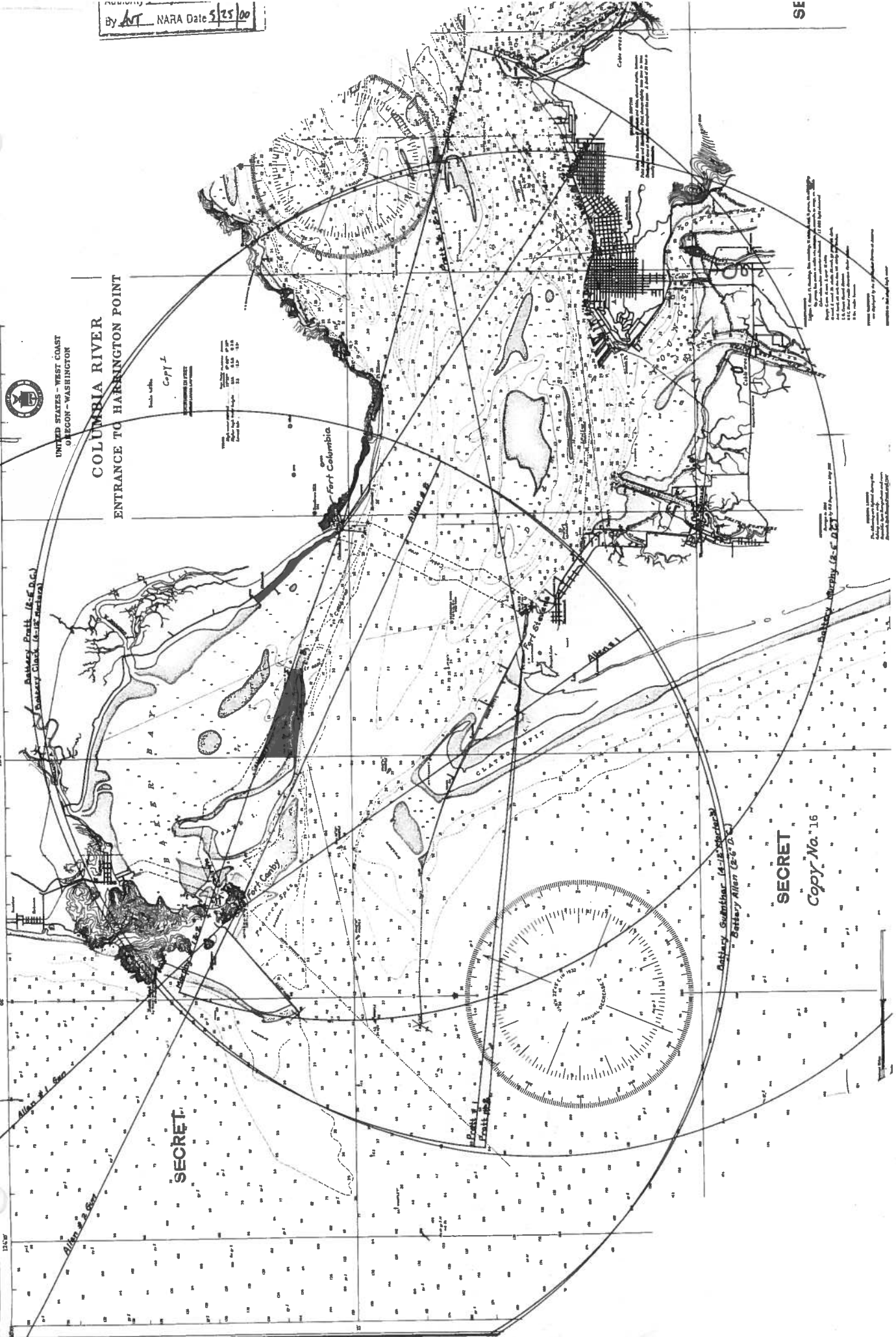
c. (The following priority will govern in the provision of armament and accessories in this harbor defense:

- (1) Submarine mine materiel to complete project.
- (2) Antiaircraft gun defense project.
- (3) Additional installations and equipment for underwater defense project.

10. FINAL APPROVAL.

The approval of this project by the War Department establishes it as the basic project for the Harbor Defenses of The Columbia. As annexes are approved they supersede existing projects covering the same installations.

Columbia



UNITED STATES - WEST COAST
OREGON - WASHINGTON
COLUMBIA RIVER
ENTRANCE TO HARRINGTON POINT

Capt J

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