

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF THE COLUMBIA.....
FORT STEVENS, OREGON.....
BATTERY LEWIS.....
No. of guns None Caliber Carriage

Form 1 Corrected to June 30, 1921.

Battery commenced	Sept., 1896	Sources of electric current	Central or Reserve Power Plant.
Battery completed	April, 1898		
Date of transfer (Emp. #1)	Apr. 5, 1898	Max. kw. required for lights	2.7 kw.
" (Emp. #2)	Apr. 3, 1898	Max. kw. required for motors	None. Battery not in use.
Material of construction	Concrete		
Portland or Rosendale cement	Portland		
Cost to date of transfer	\$302,014.00*		
Connected to water supply	Yes	Present condition of battery	Good.
Connected to sewer	Storm sewer on	Rooms wet or dry	Dry.
Type of latrine	Urinals only		
Type of data transmission	None	How ventilated	8" dia. shafts, conical tops. No ventilating doors.
Trunnion elevation in battery	Emp. #1, 34.28'	Remarks-	
Datum plane	Emp. #2, 34.35'		
	M.L.L.W.		*Cost includes Batteries Walker and Mishler.

ARMAMENT.

Emplacement or mortar No	Guns or Mortars				Carriages						
	Cal.	length	model	Serial No.	Manufacturer	mounted	Type	model	Serial No.	Manufacturer	Motor
1	10"	367.25"	1888MII	11	Bethlehem Iron Co.	E.D.	Dis.IF	1896	4d	Niles Tool Co.	#30673 Stan. 220V. 35A 80-P.
2	10"	367.25"	1888MII	49	Watervliet Ars.	E.D.	Dis.IF	1894	3a	Kilby Mfg.Co.	Not known; removed.
3											
4											
5											
6											
7											
8											

HOISTS.

Emplacement Number	Type	Delivery	Motor					Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM		
1	Tay.R.	Back	96530	Gen.E.Co.	5	220	1060R-67	April 29, 1905	No.
2	Tay.R.	Back	96200	Gen.E.Co.	5	220	1060R-67	April 29, 1905	No.

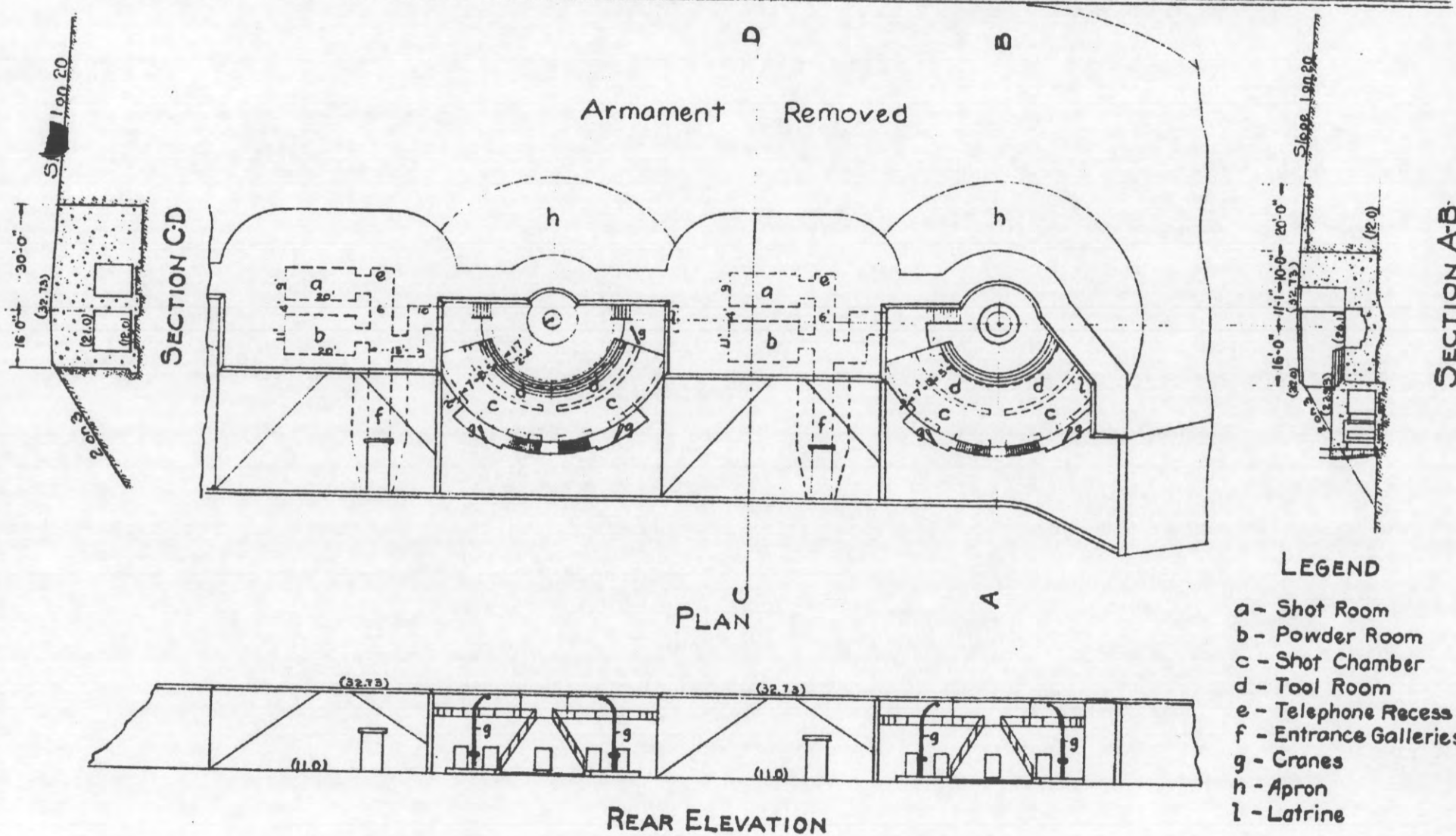
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY LEWIS

Form 7.

Corrected to

No of Guns Caliber Carriage.



- LEGEND**
- a - Shot Room
 - b - Powder Room
 - c - Shot Chamber
 - d - Tool Room
 - e - Telephone Recess
 - f - Entrance Galleries
 - g - Cranes
 - h - Apron
 - l - Latrine

Note: Plane of Reference-Mean Lower Low Water.

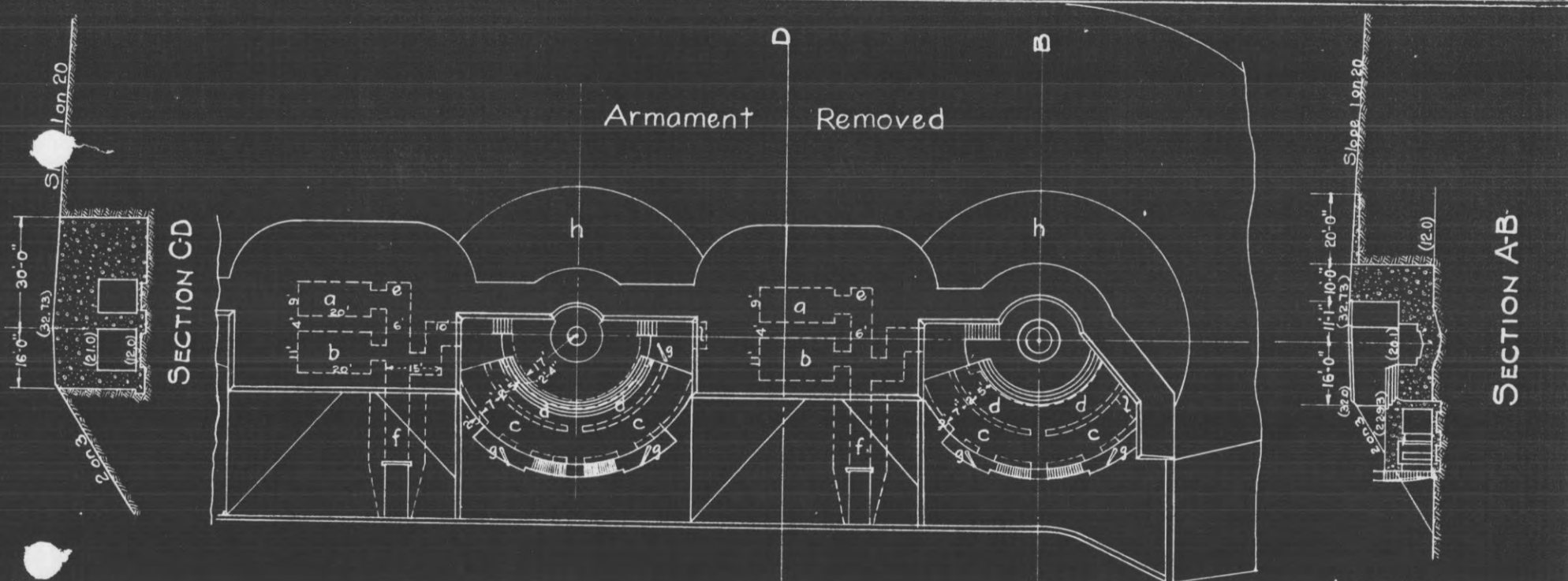
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY LEWIS

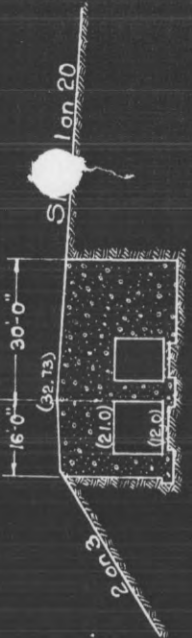
Form 7.

Corrected to

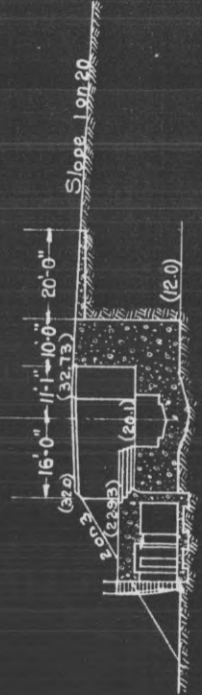
No of Guns Caliber Carriage.



SECTION C-D



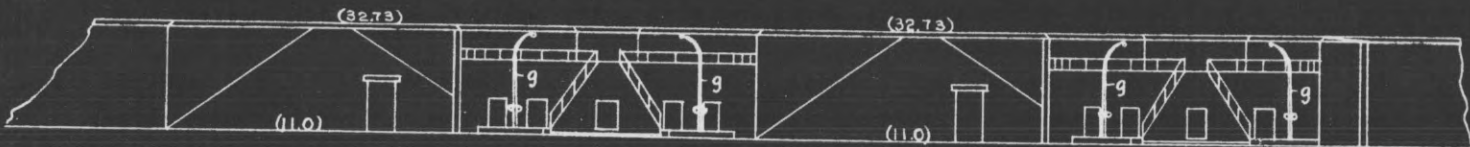
SECTION A-B



PLAN

LEGEND

- a - Shot Room
- b - Powder Room
- c - Shot Chamber
- d - Tool Room
- e - Telephone Recess
- f - Entrance Galleries
- g - Cranes
- h - Apron
- l - Latrine



REAR ELEVATION

Note: Plane of Reference-Mean Lower Low Water.

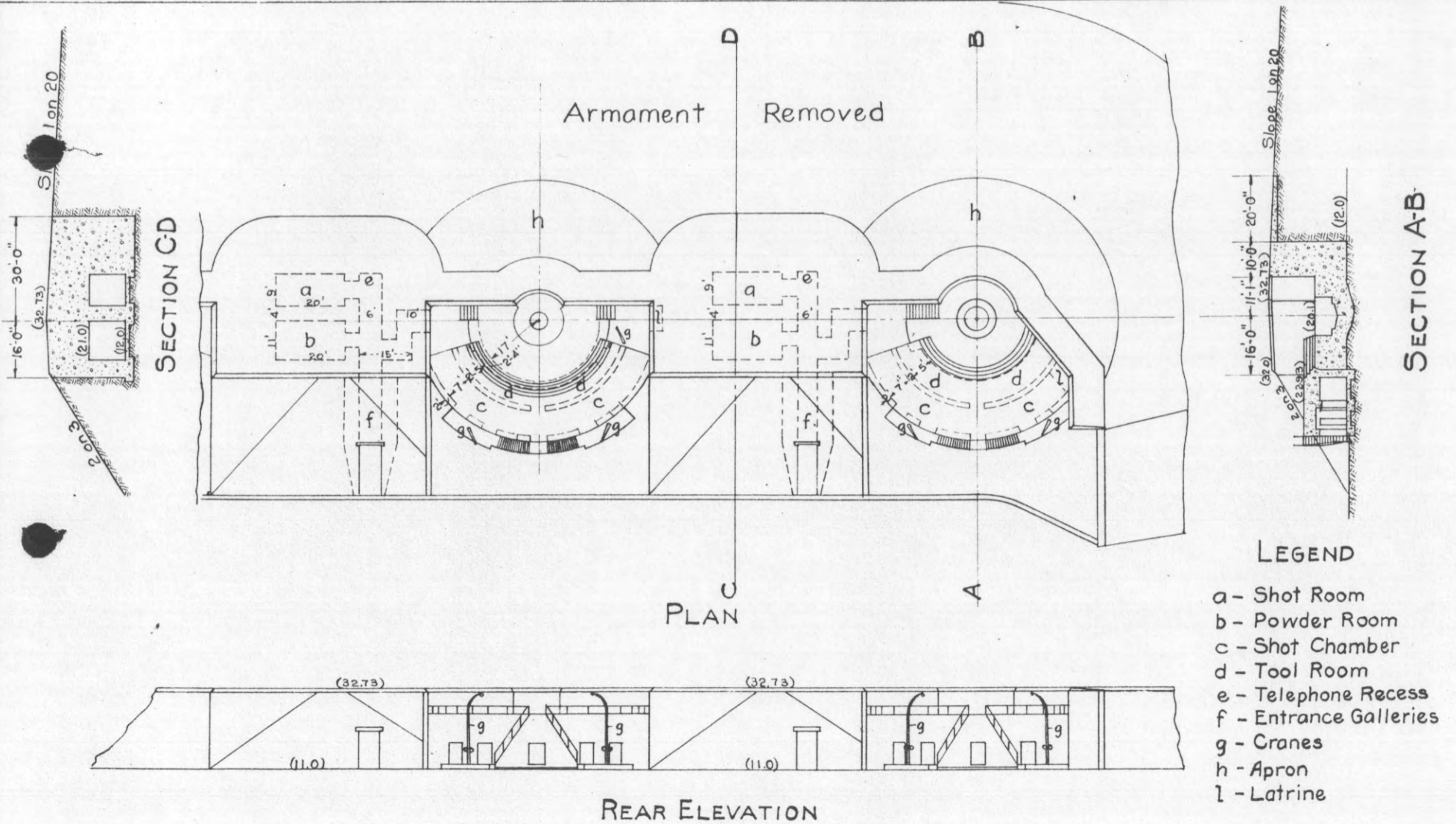
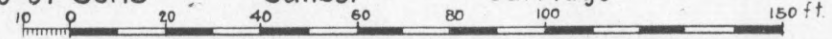
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY LEWIS

Form 7.

Corrected to

No of Guns Caliber Carriage.



- LEGEND**
- a - Shot Room
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 - h - Apron
 - l - Latrine

Note: Plane of Reference - Mean Lower Low Water.

COAST DEFENSES OF Columbia.

FORT Stevens BATTERY Lewis NO. OF GUNS: 2 CALIBER: 10"

	EMPLACEMENT NUMBER 1.		EMPLACEMENT NUMBER 2.		EMPLACEMENT NUMBER 3.		EMPLACEMENT NUMBER 4.	
	FROM.	TO.	FROM.	TO.	FROM.	TO.	FROM.	TO.
1-a Azimuth.	319° 38' 42"		86° 59' 30"					
b. Distance.	32841.84 ft.		124.02 ft.					
2-a. Model of Gun.	1888, M. I. I.		1888 M I I					
b. " " Carriage.	L. F. 1896		L. F. 1894					
c. Type of " "	Dis.		Dis.					
3- Elevations of								
a. Gun trunnions (in battery)	34.28		34.35					
b. Interior crest.	32.73		32.85					
c. Loading platform.	22.93		23.12					
4- Angle of depression.	0° 00'		0° 00'					
5- Limiting azimuths of field of fire as determined by:								
a. Construction of emplacement.	108 0	245 0	109 0	244 0				
b. Interference by adjacent emplacements.	108 0	245 0	109 0	244 0				
c. Interference of other obstacles external to emplacement.	108 0	245 0	109 0	244 0				
d. Position of Ordnance stops.	108 0	245 0	109 0	244 0				

NOTES.

1. Azimuth and distance of emplacement No. 2 are given with reference to No. 1; of No. 3, with reference to No. 2, etc. Azimuth and distance of No. 1, are given with reference to Canby Light
3. Above plane of M. I. I. W.
- 5-c. Nature of obstacles: None.

2-c. Use one of following abbreviations or designations: Dis, Nondis, Alt. gun-lift, Turret, Casemate, Ped, BP

Co-ordinates Gun No. 1 S. 25026.99, E. 21265.85 (Origin- Canby Light).

Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

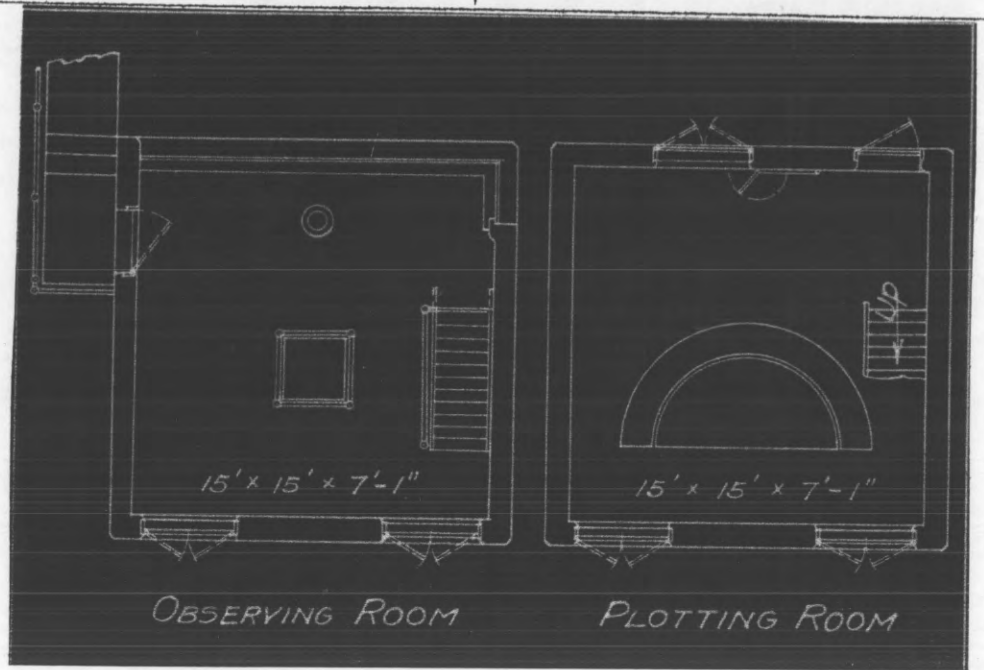
COAST DEFENSES OF...THE COLUMBIA.....
FORT. . . STEWENS, OREGON.....
STRUCTURE B.C. LEWIS. (Unused).....

Form 2.

Corrected to June 30, 1921.

Not indicated on Fort Index Plot

Location	At battery.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$3,398.67.	Cost of data transmission equipment	
Type of construction	Reinforced concrete.	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Behind battery to slot, trees to rear.	For dormitories give stations served	
How concealed	Behind battery to slot.	For cable hut give S. C. type	
How protected			
Height above concealment	4' above battery.		
Height above protection	4'.		
Conspicuous at.....yards	About 4 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.3 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	32.75' above M.L.L.W.		
Reference of instrumental axis	35.20' above M.L.L.W.		
Type of observing inst.	None, battery dismantled.		
Type of plotting board	Whistler & Hearn #64.		
Type and capacity of crane			
Max. dimensions of reel handled			



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA
FORT... STEVENS, OREGON
POWER FOR RESERVE POWER PLANT AT BATTERY LEWIS

Form 5.

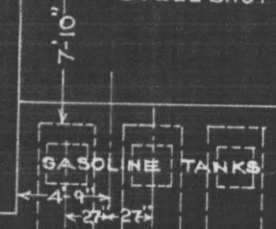
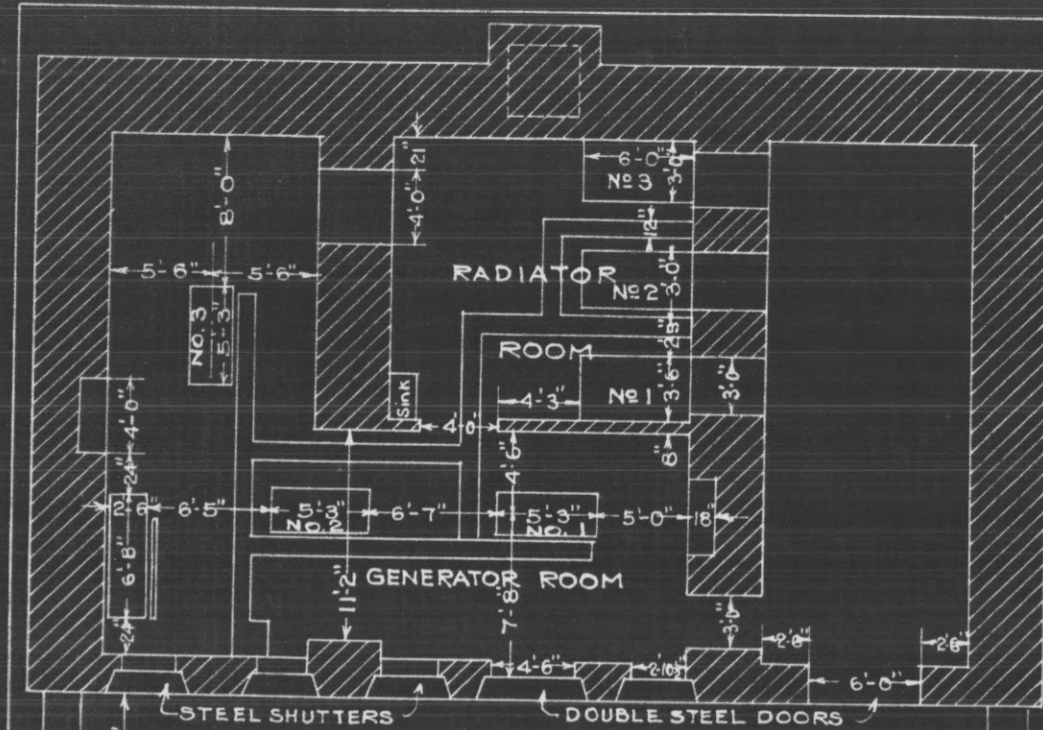
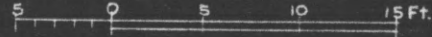
Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard		
												Material.	No. of Panels	
Boiler No. 1	None													
No. 2	-													
No. 3	-													
1 line No. 1	17815	GM12-A32	43/54hp	Gen.E.Co.	2-17-21	Cost of remodeling old steam plant and installing 3 25 kw sets, \$10,335.43.	Good	560			Gas.	220 DC 2	Used for QM Power	
No. 2	17817	GM12-A32	43/54hp	Gen.E.Co.	2-17-21		Good	560			Gas.	220 DC 2	No	
No. 3	14321	GM12-A28	43/54hp	Gen.E.Co.	2-17-21		Good	560			Gas.	220 DC 2	No	
Generator														
No. 1	924325	MPC	25kw220v	Gen.E.Co.	2-17-21		Good			Dir.				
No. 2	924327	MPC	25kw220v	Gen.E.Co.	2-17-21		Good			Dir.				
No. 3	679173	MPC	25kw220v	Gen.E.Co.	2-17-21	Good			Dir.					
Radiator														
No. 1	17322	FF54formB-12	-	-	2-17-21	Good				17815				
No. 2	17324	FF54formB-12	-	-	2-17-21	Good				17817				
No. 3	14715	FF4formE-5	-	-	2-17-21	Good				14321				
Motor Generator														
No. 1	None													
No. 2	-													
No. 3	-													
Switchboard	97, 85, 2	Combina- tion	20"x82" each	-	2-17-21	Good						Marble	1-feed- er 3-gen.	
Storage Battery	None													
Transformer	None													
No. 1														
No. 2														
No. 3														
Auxiliaries	None													
No. 1														
No. 2														
No. 3														

DISTRIBUTION OF KW.

Fortification lights 35.9 kw.; dismantled batteries, lights, 8.5 kw.; motors, shot hoists,
7.2 kw.; switchboard room, 2.0 kw.; post lighting 73.8 kw.; total, 127.4 kw.

FORT STEVENS, OREGON.
 POWER PLANT OF 3-25KW SETS.
 LOCATED IN
 OLD BATTERY LEWIS STEAMPLANT
 Scale of Feet.



ENGINE NO.	GENERATOR SET NO.	GENERATOR NO.	RADIATOR NO.	SWITCHBOARD NO.
1	17815	924323	17322	GEN. PANEL NO. 85
2	17817	924327	17324	" " NO. 97
3	14321	679173	14715	" " NO. 2

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF...THE COLUMBIA.....
FORT. STEVENS, OREGON.....
* BATTERY LYMAN MISHLER.....

Form 1 Corrected to June 30, 1921.

No. of guns 2 Caliber 10" Carriage ARF Dis

Battery commenced	Aug., 1898	Sources of electric current	Central or Reserve Power Plant.
Battery completed	June, 1900		
Date of transfer	June 28, 1900	Max. kw. required for lights	6.9 kw.
Material of construction	Concrete	Max. kw. required for motors	7.2 kw.
Portland or Rosendale cement	Portland		
Cost to date of transfer	\$302,014.00*		
Connected to water supply	Yes	Present condition of battery	Good
Connected to sewer	Storm sewer	Rooms wet or dry	Dry
Type of latrine	Urinals only		
Type of data transmission	None	How ventilated	8" dia. shafts, conical tops. No ventilating doors.
Trunnion elevation in battery	Emp. #1, 34.67'	Remarks-	
Datum plane	Emp. #2 34.72'		*Cost includes Batteries Walker & Lewis
	M.L.L.W.		

ARMAMENT.

Emplacement or mortar No	Guns or Mortars				Carriages					
	Cal.	length	model	Serial No.	Manufacturer	Type	model	Serial No.	Manufacturer	Motor
1 *	10"	367.25"	1888MII	33	Bethlehem Iron Co. C.A.C.	ARF Dis.	1896	2	Watertown Ars.	None
2 *	10"	367.25"	1888MII	32	Bethlehem Iron Co. C.A.C.	ARF Dis.	1896	3	Watertown Ars.	None
3										
4										
5										
6										
7										
8										

See 660.2-20. Above guns to be retained for use as spares, reporting them to Chief of Ordnance for shipping instructions #32 gun fired 64 rounds, #33 gun fired 72 rounds.

See 660.2-20. Above carriages to be sold as scrap, retaining sufficient parts for maintenance of one carriage. Parts selected to be reported to Chief of Ordnance for shipping instructions.

HOISTS.

Emplacement Number	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
1/2	Tay.R.	Front	96429	Gen.E.Co.	5	220	1060R-67	Con.#136298	6-17-1905	No.
	Tay.R.	Front	102410	Gen.E.Co.	5	220	1060R-67	Con.#136347	6-17-1905	No.

* HECF-HDCP built in this emplacement. Armament covered with earth. - 400.93 (Col. River) EM 14090

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

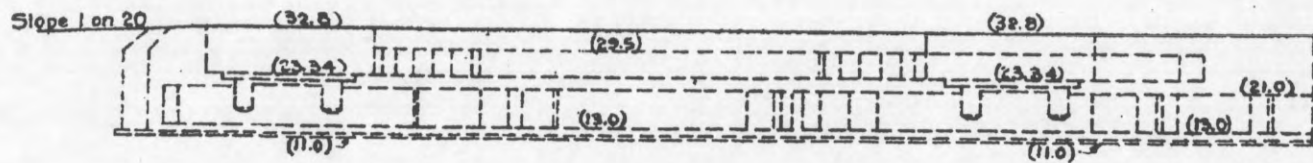
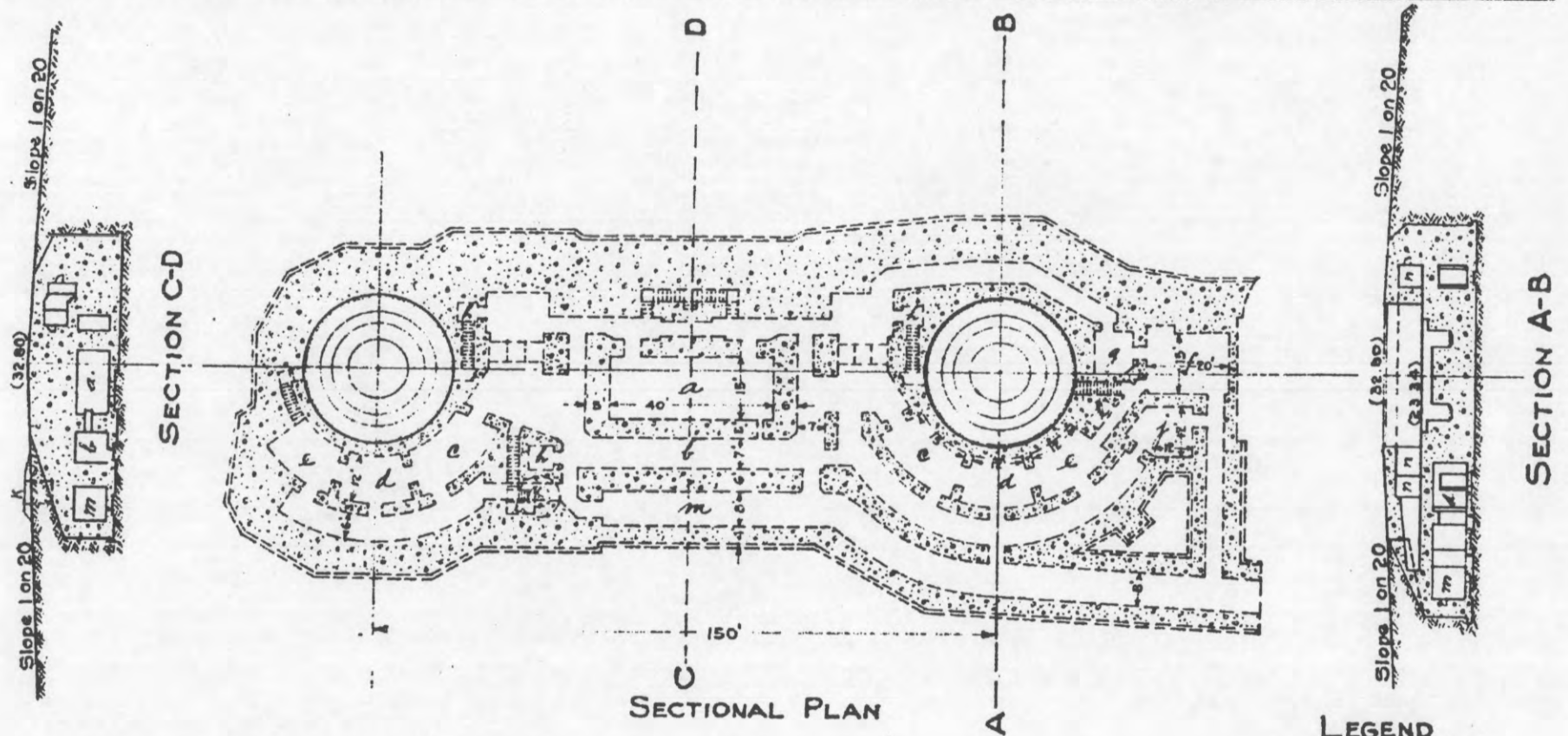
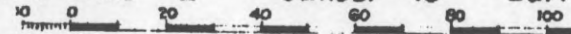
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY LYMAN MISHLER

No. of Guns 2 Caliber 10" Carriage "Dis." "A"

Form 7.

Corrected to



REAR ELEVATION

Note: Elevations marked (). Plane of Reference - Mean Lower Low Water.

LEGEND

- a - Magazine
- b - Shell Room
- c - Shot Rooms
- d - Tool Rooms
- e - Guard Rooms
- f - Plotting Room
- g - Main Telephone Room
- h - Telephone Rooms
- j - Instrument Room
- k - Observing Station
- l - Latrines
- m - Rear Passage
- n - Loading Tunnels

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

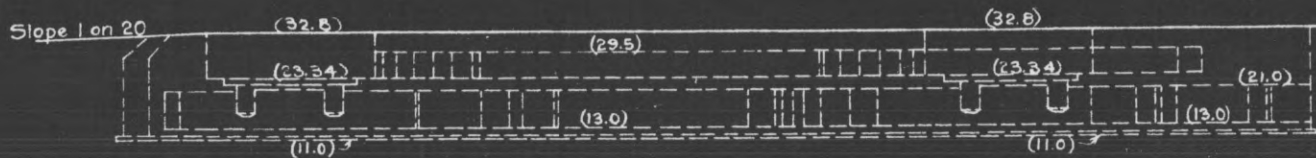
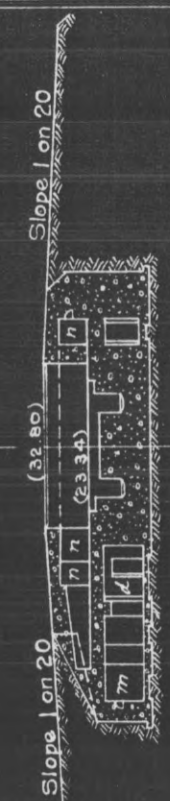
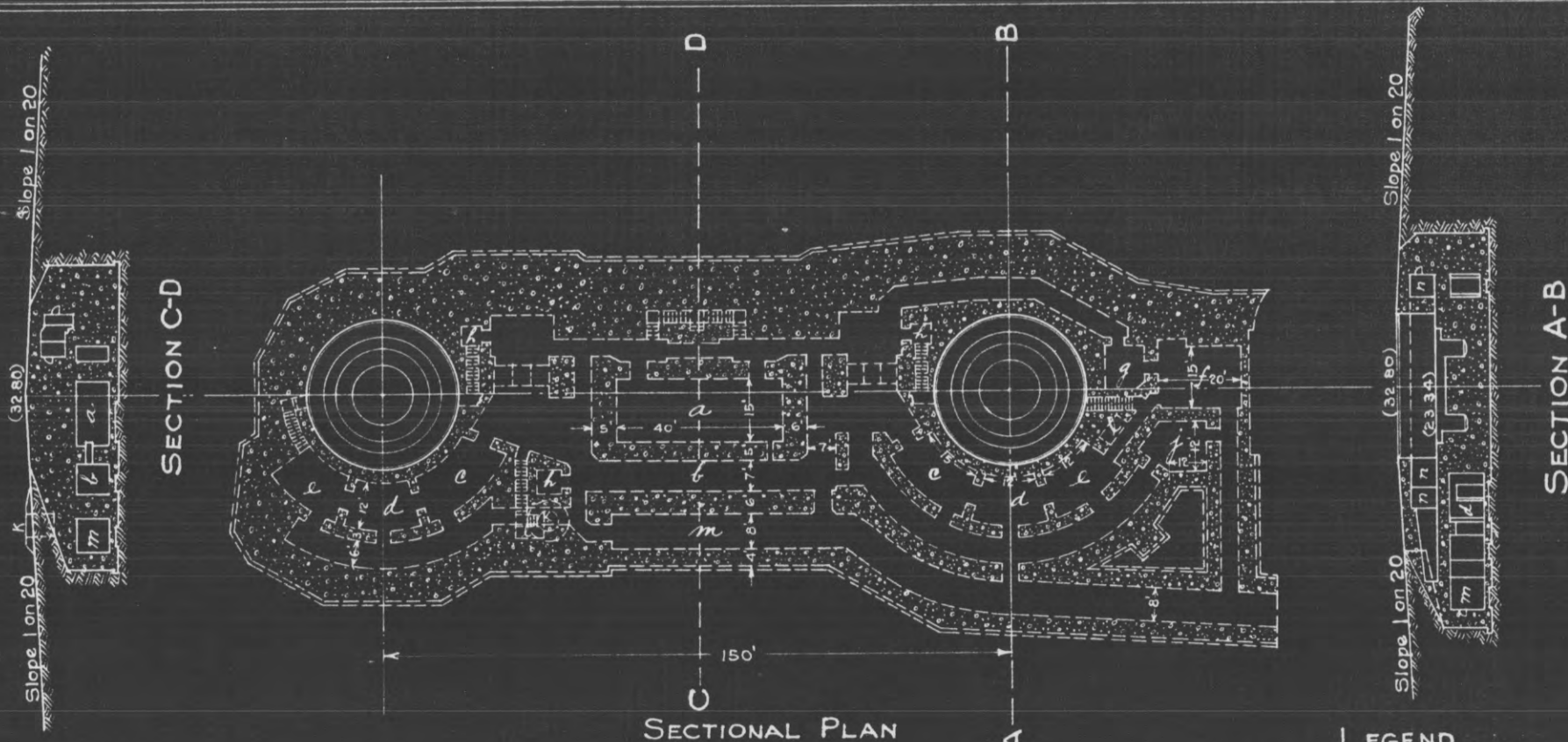
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY LYMAN MISHLER

No. of Guns 2 Caliber 10" Carriage "Dis." "A.R.F."

Form 7.

Corrected to



LEGEND

- a - Magazine
- b - Shell Room
- c - Shot Rooms
- d - Tool Rooms
- e - Guard Rooms
- f - Plotting Room
- g - Main Telephone Room
- h - Telephone Rooms
- j - Instrument Room
- k - Observing Station
- l - Latrines
- m - Rear Passage
- n - Loading Tunnels

Note: Elevations marked (). Plane of Reference - Mean Lower Low Water.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

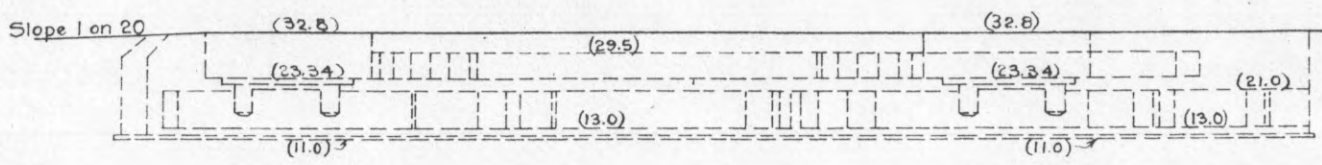
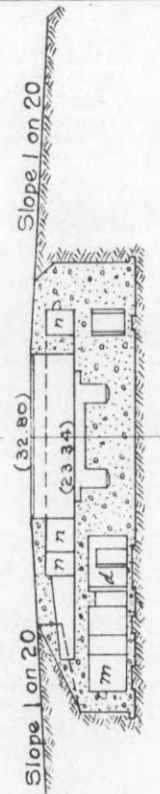
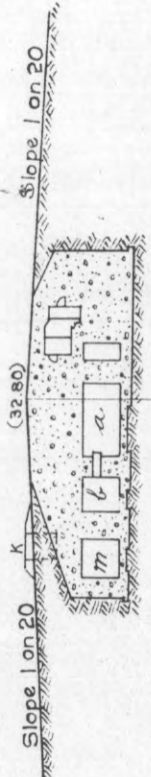
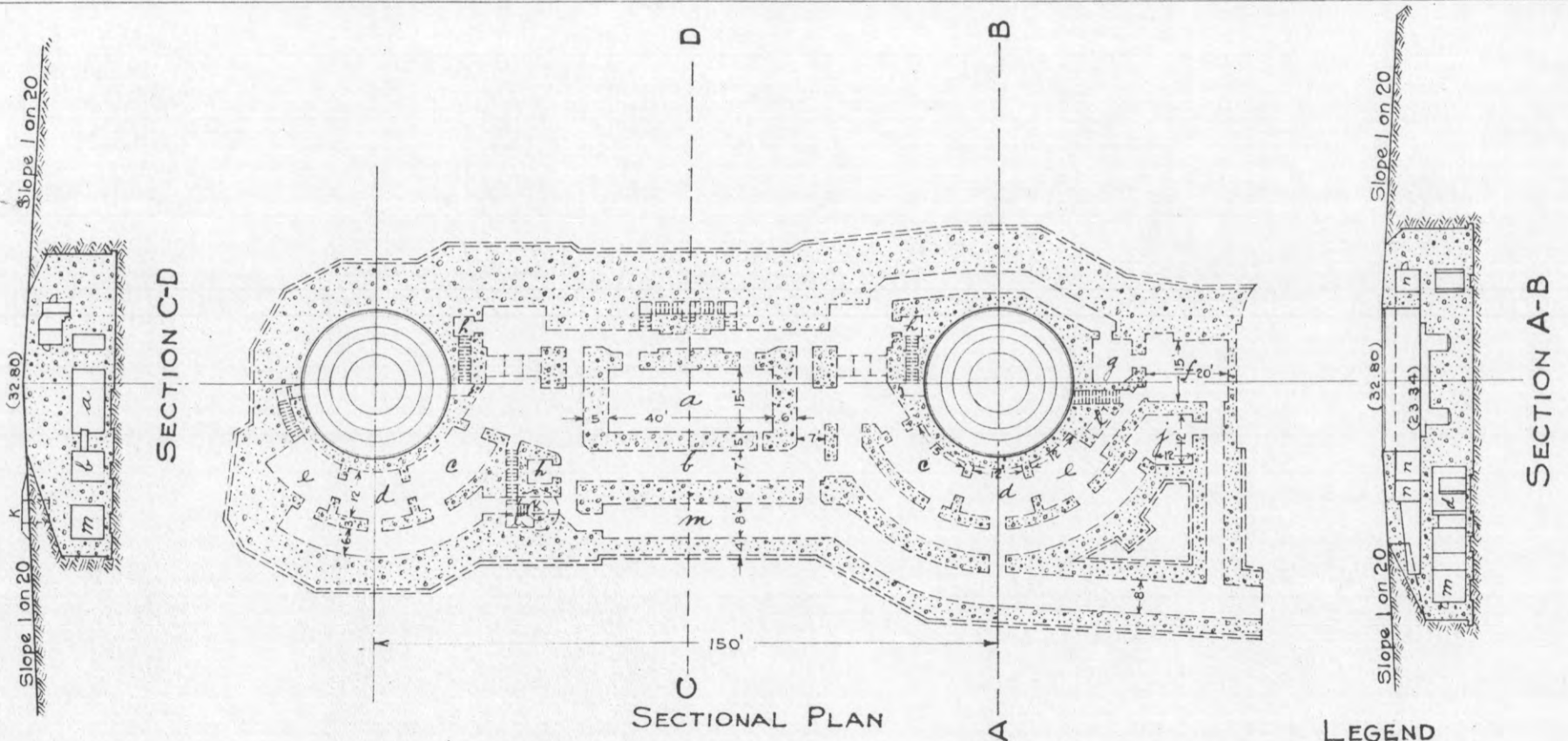
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY LYMAN MISHLER

No. of Guns 2 Caliber 10" Carriage "Dis." "A.R.F."

Form 7.

Corrected to



LEGEND

- a - Magazine
- b - Shell Room
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- d - Tool Rooms
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- h - Telephone Rooms
- j - Instrument Room
- k - Observing Station
- l - Latrines
- m - Rear Passage
- n - Loading Tunnels

Note: Elevations marked (). Plane of Reference - Mean Lower Low Water.

COAST DEFENSES OF

Columbia

FORT Stevens

BATTERY

Wishler

NO. OF GUNS: 2

CALIBER 10"

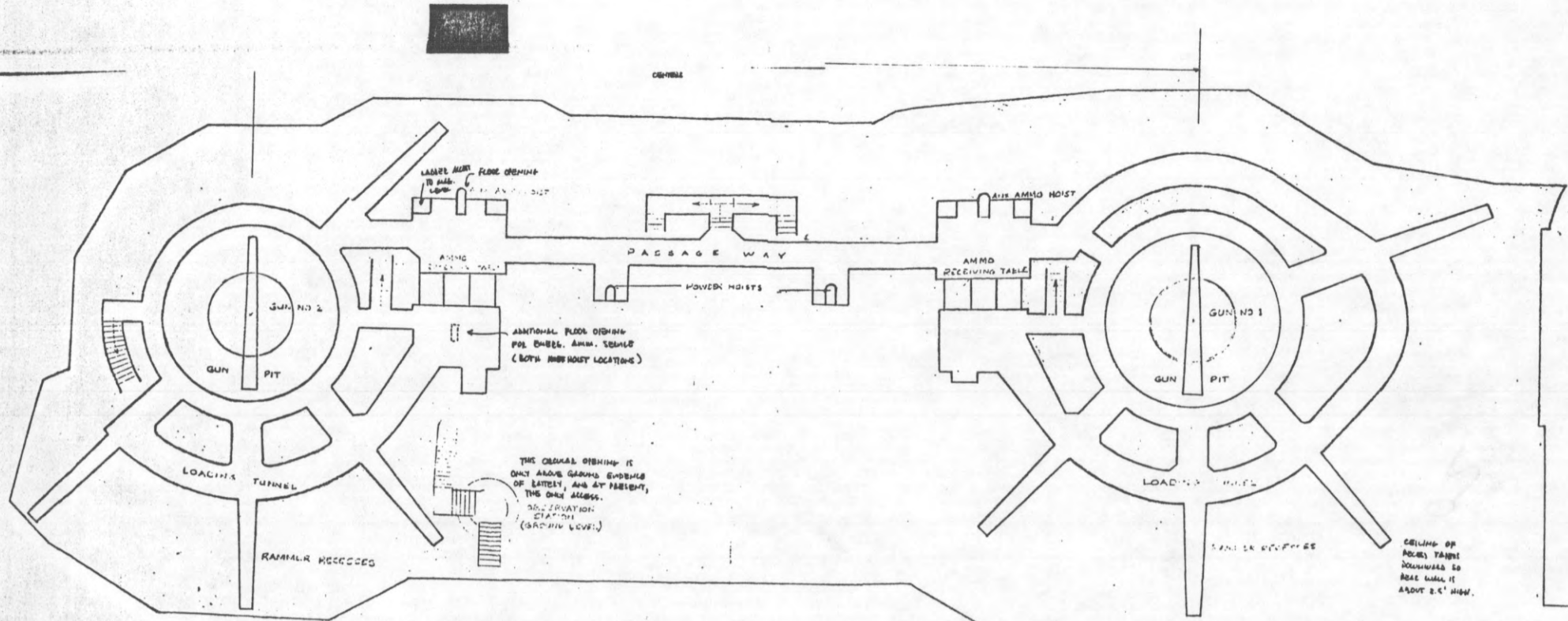
	EMPLACEMENT NUMBER 1.	EMPLACEMENT NUMBER 2.	EMPLACEMENT NUMBER 3.	EMPLACEMENT NUMBER 4.
1-a Azimuth	320° 22' 33"	86° 59' 30"		
b. Distance	32527.82 ft.	149.98 ft.		
2-a Model of Gun	1888 MII	1888 MII		
b " " Carriage	A.R.F. 1896	A.R.F. 1896		
c. Type of " "	Dis.	Dis.		
3- Elevations of:				
a Gun trunnions (in battery)	34.67	32.80		
b Interior crest.	34.72	32.84		
c Loading platform	23.34	23.42		
4- Angle of depression	0° 00	0° 00		
5- Limiting azimuths of field of fire as determined by:				
a Construction of emplacement	none	none		
b Interference by adjacent emplacements.	none	none		
c Interference of other obstacles external to emplacement	357 0	320 0	267 0	
d Position of Ordnance stops	no stops	no stops		

NOTES.

1. Azimuth and distance of emplacement No 2 are given with reference to No 1, of No 3 with reference to No 2, etc. Azimuth and distance of No. are given with reference to Canby Light
3. Above plane of M.I.L.W.
- 5-c Nature of obstacles: B.C. Stas. and Parados in rear of Batteries Walker and Lewis.

2-c Use one of following abbreviations or designations: Dis, Nondis, Alt, gun-lift, Turret, Casemate, Ped; BP

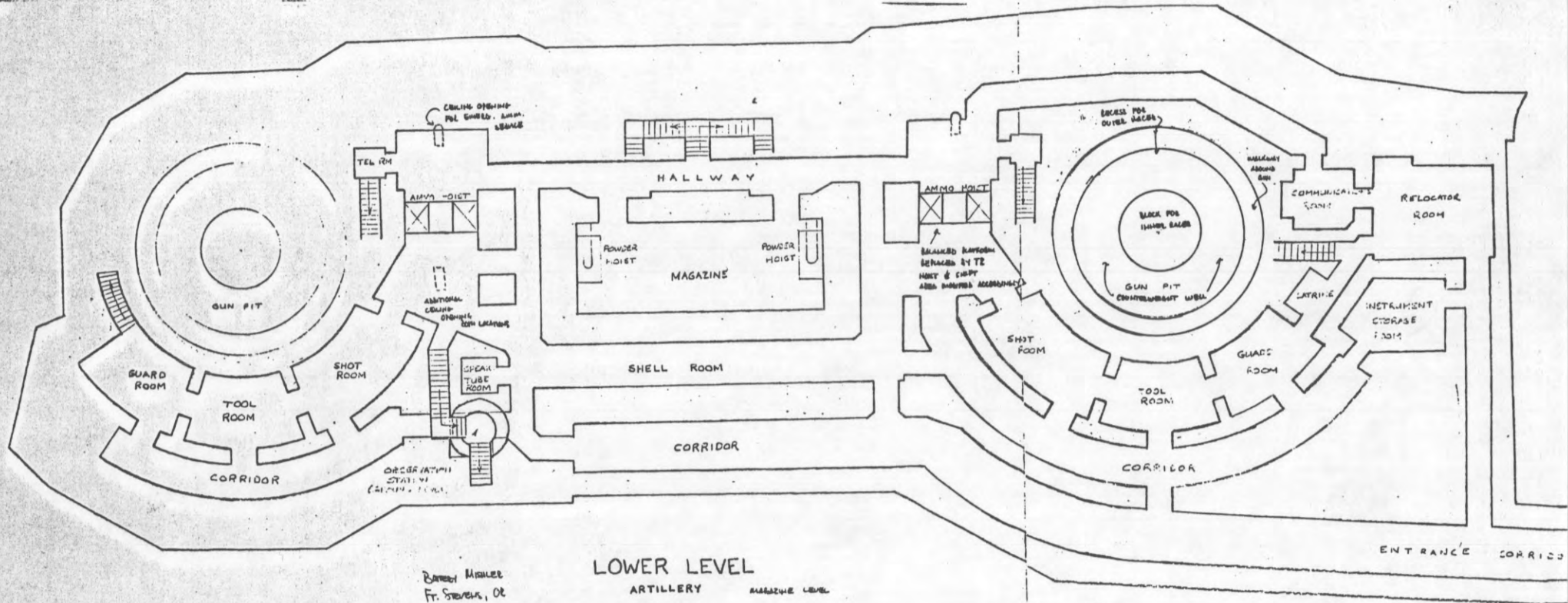
Co-ordinates Gun No. 1: S. 25054.39, E. 20744.57 (Origin - Canby Light).



BATTERY MISHLER
 FT. STEVENS, OR
 SCALE APPROX. 1" = 10'

UPPER LEVEL
 EQUIPMENT TO
 LOADING PLATFORM LEVEL

CEILING OF
 ROOMS TRIM
 DOWNWARD SO
 ROSE WALL IS
 ABOUT 2.5' HIGH.



LOWER LEVEL
ARTILLERY MAGAZINE LEVEL

Drawn: M. H. LEE
 Ft. Stevens, Or
 Scale approx 1" = 10'

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

SALVAGE *

COAST DEFENSES OF... THE COLUMBIA.....
FORT. STEVENS, OREGON.....
BATTERY DAVID RUSSELL.....
No. of guns 2 Caliber 10" Carriage LF Dis

Form J. Corrected to June 30, 1921.

Battery commenced	Mar., 1903	Sources of electric current	Russell Power Plant. <i>& Commercial Power</i>
Battery completed	Aug. 1904	Max. kw. required for lights	6.9 kw.
Date of transfer	Aug. 12, 1904	Max. kw. required for motors	19.0 kw.
Material of construction	Concrete	Present condition of battery	Good.
Portland or Rosendale cement	Portland	Rooms wet or dry	Dry.
Cost to date of transfer	\$125,000.00	How ventilated	6" dia. shafts, conical tops. No venti- lating doors.
Connected to water supply	Yes	Trunnion elevation in battery	#1 Emp. 69.76'
Connected to sewer	Yes	Datum plane	#2 Emp. 69.82'
Type of latrine	Syphon		M.L.L.W.
Type of data transmission	None		

ARMAMENT.

Emplacement or mortar No.	Guns or Mortars				Carriages					
	Cal.	length	model	Serial No.	Manufacturer	mounted	Type model	Serial No.	Manufacturer	Motor
1	10"	35'	1900	11	Watervliet A.	C.A.C.	Dis. LF 1901	4	Watertown Ars.	#49284
2	10"	35'	1900	4	Watervliet A.	C.A.C.	Dis. LF 1901	5	Watertown Ars.	#49285-8 h.p.
3										
4										35 amp. stan-
5										dard motor
6										625 RPM
7										220V Robbins
8										& Lewis Co.

HOISTS.

Emplacement Number	Type	Delivery	Motor							Date of transfer	Remodeled for long points No.
			Serial No.	Maker	H.P.	Volts	RPM	Type of control			
1	Tay-R	Back	88721	Gen.E.	5	220	1060	#136160	Aug. 12, 1904	No.	
	Tay-R	Back	84354	Gen.E.	5	220	1060	#136161	Aug. 12, 1904	No.	

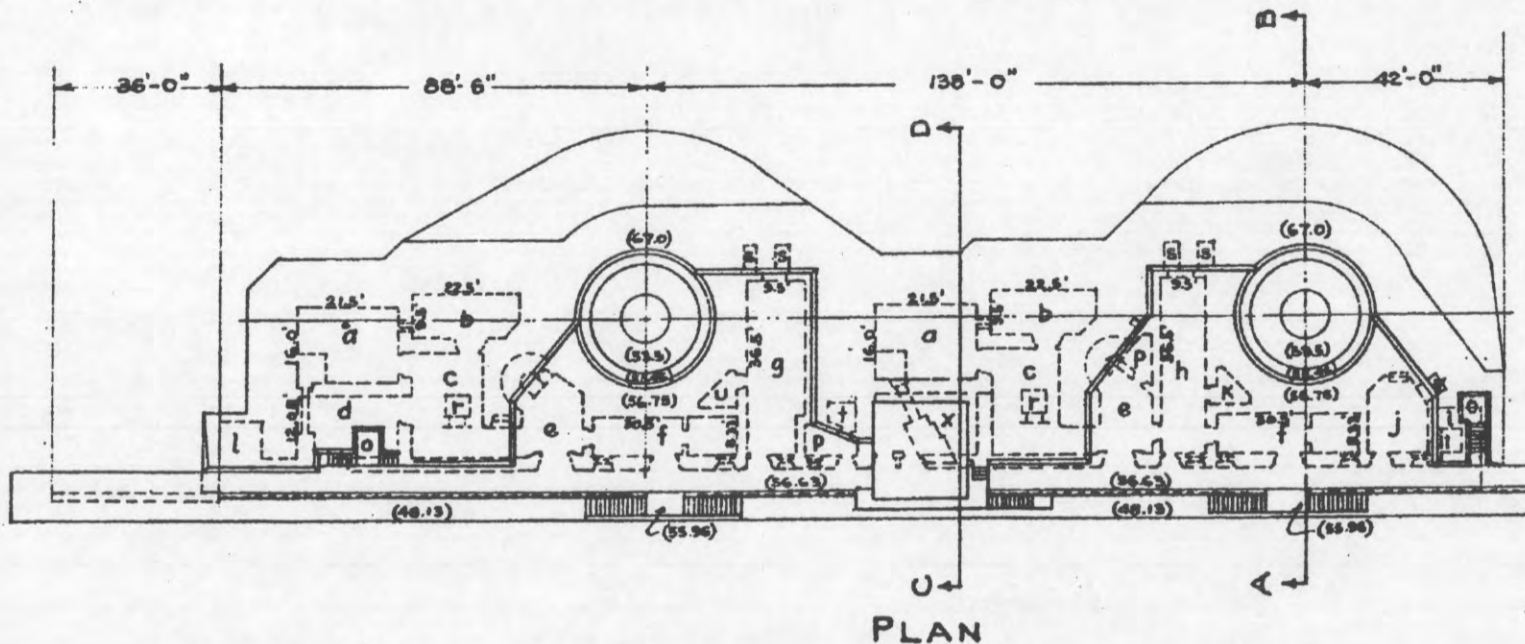
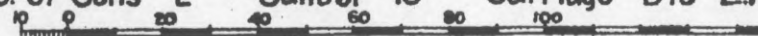
* Salvage directed 400.93 (Col Riv) CM119204 (Note see also previous House Rept of C Works)

REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

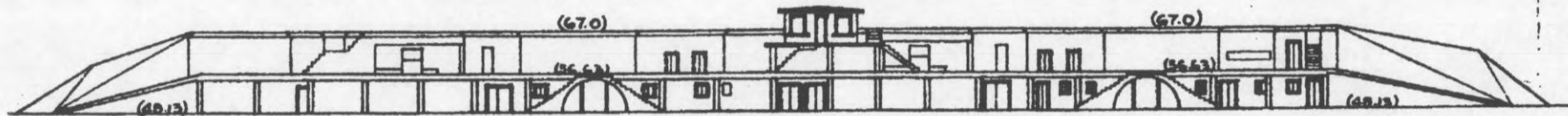
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY DAVID RUSSELL
No. of Guns 2 Caliber 10" Carriage "Dis" L.F.

Form 7.

Corrected to

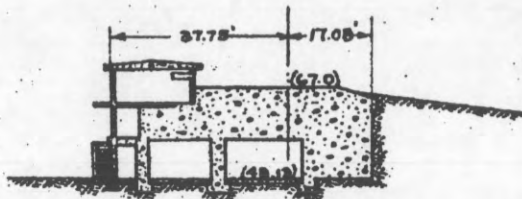


- LEGEND**
- a - Magazine
 - b - Shell Room
 - c - Lobby
 - d - Shot Room
 - e - Tool Room
 - f - Guard Room
 - g - Office & Relocator Room
 - h - Sleeping Room for Guards
 - j - Officers Room
 - k - Store Room
 - l - Latrine
 - o - Observing station
 - p - Oil Room
 - r - Hoist
 - s - Shot Trucks
 - t - Telephone Rooms
 - u - Map Vault
 - v - Vault Locker
 - x - Plotting Room

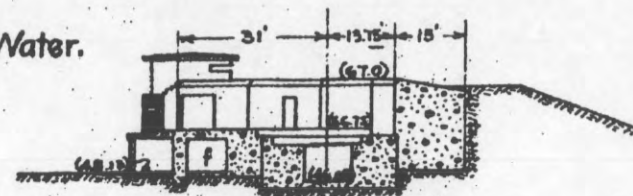


REAR ELEVATION

Note: Plane of Reference - Mean Lower Low Water.



SECTION C-D



SECTION A-B

REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

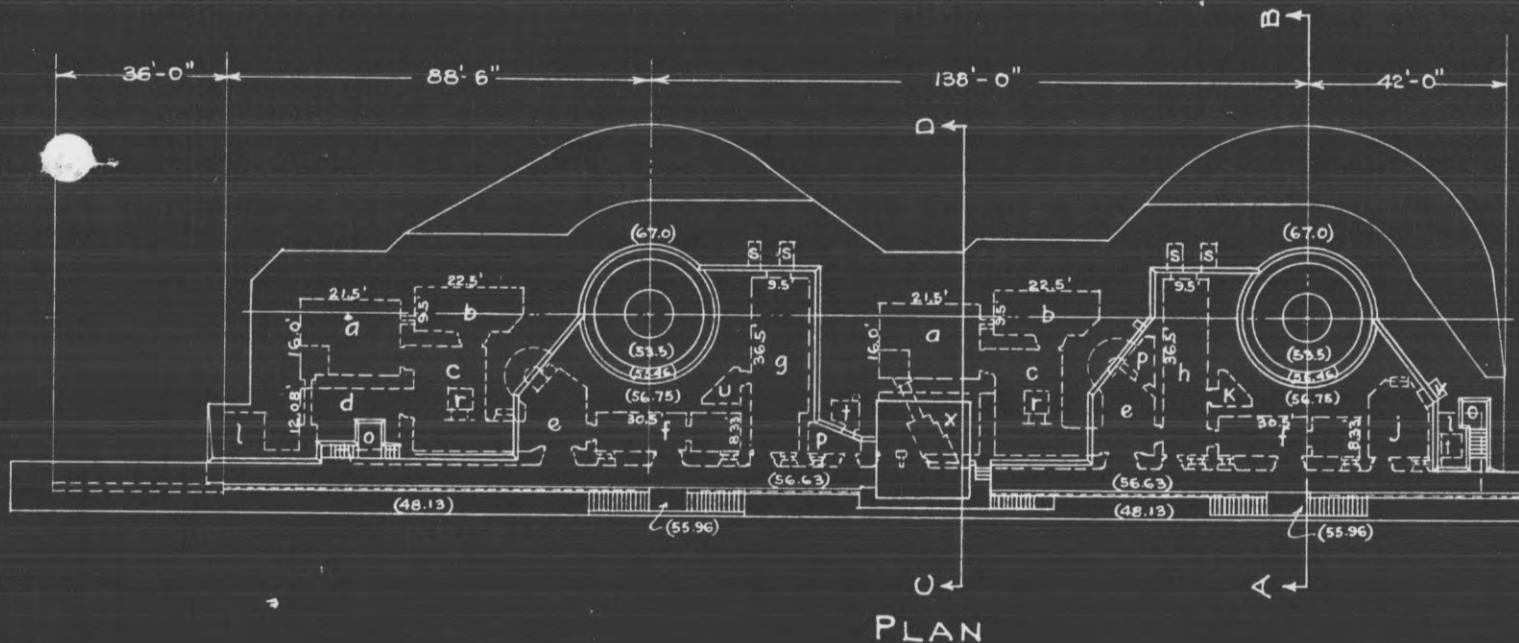
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY DAVID RUSSELL

No. of Guns 2 Caliber 10" Carriage "Dis" "L.F."

Form 7.

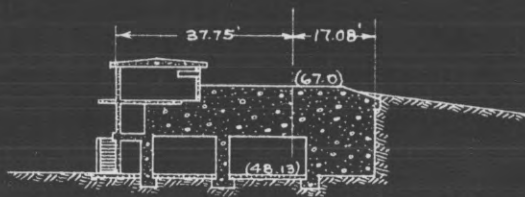
Corrected to



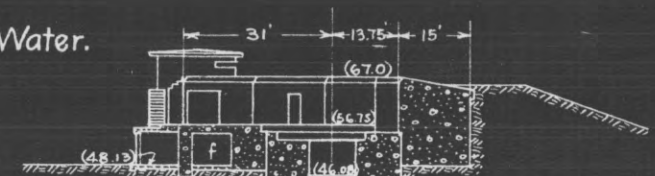
- LEGEND
- a - Magazine
 - b - Shell Room
 - c - Lobby
 - d - Shot Room
 - e - Tool Room
 - f - Guard Room
 - g - Office & Relocator Room
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 - t - Telephone Rooms
 - u - Map Vault
 - v - Vault Locker
 - x - Plotting Room

REAR ELEVATION

Note: Plane of Reference - Mean Lower Low Water.



SECTION C-D



SECTION A-B

REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

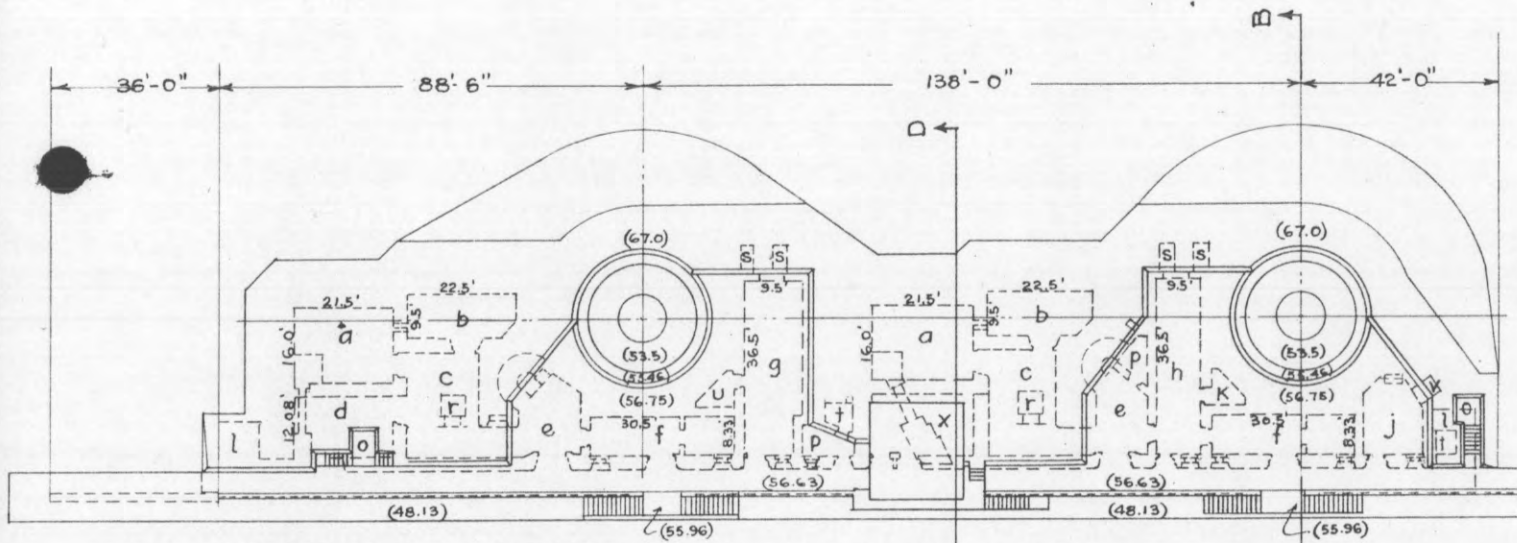
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY DAVID RUSSELL

No. of Guns 2 Caliber 10" Carriage "Dis" "L.F."

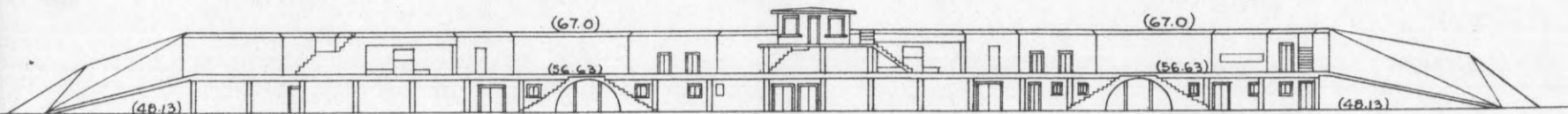
Form 7.

Corrected to



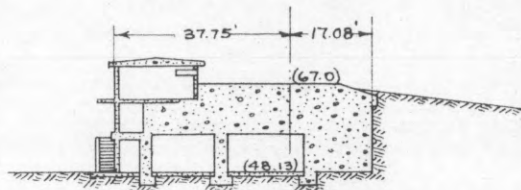
- LEGEND**
- a - Magazine
 - b - Shell Room
 - c - Lobby
 - d - Shot Room
 - e - Tool Room
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 - u - Map Vault
 - v - Vault Locker
 - x - Plotting Room

PLAN

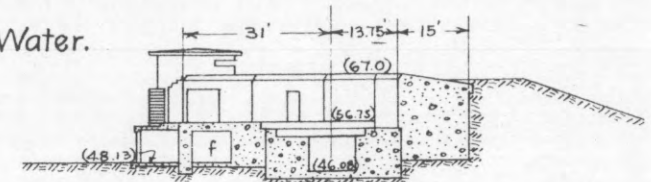


REAR ELEVATION

Note: Plane of Reference - Mean Lower Low Water.



SECTION C-D



SECTION A-B

COAST DEFENSES OF Columbia.

FORT Stevens BATTERY Russell No. of GUNS: 2 CALIBER: 10"

	EMPLACEMENT NUMBER 1.		EMPLACEMENT NUMBER 2.		EMPLACEMENT NUMBER 3.		EMPLACEMENT NUMBER 4.	
	FROM.	TO.	FROM.	TO.	FROM.	TO.	FROM.	TO.
1-a. Azimuth. <u>327° 24' 44"</u>								
b. Distance. <u>35,987.60ft.</u>								
2-a. Model of Gun. <u>1900</u>								
b. " " Carriage <u>L.F. 1901</u>								
c. Type of " " <u>Dis.</u>								
3- Elevations of. <u>Dis.</u>								
a. Gun trunnions (in battery) <u>69.76</u>								
b. Interior crest. <u>66.97</u>								
c. Loading platform. <u>56.62</u>								
4- Angle of depression. <u>0° 00'</u>								
5- Limiting azimuths of field of fire as determined by:								
a. Construction of emplacement. <u>28 54</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>	<u>0 1</u>
b. Interference by adjacent emplacements. <u>28 54</u>	<u>190 42</u>	<u>348 58</u>	<u>146 15</u>					
c. Interference of other obstacles external to emplacement. <u>28 54</u>	<u>190 42</u>	<u>348 58</u>	<u>146 15</u>					
d. Position of Ordnance stops. <u>28 54</u>	<u>190 42</u>	<u>348 58</u>	<u>146 15</u>					

NOTES.

1. Azimuth and distance of emplacement No.2 are given with reference to No.1, of No.3, with reference to No.2, etc. Azimuth and distance of No.1, are given with reference to Canby Light
3. Above plane of M.I.L.W.
- 5-c. Nature of obstacles: None.

2-c. Use one of following abbreviations or designations: Dis, Nondis, Alt.

gun-lift; Turret; Casemate; Ped; B.P.

Co-ordinates Gun No.1: S.30322.00 E.19382.57 (Origin Canby Light).

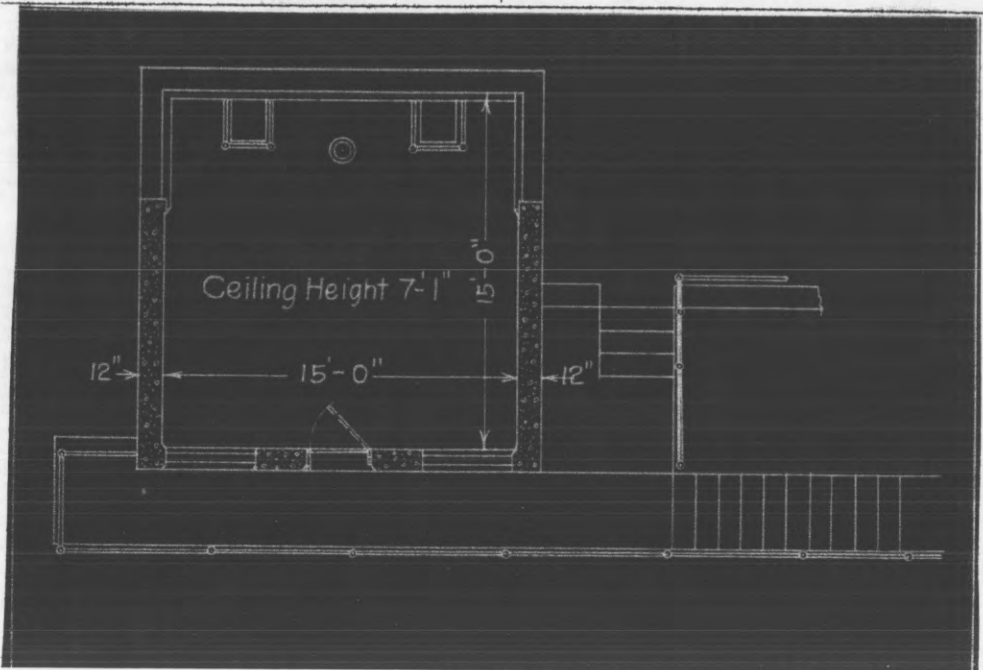
obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF...THE COLUMBIA.....
FORT. STEVENS, OREGON.
STRUCTURE B.C. RUSSELL, formerly (B.C. & F. / 1).

Form 2. Corrected to June 30, 1921.

Location	At battery.	Type of data transmission
Date of transfer	March 30, 1911.	Date of transfer
Cost to that date	\$2,130.	Cost of data transmission equipment
Type of construction	Reinforced concrete.	For tide stations give description of tide gauge
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible
(b) Remainder of bld	Behind battery to slot; woods to rear.	For dormitories give stations served
How concealed	Behind battery to slot.	For cable hut give S. C. type
How protected		
Height above concealment	5' above battery.	
Height above protection	5'.	
Conspicuous at.....yards	About 4 miles.	
Source of electric current	Battery Russell Power Plant.	
Kilowatts required	.2 kw.	
Type of lighting fixtures	Commercial.	
How heated	None.	
Connected to water mains	No.	
Connected to sewer	No.	
Type of latrine	None.	
Permanent or temporary installation	Permanent.	
Present condition	Good.	
Reference of site	67' above M.L.L.W.	
Reference of instrumental axis	69.085' above M.L.L.W.	
Type of observing inst.	Swasey DPF, type "A" #95.	
Type of plotting board	Warner & Swasey Azimuth; In plotting (Model 1910) room at Battery. Whistler & Hearn #192.	
Type and capacity of crane		
Max. dimensions of reel handled		



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF...THE COLUMBIA.....
FORT.. STEVENS, OREGON.....
* POWER FOR BATTERY DAVID RUSSELL.....

Form 5.

Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfgr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard		
												Material.	No. of Panels	
Boiler No. 1	None													
No. 2	=				See 175.1 (9th C.A.)								See 175.1 (9th C.A.)	1
No. 3	=													
Engine No. 1	6790	GM12-A2	43/54hp	Gen.E.Co.	2-30 4-6-1911		Good	560			Gas.	220 DC 2	No	
No. 2	6792	GM12-A2	43/54hp	Gen.E.Co.	2-30 2-30-1911		Good	560			Gas.	220 DC 2	No	
No. 3	-													
Generator														
No. 1	195141	MPC	25kw230v	Gen.E.Co.	3-30-1911		Good		Dir.					
No. 2	196415	MPC	25kw230v	Gen.E.Co.	3-30-1911		Good		Dir.					
No. 3	-													
Radiator														
No. 1	No number	Auto.	--	Home-Tur.Co.	3-30-1911		Good			6790				
No. 2	No number	Auto.	--	Home-Tur.Co.	3-30-1911		Good			6792				
No. 3	-													
Motor Generator	None													
No. 1														
No. 2														
No. 3														
Switchboard	98	N.	60"x82"	Walker E.Co.	3-30-1911		Good					Marble	3-2 gen. Feed	
Storage Battery	None													
Transformer	None													
No. 1														
No. 2														
No. 3														
Auxiliaries	None													
No. 1														
No. 2														
No. 3														

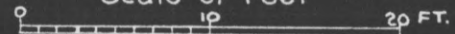
Cost of plant, including alterations of power house, \$9,930.

DISTRIBUTION OF KW. Fortification lights 12.0 kw.; Motors, shot hoists, 7.0 kw.; Motors, retracting, 12.0 kw.; Motor generator set, Signal Station, 2.0 kw.; Total, 33.0 kw.

Commercial power extended to this power plant 3/31/23

FORT STEVENS, OREGON.
 GENERAL PLAN OF
 POWER PLANT - BATTERY RUSSELL

Scale of Feet



M.H.
 46

8-3" DUCTS TO
 SWITCHBOARD PIT

3" DRAIN TO SWAMP

SUMP

ENG. NO. 6792
 GEN. NO. 196415

FAN MOTORS, G.E.CO.
 TYPE CQ3, FORM A41
 230V, 1050 R.P.M.

DOUBLE SWING
 STEEL DOORS

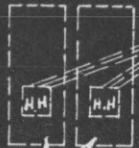
4" GALV. PIPE

4" DRAIN TILE

DOUBLE SWING
 STEEL DOORS

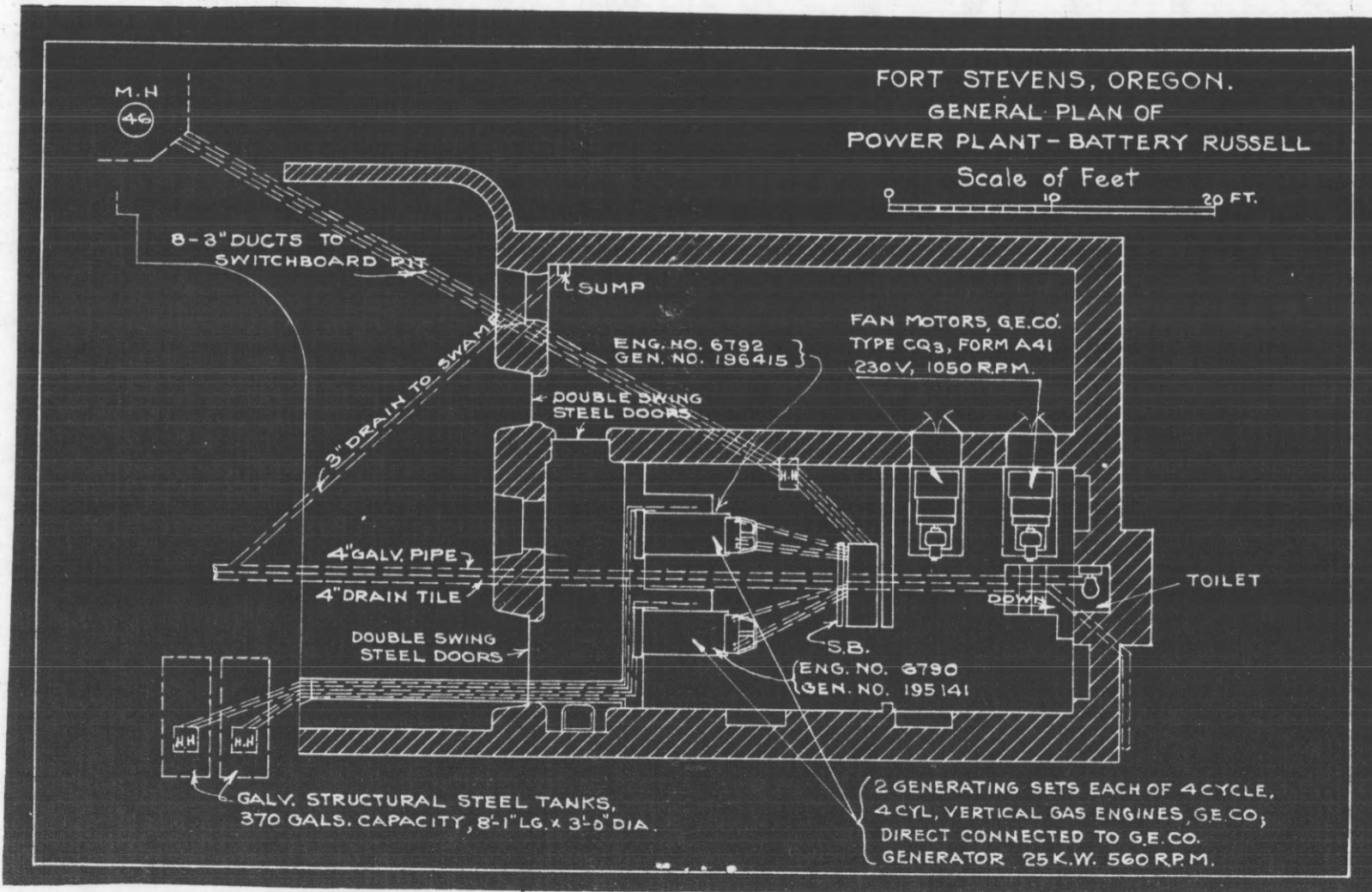
TOILET

S.B.
 ENG. NO. 3790
 GEN. NO. 195141



GALV. STRUCTURAL STEEL TANKS,
 370 GALS. CAPACITY, 8'-1" LG. x 3'-0" DIA.

2 GENERATING SETS EACH OF 4 CYCLE,
 4 CYL. VERTICAL GAS ENGINES, G.E.CO;
 DIRECT CONNECTED TO G.E.CO.
 GENERATOR 25 K.W. 560 R.P.M.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

SECRET

HARBOR DEFENSES OF THE COLUMBIA * Salvage
FORT STEVENS, OREGON Commercial Power
BATTERY RUSSELL Installation
(Supplemental Report)

Form 1.

Corrected to May 12, 1943

2/11

GENERAL : This supplemental work consisted of extend-
: ing a 2300 volt commercial power line from
: Fort Stevens proper to Battery Russell and
: its allied facilities.

* Salvage of Battery directed
400.93 (COL RIV) 119204. Paper
sent to Redist & Salvage 1/29/45
with recommendation that salvage
of power be determined by local
C.A. authorities

Location : All work was within the U.S. Military Re-
: servation of Fort Stevens, Oregon.

Date of transfer : of supplemental work: March 31, 1943.

Cost to date of transfer : of supplemental work: \$2,001.92.

ELECTRIC CURRENT:

Source of : Electric current for Fort Stevens is pur-
: chased from the Pacific Power and Light
: Company, the sub-station being located at
: Astoria, Oregon.

(See attached plan)

in Map Files

Power Line Construction : This power line extension was connected to
: the commercial lines about 200 feet north
: of the Fort Stevens water pressure tank.
: The line is constructed along the road to
: Battery Russell and is approximately 4,860
: feet in length to a dividing point below
: Battery Russell. The line is constructed
: of #8 hard drawn copper wire, carries 2300
: volts and is 3 phase. From the dividing
: point, below Battery Russell, one line is
: extended to the battery power plant and one
: line extends to a point south of the battery
: to serve the battery mess hall and troop
: shelters. The branch line of 120 feet, to
: the power plant takes off by a 25KVA trans-
: former, is constructed of #8 hard drawn
: copper wire and is single phase of 220
: volts. From the power plant, the power is

44257

SECRET

Form 1.

Corrected to May 12, 1943

(Supplemental Report)

: carried thru the battery by previously constructed circuits. The branch
: line to the mess hall and troop shelters is constructed of #6 hard drawn
: copper wire and carries 2300 volts, single phase. At the terminus of
: this line a 15 KVA transformer was provided for laterals to the mess hall
: and the troop shelters.

REMARKS : This work was authorized by Western Defense Command on June 15, 1942 as
: Urgent Emergency Construction. The work was performed by hired labor;
: was started on July 9th and was completed July 27th, 1942. On July 28,
: 1942, the Office Chief of Engineers authorized funds for this construction
: under P/A Eng.-32201 P 221 A 0905-23. See drawing number DMCR 1113 for
: the layout plan.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
BATTERY WALKER
No. of guns None Caliber Carriage

Form 1 Corrected to June 30, 1921.

Battery commenced	Sept., 1896	Sources of electric current	Central or Reserve Power Plant.
Battery completed	April, 1898		
Date of transfer	April 3, 1898	Max. kw. required for lights	2.7 kw.
Material of construction	Concrete	Max. kw. required for motors	None, battery not in use.
Portland or Rosendale cement	Portland.		
Cost to date of transfer	\$302,014.00*	Present condition of battery	Good.
Connected to water supply	Yes	Rooms wet or dry	Dry.
Connected to sewer	Storm sewer only		
Type of latrine	Urinals only	How ventilated	8" dia. shafts, conical tops. No ventilating doors.
Type of data transmission	None		
Trunnion elevation in battery	Emp. #1, 34.30'	Remarks-	
Datum plane	Emp. #2, 34.25'		*Cost includes Batteries Lewis & Mishler.
	M.L.L.W.		

ARMAMENT.

Emplacement or mortar No.	Guns or Mortars				Carriages					
	Cal.	length	model	Serial No.	Manufacturer	Type	model	Serial No.	Manufacturer	Motor
1	10"	367.25"	1888MII	52	Watervliet Ars. E.D.	Dis.LF	1894	4C	Kilby Mfg.Co.	Removed
2	10"	367.25"	1888MII	48	Watervliet Ars. E.D.	Dis.LF	1894	5	Kilby Mfg.Co.	Removed
3										
4			Guns shipped away.							
5								Carriages sold and removed.		
6										
7										
8										

HOISTS.

Emplacement Number	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
1/2	Tay.R	Back	96520	Gen.E.Co.	5	220	1060R-67	Con.#136, 301	April 25, 1905	No
	Tay.R	Back	96519	Gen.E.Co.	5	220	1060R-67	con. 136, 300	June 27, 1905	No

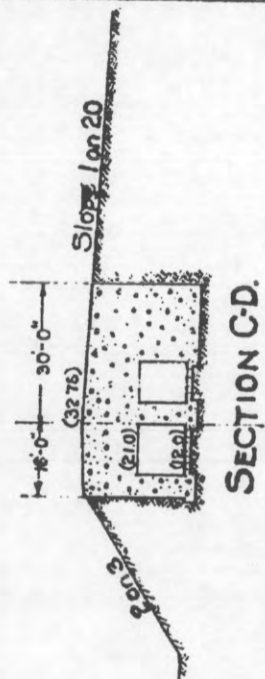
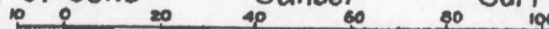
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY WALKER

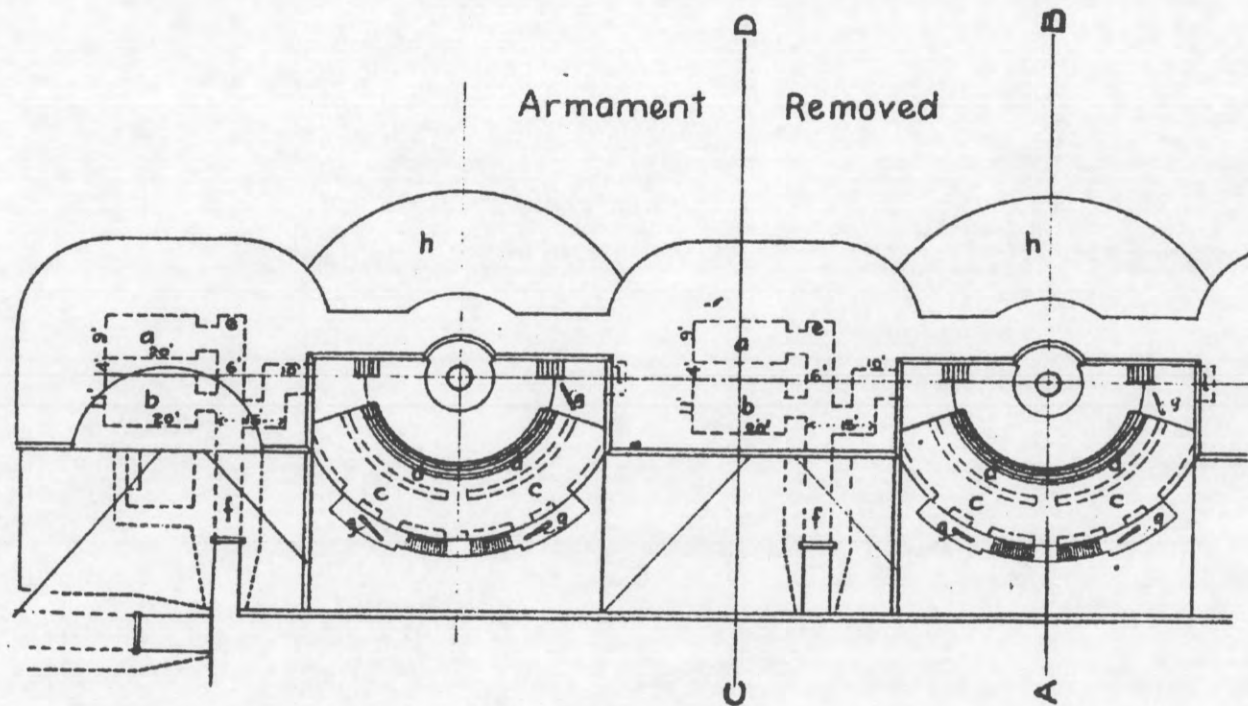
Form 7

Corrected to

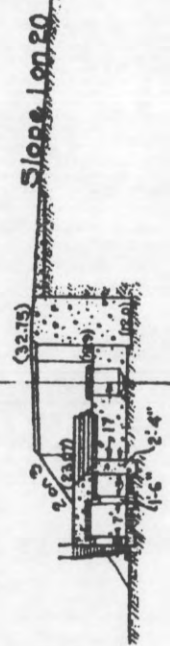
No of Guns Caliber Carriage



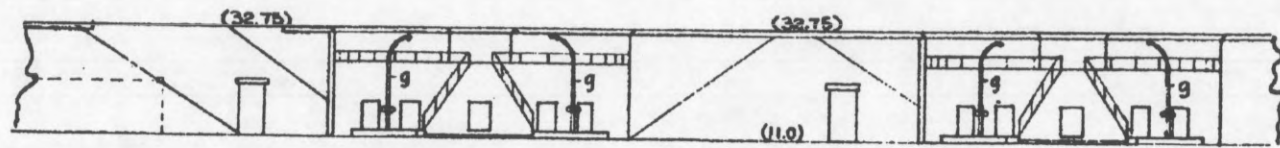
SECTION C-D



PLAN



SECTION A-B



REAR ELEVATION

LEGEND

- a - Shot Room
- b - Powder Room
- c - Shot Chamber
- d - Tool Room
- e - Telephone Recess
- f - Entrance Galleries
- g - Cranes
- h - Apron
- l - Latrine

Note: Plane of Reference - Mean Lower Low Water.

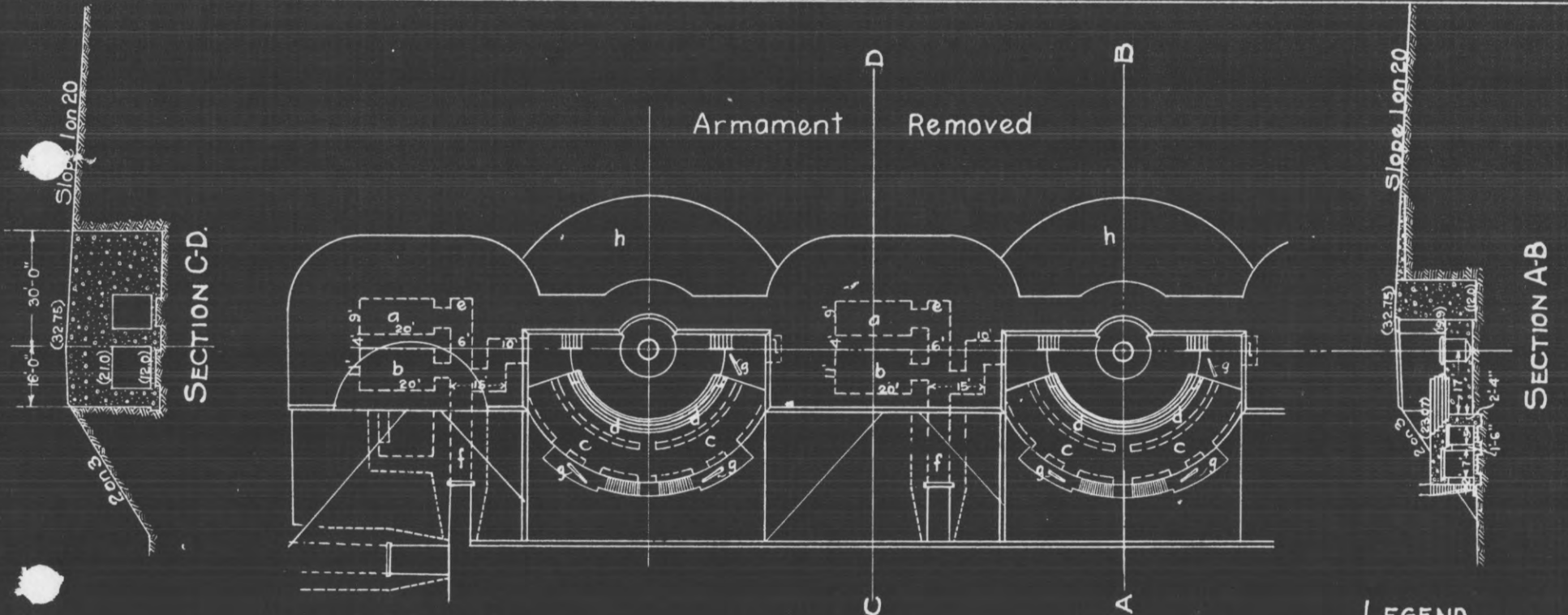
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY WALKER

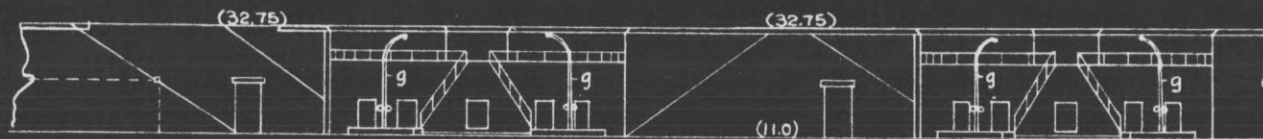
Form 7

Corrected to

No of Guns Caliber Carriage



PLAN



REAR ELEVATION

LEGEND

- a - Shot Room
- b - Powder Room
- c - Shot Chamber
- d - Tool Room
- e - Telephone Recess
- f - Entrance Galleries
- g - Cranes
- h - Apron
- l - Latrine

Note: Plane of Reference - Mean Lower Low Water.

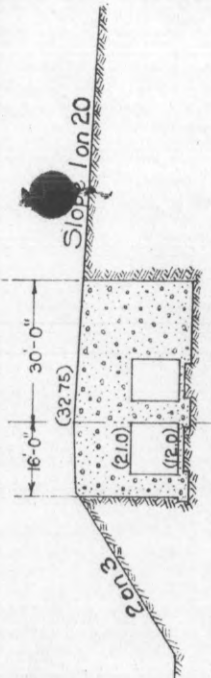
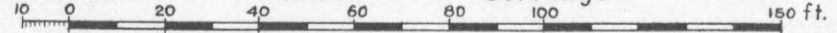
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY WALKER

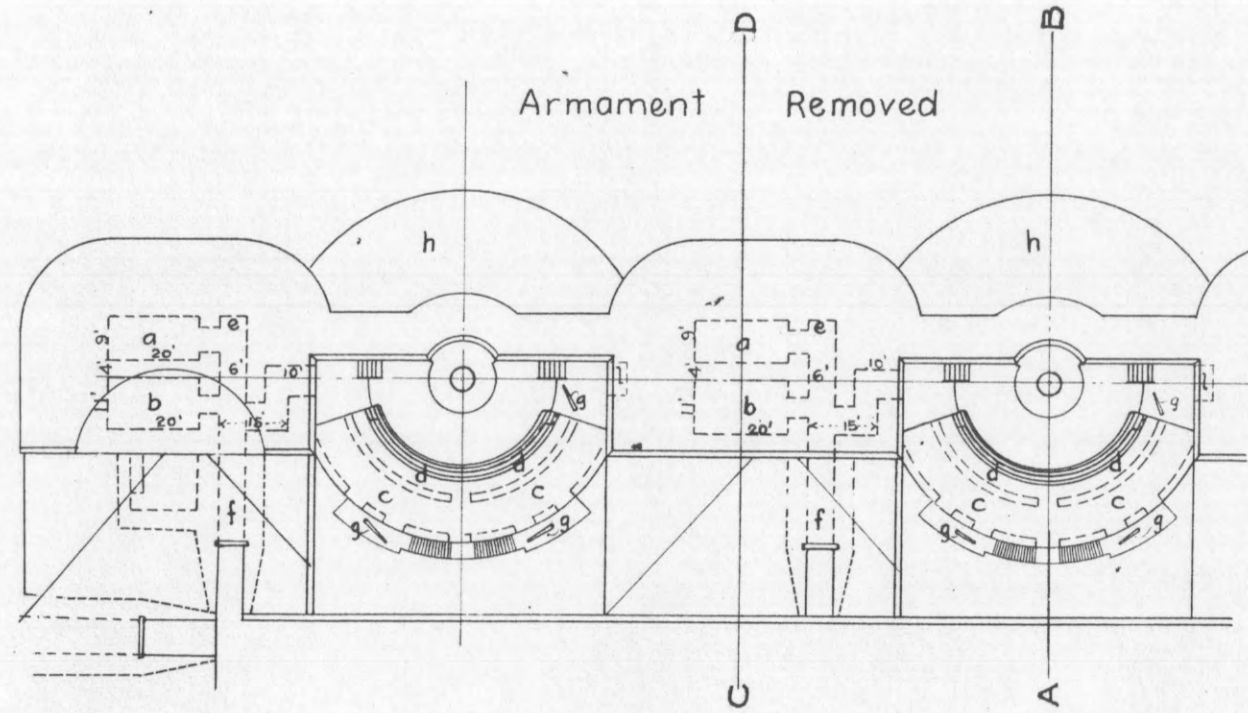
Form 7

Corrected to

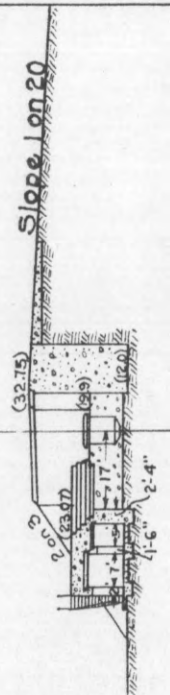
No of Guns Caliber Carriage



SECTION C-D.



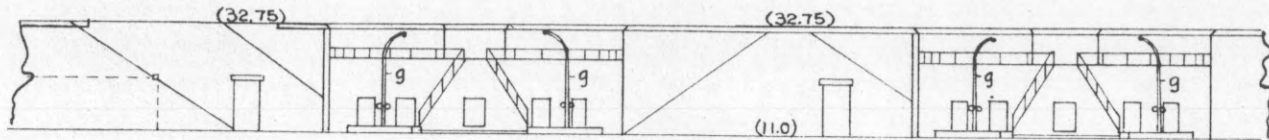
PLAN



SECTION A-B

LEGEND

- a - Shot Room
- b - Powder Room
- c - Shot Chamber
- d - Tool Room
- e - Telephone Recess
- f - Entrance Galleries
- g - Cranes
- h - Apron
- l - Latrine



REAR ELEVATION

Note: Plane of Reference - Mean Lower Low Water.

COAST DEFENSES OF Columbia.

FORT Stevens. BATTERY Walker. NO. OF GUNS: 2 CALIBER 10"

	EMPLACEMENT NUMBER 1	EMPLACEMENT NUMBER 2	EMPLACEMENT NUMBER 3	EMPLACEMENT NUMBER 4
1-a Azimuth	319° 59' 126"	86° 59' 130"		
b Distance	32692.00 ft.	124.02 ft.		
2-a Model of Gun	1888, MII	1888, MII		
b Carriage	L.F. 1894	L.F. 1894		
c Type of	Dis.	Dis.		
3- Elevations of				
a Gun trunnions (in battery)	34.30	34.25		
b Interior crest.	32.75	32.72		
c Loading platform	23.07	23.03		
4 Angle of depression	0° 00'	0° 00'		
5- Limiting azimuths of field of fire as determined by:	FROM 108 0	TO 109 0	FROM 0 1	TO 0 1
a Construction of emplacement	108 0	244 0	109 0	244 0
b Interference by adjacent emplacements	108 0	244 0	109 0	244 0
c Interference of other obstacles external to emplacement	108 0	244 0	109 0	244 0
d Position of Ordnance stops	108 0	244 0	109 0	244 0

NOTES.

- 1 Azimuth and distance of emplacement No 2 are given with reference to No 1, of No 3, with reference to No 2, etc. Azimuth and distance of No. are given with reference to Ganby Light
3. Above plane of M. L. L. W.
- 5-6 Nature of obstacles None

2- Use one of following abbreviations or designations: Dis, Nondis, Alt.

gun lift, Turret, Casemate, Ped, BP

Co-ordinates Gun No. 1: S. 25040.01, E. 21018.19 (Origin- Ganby Light).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

Form 2.

Corrected to June 30, 1921.

Absolute

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE...B.C. WALKER...(Unused).....

Not indicated on Fort. Index Plot

Location	At battery.
Date of transfer	November 9, 1911.
Cost to that date	\$3,448.18.
Type of construction	Reinforced concrete.
(a) Roof	Reinforced concrete.
(b) Remainder of bld	Behind battery to slot; trees to rear.
How concealed	Behind battery to slot.
How protected	
Height above concealment	4' above battery.
Height above protection	4'.
Conspicuous at.....yards	About 4 miles.
Source of electric current	Central or Reserve Power Plant.
Kilowatts required	.3 kw.
Type of lighting fixtures	Commercial.
How heated	None.
Connected to water mains	No.
Connected to sewer	No.
Type of latrine	None.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	32.75' above M.L.L.W.
Reference of instrumental axis	35.15' above M.L.L.W.
Type of observing inst.	None, battery dismantled.
Type of plotting board	Whistler & Hearn #161.
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission

Date of transfer

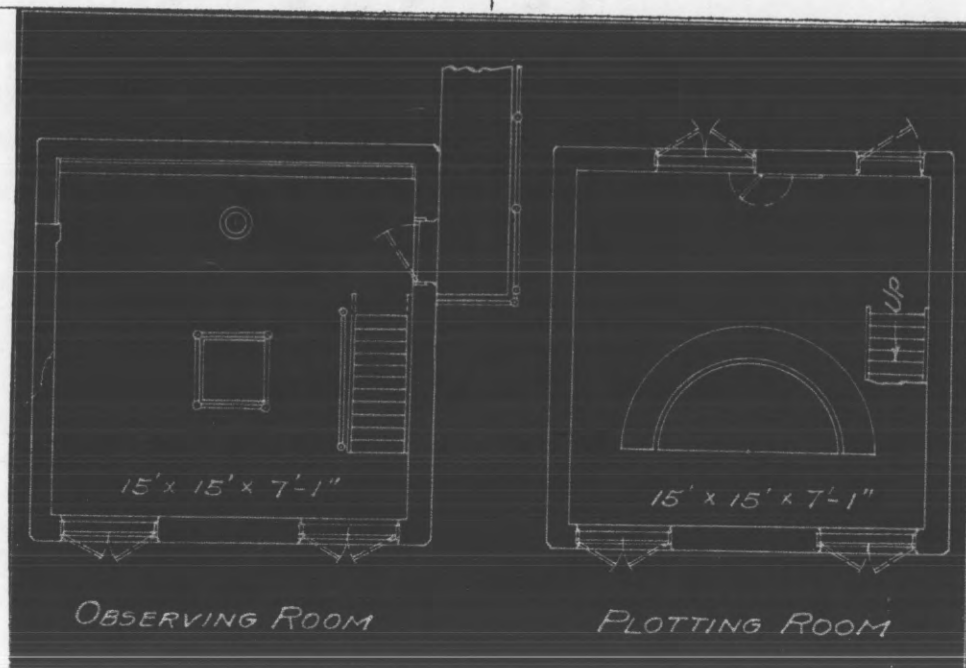
Cost of data transmission
equipment

For tide stations give descrip-
tion of tide gauge

For datum points give Forts
from which visible

For dormitories give
stations served

For cable hut give
S. C. type



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF THE COLUMBIA
 FORT. STEVENS, OREGON
 BATTERY. JAMES PRATT
 No. of guns 2 Caliber 6" Carriage LF Dis.

Form 1 Corrected to June 30, 1921.

Battery commenced	May, 1899	Sources of electric current	Central or Reserve Power Plant.
Battery completed	June, 1900		
Date of transfer	June 28, 1900	Max. kw. required for lights	3.0 kw.
Material of construction	Concrete.	Max. kw. required for motors	None.
Portland or Rosendale cement	Portland.		
Cost to date of transfer	\$59,860.19	Present condition of battery	Good.
Connected to water supply	Yes	Rooms wet or dry	Dry.
Connected to sewer	Storm sewer on		
Type of latrine	Urinals only	How ventilated	6" dia. shafts, conical tops. No venti-
Type of data transmission	None		lating doors.
Trunnion elevation in battery	Emp.#1, 30.96'	Remarks-	
Datum plane	Emp.#2, 30.92'		
	M.L.L.W.		

ARMAMENT.

Emplacement or mortar No	Guns or Mortars				Carriages					
	Cal.	length	model	Serial No.	Manufacturer	Type	model	Serial No.	Manufacturer	Motor
1	6"	277.85"	L897MI	4	Watervliet Ars. C.A.C.	LF Dis.	1898	7	Watertown Ars.	None
2	6"	277.85"	L897MI	11	Watervliet Ars. C.A.C.	LF Dis.	1898	8	Watertown Ars.	None
3										
4										
5										
6										
7										
8										

HOISTS.

Emplacement Number	Type	Delivery	Motor					Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM		
1	Hodges	Back	Hand operated						
	Hodges	Back	Hand operated						

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

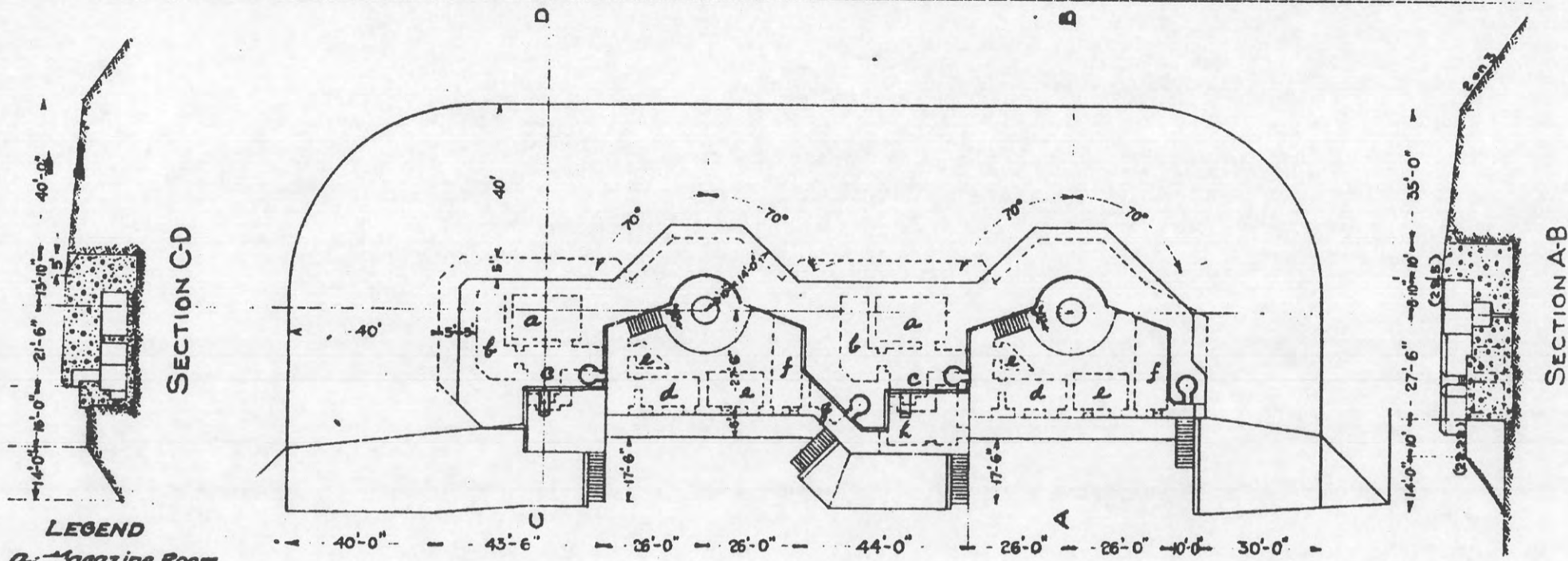
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY JAMES PRATT

No. of Guns 2 Caliber 6" Carriage "Dis." L

Form 7.

Corrected to



SECTION C-D

SECTION A-B

- LEGEND**
- a - Magazine Room
 - b - Well Room
 - c - Ammunition Lift
 - d - Shot Room
 - e - Store Room
 - f - Guard Room
 - g - Latrine
 - h - Plotting Room

PLAN



REAR ELEVATION

Plane of Reference - Mean Lower Low Water.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

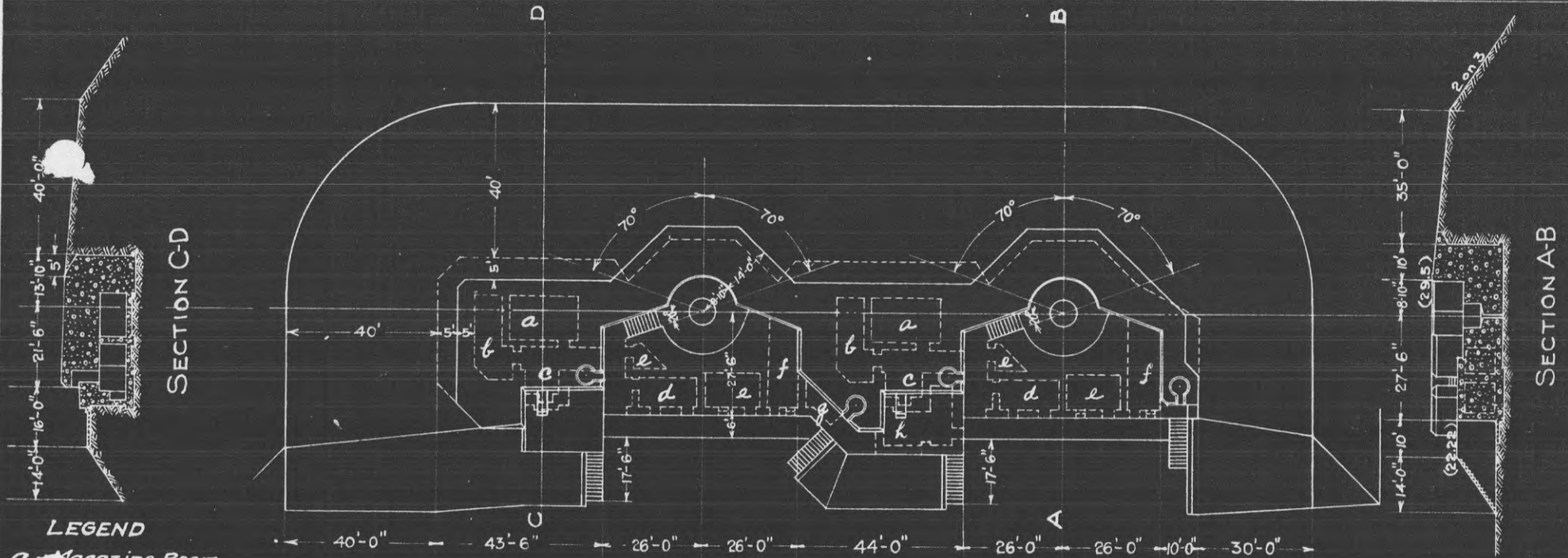
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY JAMES PRATT

No. of Guns 2 Caliber 6" Carriage "Dis." "L.F."

Form 7.

Corrected to



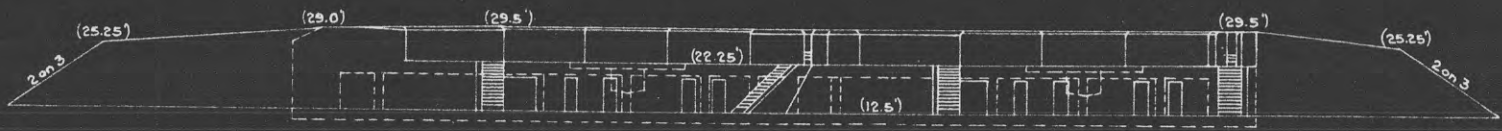
SECTION C-D

SECTION A-B

PLAN

LEGEND

- a - Magazine Room
- b - Bell Room
- c - Ammunition Lift
- d - Shot Room
- e - Store Room
- f - Guard Room
- g - Latrine
- h - Plotting Room



REAR ELEVATION

Plane of Reference - Mean Lower Low Water.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

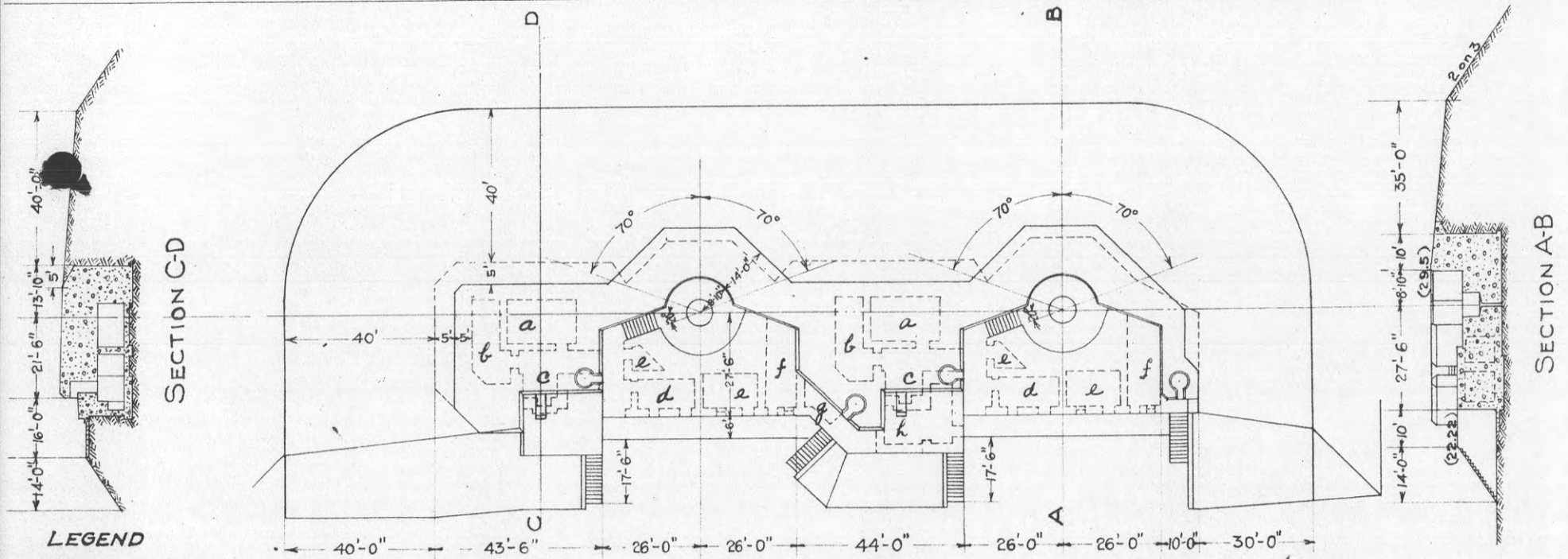
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS

BATTERY JAMES PRATT

No. of Guns 2 Caliber 6" Carriage "Dis." "L.F."

Form 7.

Corrected to



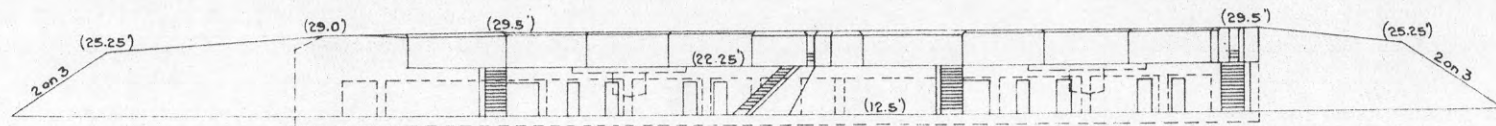
SECTION C-D

SECTION A-B

PLAN

LEGEND

- a - Magazine Room
- b - Shell Room
- c - Ammunition Lift
- d - Shot Room
- e - Store Room
- f - Guard Room
- g - Latrine
- h - Plotting Room



REAR ELEVATION

Plane of Reference - Mean Lower Low Water.

COAST DEFENSES OF

Columbia.

FORT Stevens

BATTERY Pratt

No. of GUNS: 2

CALIBER: 6"

	EMPLACEMENT NUMBER 1.	EMPLACEMENT NUMBER 2.	EMPLACEMENT NUMBER 3.	EMPLACEMENT NUMBER 4.
1-a. Azimuth.	519°013'47"	88°47'40"		
b. Distance.	33075.60 ft.	96.06 ft.		
2-a. Model of Gun.	M I 1897	M. I. 1897		
b. " " Carriage	L. F. 1898	L. F. 1898		
c. Type of " "	Dis.	Dis.		
3- Elevations of:				
a. Gun trunnions (in battery)	30.96	30.92		
b. Interior crest.	29.49	29.38		
c. Loading platform.	22.22	22.26		
4- Angle of depression.	0°00'	0°00'		
5- Limiting azimuths of field of fire as determined by:				
a. Construction of emplacement.	FROM. 0° 01' 96 0	FROM. 0° 01' 95 0	FROM. 0° 01' 0 0	FROM. 0° 01' 0 0
b. Interference by adjacent emplacements.	TO. 259 0	TO. 259 0	TO. 259 0	TO. 259 0
c. Interference of other obstacles external to emplacement.	FROM. 0° 01' 96 0	FROM. 0° 01' 95 0	FROM. 0° 01' 0 0	FROM. 0° 01' 0 0
d. Position of Ordnance stops.	TO. 259 0	TO. 259 0	TO. 259 0	TO. 259 0

NOTES.

1. Azimuth and distance of emplacement No 2 are given with reference to No 1, of No 3, with reference to No 2, etc. Azimuth and distance of No 1, are given with reference to Canby Light.
3. Above plane of M. I. L. W.
- 5-c. Nature of obstacles: None.

2-c Use one of following abbreviations or designations: Dis, Nondis, Alt. gun-lift; Turret; Casemate; Ped; B.P.

Co-ordinates Gun No. 1: S. 25049.30, E. 21599.25 (Origin- Canby Light).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF...THE COLUMBIA.....
FORT...STEVENS, OREGON.....
BATTERY...CONSTANT FREEMAN.....
No. of guns None Caliber Carriage None

Form 1 Corrected to June 25, 1922.

Battery commenced	July 1900	1-3" Emp.	Sources of electric current	Central or Reserve Power Plant.
Battery completed	June 1901	2-6" Emp.		
Date of transfer	Nov. 1900	1-3" Emp.		
Date of transfer	Dec. 1901	2-6" Emp.	Max. kw. required for lights	23 kw.
Material of construction	Nov. 12, 1900	1-3" Emp.		
Portland or Rosendale cement	Jan. 17, 1902	2-6" Emp.	Max. kw. required for motors	None
Cost to date of transfer	1-3" Emp.	\$5,398.05	Present condition of battery	Good
Connected to water supply	2-6" Emp.	\$4,538.87		
Connected to sewer	Yes		Rooms wet or dry	Dry
Type of latrine	Storm sewer only		How ventilated	6" dia. shafts, conical tops; Ventilating doors.
Type of data transmission	Urinals only			
Trunnion elevation in battery	#1 Emp.	28.04'	Remarks-	
Datum plane	#2 Emp.	34.01'		
	#3 Emp.	33.96'		
		M.L.L.W.		

ARMAMENT.

Emplacement or mortar No	Guns or Mortars					Carriages				
	Cal.	length	model	Serial No.	Manufacturer mounted	Type	model	Serial No.	Manufacturer	Motor
1	3"	154.5"	1898	115	Driggs-Seabury C.A.C.	Barb.LF	1898MI	115	Driggs-Seabury	None
2	6"	310.4"	1900	8	Watervliet Ars. C.A.C.	Barb.LF	1900	25	Watervliet Ars.	None
3	6"	310.4"	1900	4	Watervliet Ars. C.A.C.	Barb.LF	1900	24	Watervliet Ars.	None
4	Guns shipped away.					Carriages sold and removed.				
5										
6										
7										
8										

HOISTS.

Emplacement Number	Type	Delivery	Motor					Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM		
1	None								
2	Hodges	Back	Hand operated						
3	Hodges	Back	Hand operated						

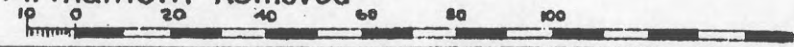
15 or 20

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Battery Plan)

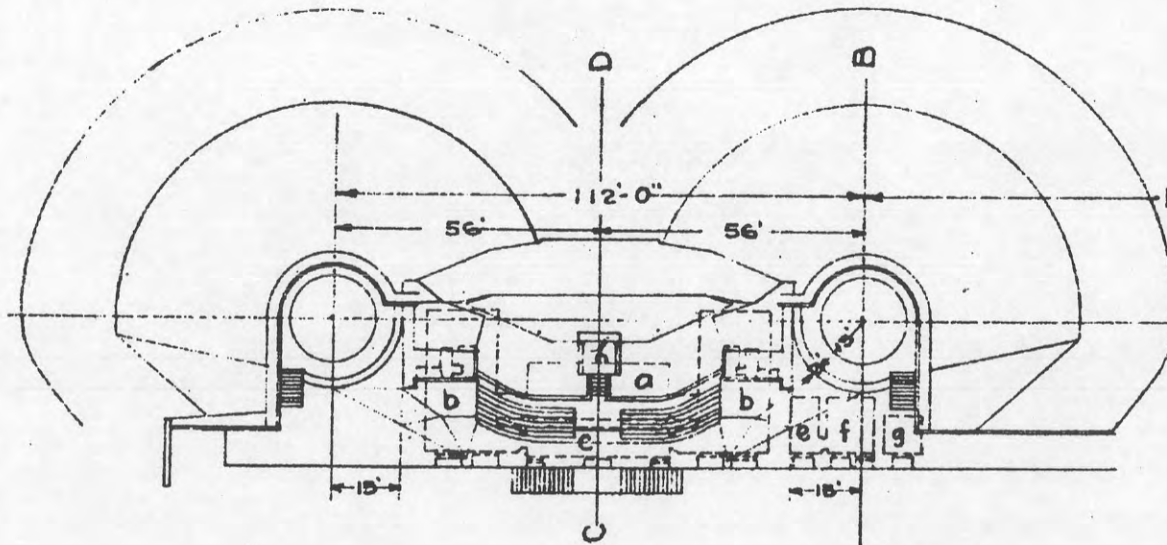
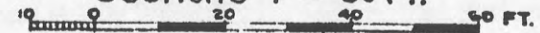
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CONSTANT FREEMAN
Armament Removed

Form 7

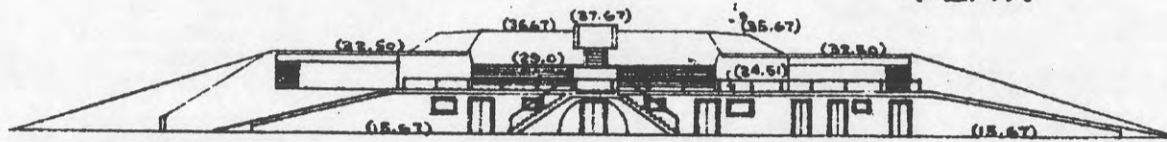
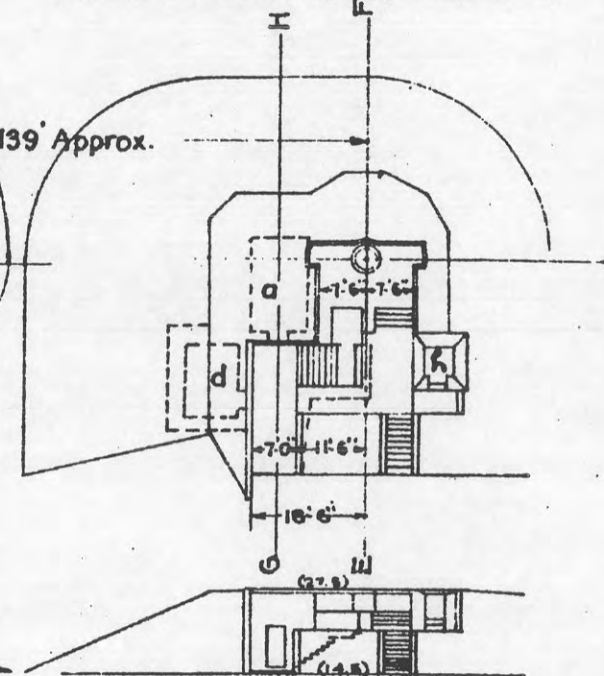
Corrected to June 30, 1921.



Note: Scale of Right Emplacement and Sections 1" = 30 Ft.



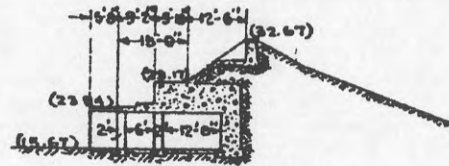
PLAN



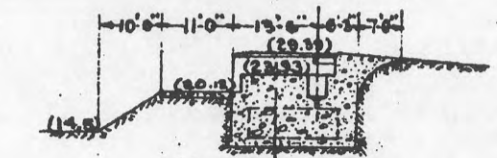
Scale 1" = 40 Ft. REAR ELEVATION

LEGEND

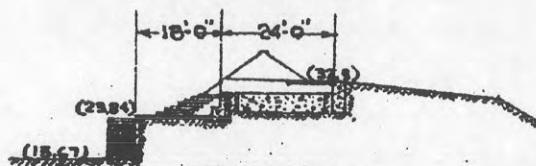
- a- Magazine
- b- Shell Room and Lobby
- c- Guard Room
- d- Bomb Proof
- e- Storage Room
- f- " "
- g- Latrine
- h- Observation Station



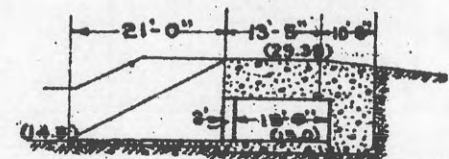
SECTION C-D



SECTION E-F



SECTION A-B



SECTION G-H

REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

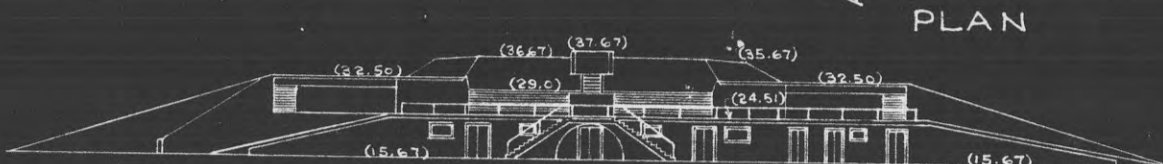
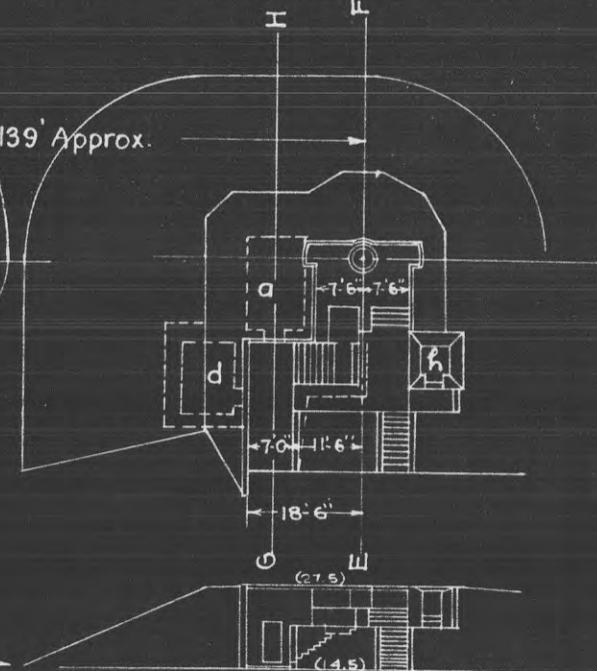
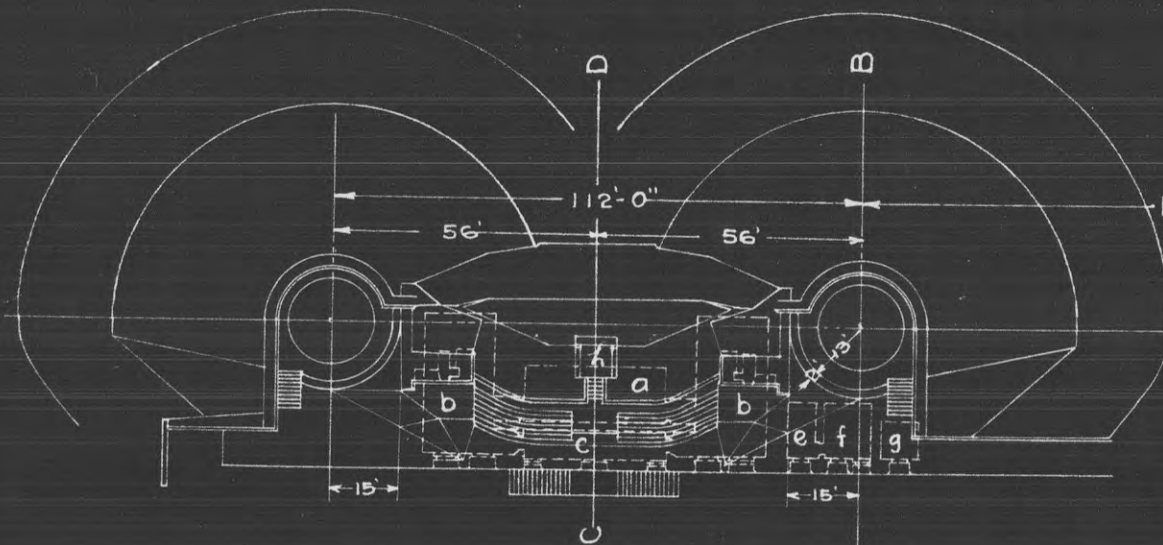
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CONSTANT FREEMAN
Armament Removed

Form 7

Corrected to June 30, 1921.



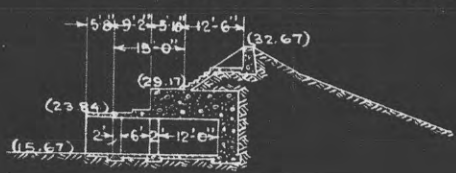
Note: Scale of Right Emplacement and Sections 1" = 30 Ft.



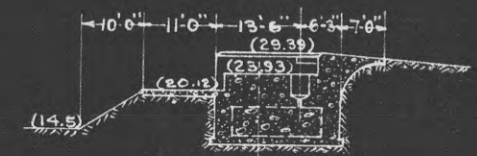
Scale 1" = 40 Ft. REAR ELEVATION

LEGEND

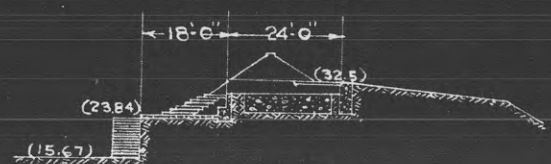
- a- Magazine
- b- Shell Room and Lobby
- c- Guard Room
- d- Bomb Proof
- e- Storage Room
- f- " "
- g- Latrine
- h- Observation Station



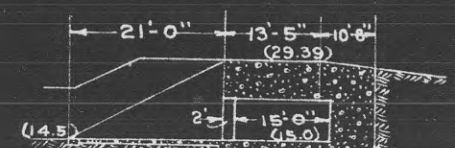
SECTION C-D



SECTION E-F



SECTION A-B



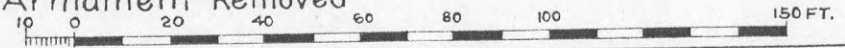
SECTION G-H

REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

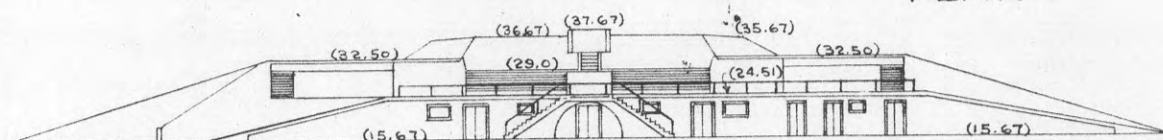
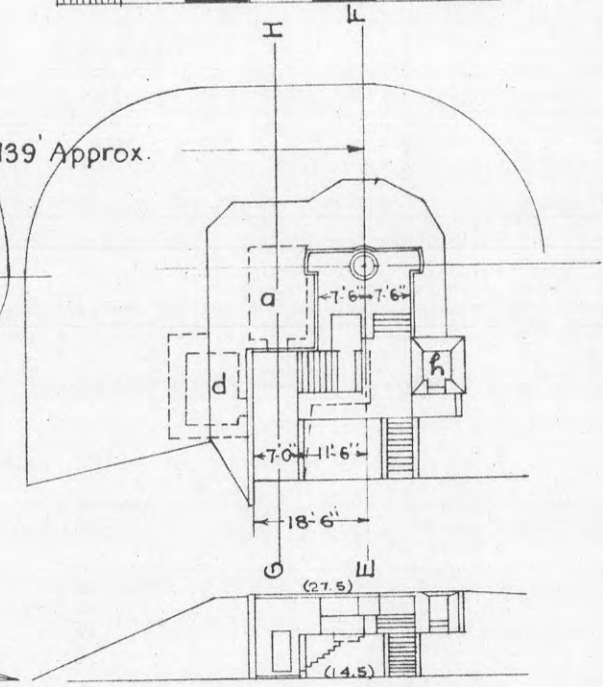
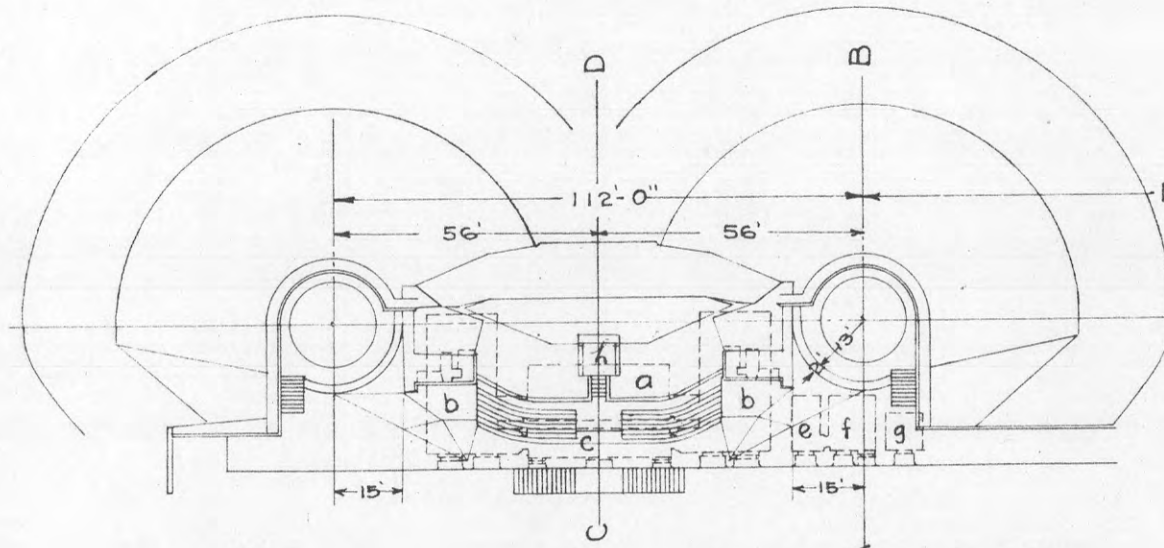
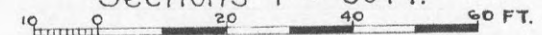
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CONSTANT FREEMAN
Armament Removed

Form 7

Corrected to June 30, 1921.

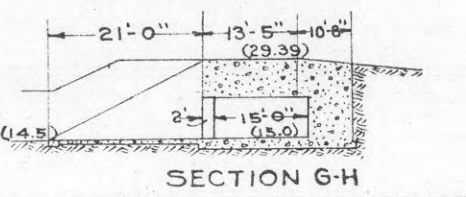
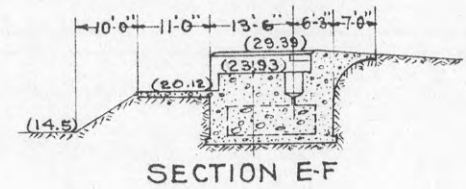
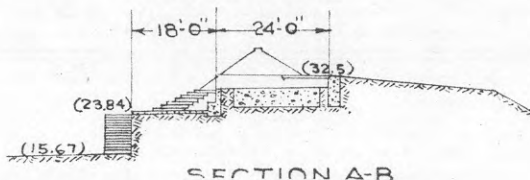
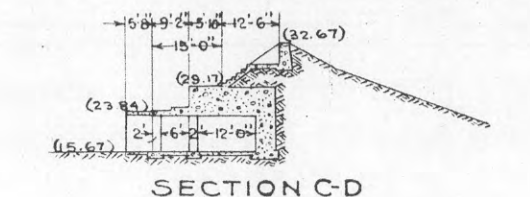


Note: Scale of Right Emplacement and Sections 1" = 30 Ft.



Scale 1" = 40 Ft. REAR ELEVATION
LEGEND

- a - Magazine
- b - Shell Room and Lobby
- c - Guard Room
- d - Bomb Proof
- e - Storage Room
- f - " "
- g - Latrine
- h - Observation Station



COAST DEFENSES OF

Columbia.

FOR Stevens BATTERY Freeman

NO. OF GUNS: 2
1
CALIBER 6" 3"

EMPLACEMENT NUMBER 1	EMPLACEMENT NUMBER 2	EMPLACEMENT NUMBER 3	EMPLACEMENT NUMBER 4	EMPLACEMENT NUMBER 1		EMPLACEMENT NUMBER 2		EMPLACEMENT NUMBER 3		EMPLACEMENT NUMBER 4	
				From	To	From	To	From	To	From	To
3" gun.											
217° 50' 17"	110° 52' 20"	109° 59' 45"									
23977.66 ft.	144.21 ft.	111.83 ft.									
1898 MI	1900	1900									
Driggs-Seabury	1900	1900									
Months.	Months.	Months.									
28.04	34.01	33.96									
27.39	32.30	32.22									
23.93	29.59	29.48									
5° 00'	5° 00'	5° 00'									
109 0	289 0	289 0									
120 0	134 30	299 30									
109 0	289 0	264 0									
no stops	no stops	no stops									

NOTES

- 1 Azimuth and distance of emplacement No. 2 are given with reference to No. 1 or No. 3 with reference to No. 2, etc. Azimuth and distance of No. 1 are given with reference to Canby Light
- 2 Above plane of M.L.L.W.
- 3 Nature of obstacles None.

2. Use one of following abbreviations or designations: Dis; Months; Alt gun; Mt; Turret; Casemate; Ped; B P

Co-ordinates Gun No. 1: S. 25185.98, E. 22806.75 (Origin - Canby Light).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON

Part I Corrected to 1 March 1945

~~CONFIDENTIAL~~

BATTERY: 245 No. of Guns: 2
Caliber: 6" Carriage: Barbette M-4

DATA TRANSMISSION

Type: Telephones furnished and installed by the Signal Corps.

REMARKS

This battery and its facilities were constructed by Government forces. The construction was authorized by Dir. Cons. No. FS-282 and was designated Job No. Ft. Stevens FS-2. Construction detail plans are on file at the District Engineer's office of the Portland, Oregon District, Portland, Oregon and at the Post Engineer's office at Fort Stevens, Oregon. Supplemental work directives also covered by this report are as follows:

- Dir. No. PD-T-474, Job No. Fort Stevens-5
- Dir. Cons. No. FS-1555, Job No. The Columbia FS-5
- Dir. Cons. No. FS-1587, Job No. The Columbia FS-7.

ARMAMENT

Emplacement No.	GUNS						CARRIAGES				
	Cal.	Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
1	6"	309.90"	T2	27	Watervliet Arsnel New York, N.Y.	July 1944	Barbette	M4	7	Wellman Eng. Co. Akron, Ohio	10 h.p. 70V, DC
2	6"	309.90"	T2	26	Watervliet Arsnel New York, N.Y.	July 1944	Barbette	M4	8	Wellman Eng. Co. Akron, Ohio	10 h.p. 70V, DC

ED Form A-162A
16 Sept. 1943

~~CONFIDENTIAL~~

Part I Corrected to 1 March 1945

BATTERY: 245 No. of Guns: 2
Caliber: 6" Carriage: Barbett M-4

~~CONFIDENTIAL~~

Control Approval Symbol SPEKM-1

125824

GENERAL:

Battery commenced: 28 October 1942.
Battery completed: 31 August 1944.
Date of transfer: 28 October 1944.
Cost to date of transfer: \$248,578.
Materials of construction: Reinforced concrete.
Battery is of new construction.
Trunion elevation in battery is 31.05 feet.
Datum plane: Mean Sea Level.
Battery Directrix: N 85° 00' W.
Local Co-ordinates: Gun No. 1 South 8,317.80 yds.
East 6,762.71 yds.
Gun No. 2 South 8,387.56 yds.
East 6,756.61 yds.

The origin of the local co-ordinate system being the Cape Disappointment Lighthouse at Fort Canby, Washington.

UTILITIES

WATER SUPPLY

Source: Water for Fort Stevens is supplied thru the Warrenton, Oregon water system. The source of the Warrenton system is on the Lewis And Clark River and is approximately 15 miles distant and south of Fort Stevens.

Alternate Source: None. However, Fort Stevens has a 400,000 gallon concrete storage reservoir and a 125,000 gallon elevated tank which are used in case of an emergency.

Size of main: This battery is served by a lateral of 1,360 ft. of 4" main connected to a 6" main of the Fort Stevens water distribution system.

SEWER

Sewage Disposal: Sewage is carried away from

the battery casemate by 72 ft. of 6" cast iron soil pipe to a concrete septic tank having interior dimensions of 11'-0" x 6'-0" and a depth of 6'-0". The overflow from the tank is carried by 60 ft. of V.C. tile to the natural drainage of the area.
Latrine: Is a room 8'-0" x 11'-6" within the battery casemate. The facilities include 3 toilets, 3 urinals and 2 lavatories.

ELECTRIC POWER

Source of: Diesel driven electric generators. Procured and installed by the Ordnance Dept. Characteristics: Voltage of 440 A.C., 3 phase. Number of units and capacity: 3 of 125 K.W. Max. K.W. required for utilities: 35. Max. K.W. required for non-battle conditions: 80. Commercial power provided: Yes. Capacity: 50 KW. Auxiliary power unit provided: No.

Type of lighting fixtures:

Plotting & spotting room: Fluorescent.
Balance of casemate ceiling lights: Vapolet globes with vapor and explosion proof switches, circuit boxes, etc.

Dehumidifying Unit: None. — DECLASSIFIED

Rooms are dry.

DOD Dir. 5208.9, Sept. 27, 1958
NCWN by *[Signature]* date 5-26-7

Ventilation: Ventilation shafts are provided in the plotting and spotting room only.

How heated: Electrically heated hot air is provided by blower type system to the latrine and plotting and spotting rooms. No heat is provided for the other rooms of the casemate. The maximum capacity of the heating system is 14,000 watts.

Actual

~~CONFIDENTIAL~~

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON

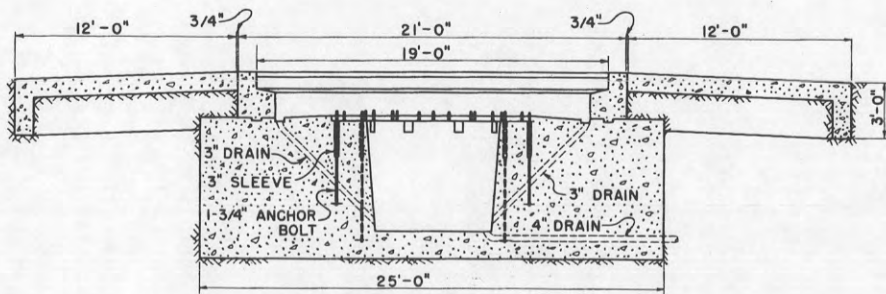
BATTERY 245

NO. OF GUNS 2 CALIBER 6 IN. CARRIAGE BARBETTE-M-4

SCALES AS SHOWN

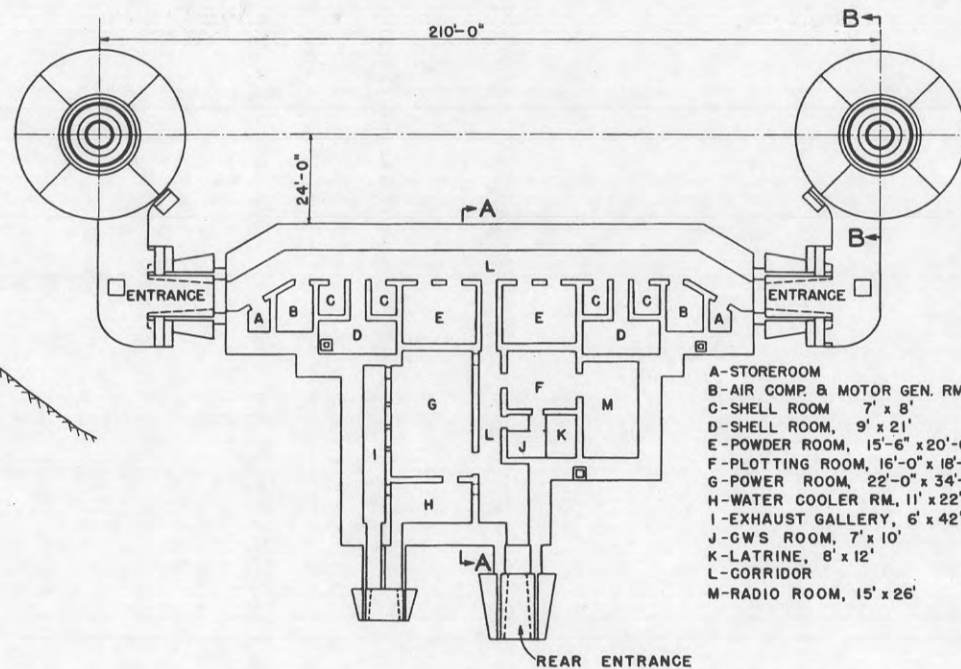
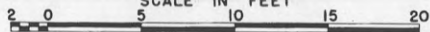
PART VII

CORRECTED TO 1 MARCH 1944



SECTION B-B

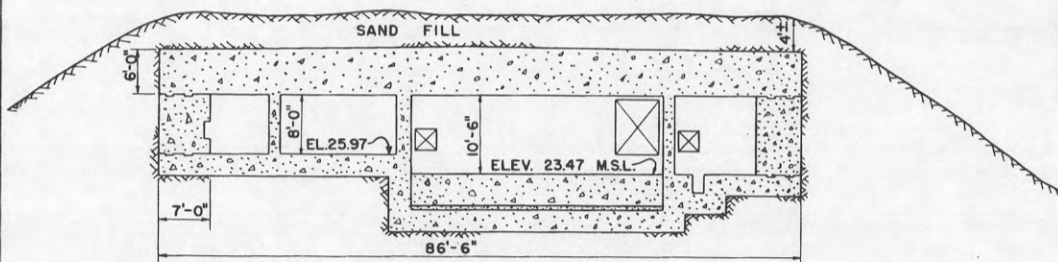
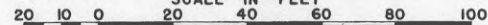
SCALE IN FEET



- A-STOREROOM
- B-AIR COMP. & MOTOR GEN. RM.
- C-SHELL ROOM 7' x 8'
- D-SHELL ROOM 9' x 21'
- E-POWDER ROOM, 15'-6" x 20'-0"
- F-PLOTTING ROOM, 16'-0" x 18'-6"
- G-POWER ROOM, 22'-0" x 34'-0"
- H-WATER COOLER RM., 11' x 22'
- I-EXHAUST GALLERY, 6' x 42'-6"
- J-CWS ROOM, 7' x 10'
- K-LATRINE, 8' x 12'
- L-CORRIDOR
- M-RADIO ROOM, 15' x 26'

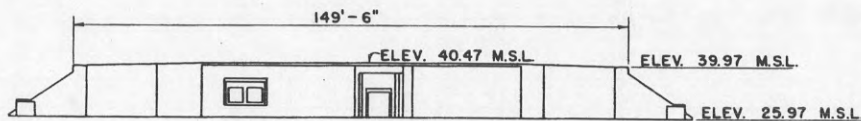
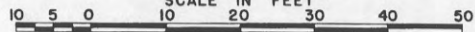
PLAN

SCALE IN FEET



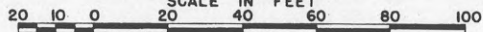
SECTION A-A

SCALE IN FEET



REAR ELEVATION

SCALE IN FEET



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Batteries)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON

600.914 (Col Riv) 90638
Part I

Corrected to 1 January 1944

CONFIDENTIAL

BATTERY: No. 6 Number of Guns: 2
Caliber: 90 mm. Carriages: M3

Control Approval Symbol SPEKM-1

90638

GENERAL:

Battery commenced 10 June 1943.
Battery completed: The engineer work of constructing the emplacement and its facilities was completed 30 June 1943; however the installation of the armament wasn't completed until 24 December 1943.
Date of transfer: 5 April 1944.
Cost to date of transfer: \$9,856.82.
Materials of construction: Reinforced concrete of a 1:2:4 mixture.
Battery new or modernized: This is a new battery.
Trunion elevation in battery: 28.76 feet.
Datum plane of reference is Mean Sea Level.

UTILITIES:

WATER SUPPLY

Source: No water is supplied to the battery; however, water is furnished the nearby troop quarters by a pump from well points. The pump capacity is 280 gal./hr. and the pipe from the pump to the quarters is 1" galv. iron pipe.
Alternate source: None.

SEWER

No sewer was constructed. 2 pit-type latrines, constructed with the troop quarters, are nearby.

ELECTRIC POWER

Source: One M-7 generating plant.
Procured by Ord. Dept. Is a portable unit.
Characteristics: 125 volts of AC; 3 phase.

UTILITIES (Cont'd.)

ELECTRIC POWER (Cont'd.)

No. of units and capacity: One unit of 35 KVA.
Max. KW required for utilities: None.
Max. KW required for non-battle conditions: None.
Commercial power provided: No. (Commercial power is provided to the nearby troop quarters.
Auxiliary power unit provided: No.
Type of lighting fixtures: None.
Dehumidifying Unit: None.
Rooms Wet or Dry: No rooms.

DATA TRANSMISSION:

Type: By telephones furnished and installed by the Signal Corps.

DECLASSIFIED

DOD Dir. 5200.9, Sept. 27, 1958

NCWN by *[Signature]* date *5-20-70*

REMARKS:

This battery, with its facilities, was constructed by Government forces with funds from P/A 8-32439 P 270 A 0905-24. The facilities includes two munitions storage buildings, a height finder platform and a tower in which the tracker room, the B.C. Station and a shelter for the power unit are all constructed. All of these facilities are of a temporary nature and are constructed of wood. This work was designated Job No. Columbia FS-1 by Directive Consecutive No. 1055. For construction details of the battery emplacement see drawings numbered DMCR 1138.1A and 1138.1B.

ARMAMENT

Emplacement No.	Cal.	Length	Model	Guns			Mounted	Type	Model	Carriages		Motor
				Serial No.	Manufacturer					Serial No.	Manufacturer	
1	90 mm.	186.15"	M1	7139	Gen.Mtrs.Corp.		12/15/43	90AA	M3	219	Gen.Mtrs.Corp.	-
2	90 mm.	186.15"	M1	6927	Gen.Mtrs.Corp.		12/15/43	90AA	M3	128	Gen.Mtrs.Corp.	-

ED Form A-162A
16 Sept. 1943

FS-1055 Proj Card 5V

CONFIDENTIAL

*4 guns (Columbia) 1914-1915
4 guns removed to Fort Stevens for storage
6 guns remain intact and be maintained in
status etc. should permit the reconstruction should*

DPO 650 11/20/11

REPORT OF COMPLETED WORKS—SEACOAST FORTIFICATIONS

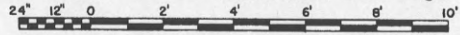
HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON

BATTERY 6

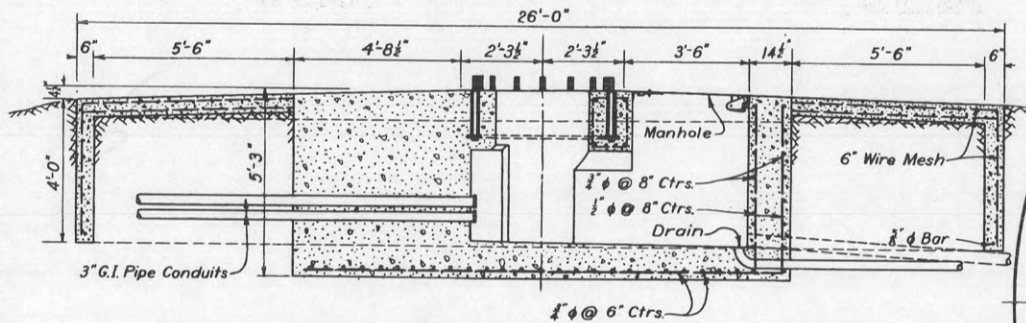
No. of Guns 2, Caliber 90mm., Carriage T3

PART VII

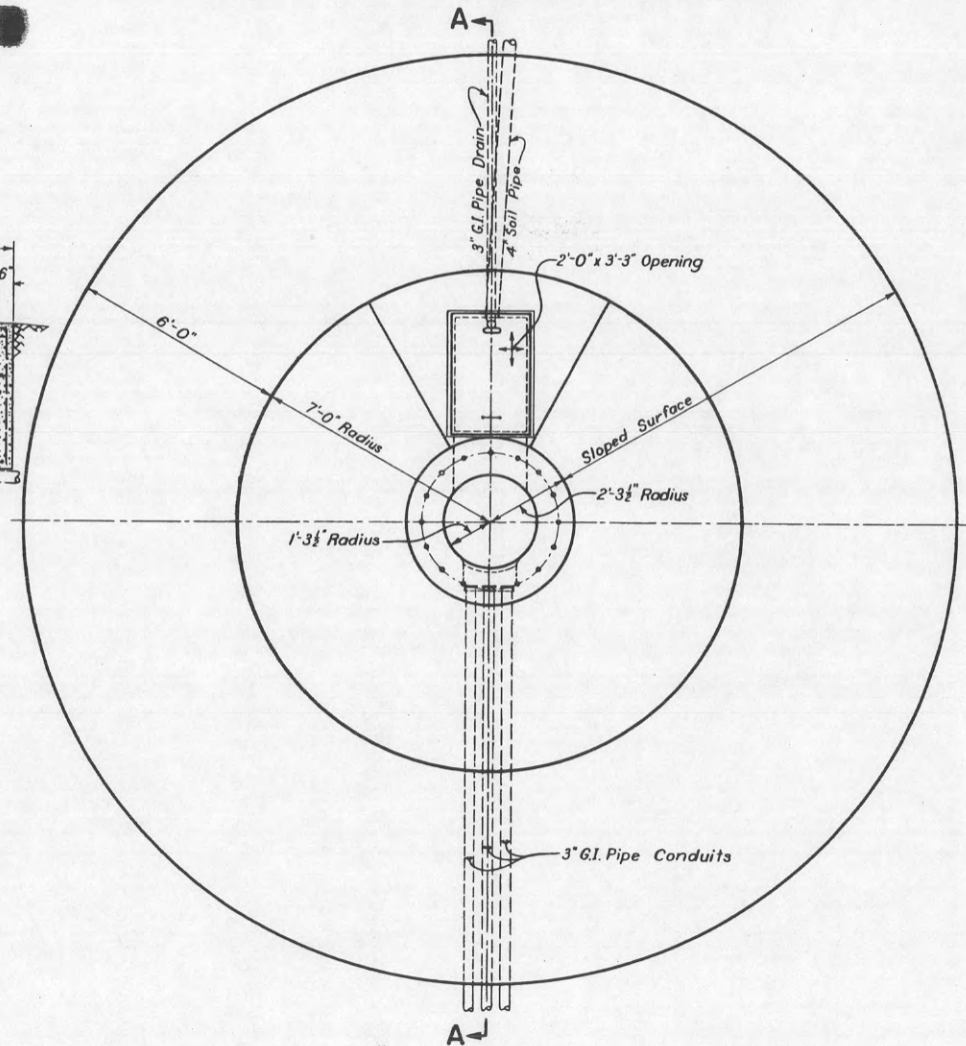
Corrected to January 1944

SCALE 

CONFIDENTIAL

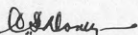


SECTION A-A



PLAN OF FIRING PLATFORM

ED Form A-162G
16 Sept. 1943

APPROVED: 
C.S. DONEY
COLONEL, C.A.C., COMMANDING

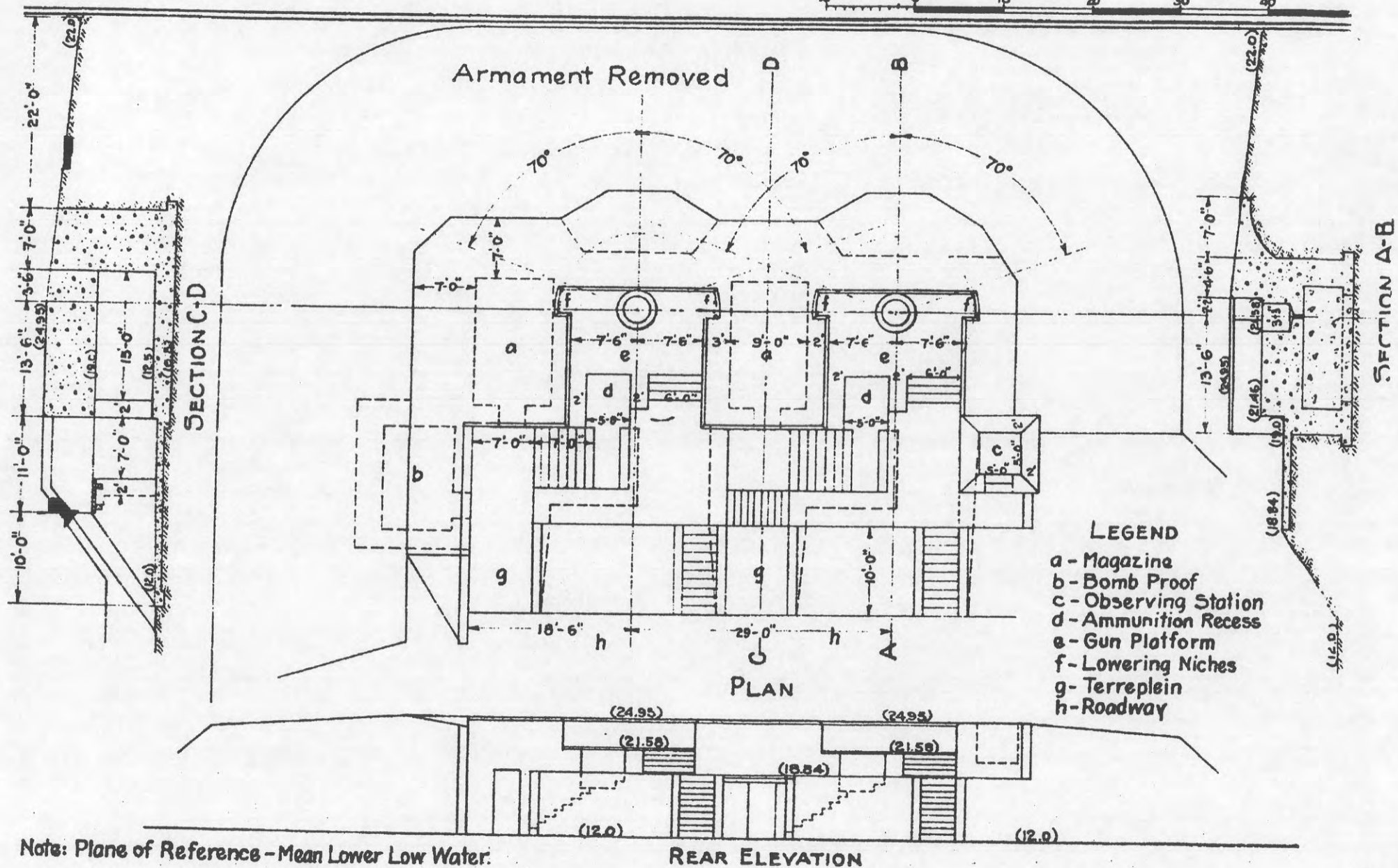
REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY ELIAS SMUR

Form 7.

Corrected to

No of Guns: Caliber: Carriage:



REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY ELIAS SMUR

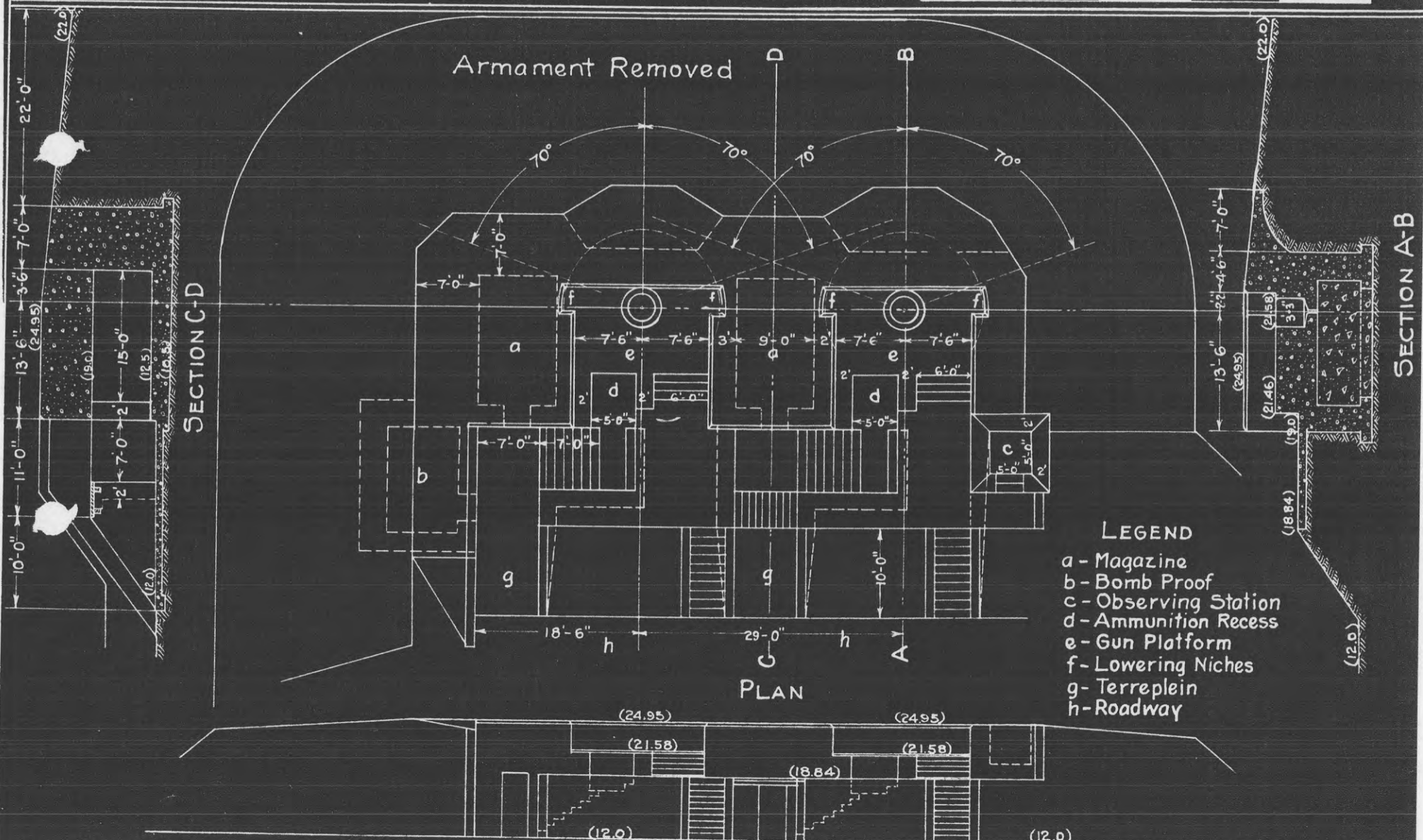
Form 7.

Corrected to

No of Guns:

Caliber:

Carriage:



LEGEND

- a - Magazine
- b - Bomb Proof
- c - Observing Station
- d - Ammunition Recess
- e - Gun Platform
- f - Lowering Niches
- g - Terreplein
- h - Roadway

Note: Plane of Reference - Mean Lower Low Water

REAR ELEVATION

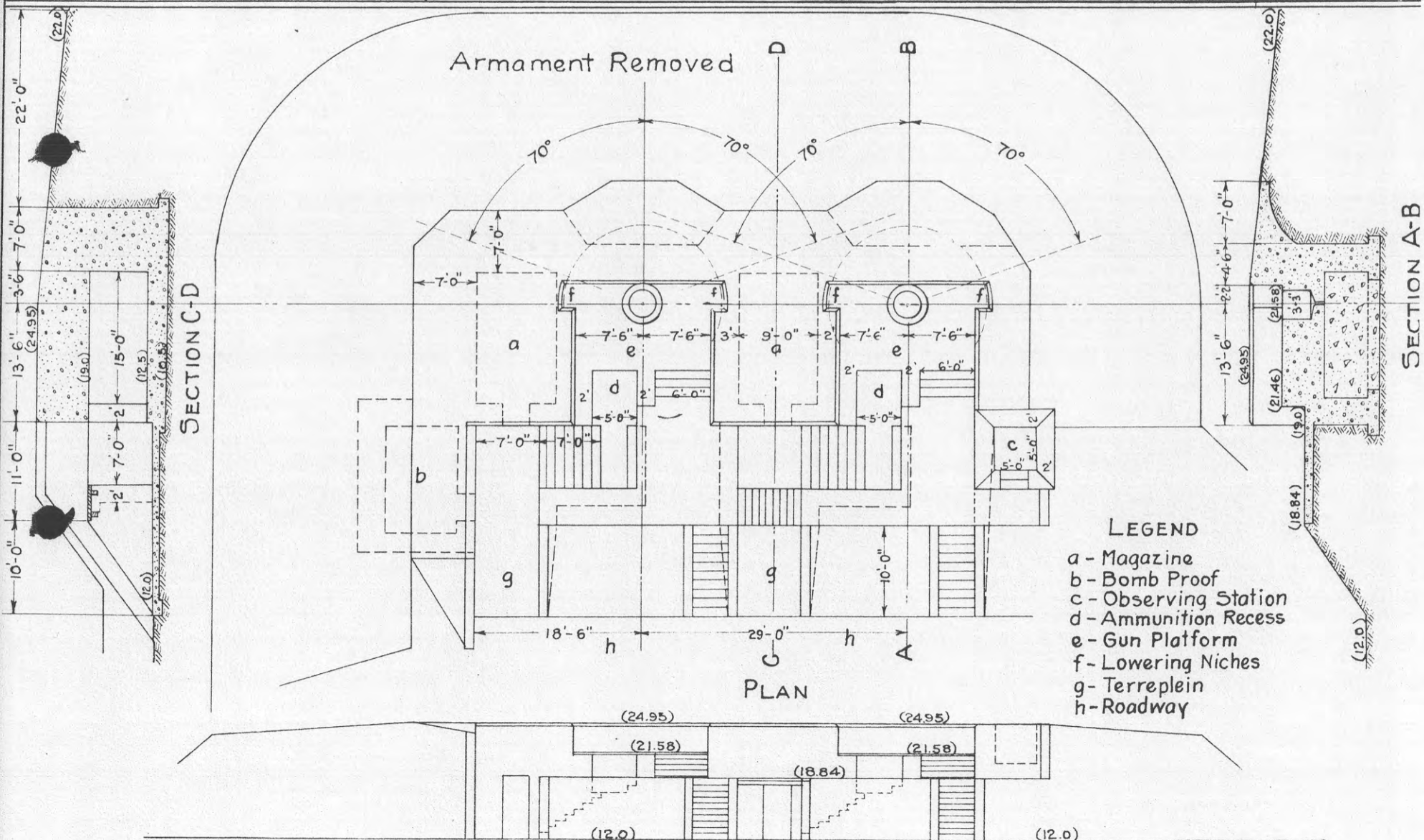
REPORT OF COMPLETED WORKS- SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY ELIAS SMUR

Form 7.

Corrected to

No of Guns: Caliber: Carriage:
10 0 10 20 30 40 50 FT.



- LEGEND**
- a - Magazine
 - b - Bomb Proof
 - c - Observing Station
 - d - Ammunition Recess
 - e - Gun Platform
 - f - Lowering Niches
 - g - Terreplein
 - h - Roadway

Note: Plane of Reference - Mean Lower Low Water.

REAR ELEVATION

COAST DEFENSES OF Columbia.

15-pdr.

FORT Stevens BATTERY Smur No. of GUNS: 2 CALIBER: 3"

	EMPLACEMENT NUMBER 1.	EMPLACEMENT NUMBER 2.	EMPLACEMENT NUMBER 3.	EMPLACEMENT NUMBER 4.
1-a. Azimuth.	217°02'00"	121°032'155"		
b. Distance.	24620.89ft.	29.00 ft.		
2-a. Model of Gun.	1898 MT	1898 MT		
b. " " Carriage	Driggs-Seabury		Driggs-Seabury	
c. Type of " "	Nondis.		Nondis.	
3- Elevations of				
a. Gun trunnions (in battery)	25.53	25.53		
b. Interior crest.	24.95	24.94		
c. Loading platform.	21.46	21.44		
4- Angle of depression.	5°00'	5°00'		
5- Limiting azimuths of field of fire as determined by:				
a. construction of emplacement.	FROM: 0 1 123 0	TO: 0 1 303 0	FROM: 0 1 123 0	TO: 0 1 303 0
b. Interference by adjacent emplacements.	138 0	303 0	123 0	269 0
c. Interference of other obstacles external to emplacement.	134 0	203 0	136 0	210 0
d. Position of Ordnance stops.	no stops	no stops	no stops	

NOTES.

1. Azimuth and distance of emplacement No 2 are given with reference to No.1, of No.3, with reference to No.2, etc. Azimuth and distance of No.1, are given with reference to Canby Light
3. Above plane of M.I.I.W.
- 5-c. Nature of obstacles: Engineer Dept. structures, exclusive of No. 27 (unimportant portion of field of fire.)
- 2-c Use one of following abbreviations or designations: Dis, Nondis, Alt, gun-tft, Turret, Casemate, Ped; B.P.
- Co-ordinates Gun No.1: S.25353.90, E.23596.59 (Origin- Canby Light).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

COAST DEFENSES OF THE COLUMBIA.....
 FORT. STEVENS, OREGON.....
 * BATTERY CLARK (MORTAR BATTERY).....
 No. of guns 4 Caliber 12" Carriage ARF
 Mortar

Form I Corrected to June 30, 1921.

Battery commenced	Aug., 1897	Sources of electric current	Central or Reserve Power Plant.
Battery completed	Nov., 1898		
Date of transfer	Jan. 17, 1899	Max. kw. required for lights	4.50 kw.
Material of construction	Concrete	Max. kw. required for motors	None.
Portland or Rosendale cement	Portland		
Cost to date of transfer	\$71,546.63	Present condition of battery	Good.
Connected to water supply	Yes	Rooms wet or dry	Dry.
Connected to sewer	No		
Type of latrine	None	How ventilated	8" dia. shafts, conical top. No ventilating doors.
Type of data transmission	None		
Trunnion elevation in Pit "A"	1-21.47'	Remarks-	
battery Pit "B" 1-21.50'	3-21.48'		
Datum plane	3-21.47'		
	M.L.L.W.		

ARMAMENT.

Emplacement or mortar No	Guns or Mortars				Carriages							
	Cal.	length	model	Serial No.	Manufacturer	mounted	Type	model	Serial No.	Manufacturer	Motor	
Pit "A"	1	12"	129.25"	1890M1	32	Builders I. Fdry	C.A.C.	ARF	1896M1	121	Am. Hoist & D. Co.	None.
	2	12"	129.25"	1890M1	50	Watertown Ars.	C.A.C.	ARF	1896M1	122	Am. Hoist & D. Co.	None.
	3											
* Pit "B"	4											
	5	12"	129.25"	1890M1	51	Watertown Ars.	C.A.C.	ARF	1896M1	237	Watertown Ars.	None
	6	12"	129.25"	1890M1	34	Watertown Ars.	C.A.C.	ARF	1896M1	133	Amer. Hoist & D. Co.	None
	7											
8												

HOISTS.

Emplacement Number	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
1	None									

Guns and carriages 2 & 4 of pits "A" and "B" have been removed for installation at new mortar battery, Ft.

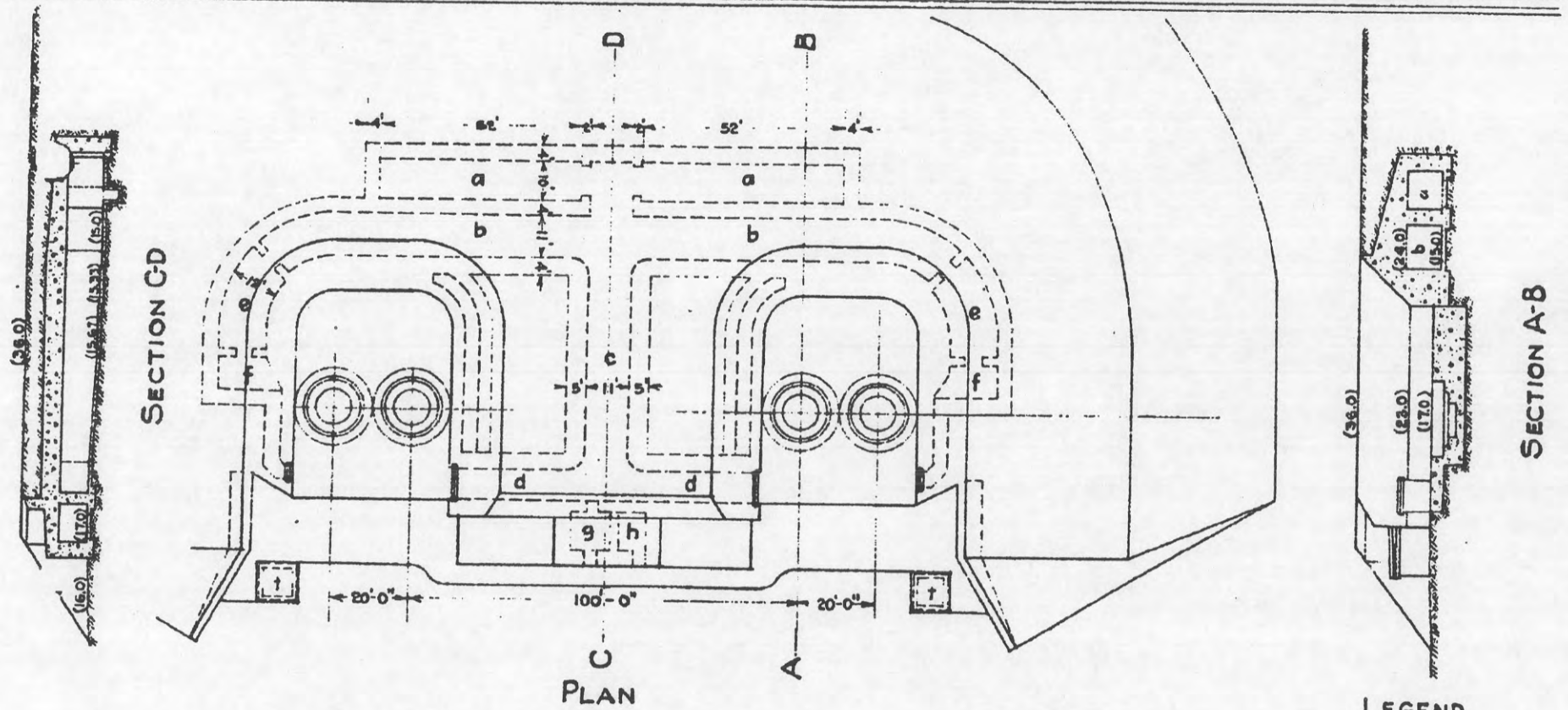
* Armament to be Salvaged - 400.93 (Cal. River) 2M 14090

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CLARK
No. of Guns 4 Caliber 12" Carriage

Form 7.

Corrected to

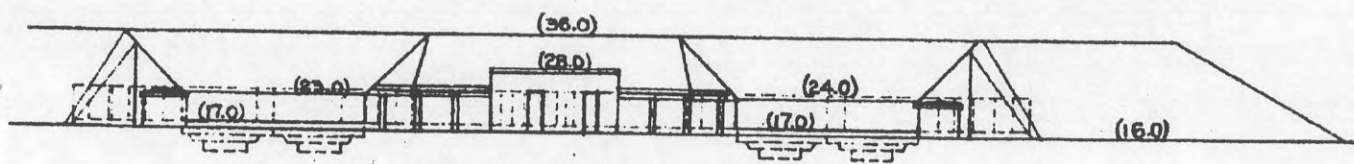


SECTION C-D

SECTION A-B

LEGEND

- a - Powder Rooms
- b - Shot Rooms
- c - Long Gallery
- d - Entrance Galleries
- e - Relocator & Telephone Room
- f - Storage Battery & Firing Room
- g - Tool Room
- h - Latrine
- t - Telephone Rooms



REAR ELEVATION

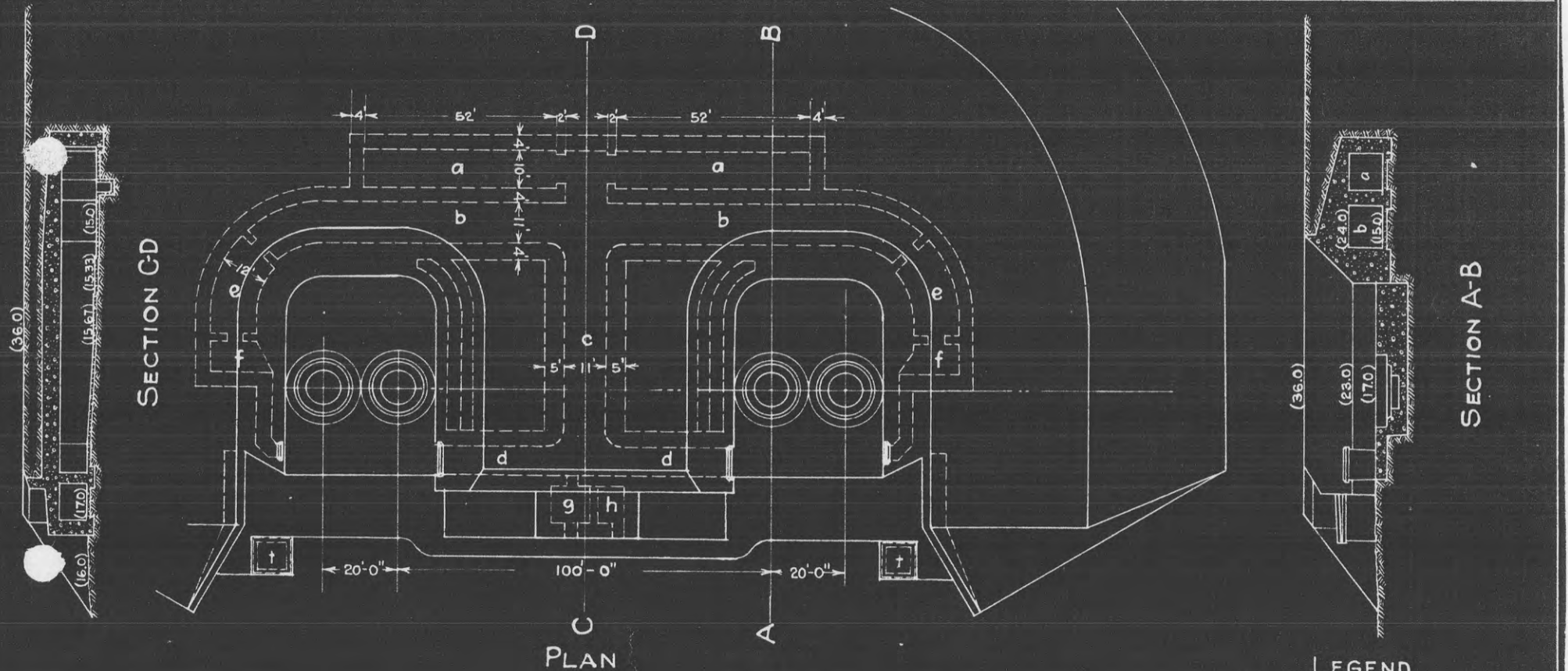
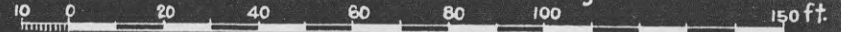
Note: Plans of Reference - Mean Lower Low Water.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CLARK
No. of Guns 4 Caliber 12" Carriage

Form 7.

Corrected to



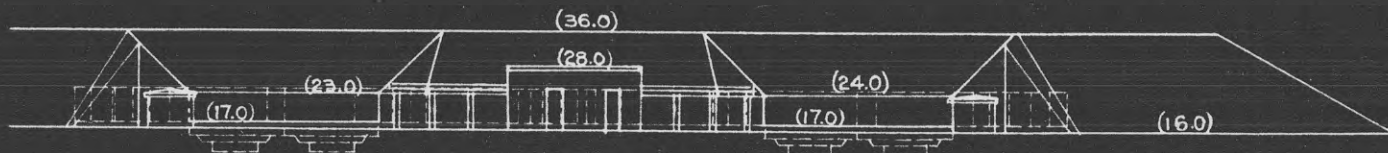
SECTION C-D

SECTION A-B

PLAN

LEGEND

- a - Powder Rooms
- b - Shot Rooms
- c - Long Gallery
- d - Entrance Galleries
- e - Relocator & Telephone Rooms
- f - Storage Battery & Firing Rooms
- g - Tool Room
- h - Latrine
- † - Telephone Rooms



REAR ELEVATION

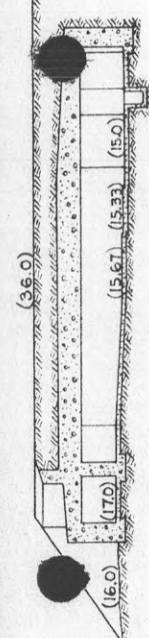
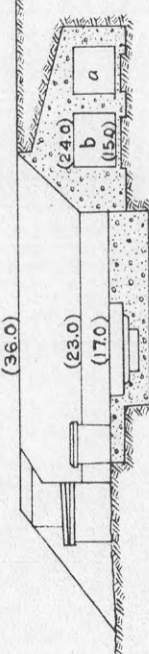
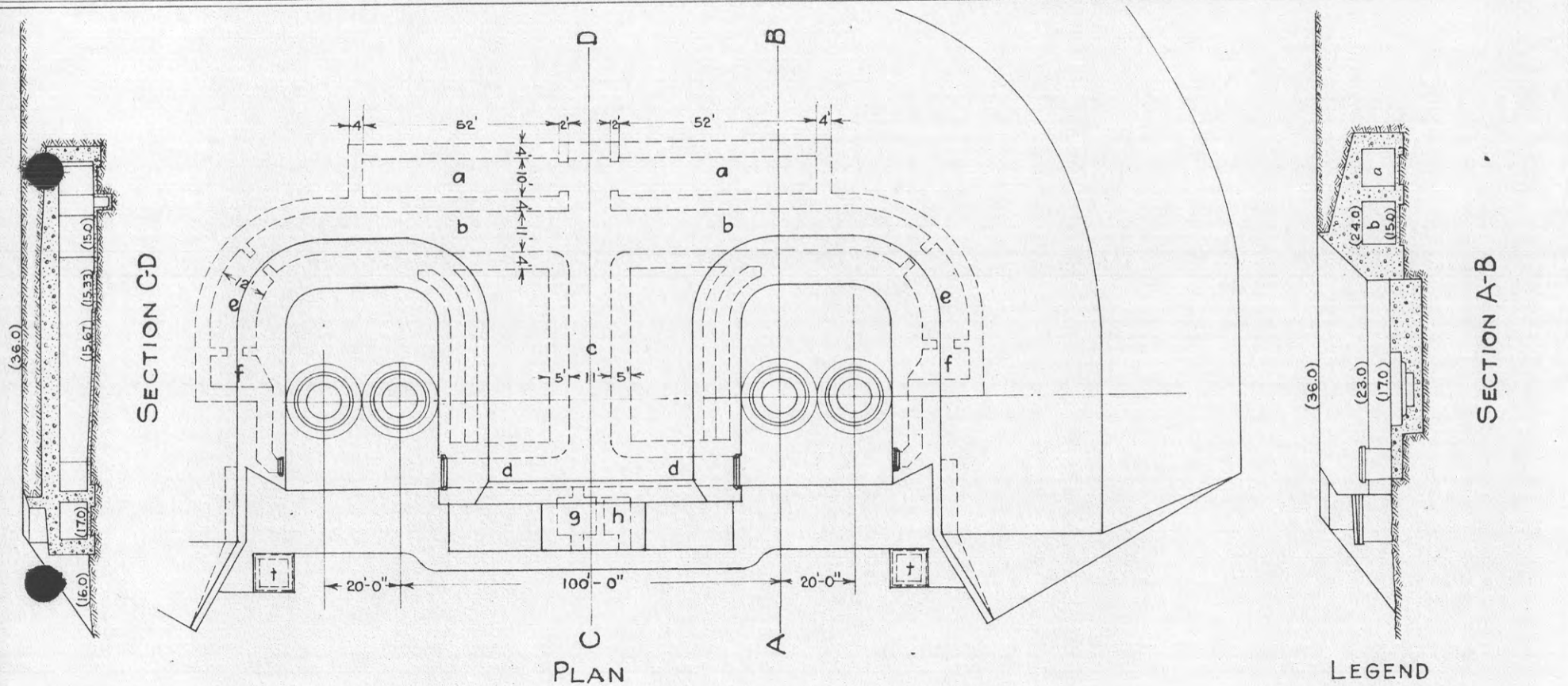
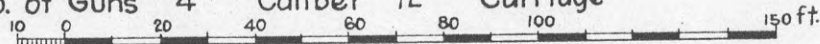
Note: Plane of Reference - Mean Lower Low Water

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

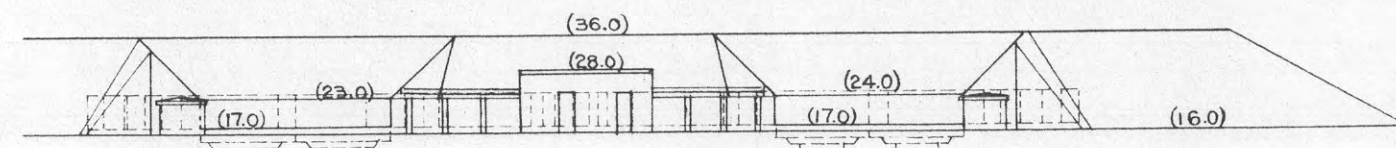
COAST DEFENSES OF THE COLUMBIA
FORT STEVENS
BATTERY CLARK
No. of Guns 4 Caliber 12" Carriage

Form 7.

Corrected to



- LEGEND
- a - Powder Rooms
 - b - Shot Rooms
 - c - Long Gallery
 - d - Entrance Galleries
 - e - Relocater & Telephone Room
 - f - Storage Battery & Firing Room
 - g - Tool Room
 - h - Latrine
 - t - Telephone Rooms



REAR ELEVATION
Note: Plane of Reference - Mean Lower Low Water.

Coast Defenses of the Columbia.

FORT Stevens

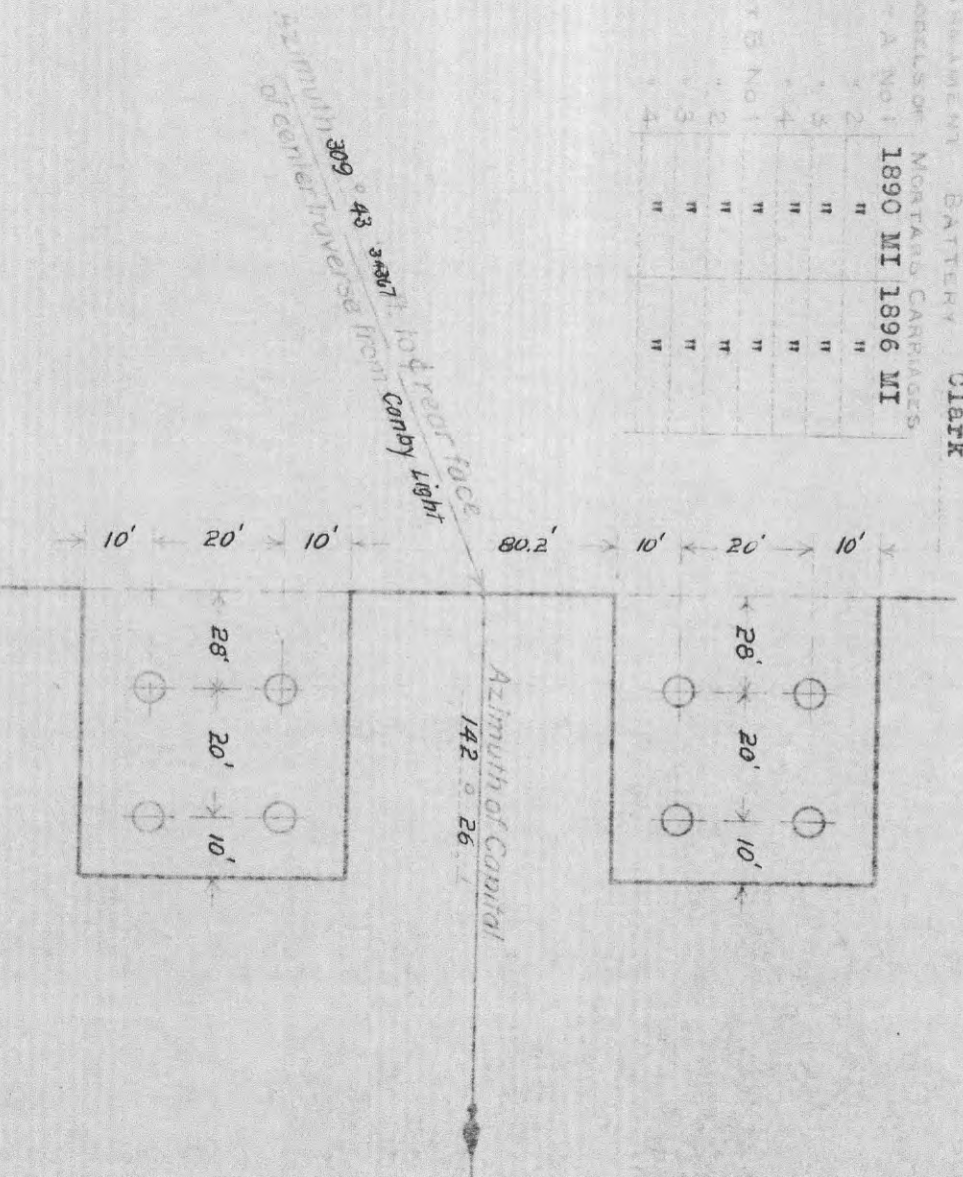
BATTERY Clark

8-12" MORTARS.

ARRANGEMENT BATTERY Clark

MODELS OR MORTAR CARRIAGES

R - A No 1	1890 MT	1896 MT
1	"	"
2	"	"
3	"	"
4	"	"
5	"	"
6	"	"
7	"	"
8	"	"
9	"	"
10	"	"
11	"	"
12	"	"
13	"	"
14	"	"



ELEVATION OF FLOORS OF PITS 16.92 ABOVE PLANE OF M.L.L.W.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

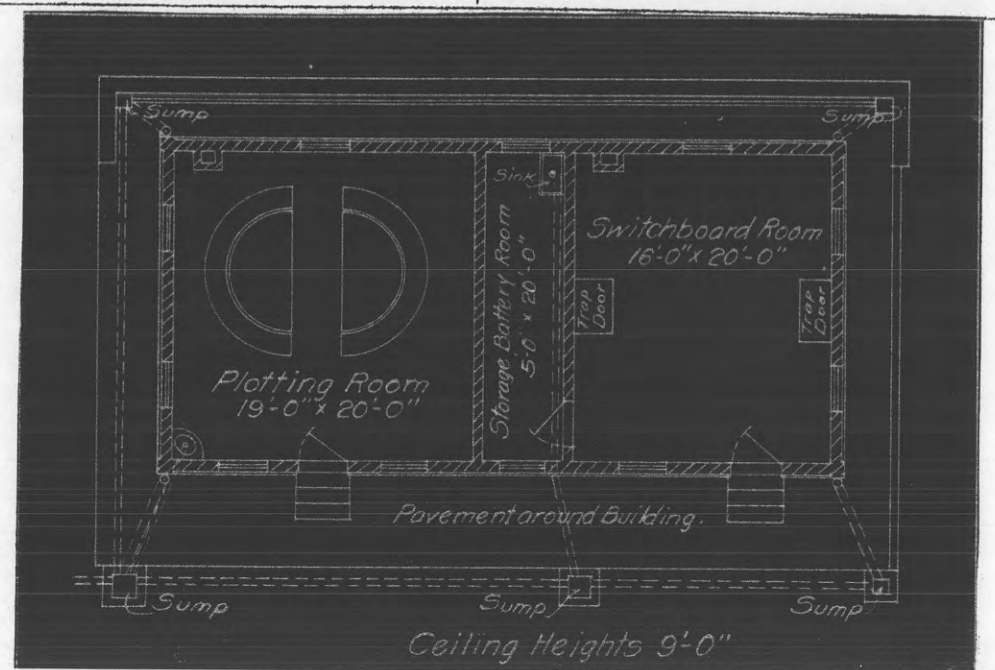
Form 2.

Corrected to June 30, 1921.

Obsolete

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE SWITCHBOARD ROOM (OLD) & PLOTTING ..
ROOM (CLARK)

Location	75' right and 25' rear of Battery Clark.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$6,870.00	Cost of data transmission equipment	
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Behind battery & trees.	For dormitories give stations served	
How concealed	Behind battery.	For cable hut give S. C. type	
How protected	None.	Plant.	
Height above concealment	None.		
Height above protection	Visible from above only.		
Conspicuous at.....yards	Central or Reserve Power		
Source of electric current	1.4 kw.		
Kilowatts required	Commercial.		
Type of lighting fixtures	Stoves.		
How heated	Yes.		
Connected to water mains	Yes.		
Connected to sewer	Syphon.		
Type of latrine	Permanent.		
Permanent or temporary installation	Good.		
Present condition	About 16' above M.L.L.W.		
Reference of site			
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board	No. 6, 360° Mortar Plotting Board, model 1911.		
Type and capacity of crane			
Max. dimensions of reel handled			



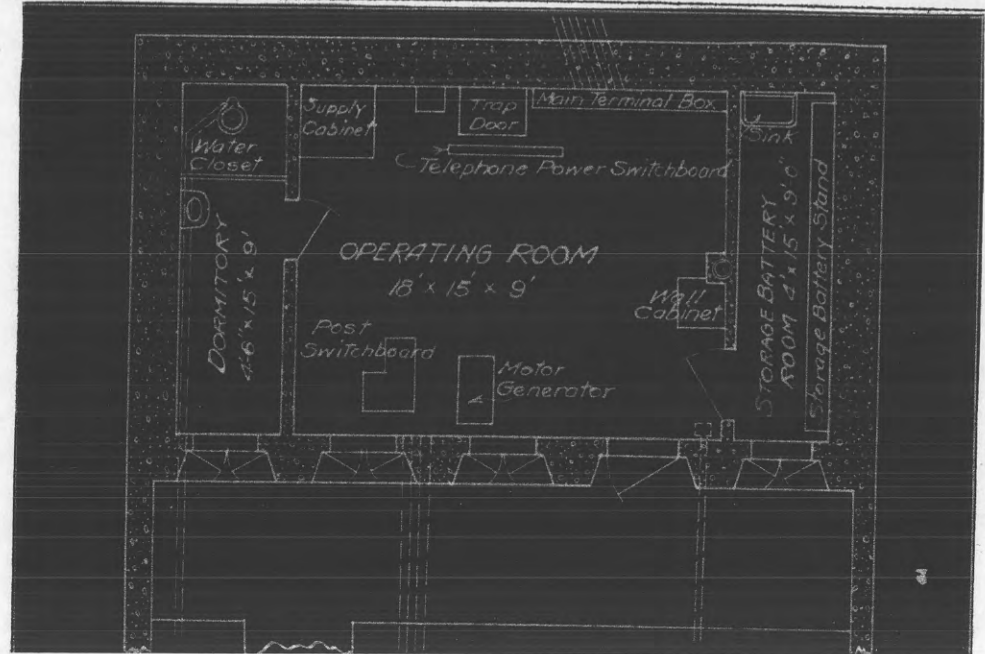
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE. SWITCHBOARD ROOM (NEW)

Form 2. Corrected to June 30, 1921.

Location	About 700' east of Battery Clark.
Date of transfer	Jan. 31, 1921.
Cost to that date	\$11,828.66.
Type of construction	Bombproof.
(a) Roof	Reinforced concrete.
(b) Remainder of bld	Plain concrete.
How concealed	Dug into hill and covered with earth.
How protected	5' concrete roof, 9' sand covering.
Height above concealment	None.
Height above protection	None.
Conspicuous at.....yards	Rear, visible from above only.
Source of electric current	Central or Reserve Power Plant.
Kilowatts required	2.5 kw.
Type of lighting fixtures	E. D. Standard.
How heated	Stove.
Connected to water mains	Yes.
Connected to sewer	Yes.
Type of latrine	Syphn.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	About 16' above M.L.L.W.
Reference of instrumental axis	
Type of observing inst.	
Type of plotting board	
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	



Superseded:- See Form 2,
corrected to sept. 30, 1926

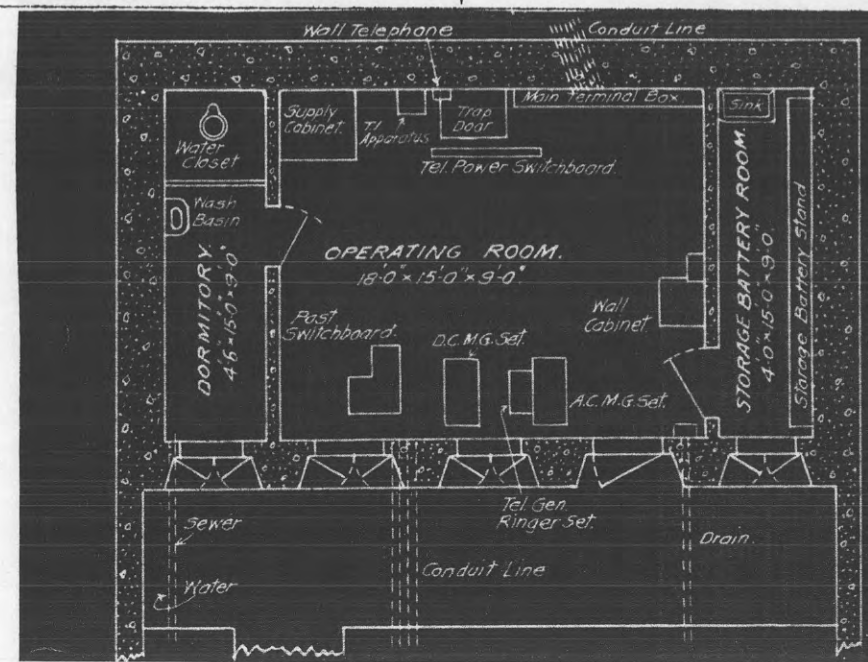
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF.....THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE... SWITCHBOARD ROOM. (NEW).....

Form 2.

Corrected to September 30, 1926.

Location	About 700' east of Battery Clark.	Type of data transmission	
Date of transfer	Jan. 31, 1921.	Date of transfer	
Cost to that date	\$11,828.66.	Cost of data transmission equipment	
Type of construction	Bombproof.	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Plain concrete.	For dormitories give stations served	
How concealed	Dug into hill and covered with earth.	For cable hut give S. C. type	
How protected	5' concrete roof, 9' sand covering.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Rear, visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	2.5 kw.		
Type of lighting fixtures	E. D. Standard.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 16' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



CONFIDENTIAL

Part II Corrected to 15 July 1944

REMARKS:

This supplemental work was constructed with funds having Advise Nos. 5-(CAC)-115 P 270 A-1204-24 and 8-25604 P 270 A 1204-24. The work was authorized under two directives, namely, Directive Cons. No. FS-443, Job No. Fort Stevens FS-7 and Directive Cons. No. FS-1179, Job No. Fort Stevens FS-10. Dir. No. FS-443 was the original authorization for the gasproofing and for construction of a small addition to house the collective protectors. This job was started 1 Jan. 1943 but work on it was deferred when a larger Switchboard Room was proposed. Directive No. FS-1179 authorized the enlarging of the Switchboard Room and incorporated the gasproofing of the entire structure. This job was started 18 October 1943 and all Engineer work was completed 29 April 1944. For construction details see drawings numbered DMCR 1070, DMCR 1135.3, DMCR 1135.4 and DMCR 1135.7.

CONFIDENTIAL

CONFIDENTIAL

Part II Corrected to 15 July 1944

operating the telephone system is obtained from storage batteries and commercial power is used to recharge the batteries.

Characteristics of commercial power within the Switchboard Room: 110/220 volts, AC, single phase.

Kilowatts required: A maximum of 22.

Auxiliary power: A gasoline operated power plant of 12.5 KVA, 110 volts, 60 cycle, AC, is installed for use in case of commercial power failure. This power plant was salvaged from another structure and installed in this Switchboard Room by the Army.

Type of lighting fixtures: Six 48" fluorescent light fixtures are installed in the fire control switchboard room. Each fixture has 4 - 40 watt tubes. The balance of the fixtures in the structure are incandescent lamps in porcelain lamp receptacles.

Heat: The entire structure is heated by an electric furnace consisting of 7 - 2000 watt elements. The hot air is circulated throughout the structure by a 15" electric fan thru air ducts.

Water: Water is supplied to the structure by a lateral of 50 feet of 1 $\frac{1}{4}$ " galv. iron pipe tapped to the 8" cast iron main of the Fort Stevens water system. Hot water is provided in the latrines by a 42 gal. automatic electric water heater.

Sewage: Sewage is carried from the latrines by 140 feet of 4" and 20 feet of 6" cast iron pipe to a septic tank. The septic tank is constructed of reinforced concrete; its interior dimen-

sions are 6'-4" x 5'-0" x 6'-0". The overflow from the septic tank is carried by 60 feet of 6" concrete pipe to the natural drainage of the terrain.

Type of latrine: Two latrines, one in the fire control switchboard room and one in the administrative switchboard room, are provided. Each latrine consists of one lavatory and one wash-down toilet.

EQUIPMENT:

Two Protector M-1A1 Collective Assemblies were installed in this project. The collective protectors, special fittings and extra cannisters were received by requisition on the Chief of Engineers. All the piping, pipe fittings and the gasproof and other doors were purchased locally.

The storage batteries, switchboards and other communications equipment are all the same as previously used except for the installation of 3 new fire control panels. The Signal Corps furnished and installed the new panels and accomplished all work in connection with moving previously used panels and the wiring of all panels.

DATA TRANSMISSION:

This switchboard room is the communications center of this Harbor Defense for both fire control data and for administrative business. All communications are by telephones, all of which are furnished and installed by the Signal Corps.

ED Form A-162B
16 Sept. 1943.**CONFIDENTIAL**

CONFIDENTIAL

Part II Corrected to 15 July 1944

STRUCTURE:

Location: The Switchboard Room is centrally located within the U.S. Military Reservation of Fort Stevens, Harbor Defenses of The Columbia, Oregon.

General: This supplemental work of enlarging and gasproofing the Fire Control Switchboard Room at Fort Stevens consisted of constructing an addition, to provide more switchboard space and space for the installation of collective protectors, of installing the collective protectors; remodeling the vents and openings of the original structure so the collective protectors would be affective; constructing entrance-ways and of covering the entire structure with earth embankment. A cable vault was constructed under the addition and a small retaining wall was constructed along the base of the embankment to keep the earth from piling up against a close by building.

Date of transfer: Of this supplemental work was 23 May 1944.

Cost to date of transfer: Of the supplemental work, \$30,878.44.

Type of construction: All construction is of reinforced concrete of a 1:2:4 mix. The floors of the addition are 6" in thickness; the exterior walls are 18" and the roof is 24"; the ceiling height is 9'-0". The entrance-ways have a ceiling height of 8'-4"; width of 5'-0"; have 6" floors, 12" walls and 12" ceilings. All exterior concrete is painted with Olive Drab

paint. The floors of the interior are covered with heavy Jaspe linoleum; the lower 4 feet of the walls are painted with French Gray enamel and the upper 5 feet with white enamel. The ceilings are covered with white "Acusti-Cleotex". All piping, the collective protectors, air ducts, etc. are painted with black, acid proof, enamel and then with aluminum paint.

Concealment: The entire addition is covered with approximately 5 feet of earth embankment as is the original structure. All scarred areas and the new embankment was well sodded and seeded.

Protection: The Switchboard Room is set into an easterly hillside, being protected from seaward shell fire. A 6 foot manproof type, Cyclone fence is constructed around the entire structure. The fence installation was not part of this project and was accomplished by the Army.

Conspicuousness: The Switchboard Room is not conspicuous at any distance.

UTILITIES:

Electric Power:

Source: Power for lighting the addition to the Switchboard Room and for operating the collective protectors was obtained by extending the circuits from the original structure. Power is drawn from the commercial lines of the Pacific Power and Light Company extending through the Fort Stevens Reservation. The Power Company's sub-station is at Astoria, Oregon. Power for

Control Approval Symbol SPEKM-1

105859

ED Form A-162B
 16 Sept. 1943

CONFIDENTIAL

Incl 1'
 FS-443-1179

HARBOR DEFENSES OF THE COLUMBIA
ADDITION TO SWITCHBOARD ROOM
FORT STEVENS, OREGON

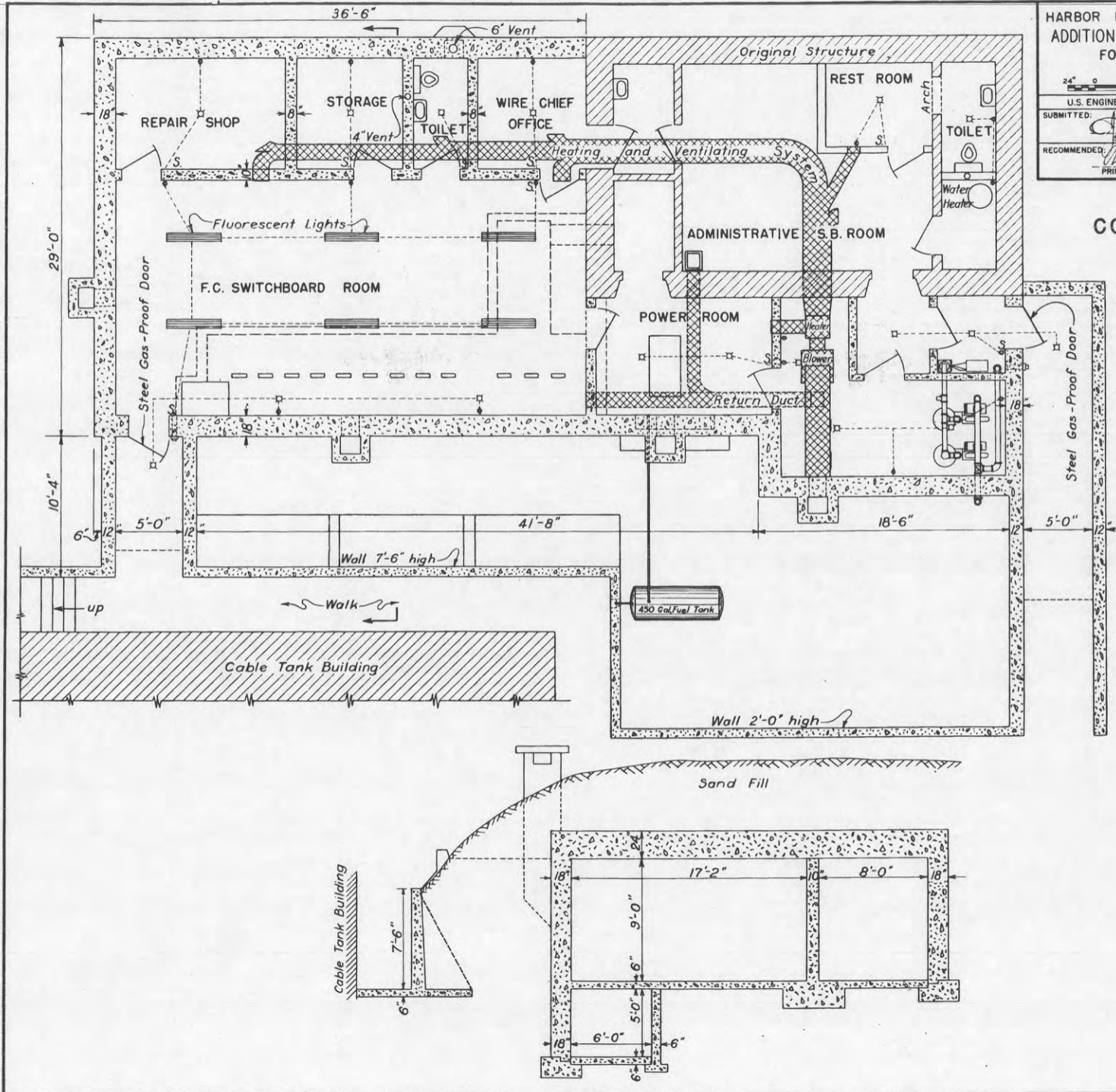
SCALE
24" 0 4" 8" 12" 16"

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

SUBMITTED: *W. J. Jackson* APPROVED: 17 JUNE 1944
W. J. Jackson SENIOR ENGINEER *W. J. Jackson* COLONEL, CORPS OF ENGINEERS
 RECOMMENDED: *W. J. Jackson* PRINCIPAL ENGINEER DRAWN: M.E.M. DATE: June 1944
 TRACED: M.F.H. CHECKED:

CONFIDENTIAL

Approved: *C. S. Doney*
 C. S. Doney
 Colonel, C.A.C., Commanding



600.914 (Col Riv) 91439
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control Structures)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SCR - 296 DETECTOR STATION D-3

Part II Corrected to 20 April 1944

CONFIDENTIAL

91439

STRUCTURE:

Location by co-ordinates: South 10,653.02 yards
East 6,724.32 yards.

Origin of co-ordinates for this Harbor Defense is Canby Light which is located on Cape Disappointment, Fort Canby, Washington.

Location by site description: Is located on Fire Control Hill and is south of and adjacent to the most southerly southeast corner of the U.S. Military Reservation of Fort Stevens and is on land purchased for this project.

Date of transfer: 5 April 1944.

Cost to date of transfer: \$7,413.41.

Type of station: Tower.

Type of construction:

Transmitter Building and the two Power Houses:

The floors are constructed of reinforced concrete of a 1:2:4 mix. The buildings are of a prefabricated steel construction, the prefabricated materials being furnished by the Signal Corps. The generators, in the two power houses, are mounted on bases of reinforced concrete. Conduit and cable-ways were constructed in the concrete floors. A small approach stairway was constructed to the transmitter building and to prevent the sandy soil from eroding from under the transmitter building a concrete retaining wall was constructed on the down-hill side of the building. The Engineer Dept. constructed all concrete work and erected the buildings and the Signal Corps furnished and installed all the operating equipment.

Tower: Is a 100 foot prefabricated steel tower constructed on footings of reinforced concrete of a 1:2:4 mix. The shelter, housing the radar equipment on the tower, is a prefabricated wooden structure. The elevator, which operates

within the tower, is operated by a 4 h.p. electric motor. The Corps of Engineers constructed the footings, and erected the tower and the shelter. The Signal Corps furnished all prefabricated materials and furnished and installed the radar equipment.

Access Road: Approximately 120 feet of access road was constructed to the transmitter building. The road bed is approximately 10 feet wide and is surfaced with crushed gravel.

How concealed: The transmitter and power buildings are concealed from the open sea and the approach river channel by being constructed behind a hill and are concealed from the air by overhanging trees and brush. The tower, extending well above the surrounding trees and hills, is not concealed in any way except it, as well as the other structures, are painted to conform to the surrounding vegetation.

Conspicuousness: The tower can be seen from as far at sea as the curvature of the earth allows. The transmitter building and power buildings are not conspicuous at any distance.

UTILITIES:

Electric Power:

Source: Power for this station is drawn from the commercial lines of the Fort Stevens Military Reservation, and power for the Reservation is purchased from the Pacific Power & Light Co. with a sub-station at Astoria, Oregon.

Characteristics: 110 volts, AC; single phase.

Kilowatts required: 14.

Type of Lighting Fixtures: Are incandescent lamps in porcelain lamp receptacles with indirect light shades. These fixtures were furnished and in-

1 of 2 SCR 296-A declared obsolete, ltr AG 17 Jan. 46, file AG 413.44.(15 Jan. 46)OB-S-SPOPS. Tower and equipment to be disposed of. Buildings to be retained.

CONFIDENTIAL

Control Approval Symbol SPEKM-1

ED Form A-162B
16 Sept. 1943

FS-1320 Proj Card 56

Final

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control Structures)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SCR - 296 DETECTOR STATION D-3

Part II Corrected to 20 April 1944

CONFIDENTIAL

stalled by the Signal Corps.

Auxiliary: In each of the two power houses is installed one 25 KW set to provide auxiliary power for this station. These 25 KW sets were furnished and installed by the Signal Corps.

Heat: The transmitter building is heated by 4, 1000 watt, electric heaters which were furnished and installed by the Signal Corps.

Water & Sewer: None installed.

Latrine: A latrine is located nearby in the quarters constructed for the operating personnel of this station. The construction of the quarters was not part of this job.

Fuel Storage: One, 1,000 gallon, fuel storage tank was installed by each power house. The storage tanks were set 3 feet under ground and piping was installed from the tanks to within the power houses. The Signal Corps furnished the tanks and connected the pipes to the generators.

REFERENCE:

The elevation of the detector dipole is at 185.31 feet, the datum plane of reference being Mean Sea Level.

INSTRUMENTS & EQUIPMENT:

SCR 296 Detector furnished and installed by the Signal Corps.

DATA TRANSMISSION:

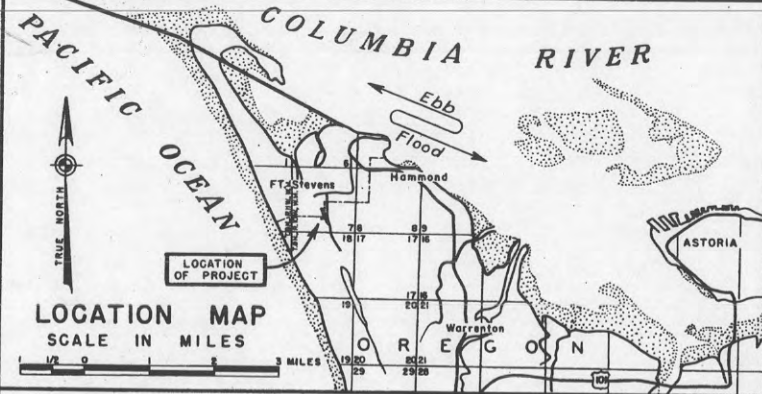
Data transmission is by telephones which were furnished and installed by the Signal Corps.

REMARKS:

This station was constructed with funds having Advise No. 3-3564 P 233 A 0605-24. Construction work was started 26 November 1943 and was completed 15 March 1944. This construction was designated Job No. Fort Stevens FS-11 by Directive Consecutive No. FS-1320. For special construction details see drawing number DMCR 1162A and for standard Signal Corps plans used in this construction see drawings numbered ES-D-8981, ES-D-10727, ES-D-11083 and ES-D-11085.

91439

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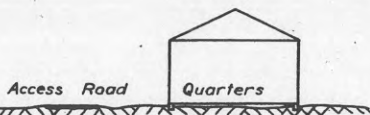
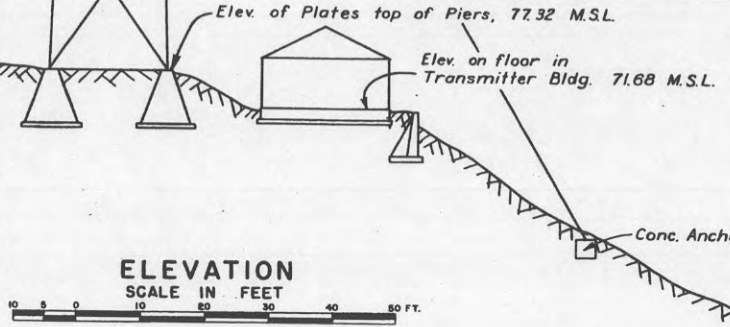
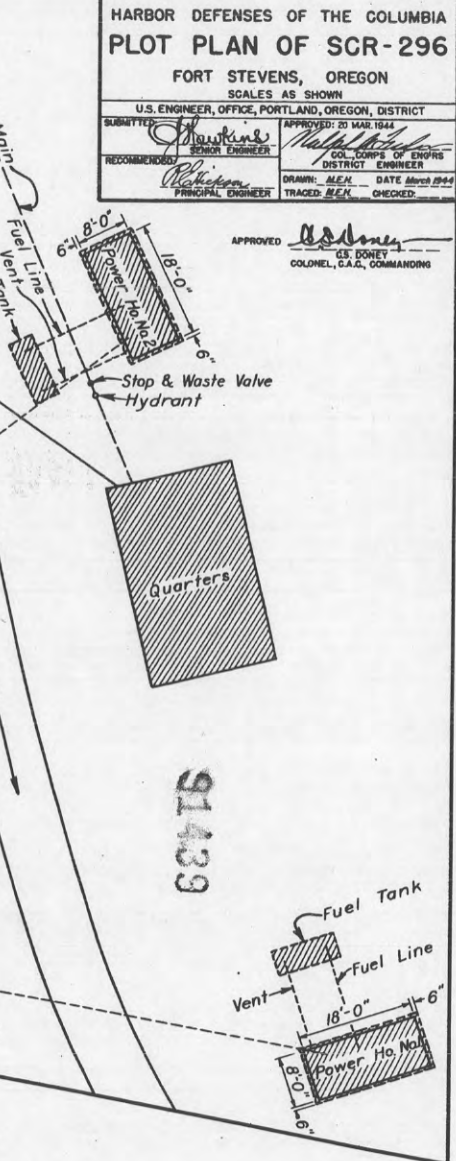
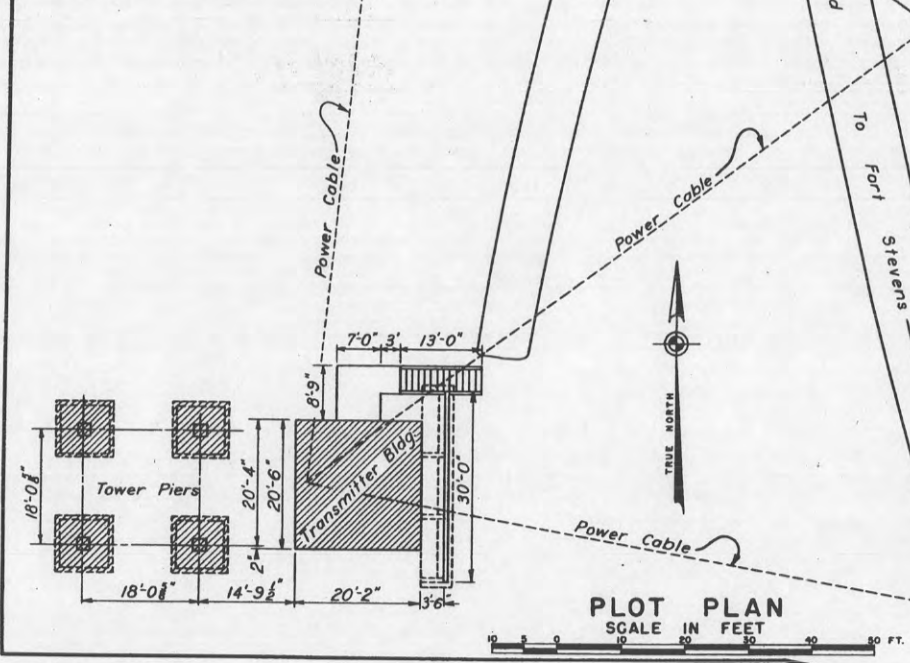
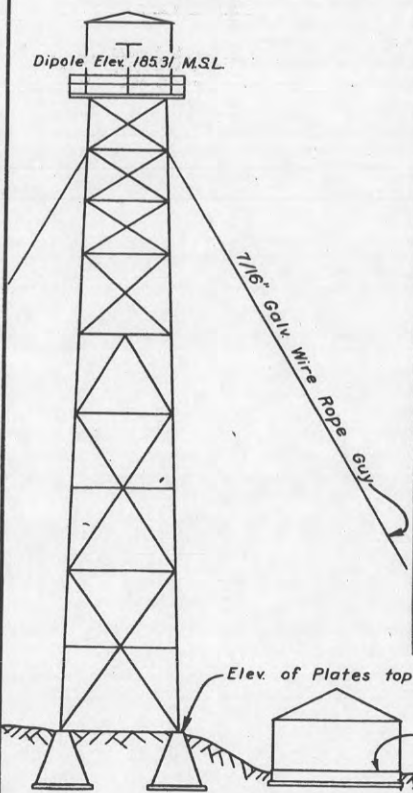
HARBOR DEFENSES OF THE COLUMBIA
PLOT PLAN OF SCR-296
FORT STEVENS, OREGON

SCALES AS SHOWN

U.S. ENGINEER, OFFICE, PORTLAND, OREGON, DISTRICT

SUBMITTED: *[Signature]* APPROVED: 20 MAR 1944
RECOMMENDED: *[Signature]* SENIOR ENGINEER
DRAWN: M.E.H. DATE March 1944
TRACED: B.E.K. CHECKED: *[Signature]*

APPROVED: *[Signature]*
G.S. BONEY
COLONEL, G.A.C., COMMANDING



91439

CONFIDENTIAL

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PART II

Corrected to 20 November 1943

STRUCTURE:

Location by co-ordinates:

- Of the northernmost instrument base S 8,355.65 Yds. S'
E 6,768.95 Yds. E'
Of the southernmost instrument base S 8,358.00 Yds. S'
E 6,768.72 Yds. E'

The origin of the co-ordinates for this Harbor Defense is Canby Light which is located on Cape Disappointment, Fort Canby, Washington.

Location by site description: This station is located in Northwesterly part of the Fort Stevens Military Reservation and is constructed on top of the magazine of Battery No. 245.

Date of transfer: 12 November 1943.

Cost to date of transfer: \$5,624.39.

Type of station: Concrete and earth-covered.

Type of construction:

- (a) Roof: Is constructed of reinforced concrete of a 1:2:4 mix and is 12" to 14" in thickness.
- (b) Remainder of bldg: Is constructed of reinforced concrete of a 1:2:4 mix. The walls are 12" in thickness and the floor is 8" in thickness. The structure has only one room with interior dimensions of 16'-4" x 15'-4" with a ceiling height of 7'-0". The building is entered by way of a small access tunnel also constructed of reinforced concrete. The building and its facilities are permanent type construction and are in excellent condition.

STRUCTURE: (Cont'd.)

Concealment: The structure was covered with earth embankment and then sodded, leaving only the windows and a portion of the front exposed. The exposed portion is painted to conform to the surrounding vegetation.

Conspicuousness: Is not considered conspicuous at any distance.

UTILITIES:

Electric Power:

Source: Commercial power for the Fort Stevens Reservation is purchased from with Pacific Power and Light Company with a sub-station at Astoria Oregon. The power for this Base End Station is drawn from the switchboard of the battery magazine which is directly below the station.

Characteristics: Power within the station is of 110 volts Ac, single phase.

Kilowatts required: Approximately 3 if an electric heater is used.

Type of lighting fixtures: Incandescent lamps in porcelain lamp receptacles.

Heating:

No heating facilities were provided for this station, however plug-in receptacles are provided that electric heaters may be used and also a 6" vent was provided so a small stove could be installed.

Control Approval Symbol SPEKM-1

83854

ED Form A-162B
16 Sept. 1943.

FS 437

CONFIDENTIAL

CONFIDENTIAL

PART II

Corrected to 20 November 1943

UTILITIES: (Cont'd.)

Water & Sewer:

No water nor sewage facilities were provided for this station. The nearby battery facilities are available for the operating personnel of this station.

REFERENCE:

Elevations of instrument positions:

Top of pipe pedestal, northerly instrument position is at elevation 44.95 feet.

Top of pipe pedestal, southerly instrument position is at elevation 44.97 feet.

The datum plane of reference is Mean Sea Level.

INSTRUMENTS:

Type of observing instruments: Two Azimuth Instruments M1910 A1 are being provided by the Ordnance Dept. for use in this station.

DATA TRANSMISSION:

Type of: Telephones.

The telephones and lines were furnished and installed by the Signal Corps.

REMARKS:

This station was constructed by Government forces with funds from P/A 8-(CAC)-252 P 34 A 1204-24. Construction work started on 1 May 1943 and was completed 15 June 1943.

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA

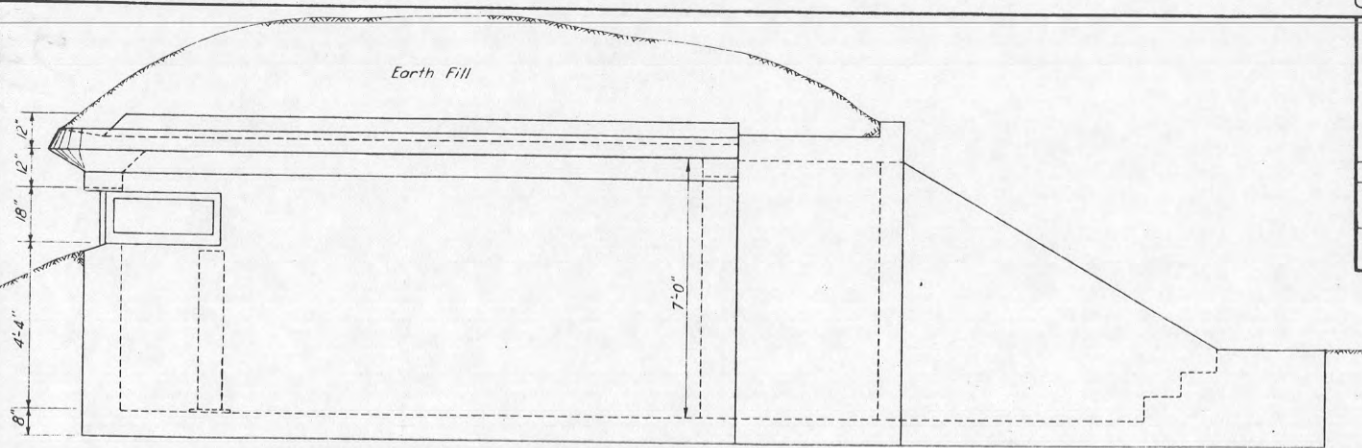
STATION BC 3 & B¹/₃ S¹/₃

FORT STEVENS, OREGON

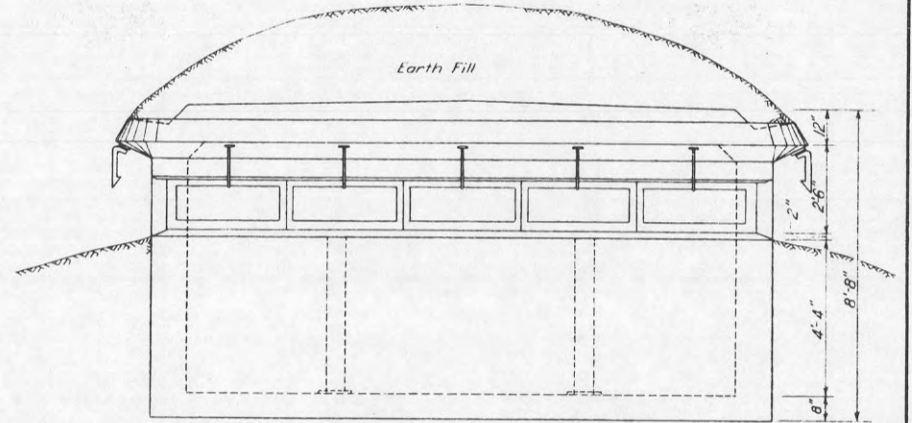
SCALE 3/16"=1'-0"

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

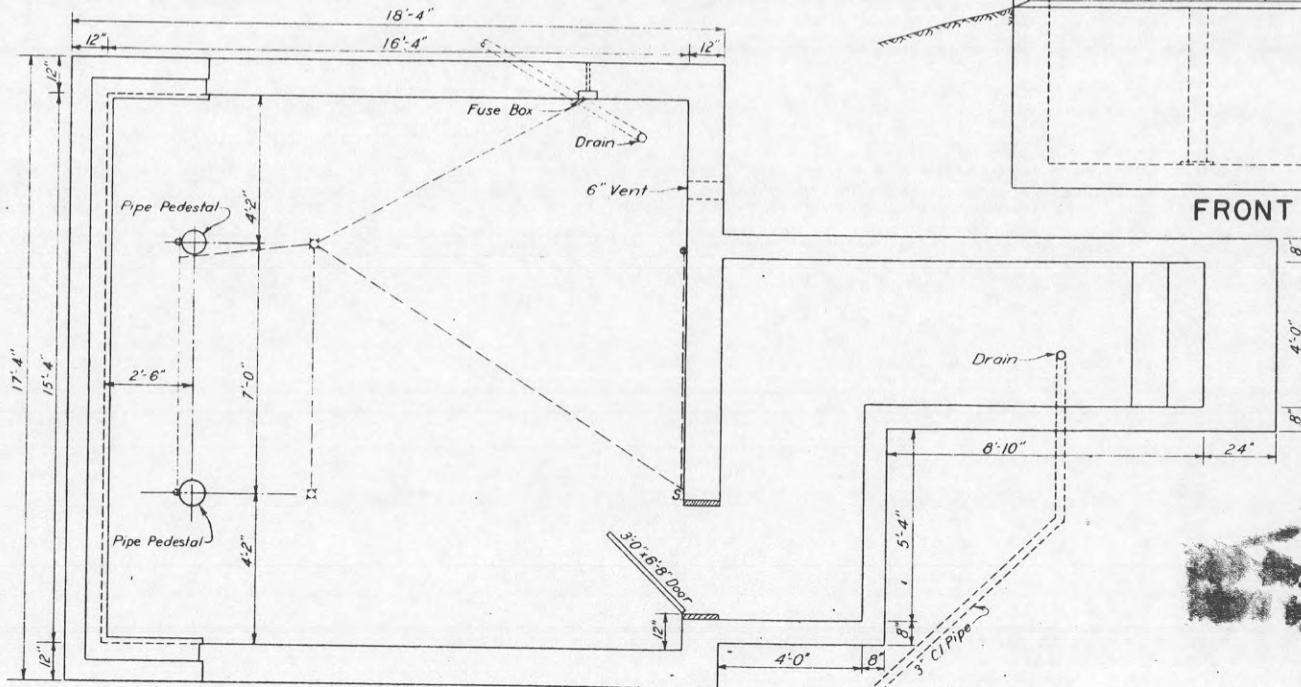
SUBMITTED:	APPROVED:
RECOMMENDED:	TRACED: M.E.H.
<i>[Signature]</i> SENIOR ENGINEER <i>[Signature]</i> PRINCIPAL ENGINEER	<i>[Signature]</i> LT. COL. CORPS OF ENGINEERS DISTRICT ENGINEER DRAWN: R.W.H. DATE 3, Dec. 1943 CHECKED:



SIDE ELEVATION



FRONT ELEVATION



PLAN

APPROVED: *[Signature]*
 C. S. Doney
 Colonel, C.A.C., Commanding

DECLASSIFIED
 DOD DIR. 5200.9, Sept. 27, 1988
 DRAWN BY *[Signature]* 5-21-20

DECLASSIFIED
 DOD DIR. 5200.9, Sept. 27, 1988
 DRAWN BY *[Signature]* 5-21-20

600,914 (Col. River.) CM 65130

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Fire Control Structures)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON (Loc. 14)
BASE END STATION B2/3S2/3 #246
(Location 14)

Form 2.

Corrected to 25 September 1943

STRUCTURE:

65130

Location : This structure is located within the U.S. Military
: Reservation of Fort Stevens, Oregon; is located on
: Fire Control Hill which is in the southwesterly
: portion of the said Reservation.

Date of transfer : 26 July 1943.

Cost to date of transfer . . . : \$ 2,097.13.

Type of construction:

- (a) Roof : The roof is constructed of reinforced concrete of
: a 1:2:4 mix and is from 12" to 14" in thickness.
- (b) Remainder of bldg. . . . : Is likewise constructed of reinforced concrete of
: a 1:2:4 mix. The structure has only one room with
: interior dimensions of 12'-0" x 12'-4" with a ceil-
: ing height of 7'-0". The building is entered by
: way of a small access tunnel also constructed of
: reinforced concrete. The building and its facilities
: are permanent type construction and are in excell-
: ent condition.

(See Plans Attached)

Map File

No. 92-98-54

DPO 660-6, 9/3/1

How concealed : The structure is covered with earth embankment,
: which is sodded, leaving only the windows and a
: portion of the front exposed. The exposed parts
: are painted to conform to the surrounding vegetat-
: ion. The entrance to the access tunnel is covered
: with camouflage netting.

ELECTRIC CURRENT:

Source of : The source of electric current is from the power
: distribution lines of Fort Stevens. Fort Stevens
: is supplied from the commercial lines of the Pacific
: Power and Light Company having a sub-station at
: Astoria, Oregon.

HARBOR DEFENSES OF THE COLUMBIA
BASE END STATION B₂ S₂

FORT STEVENS, OREGON

SCALE 3/16"=1'-0"

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

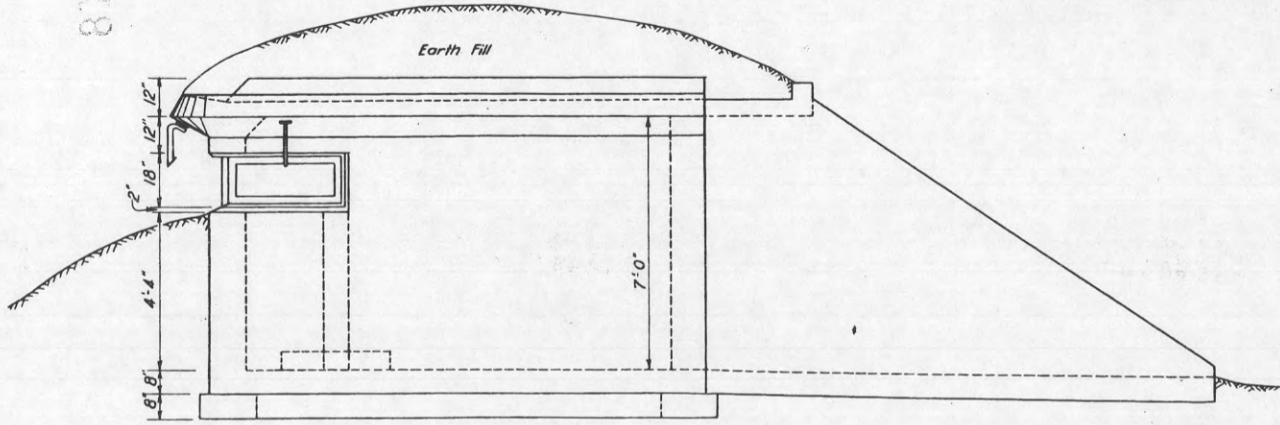
SUBMITTED: *[Signature]*
SENIOR ENGINEER
RECOMMENDED: *[Signature]*
PRINCIPAL ENGINEER

APPROVED: *[Signature]*
LT. COL. CORPS OF ENGINEERS
DISTRICT ENGINEER
DRAWN: *[Signature]* DATE 5, Dec. 1943
TRACED: M.E.M. CHECKED:

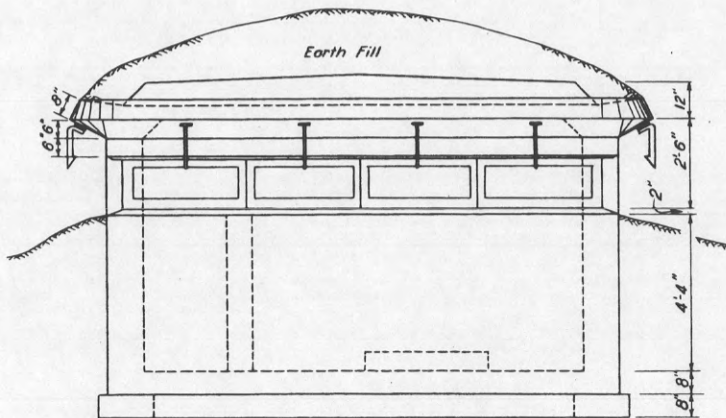
Approved: *[Signature]*
C. S. Doney
Colonel, C.A.C., Commanding

CONFIDENTIAL

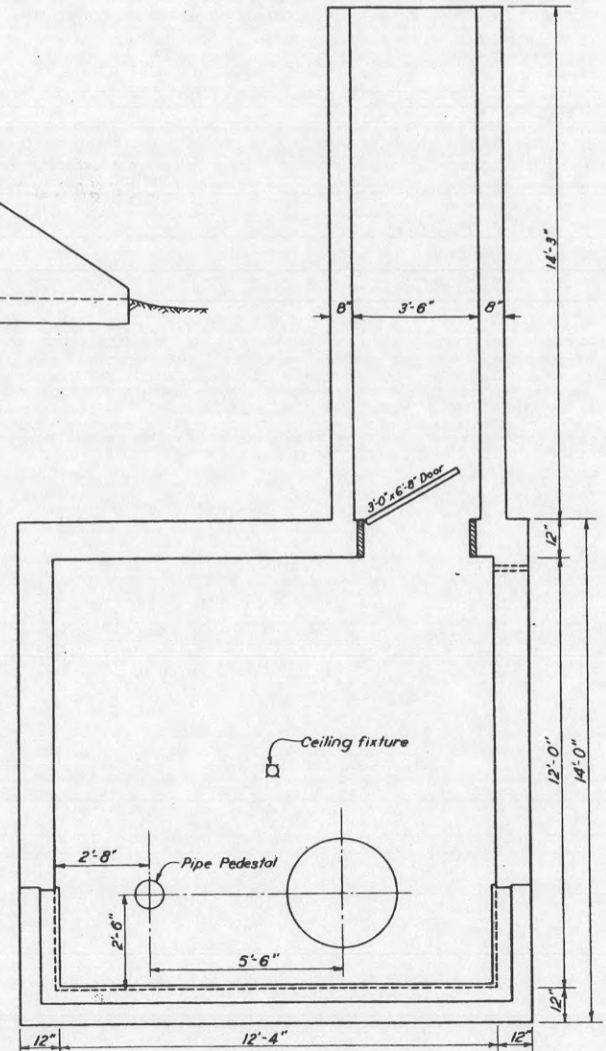
81275



SIDE ELEVATION



FRONT ELEVATION



PLAN

CONFIDENTIAL

REPORT OF COMPLETED WORKS—SEACOAST FORTIFICATIONS
(Fire Control Structures)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
DOUBLE BASE END STATION
B3/3S3/5 AND B2/1S2/1 (Location 14)

600.914 (Col. River) CM 69038

Form 2.

Corrected to 25 September 1943

69038

STRUCTURE:

Location : This structure is located within the U.S. Military
: Reservation of Fort Stevens, Oregon; is located on
: Fire Control Hill which is in the southwesterly
: portion of the said Reservation.

B²S² #247
8³S³ #245

Date of transfer : 26 July 1943.

Cost to date of transfer . . . : \$5,324.35

Type of construction:

(a) Roof : The roof is constructed of reinforced concrete of
: a 1:2:4 mix and is from 12" to 16" in thickness.
(b) Remainder of bldg. . . : Is likewise constructed of reinforced concrete of
: a 1:2:4 mix. The structure is comprised of two
: rooms each with interior dimensions of 12'-0"
: x 12'-3" with a ceiling height of 7'-0". The
: building is entered by way of a small access tunnel
: also constructed of reinforced concrete. The build-
: ing and its facilities are permanent type construct-
: ion and are in excellent condition.

(see Plans Attached)

Structure diag.
not received

How concealed. : The structure is covered with earth embankment,
: which is sodded, leaving only the windows and a
: portion of the front exposed. The exposed portion
: is painted to conform to the surrounding vegetation.
: The entrance to the access tunnel is covered with
: camouflage netting.

ELECTRIC CURRENT:

Source of. : The source of electric current is from the power dis-
: tribution lines of Fort Stevens. Fort Stevens is
: supplied from the commercial lines of the Pacific
: Power and Light Company having a sub-station at
: Astoria, Oregon.

Kilowatts required : Approximately 1.0 KW.

Type of lighting fixtures . . : Incandescent lamps in porcelain lamp receptacles.

CONFIDENTIAL

Prov Card 3x FS 437

DDO 600.6421

Form 2. Corrected to 25 September 1943

HEATING : No heating facilities were provided for this station, however, plug-in
: receptacles were provided that electric heaters may be used.

WATER & SEWAGE : No water supply, sewage nor latrine facilities were provided.

REFERENCE:

Co-ordinates : The origin of the co-ordinate system for this Harbor Defense is Canby Light
: located on Cape Disappointment, Fort Canby, Washington. Co-ordinates for
: this station are as follows:

: Station B2/1S2/1 - North Room			
: North instrument position	E	6,587.51	
	S	10,417.40	
: South instrument position	E	6,588.130	
	S	10,419.127	
: Station B3/3S3/3 - South Room			
: North instrument position	E	6,588.807	
	S	10,421.007	
: South instrument position	E	6,589.42	
	S	10,422.72	

: Co-ordinates are in yards.

Elevations.	: Station B2/1S2/1 - North Room:		Elevation of Instrument Axis
	: On brass shoulder of north pipe pedestal	100.470	101.241
	: On brass shoulder of south pipe pedestal	100.491	101.262
	: Station B3/3S3/3 - South Room:		
	: On brass shoulder of north pipe pedestal	100.444	101.215
	: On brass shoulder of south pipe pedestal	100.411	101.182
	: The datum plane of reference being Mean Sea Level.		

INSTRUMENTS

Observing : In Station B2/1S2/1 - North Room:
: One DPF, Old Instrument No. 148
: One Azimuth Instrument M1910 A1
: In Station B3/3S3/3 - South Room:
: One DPF, Old Instrument No. 94
: One Azimuth Instrument M1910 A1
: All instruments were furnished and installed by the Ordnance Department.

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Fire Control Structures)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
DOUBLE BASE END STATION
B3/3S3/3 AND B2/1S2/1 (Location 14)

Form 2.

Corrected to 25 September 1943

DATA TRANSMISSION:

Type of : Telephones. The telephones were furnished and installed by the Signal Corps.

REMARKS

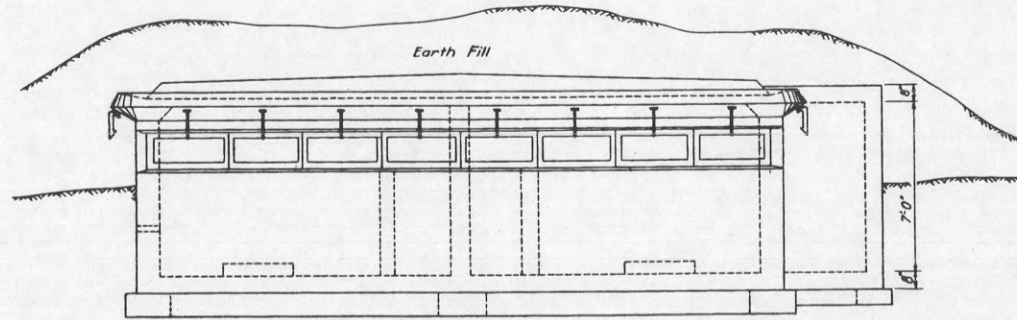
: This station was constructed by Government forces with funds from P/A CAC-115
: P 276 A 1204-23 (See Dir. Cons. Number FS-434 and FS-437). Construction work
: was started 14 January 1943 and was completed 31 March 1943. For construction
: details see the attached plans which are a part of the completion report.

CONFIDENTIAL

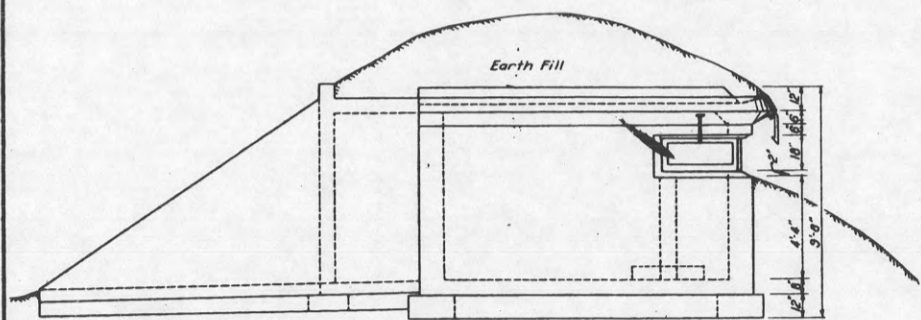
Approved: *C. S. Denny*
Colonel, C.A.C., Commanding

HARBOR DEFENSES OF THE COLUMBIA
STATION B₃ S₃ & B₁ S₁
FORT STEVENS, OREGON
SCALE 1/8" = 1'-0"

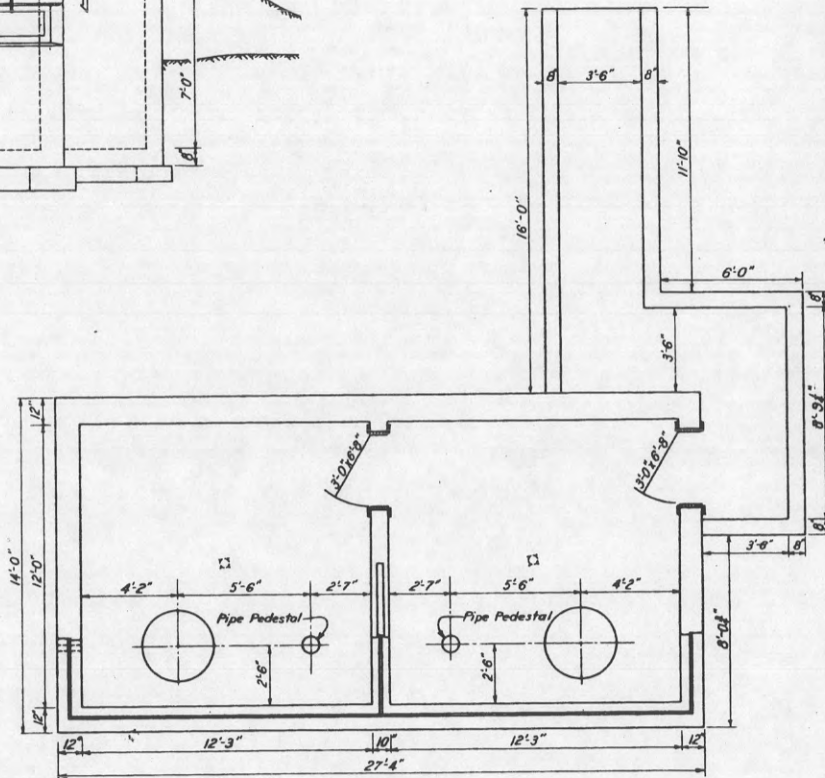
U.S. ENGINEER OFFICE PORTLAND, OREGON, DISTRICT
SUBMITTED: *W. H. ...* APPROVED: *W. H. ...*
RECOMMENDED: *C. S. Denny* DISTRICT ENGINEER
PRINCIPAL ENGINEER TRACED MEN CHECKED



FRONT ELEVATION



SIDE ELEVATION



PLAN

Access

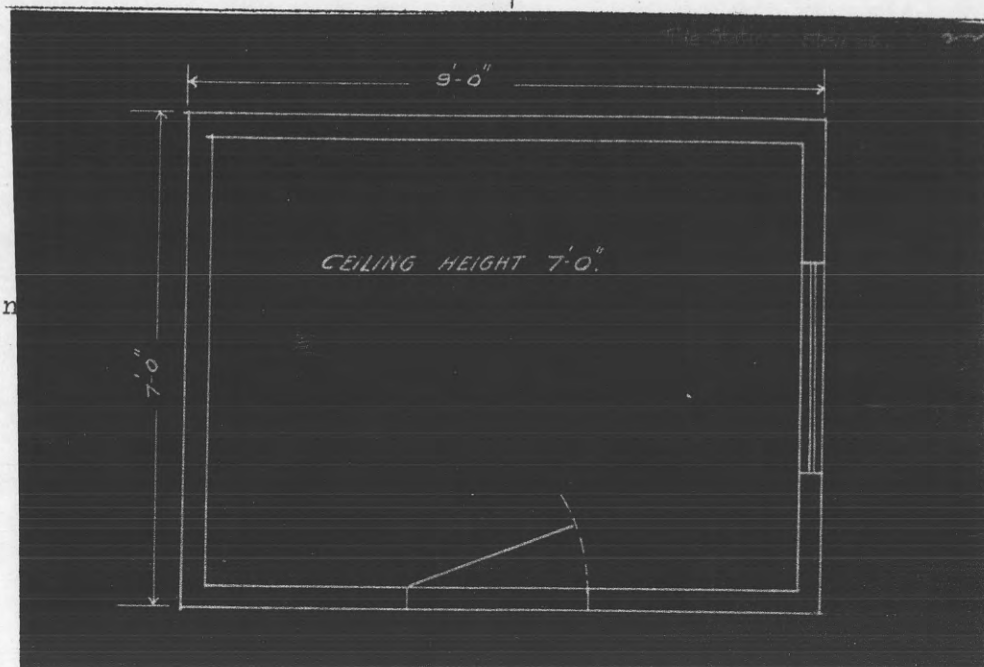
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT STEVENS, OREGON.....
STRUCTURE..TIDE STATION.....

Form 2.

Corrected to June 30, 1921.

Location	Quartermaster dock, east end of reservation.	Type of data transmission	
Date of transfer	May, 1908.	Date of transfer	
Cost to that date	\$200.	Cost of data transmission equipment	
Type of construction		For tide stations give description of tide gauge	Disc type, as per 3rd supplement to Memo. No. 62.
(a) Roof	Shingle.	For datum points give Forts from which visible	
(b) Remainder of bld	Wood.	For dormitories give stations served	
How concealed	Behind boat house.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	None.		
Height above protection			
Conspicuous at.....yards	About 1 mile.		
Source of electric current	None.		
Kilowatts required	None.		
Type of lighting fixtures	None.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	M.L.L.W., floor of station		
Reference of instrumental axis	about 15' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



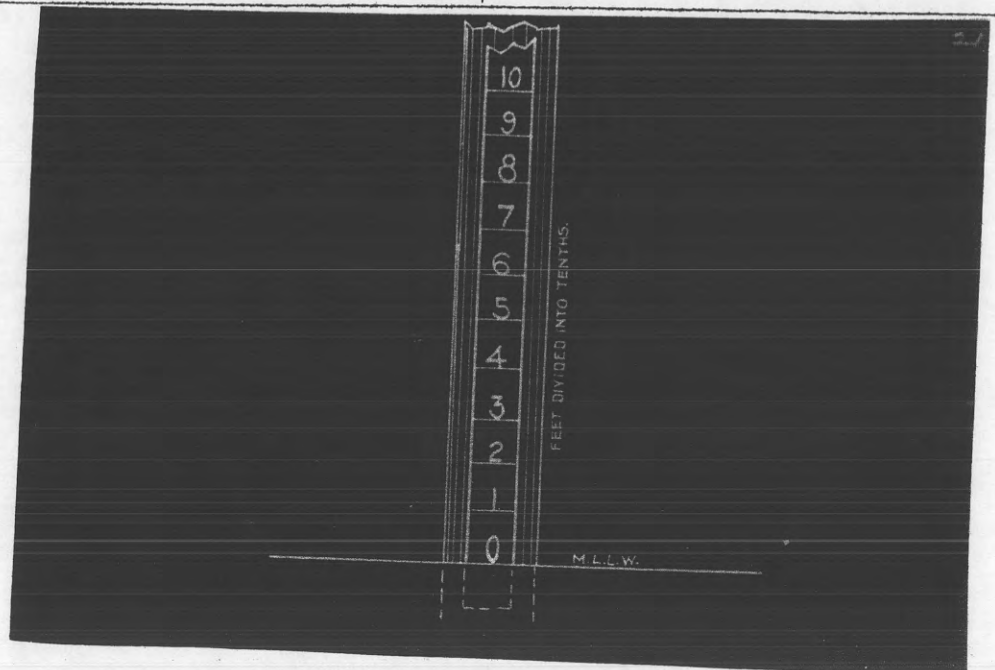
Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE..TIDE GAUGE ON JETTY TRAMWAY.....

Form 2. Corrected to June 30, 1921.

Location	On jetty tramway 4660' from Fort Stevens.	Type of data transmission	
Date of transfer	November, 1906.	Date of transfer	
Cost to that date	\$5.	Cost of data transmission equipment	
Type of construction	Staff gauge.	For tide stations give description of tide gauge	Staff gauge on pile for Fort Stevens.
(a) Roof		For datum points give Forts from which visible	
(b) Remainder of bld		For dormitories give stations served	
How concealed	Not concealed.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 100 yards.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation			
Present condition	Unserviceable; gauge in tide station on U.M. dock now used. M.L.L.W.		
Reference of site			
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON,.....
STRUCTURE..CABLE HUT..(S.C. CABLES).....

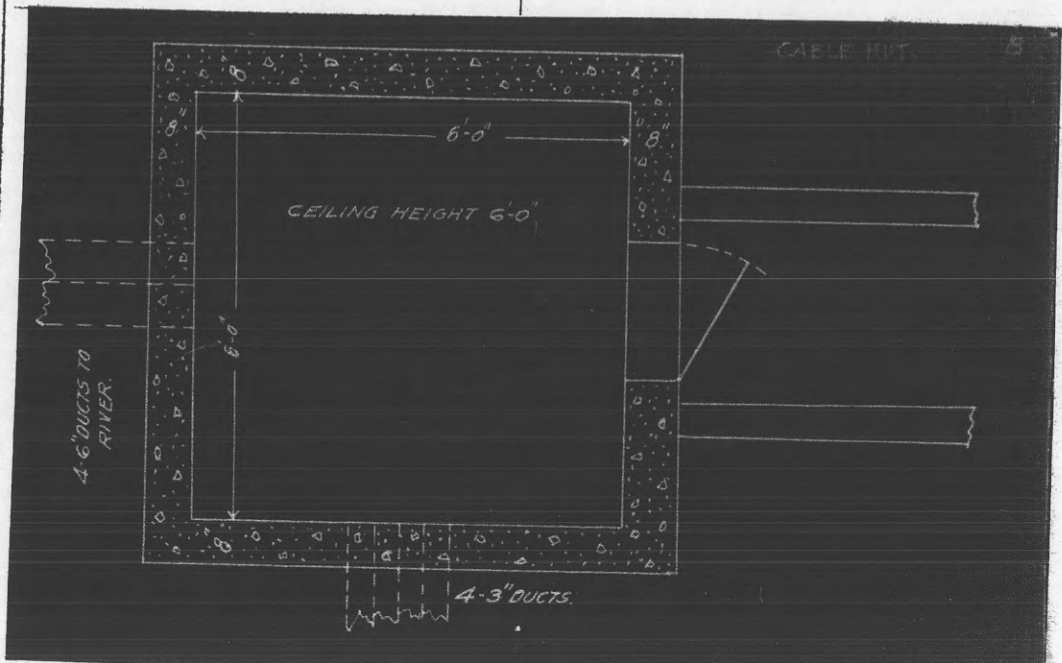
Form 2.

Corrected to June 30, 1921.

Location	River front between Engineer & U.M. docks, east end of reservation.
Date of transfer	No record.
Cost to that date	\$749.27.
Type of construction	Concrete.
(a) Roof	Concrete.
(b) Remainder of bld	Brush and earth.
How concealed	Earth cover top and sides.
How protected	None.
Height above concealment	None.
Height above protection	None.
Conspicuous at.....yards	Not conspicuous.
Source of electric current	None.
Kilowatts required	None.
Type of lighting fixtures	None.
How heated	None.
Connected to water mains	No.
Connected to sewer	No.
Type of latrine	None.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	About 12' above M.L.L.W.
Reference of instrumental axis	
Type of observing inst.	
Type of plotting board	
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	

Type C.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE DISTRICT SIGNAL STATION (RADIO.....
STATION).

Form 2.

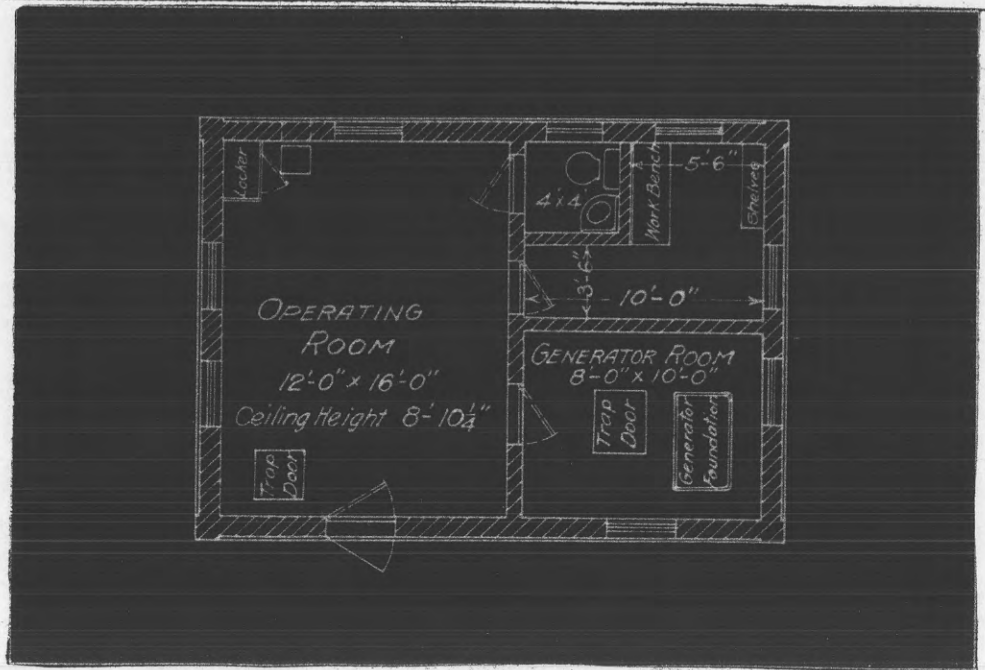
Corrected to June 30, 1921.

R

Probably modernized

Location	P.C. hill, south end of reservation.
Date of transfer	Nov. 9, 1911.
Cost to that date	\$2,948.02.
Type of construction	Wood, asphalt, felt & gravel
(a) Roof	Concrete.
(b) Remainder of bld	Behind hill & woods to rear.
How concealed	Behind hill.
How protected	None.
Height above concealment	None.
Height above protection	None.
Conspicuous at.....yards	Visible from above only.
Source of electric current	Battery Russell Power Plant.
Kilowatts required	2.5 kw.
Type of lighting fixtures	Commercial.
How heated	Stove.
Connected to water mains	Yes.
Connected to sewer	Yes.
Type of latrine	Syphon.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	About 95' above M.L.L.W.
Reference of instrumental axis	
Type of observing inst.	
Type of plotting board	
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

600.914 (Col River) 90251

Part V

Corrected to 10 April 1944

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

Control Approval Symbol SPEKM-1

ED Form No. A-162E
16 Sept. 1943

	Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine#	Fuel	Switchboard Material	No. of Panels
POWER PLANT - LOCATION NO. 1:											
Station Served: B7/1 S7/1.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent											
Power Unit No. 302:											
Engine	1125736	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377400G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1125736	-	-	-
Motor Generator	GFH480LA	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											
POWER PLANT - LOCATION NO. 2:											
Stations Served: B7/3 S7/3,											
B4/2 S4/2 and B4/1 S4/1.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 268:											
Engine	1124919	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377373G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1124919	-	-	-
Motor Generator	GFH480LA	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											

13206

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

CONFIDENTIAL

Part V Corrected to 10 April 1944

	Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine #	Fuel	Switchboard Material	No. of Panels
<u>POWER PLANT - LOCATION NO. 5:</u>											
Stations Served: B3/2 S3/2 and B6/3 S6/3.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 267:											
Engine	1122732	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377372G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1122732	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											
<u>POWER PLANT - LOCATION NO. 6:</u>											
Station Served: M2/4.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 277:											
Engine	1123238	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377471G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1123238	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											
Power Unit No. 274:											
Engine	1124951	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377379G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1124951	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											

ED Form No. A-162E
16 Sept. 1943

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

CONFIDENTIAL

Part V

Corrected to 10 April 1944

	Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine #	Fuel	Switchboard Material	No. of Panels
<u>POWER PLANT - LOCATION NO. 7:</u>											
Station Served: BL/2 SL/2.											
Power House & Plant Instl'n: - - - - 266.34 - - - - -											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 284: - - - - -											
Engine	1124764	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377382G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1124764	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											
<u>POWER PLANT - LOCATION NO. 7:</u>											
Stations Served: B5/3 S5/3 and ML/4.											
Power House & Plant Instl'n: - - - - - 273.03 - - - - -											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 283: - - - - -											
Engine	1124400	ZXB	2-5/8x3	Hobart Hercules	-	-	-	-	-	-	-
Generator	377381G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1124400	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.											

ED Form No. A-162E
16 Sept. 1943

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

CONFIDENTIAL

Part V

Corrected to 10 April 1944

	Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine #	Fuel	Switchboard Material	No. of Panels
<u>POWER PLANT - LOCATION NO. 9:</u>											
Station Served: B6/2 S6/2.	-	-	-	-	616.12	-	-	-	-	-	-
Power House & Plant Instl'n:	-	-	-	-	-	-	-	-	-	-	-
Date of Transfer: 4-5-44	-	-	-	-	-	-	-	-	-	-	-
Condition: Excellent.	-	-	-	-	-	-	-	-	-	-	-
Power Unit No. 275:	-	-	-	Hobart	-	-	-	-	-	-	-
Engine	1124823	ZXB	2-5/8x3	Hercules	-	-	-	-	-	-	-
Generator	377469G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1124823	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.	-	-	-	-	-	-	-	-	-	-	-
<u>POWER PLANT - LOCATION NO. 14:</u>											
Stations Served: B3/3 S3/3, B2/1 S2/1 and B2/2 S2/2.	-	-	-	-	893.14	-	-	-	-	-	-
Power House & Plant Instl'n:	-	-	-	-	-	-	-	-	-	-	-
Date of Transfer: 4-5-44	-	-	-	-	-	-	-	-	-	-	-
Condition: Excellent.	-	-	-	-	-	-	-	-	-	-	-
Power Unit No. 298:	-	-	-	Hobart	-	-	-	-	-	-	-
Engine	1125602	ZXB	2-5/8x3	Hercules	-	-	-	-	-	-	-
Generator	377396G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Radiator	-	Fin & Tube	5 qt.	McCord	-	-	-	1125602	-	-	-
Motor Generator	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Switchboard	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Storage Battery (Starting)	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Condition: New.	-	-	-	-	-	-	-	-	-	-	-

ED Form No. A-162E
16 Sept. 1943

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

CONFIDENTIAL

Part V Corrected to 10 April 1944

	Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine #	Fuel	Switchboard Material	No. of Panels
POWER PLANT - LOCATION NO. 15:											
Stations Served: B2/3 S2/3, B7/2 S7/2 and B6/1 S6/1.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 301:											
Engine	-	-	-	Hobart	-	-	-	-	-	-	-
Generator	1125683	ZXB	2-5/8x3	Hercules	-	-	-	-	-	-	-
Radiator	377399G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Motor Generator	-	Fin & Tube	5 qt.	McCord	-	-	-	1125683	-	-	-
Switchboard	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Storage Battery (Starting)	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Condition: New.	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
Power Unit No. 269:											
Engine	-	-	-	Hobart	-	-	-	-	-	-	-
Generator	1123220	ZXB	2-5/8x3	Hercules	-	-	-	-	-	-	-
Radiator	377374G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Motor Generator	-	Fin & Tube	5 qt.	McCord	-	-	-	1123220	-	-	-
Switchboard	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Storage Battery (Starting)	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Condition: New.	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
POWER PLANT - LOCATION NO. 17:											
Stations Served: B4/3 S4/3, B5/2 S5/2 and B5/1 S5/1.											
Power House & Plant Instl'n:											
Date of Transfer: 4-5-44											
Condition: Excellent.											
Power Unit No. 303:											
Engine	-	-	-	Hobart	-	-	-	-	-	-	-
Generator	1125698	ZXB	2-5/8x3	Hercules	-	-	-	-	-	-	-
Radiator	377401G	M-6	3 KVA	Hobart	-	1200	GasEng.	-	Gas.	-	-
Motor Generator	-	Fin & Tube	5 qt.	McCord	-	-	-	1125698	-	-	-
Switchboard	GFH4801A	AutoLiteAC	-	Auto-Lite	-	-	-	-	-	-	-
Storage Battery (Starting)	-	-	13"x15"	Hobart	-	-	-	-	-	Bakelite	One
Condition: New.	-	-	6-V	Delco Remy	-	-	-	-	-	-	-
					TOTAL		5639.32				

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ED Form No. A-162E
16 Sept. 1943

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, CANBY & COLUMBIA
POWER FOR BASE END STATIONS
PROCURED BY ORDNANCE AND
INSTALLED BY ENGINEERS

CONFIDENTIAL

Part V

Corrected to 10 April 1944

Serial Number	Type	Size	Manufacturing Company	Cost	RPM	Type of Drive	Radiator for Engine #	Fuel	Switchboard Mate- No. of rial Panels
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REMARKS:

This work of constructing the power houses and of installing the generating units was performed by Government forces with funds from P/A 8-25604 P 270 A 1204-24. The generators were furnished and are to be maintained by the Ordnance Department. The house for the generator at Location No. 1 was constructed the same time as the station itself and the cost shown herein is for the generator installation only. The cost of these generators is not known. The work was started on 11 September 1943 and was completed on 28 January 1944; was designated Job No. The Columbia FS-2 by Directive Consecutive Number FS-1222. For construction details and station locations see drawings numbered DMCR 1139, 1140 and 1141.

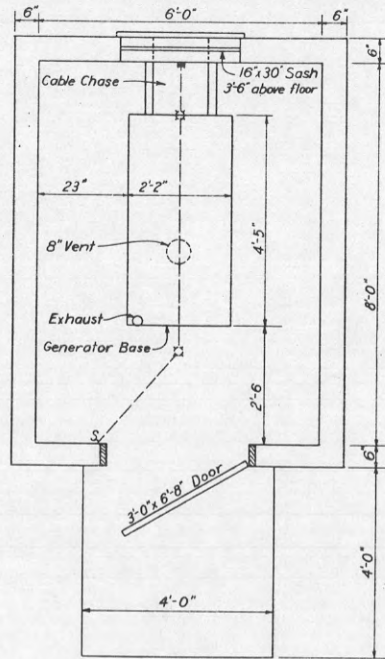
ED Form No. A-162E
16 Sept. 1943

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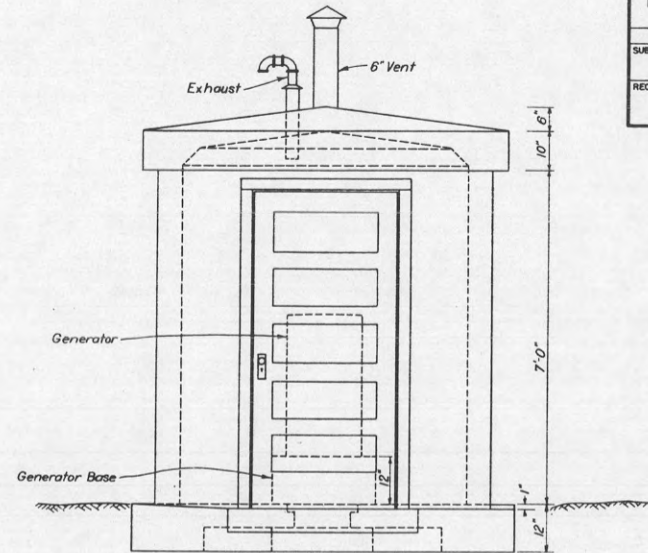
CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
GENERATOR BUILDINGS
 FORT STEVENS, OREGON, and VICINITY
 SCALE 1/4"=1'-0"
 U.S. ENGINEER, OFFICE, PORTLAND, OREGON, DISTRICT
 SUBMITTED: *[Signature]* APPROVED: 15 FEB. 1944
 RECOMMENDED: *[Signature]* SENIOR ENGINEER *[Signature]* COLONEL, CORPS OF ENGRS
 DISTRICT ENGINEER
 DRAWN: M.E.H. DATE JAN. 1944
 TRACED: M.E.H. CHECKED: _____

APPROVED: *[Signature]*
 C.S. DOWIE
 COLONEL, C.A.C., COMMANDING

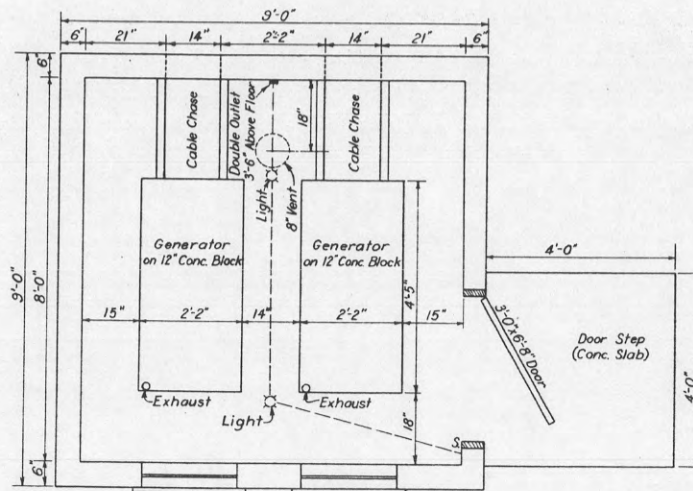


PLAN

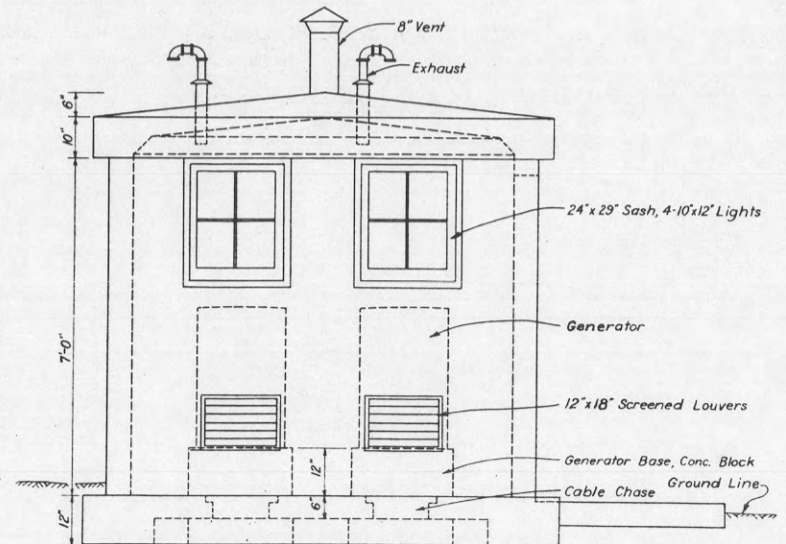


ELEVATION

SINGLE UNIT INSTALLATIONS AT BASE END STATIONS $B_1^7 S_1^7, B_3^7 S_3^7, B_2^3 S_2^3, B_2^1 S_2^1, B_3^5 S_3^5, B_2^6 S_2^6, B_3^3 S_3^3, B_3^4 S_3^4$



PLAN



ELEVATION

DOUBLE UNIT INSTALLATIONS AT BASE END STATIONS M_4^2 , AND $B_3^2 S_3^2$

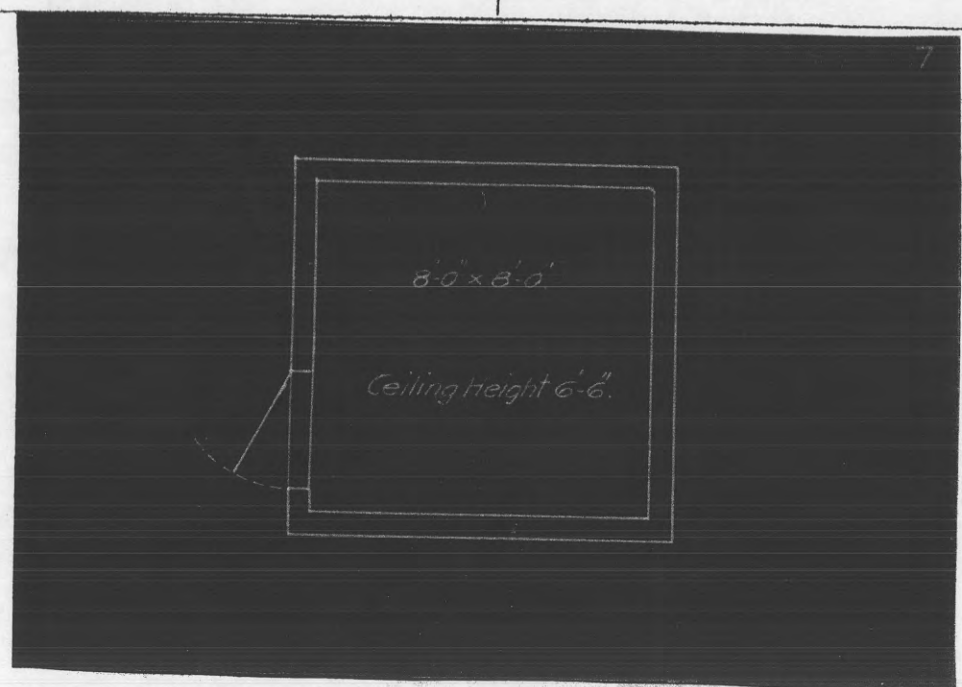
Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF.. THE. COLUMBIA
FORT. STEVENS., OREGON.
STRUCTURE.. CONTROLLER, BOOTH. S. L. NO.. 1.

Form 2. Corrected to June 30, 1921.

Location	120' E. and 60' N. of Searchlight No. 1, south end of reservation. December 4, 1914.	Type of data transmission	
Date of transfer		Date of transfer	
Cost to that date	\$145	Cost of data transmission equipment	
Type of construction	Wood frame	For tide stations give description of tide gauge	
(a) Roof	Wood & 3-ply J.M. asbestos	For datum points give Forts from which visible	
(b) Remainder of bld	Wood	For dormitories give stations served	
How concealed	Woods and hills behind.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 4 miles.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	.06 kw.		
Type of lighting fixtures	Commercial		
How heated	None		
Connected to water mains	No		
Connected to sewer	No		
Type of latrine	None		
Permanent or temporary installation	Permanent		
Present condition	Good		
Reference of site	About 77' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



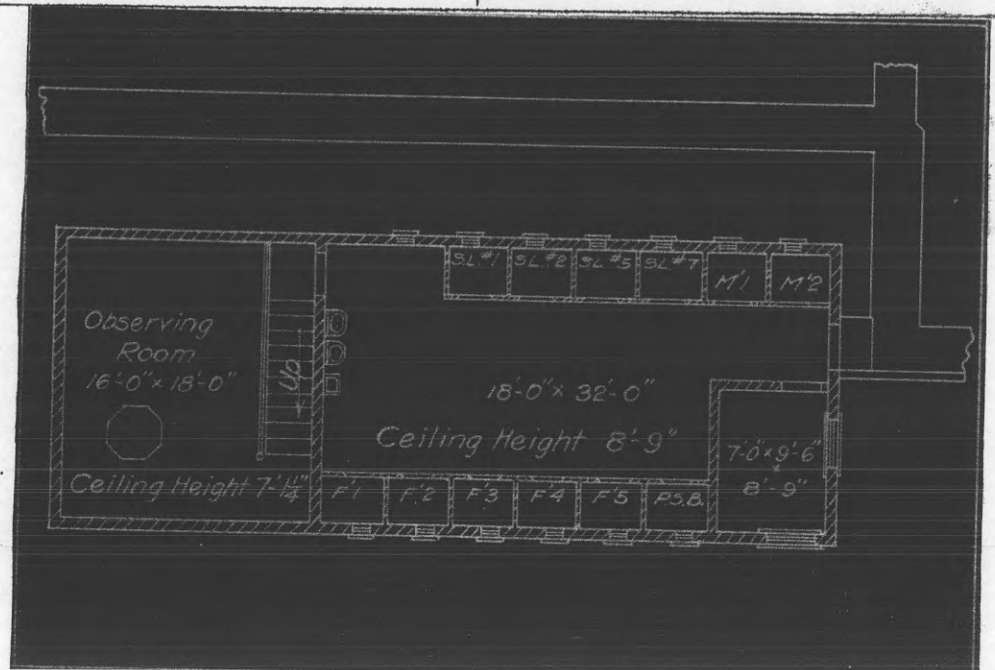
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

obsolete

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEWENS, OREGON.....
STRUCTURE..C!..&..CONTROLLER.FOR.S.L..#2.....

Form 2. Corrected to June 30, 1921.

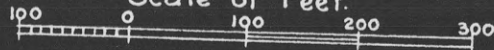
Location	Hill, south end of reservation.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$6,300.	Cost of data transmission equipment	
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Buried to slot, some trees behind.	For dormitories give stations served	
How concealed	Buried to slot.	For cable hut give S. C. type	
How protected			
Height above concealment	5' above ground, not above trees in rear.		
Height above protection	5'.		
Conspicuous at.....yards	About 4 miles.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	1.2 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Drains only.		
Type of latrine	Lavatories only.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	103' above M.L.L.W.		
Reference of instrumental axis	105.75' above M.L.L.W.		
Type of observing inst.	Swasey DPF type "A" #96, and observing instrument.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



(H)
No. 2

FORT STEVENS, OREGON.
LAYOUT OF SEARCHLIGHT
INSTALLATIONS NOS. 1 AND 2.

Scale of Feet.



TRUE NORTH →

No 1
60"
SEARCHLIGHT SHELTER

No 2
60"
SEARCHLIGHT SHELTER.

56
OUTLOOK BOOTH
CONTROLLER FOR S.L. NO. 1

55
POWER PLANT FOR S.L. 1 & 2

53
CONTROLLER FOR
S.L. NO. 2

DORMITORY

RADIO STATION

(C)

B' F' B' F' B' F'

TO BATTERY
DAVID RUSSELL

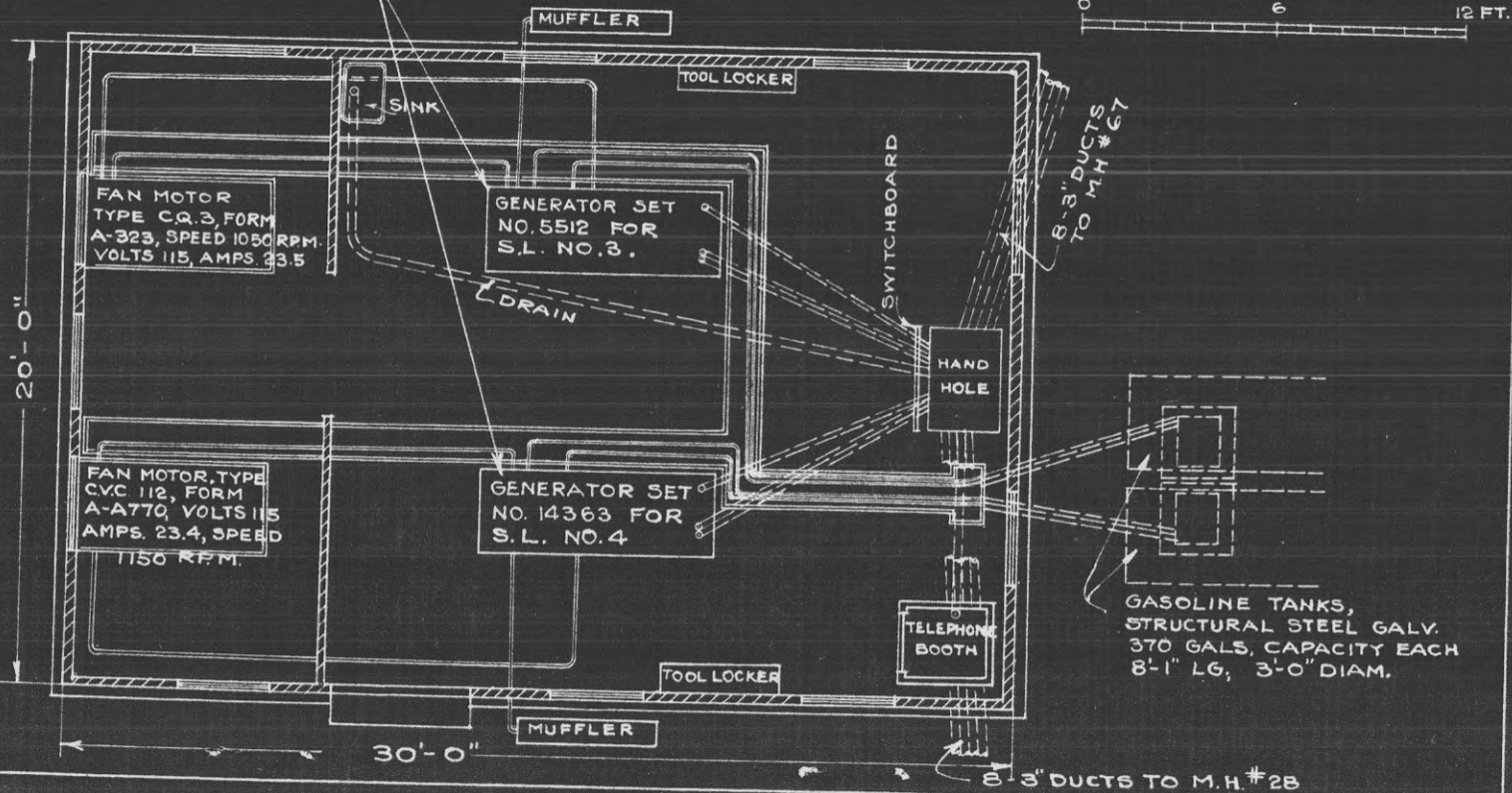
U.S.M. RES. B'DY. 7

C.F.O.

NOTE: EACH GENERATOR SET CONSISTS OF ONE 4 CYCLE, 4 CYLINDER VERTICAL GASOLINE ENGINE DIRECT CONNECTED TO DIRECT CURRENT GENERATOR, MANUFACTURED BY GENERAL ELECTRIC CO.

FORT STEVENS, OREGON.
 POWER PLANT
 FOR
 SEARCHLIGHTS NOS. 3 AND 4
 SCALE 1" = 6 FT.

0 6 12 FT.



RESTRICTED

Part IV Corrected to 1 December 1945

Control: Electric and remote.
Date received in this Harbor Defense: 21 May 1945.
From whom received: A.S.F. Depot, Utah.

MIRROR:

Type: Metal
Date received in this Harbor Defense: 21 May 1945.
Present condition: Good
Date last repaired: No repairs to date.

SWITCHBOARD:

Serial No: There is no separate switchboard for lights.

CABLES:

Power Plants to Searchlights

Type: Single stranded conductor cable; lead covered.
Length and size: To Searchlight No. 18: 225 ft. of No. 3/0.
To Searchlight No. 19: 130 ft. of No. 3/0.
In conduit or in air: Entrenched in conduit and embeded in concrete.

Controlllers to Searchlights

Type: 9 conductor and lead covered.
Length and size: To Searchlight No. 18: 980 ft., No. 16 conductors.
To Searchlight No. 19: 950 ft., No. 16 conductors.
In conduit or in air: Entrenched in conduit and embeded in concrete.

Auxiliary Controller to Searchlight
There are no auxiliary controllers.

REMARKS:

This supplemental work of replacing the fixed type searchlights with portable lights was accomplished with Government forces using funds having Advice Nos. 508-2015 P 270 A 212/51204(FC) and 608-3810 P 270 A 212/61204(FC). The work was part of the project designated Job No. The Columbia FS-9 by Directive Consecutive No. FS-1620; was started on 20 April 1945 and was completed on 15 October 1945. For construction details see drawing numbered DMCR 1194.

Note here: That Searchlights Nos. 18 and 19 were previously known as Searchlights No. 9 and 10, respectively.

RESTRICTED

RESTRICTED

Part IV

Corrected to 1 December 1945

The datum plane of reference is Mean Sea Level.

Concealment of shelter from approach channel: These shelters are located on a hillside and have brush and trees for a background when seen from the approach channel or open sea. The shelters and towers are painted to conform to the surrounding brush and trees.

POWER PLANTS:

Location: The shelter, housing the generators, is located approximately 200 feet easterly from S.L. No. 18 and approximately 50 ft. north of S.L. No. 19. The generators, for the fixed type searchlights, were removed from the powerhouse and the portable generators were installed in their place. This powerhouse is of steel frame and stucco construction with concrete floor and foundation. The interior dimensions are 20' x 29' with a ceiling height of 10'. The only alteration made at the powerhouse was in providing a different exhaust for the portable generators and the installation of a safety switch which is an interchanging double throw 4-pole switch. The building is located among trees and is painted to conform to the surrounding vegetation.

Maximum demand on each generator: 16.5 KW.

Type and size of generators: Two G.E. generators for 60" Portable Searchlights. The gen. for S.L. No. 19 is a Model 1942A; for S.L. No. 18 is a Model 1942.

CONTROLLERS:

Location: The controllers for these searchlights are located in a previously constructed fire control station which is also on Fire Control Hill. The fire control station is approximately 225 yards northerly from the searchlights.

Type: Anti-aircraft.

Form: For Portable Searchlights.

Serial Numbers: Controller for Searchlight No. 18:

C. of E. Ser. No. 6469

General Elect. Ser. No. 49751

Controller for Searchlight No. 19:

C. of E. Ser. No. 6448

General Elect. Ser. No. 49730

How protected or concealed: Only by being housed in the fire control station.

PROJECTOR:

Manufacturer: General Electric, Schenectady, New York.

Type of projectors: Anti-aircraft.

Form of projectors: For portable type light.

Serial Nos. of projectors:

Of Searchlight No. 18: C. of E. Ser. No. 6476
General Elect. Ser. No. 48121

Of Searchlight No. 19: C. of E. Ser. No. 6472
General Elect. Ser. No. 48113

Type of lamps: Arc.

Model of lamps: Projector No. 18 is a 1942.

Projector No. 19 is a 1942.

Serial Nos. of lamps: None given.

ED Form No. A-1620
16 Sept. 1943

RESTRICTED

RESTRICTED

Part IV Corrected to 1 December 1945

INSTALLATION:

Location by co-ordinates:

Projector No. 18 South 10,591.46 Yards
East 6,648.01 Yards
Projector No. 19 South 10,608.94 Yards
East 6,726.49 Yards

The origin of the co-ordinate system for this Harbor Defense is the Cape Disappointment Lighthouse located at Fort Canby, Washington.

Location - Site Description: These searchlights are at location 14 which is on Fire Control Hill in the south-westerly part of the U.S. Military Reservation of Fort Stevens, Oregon.

General Character: This supplemental work consisted of replacing the fixed type searchlights with portable type searchlights. The portable lights were installed in the shelters which housed the fixed type lights. The portable lights rest on their own jacks on the floor of the shelters. The generators for the fixed type lights were removed from the powerhouse and the portable generators installed in their place. The portable generators rest on pre-cast concrete blocks. The powerhouse exhaust system was also remodeled to accommodate the portable generators. The controllers were installed in a previously constructed structure. The new searchlights, generators, and controllers were furnished by the Army and the work of making the changes was performed by the Corps of Engineers.

Date of transfer of this supplemental work:
30 November 1945.

Cost to date of transfer of this supplemental work: \$3,035.41.

Shelters:

Materials of construction: The same shelters were used for the portable type lights as for the fixed lights, which were removed. The shelters are of wooden frame construction having corrugated iron siding and roofing. The sub-floors of the shelters are of laminated 2x3's, S2S, and the floors are of reinforced concrete.

Interior dimensions: 12'-0" x 17'-0" with a ceiling height of 12'-3".

Height and type of tower: The tower is of wooden frame construction, all parts of which are fir lumber except the posts which are of cedar. The tower is constructed on reinforced concrete pedestals and is anchored thereto by 12" structural steel channels. The height of the tower from the top of the concrete pedestals to the bottom of the shelter sub-floor is 30'-1".

Means by which projector is placed in operating position: The fronts of the shelters are opened by a series of sliding doors. The projectors, resting on their jacks, are stationary within the shelters.

Reference axis of Projectors in operating position:

Projector No. 18, Elevation 99.8 ft.
Projector No. 19, Elevation 102.2 ft.

Control Approval Symbol SPEKM-1

ED Form No. A-162D
16 Sept. 1943
Serial # 5-1

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHTS NOS. 13 and 14
SIZE: 60". Fixed Lights.
(Supplemental Report)

RESTRICTED

Part IV Corrected to 1 December 1945

INSTALLATION:

Location:

Searchlights No. 13 and 14 were located on the southerly shore of the Columbia River and were in the northeasterly portion of the U.S. Military Reservation of Fort Stevens, Oregon.

General:

This supplemental work consisted of removing the fixed type searchlights together with their power plants, controllers and switchboards. This equipment is in the custody of the U.S. Engineer Dept. and is to be sold as surplus property or shipped to the Dept. of Commerce, Office of Surplus Property. The buildings, that housed the generators and the searchlights have been abandoned. The controller and power cables were salvaged by the Army.

Dates for performing the work: Removal of equipment was started on 14 June 1945; the equipment was stored and ready for shipment on 31 August 1945.

Cost of removing the equipment: \$797.93.

REMARKS:

This work of removing Searchlights Nos. 13 and 14, and their allied equipment, was performed by Government forces using funds having Advise Nos. 508-2015 P 270 A 212/51204(FC) and 608-3810 P 270 A 212/61204 (FC). The work was part of a project designated Job No. The Columbia FS-9 by Directive Consecutive No. FS-1620. For Plot Plan see drawing numbered DMCR 1197.

Note here that Searchlights Nos. 13 and 14 were previously designated as numbers 7 and 8 respectively.

Control Approval Symbol SPEKM-1

ED Form No. A-162D
16 Sept. 1943

Handwritten signature

RESTRICTED

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Searchlights)

660 Col. River M
42722
SECRET

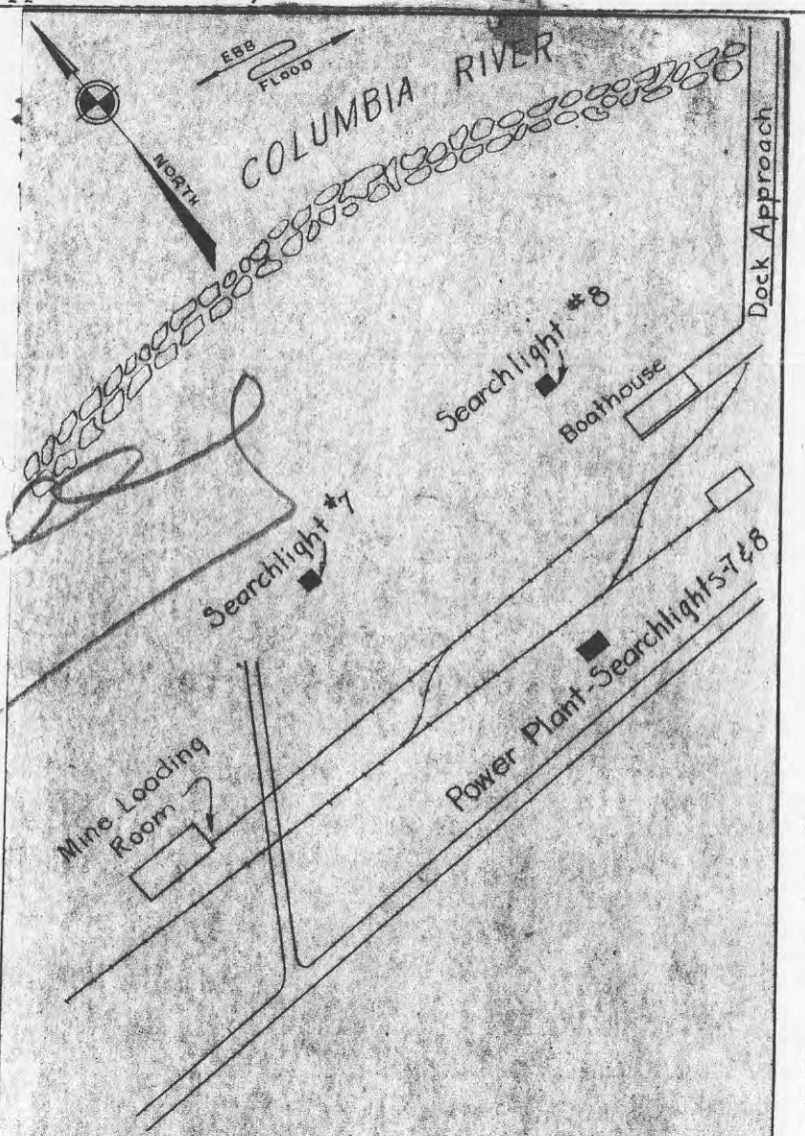
HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
ELEVATION OF SEARCHLIGHTS NOS. 7 AND 8
60" Fixed Lights
(Supplemental work)

Form 4.

Corrected to April 2, 1943

INSTALLATION:

Location : Fort Stevens, Oregon.
Date transferred to troops . . . : Of supplemental work: March 31, 1943
Cost to date of transfer . . . : \$2,807.88 cost of elevating each light.
: Total cost \$5,615.76.
Shelter:
Materials of construction . . . : Wooden frame structure with corrugated,
: galvanized siding and roof. Floor con-
: structed of reinforced concrete of a
: 1:2:4 mix.
Interior dimensions : Length of 17'-0" x width of 12'-0" x a
: height of 12'-0".
Height and type of tower . . . : Towers extends to 40 feet above its
: concrete pedestal foundations; are con-
: structed of cedar posts with fir lumber
: for bracing. The superstructure of the
: towers consists of 12"x12" fir caps,
: for the posts; 4"x14" fir joists and
: 2x3 laminated cedar sub-floor upon which
: are constructed the concrete floors of
: the shelters.
Means by which projector is
placed in operating position : The fronts of the shelters are opened
: up by a series of sliding doors. Pro-
: jector is stationary on the floor of
: the shelter.
Reference axis of projector
in operating position : The axis of the projectors are at an
: elevation of \neq 60.0; plane of reference
: being M.L.L.W. Co-ordinates of these
: lights were not changed as a result of
: this work.



HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHTS 7&8

JANUARY, 1943

SCALE 1:2000

SECRET

REPORT OF COMPLETED WORKS--SEACOAST FORTIFICATIONS
(Searchlights)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
ELEVATION OF SEARCHLIGHTS NOS. 7 AND 8
60" Fixed Lights
(Supplemental work)

SECRET

Form 4. Corrected to April 2, 1943.

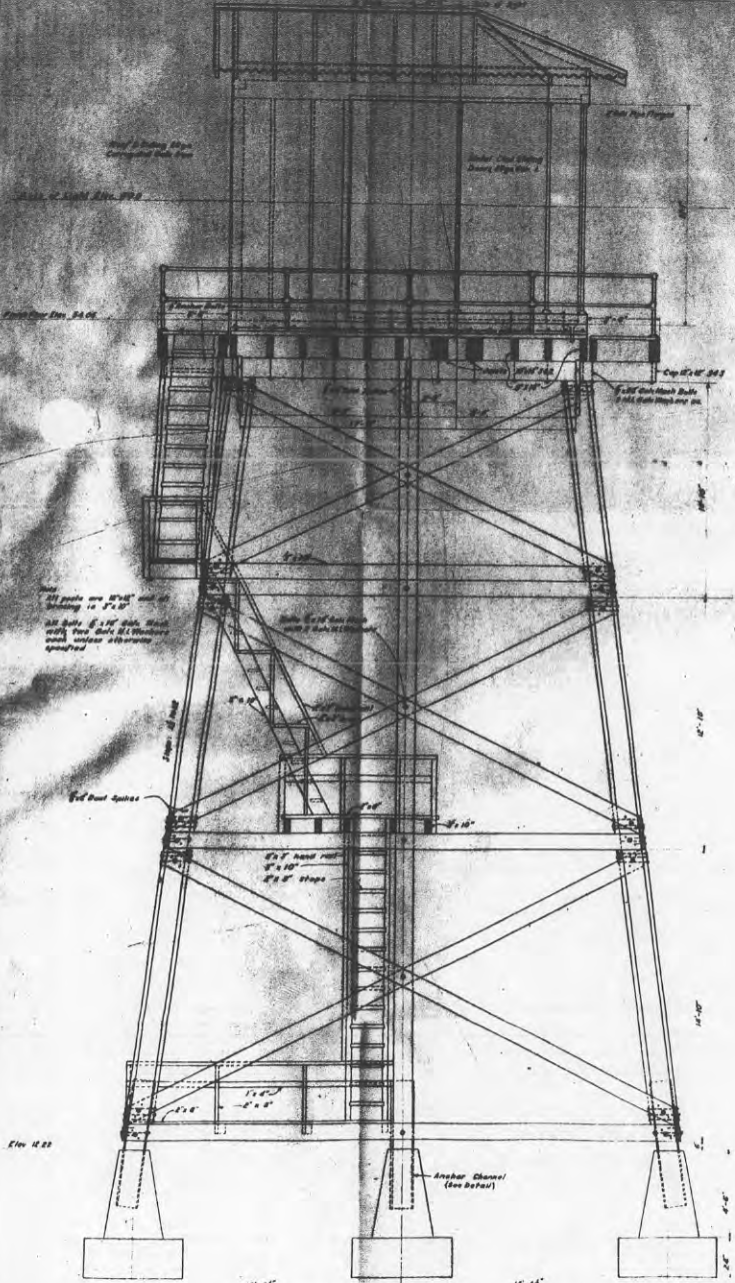
CONCEALMENT:

: These shelters are not concealed from approach channel. The towers
: and shelters are painted to conform to the surrounding background.

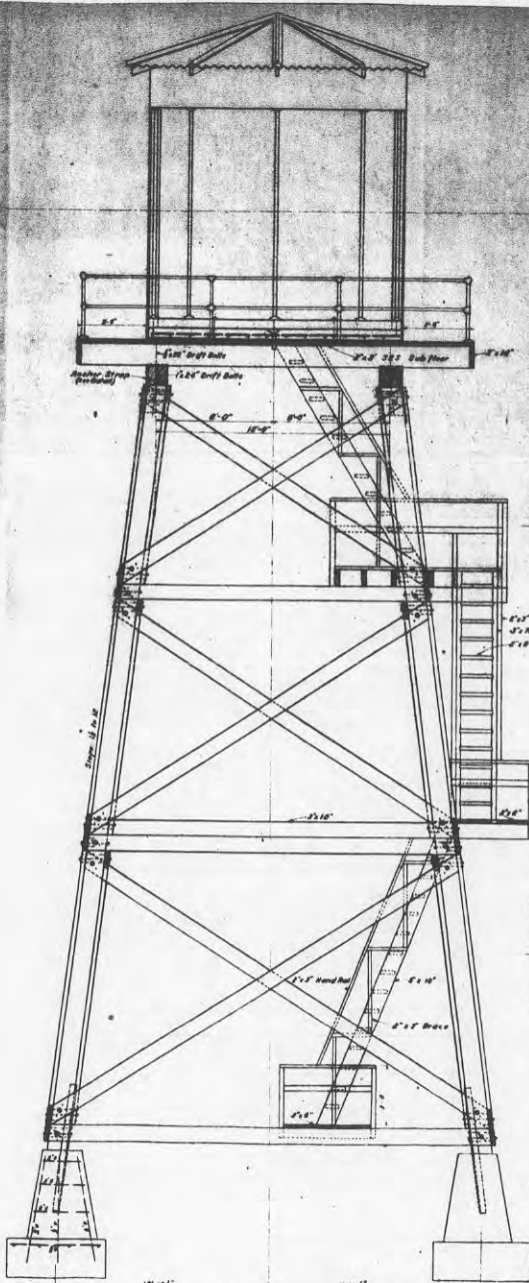
REMARKS:

:
: The work of elevating these searchlights was performed by Government
: forces and was completed on December 5, 1941; was constructed with
: funds from P/A CAC-110 P 34 A 1205-N. The projector, mirror, switch-
: board, power cables, power plant and controllers are all the same
: as used previously. The power and controller cables were just ex-
: tended to the lights in their new positions. For construction details
: of the towers see attached detailed plan which is part of this com-
: pletion report.

SECRET

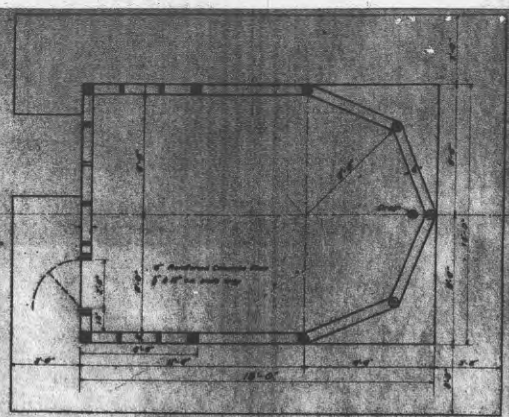


EAST ELEVATION

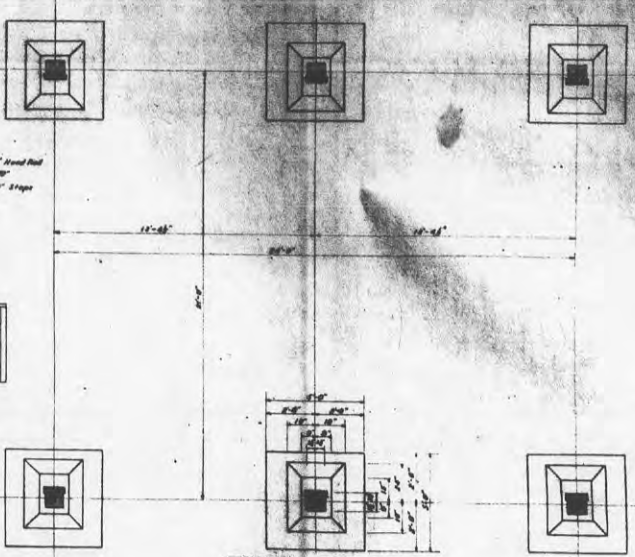


NORTH ELEVATION

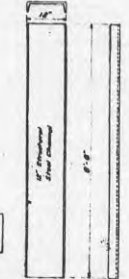
DETAIL OF TOWER & SHELTER
SCALE 3/8\"/>



SHELTER FLOOR PLAN
SCALE 3/8\"/>



FOUNDATION PLAN
SCALE 3/8\"/>



ANCHOR STRAP DETAIL
SCALE 3/8\"/>

DETAIL OF ANCHOR CHANNEL
SCALE 3/8\"/>

Approved: *[Signature]*
 Colonel, G.A.C. Commanding

SECRET
AS CONSTRUCTED

HARBOR DEFENSES OF THE COLUMBIA
 TOWERS FOR SEARCHLIGHTS 7 & 8
 FORT STEVENS, OREGON

MARCH, 1943

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

SUBMITTER: *[Signature]* APPROVED: *[Signature]*
 RECOMMENDED BY: *[Signature]* COLONEL, CORPS OF ENGINEERS
 U.S. ENGINEER

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHT NO. (4.) → No. 7 (1)

Form 4. Corrected to June 25, 1922. Size 60" Portable or fixed. FIXED.

<p>PROJECTOR</p> <p>Location: Near docks, east end of reservation.</p> <p>Manufacturer: General Electric Co.</p> <p>Type of projector: E. C.</p> <p>Form of projector: Form N-10.</p> <p>Serial No. of projector ...: 21725.</p> <p>Type of lamp: Mark 5.</p> <p>Model of lamp: Model 8.</p> <p>Serial No. of lamp: 282.</p> <p>Electric or hand control...: Electric.</p> <p>Material of mirror: Glass.</p> <p>Date received in district : July 12, 1920.</p> <p>From whom received: General Electric Co.</p> <p>Age of mirror: 1 year.</p> <p>Condition of mirror: Good.</p> <p>Date last repaired: No repairs.</p> <p>Switchboard, serial No....: 205101.</p>	<p>INSTALLATION</p> <p>General character: In shelter.</p> <p>Date transferred to: troops: April 15, 1922.</p> <p>Cost to that date: \$1,700.00 shelter.</p> <p>Shelter: Wood frame, corrugated iron.</p> <p>Materials of construction : Interior of dimensions 12' x 17' x 11' 7" high</p> <p>Height and type of tower : 11' concrete piers and timber posts.</p> <p>Means by which projector : is placed in operating position: Opening sliding doors.</p> <p>Reference axis of projector or in operating position: 25.00' above M.L.L.W.</p> <p>Kind of protection in operating position: Corrugated iron roof only.</p> <p>Concealment of day shelter from approach channel : None.</p> <p>Dates & cost of extensive remodeling or reconstruction: None.</p>
<p>CABLE #</p> <p>Power plant to searchlight:</p> <p>Type: "A" L.C.</p> <p>Length and size: 376' 4/0.</p> <p>In conduits or in air: Conduit.</p> <p>Controller to light</p> <p>Type: C.L. R & L.</p> <p>Length and size: 2335', 11 conductor.</p> <p>In conduit or in air: Conduit.</p> <p>Aux. controller to light</p> <p>Length and size: None.</p> <p>In conduit or in air:</p>	<p>POWER PLANT</p> <p>Location: About 300'S Ely. from S.L. #3 & 300'S Wly. from S.L. No. 4.</p> <p>Maximum demand KW: 33.0 kw</p> <p>Type and size: CM 12, 2-25kw sets 115 V for S.Ls. 3 & 4.</p>
	<p>CONTROLLERS</p> <p>Location: 1900' west in M'/1.</p> <p>Type: E.C.</p> <p>Form: Form N-12.</p> <p>Serial No.: 400412.</p> <p>How protected or concealed: In wood building M'/1.</p>

* See 470.31 A-2114 : #357 Mirror transferred to C.A., 1922. From that time until 11/18/37 it was used a total of 45 hours. This is the first time it has been resilvered, work done by W.P. Fuller & Co., San Francisco, at a cost of \$43, as per 2nd Ind., para.

(1) See 475.1 (9th C.A.) 1:-
" 470.31 A-2302:-
Designated #7

Layout of S.L. installation for #3 and #4 to be submitted when
S.L. #4 is transferred to Artillery.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA.
FORT STEVENS, OREGON.
SEARCHLIGHT NO. (3.) → No. 8 ①

Form 4. Corrected to June 30, 1921. Size 60" Portable or fixed. Fixed.

<p>PROJECTOR</p> <p>Location: Near docks east end of reservation.</p> <p>Manufacturer: General Electric Co.</p> <p>Type of projector: E.C.</p> <p>Form of projector: Form N-2.</p> <p>Serial No. of projector ...: 8222.</p> <p>Type of lamp: Mark V.</p> <p>Model of lamp: Model 10.</p> <p>Serial No. of lamp: 388.</p> <p>Electric or hand control...: Electric.</p> <p>Material of mirror: Glass.</p> <p>Date received in district : 1910.</p> <p>From whom received: General Electric Co.</p> <p>Age of mirror: 1 year.</p> <p>Condition of mirror: Cracked.</p> <p>Date last repaired: None.</p> <p>Switchboard, serial No....: 77853.</p> <p>CABLE #</p> <p>Power plant to searchlight.</p> <p>Type: "A" L.C.</p> <p>Length and size: 790' 4/0.</p> <p>In conduits or in air: Conduit.</p> <p>Controller to light: "C" L.C.</p> <p>Type: "C" L.C.</p> <p>Length and size: 4070' 9 conductor.</p> <p>In conduit or in air: Conduit.</p> <p>Aux. controller to light ..: None.</p> <p>Length and size:</p> <p>In conduit or in air:</p>	<p>INSTALLATION</p> <p>General character: Shelter on concrete piers.</p> <p>Date transferred to:</p> <p>troops: March 7, 1912.</p> <p>Cost to that date: \$2,225 shelter, \$5,312, projector.</p> <p>Shelter ..</p> <p>Materials of construction Wood frame, cor. iron cover.</p> <p>Interior of dimensions 12' x 17' x 12'</p> <p>Height and type of tower : Concrete piers & timber post 18' above ground.</p> <p>Means by which projector : Hoisting apparatus to lift light position: to roof of day shelter.</p> <p>Reference axis of project- or in operating position: 39.81' above M.L.L.W.</p> <p>Kind of protection in operating position: None.</p> <p>Concealment of day shelter from approach channel : None.</p> <p>Dates & cost of extensive remodeling or reconstruction: None.</p> <p>POWER PLANT</p> <p>Location: 350' S.E. of searchlight shelter.</p> <p>Maximum demand KW: 20 kw.</p> <p>Type and size: GML2 2-25kw sets, 115V for S.L. 3&4.</p> <p>CONTROLLERS</p> <p>Location: In old F' /2, 2650' west of light.</p> <p>Type: E.C.</p> <p>Form: Form N-2.</p> <p>Serial No.: 5950.</p> <p>How protected or concealed: In old F' /2.</p>
---	---

See O.C.E. 470.31 A - 1912
Mirror 5/4 #3 - Cracked to such an extent as to cause a double beam.
Recommended be replaced by spare mirror (one spare mirror on hand in this H.D.)

① See 675.1 (9th C.A.) 1 -
" 470.31 A - 2302 -
Designated # 8

100,914 (Col. Riv.) CM 79975
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHT NUMBER 9
SIZE: 60" Fixed Light. (Supplemental Report)

CONFIDENTIAL

Part IV Corrected to 1 December 1943

INSTALLATION:

Location by co-ordinates: S. 10,591.46 yards
E. 6,648.01 yards

The origin of co-ordinates for this Harbor Defense is Canby Light, which is located on Cape Disappointment at Fort Canby, Washington.

Location by site description: This searchlight is at location 14 which is on Fire Control Hill in the southwesterly part of the Fort Stevens Military Reservation.

General Character:

This project consisted of elevating the searchlight from its position near the ground to on top of a tower making the light approximately 35 feet higher in elevation. The original projector, mirror, switchboard and controllers were used, and no additional work was done to the power plant. The original shelter was reconstructed on the tower with only minor revisions.

Date transferred to troops: Of this supplemental work was 26 July 1943.

Cost to date of transfer: Of this supplemental work was \$5,456.62.

Shelter:

Materials of construction: The sub-floor is of laminated 2 x 3's, S2S, and the floor is of reinforced concrete of a 1:2:4 mix. The shelter is of wooden frame construction having the original corrugated iron siding and roofing. The doors in front of the searchlight are wooden and are metal clad.

Interior dimensions: 12'-0" x 17'-0" with a ceiling height of 12'-3".

Tower:

Is of wooden frame construction, all parts of which are fir lumber except the posts which are of cedar. The tower is constructed on rein-

INSTALLATION: (Cont'd.)

forced concrete pedestals and is anchored thereto by 12" structural steel channels. The height of the tower from the top of the concrete pedestals to the bottom of the shelter sub-floor is 30'-1".

Means by which projector is placed in operating position: The projector is stationary on the floor of the shelter. The front of the shelter is opened by a series of sliding doors which are hung on barn door hangers from a number 31 trolley track.

Reference axis of Projector in operating position: The projector axis is at elevation 100.28 feet, the datum plane of reference being Mean Sea Level.

Concealment of shelter from approach channel: This shelter is located on a hill side and has brush and trees for a background when seen from the approach channel or open sea. The shelter and tower are painted to conform to the surrounding brush and trees.

Remarks:

This supplemental work of elevating Searchlight No. 9 was accomplished with funds allotted by the Chief of Engineers from P/A 5-(CAC)-115 P 270 A 1204-24 by Directive Consecutive No. FS-439. The work was performed by Government forces; was started 31 December 1942 and was completed 1 May 1943. The projector, mirror, switchboard, controller, control cables, power cables and the power plant are all the same as used previously. For the job layout and construction details see drawing numbers DMCR 1127 and DMCR 1067.

Control Approval Symbol SPEKM-1

ED Form No. A-162-D
16 Sept., 1943

FS-439 Proj Card 34

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHT NUMBER 9
SIZE: 60" Fixed Light. (Supplemental Report)

CONFIDENTIAL

Part IV

Corrected to 1 December 1943

POWER PLANT:

Location: The power house is located approximately 200 feet east from this searchlight. See the plot plan, drawing number DMCR-1127.

Maximum demand: This power plant serves both searchlights numbers 9 and 10. Each light draws 16.5 kw while in operation.

Type and size: The power plant consists of 2 General Electric 25 kw sets, type GM-12.

CONTROLLER:

Location: The controller for Searchlight No. 9 is located in the G1 Station which is also on Fire Control Hill. The G1 Station is approximately 200 yards northerly from the searchlight.

Type: EC.

Form: N-2.

Serial Number: 5961.

How protected: Only by being housed in the G1 Station.

PROJECTOR:

Manufacturer: General Electric Company.

Type of Projector: EC.

Form of Projector: N-2.

Serial Number of Projector: 8225.

Type of Lamp: Sperry Mark V.

Model of Lamp: No. 10.

Serial No. of Lamp: 387.

Control: Electric.

Date received in Harbor Defense: This date not known but the date of transfer from the U.S. Engineer Dept. to the Artillery Engineer was 28 July 1911.

MIRROR:

Type: Glass.

Date Purchased: Not known.

Present Condition: Good.

Date last repaired: Was re-silvered in 1932.

SWITCHBOARD:

Serial Number: 77651.

CABLES:

Power Plant to Searchlight:

Type: Type A, lead covered.

Length and size: 275 feet of 4/0.

Installation: In conduit.

Controller to Light:

Type: Type C, lead covered.

Length and size: 930 feet, 8 conductor.

Installation: In conduit.

Auxiliary Controller:

There is no auxiliary controller installed.

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA
FORT STEWENS, OREGON.

SEARCHLIGHT NO. (2) → No. 9 (1)

Form 4.

Corrected to June 30, 1921 Size 60" Portable or fixed. Fixed.

PROJECTOR : 200' W. of Power Plant :
: for S.L. Nos. 1 & 2, South
Location : end of reservation.
: General Electric Co.
Manufacturer :
Type of projector : E. C.
Form of projector : Form N-2
Serial No. of projector ... : 8225
Type of lamp : Mark V.
Model of lamp : Model 10.
Serial No. of lamp : 387
Electric or hand control... : Electric.
Material of mirror : Glass.
Date received in district : 1910.
From whom received : General Electric Co.
Age of mirror : 11 years.
Condition of mirror : Good.
Date last repaired : None.
Switchboard, serial No. : 77651.

CABLE #

Power plant to search light
Type : "A" L.C.
Length and size : 242' 4/0.
In conduits or in air : Conduit.
Controller to light :
Type : "C" L.C.
Length and size : 830' 9 conductor.
In conduit or in air : Conduit.
Aux. controller to light .. : None.
Length and size :
In conduit or in air :

INSTALLATION

General character : In shelter.
Date transferred to :
troops : July 28, 1911.
Cost to that date : \$1,100 cable, shelter, etc.
Shelter : \$5,312 projector. (iron.
Materials of construction Concrete base, wood frame, cor./
Interior of dimensions 10' x 17' x 10' high
Height and type of tower : None.
Means by which projector :
is placed in operating :
position : Opening sliding doors in shelter.
Reference axis of project-
or in operating position: 69.67' above M.L.L.W.
Kind of protection in :
operating position : Corrugated iron roof only.
Concealment of day shelter
from approach channel : Hill behind structure.
Dates & cost of extensive:
remodeling or reconstruc-
tion : None.

POWER PLANT

Location : 200' E. of S.L. No. 2.
Maximum demand KW : 16.5 kw.
Type and size : GM12-2-25kw sets, 115V, for S.L. Nos. (1 & 2.

CONTROLLERS

Location : C. Station 525' North & 125' West
of light.
Type : E.C.
Form : Form N-2.
Serial No. : 5961.
How protected or con- :
cealed : In C. Station.

See O.C.E. 470.31 A - 1912
Mirror 2/L #2 - Silvering peeling. Affects light beam some.
3rd Ind. - Recommend Dist. Engr. to ship mirror to Son
Francisco to be resilvered at cost of \$45.00 by local dealer.

Superseded; see
Form IV corrected
to 12/1/43

(1) See 675.1 (9th C.A.) 1:-
" 470.31 A - 2302 :-
Designated # 9

(Searchlights)

600,914 (Col. River) CM 79976

Part IV

Corrected to 1 December 1943

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA

FORT STEVENS, OREGON

SEARCHLIGHT NUMBER 10

SIZE: 60" Fixed Light. (Supplemental Report)

INSTALLATION:

Location by Co-ordinates: S. 10,608.94 Yards
E. 6,726.49 Yards

The origin of co-ordinates for this Harbor Defense is Canby Light which is located on Cape Disappointment at Fort Canby, Washington.

Location by site description: This searchlight is at location 14 which is on Fire Control Hill in the southwesterly part of the Fort Stevens Military Reservation.

General Character:

This project consisted of elevating the searchlight from its position near the ground to on top of a tower constructed further up the hillside making the light approximately 70 feet higher in elevation. The original projector, mirror, switchboard and controllers were used, and no additional work was done to the power plant. The original shelter was reconstructed on the tower with only minor revisions.

Date transferred to troops: Of this supplemental work was 26 July 1943.

Cost to date of Transfer: Of this supplemental work was \$5,456.61.

Shelter:

Materials of construction: The sub-floor is laminated 2 x 3's, S2S, and the floor is of reinforced concrete of a 1:2:4 mix. The shelter is a wooden frame construction having the original corrugated iron siding and roofing. The doors in front of the searchlight are wooden and are metal clad.

Interior dimensions: 12'-0" x 17'-0" with a ceiling height of 12'-3"

INSTALLATION: (Cont'd)Tower:

Is a wooden frame construction, all parts of which are fir lumber except the posts which are of cedar. The tower is constructed on reinforced concrete pedestals and is anchored thereto by 12" structural steel channels. The height of the tower from the top of the concrete pedestals to the bottom of the Shelter sub-floor is 30'-1".

Means by which projector is placed in operating position: The projector is stationary on the floor of the shelter. The front of the shelter is opened by a series of sliding doors which are hung on barn door hangers from a number 31 trolley track.

Reference axis of Projector in operating position: The projector axis is at elevation 102.75 feet, the datum plane of reference being Mean Sea Level.

Concealment of shelter from approach channel:

This shelter is located on a hill side and has brush and trees for a background when seen from the approach channel or open sea. The shelter and tower are painted to conform to the surrounding brush and trees.

Remarks:

This supplemental work of elevating Searchlight No. 10 was accomplished with funds allotted by the Chief of Engineers from P/A 5-(CAC)-115 P 270 A 1204-24 by Directive Consecutive Number FS-439. The work was performed by Government forces; was started 31 December 1942 and was completed 1 May 1943. The projector, mirror,

79976

Control Approval Symbol SPEKM-1

ED FORM NO. A-162D
16 Sept. 1943**CONFIDENTIAL**

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Searchlights)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SEARCHLIGHT NUMBER 10
SIZE: 60" Fixed Light. (Supplemental Report)

Part IV

Corrected to 1 December 1943

Remarks: (Cont'd)

switchboard, controller, control cables, power cables and the power plant are all the same as used previously. For the job layout and construction details see drawing numbers DMCR-1127 and DMCR-1067.

POWER PLANT:

Location: The power house is located approximately 50 feet north from this searchlight. See the plot plan, drawing number DMCR-1127.
Maximum demand: This power plant serves both searchlights numbers 9 and 10. Each light requires 16.5 KW while in operation.
Type and size: The power plant consists of 2 General Electric 25 KW sets, Type GM-12.

CONTROLLER:

Location: The controller for Searchlight No. 10 is located in Base End Station B2/2 S2/2 which is also on Fire Control Hill. The Base End Station is approximately 270 yards northerly from the searchlight.

Type: EC
Form: N-2
Serial Number: 5972
How protected: Only by being housed in the Base End Station:

PROJECTOR:

Manufacturer: General Electric Company.
Type of Projector: NC

PROJECTOR: (Cont'd)

Form of Projector: N-2
Serial Number of Projector: 8224
Type of Lamp: Sperry, Mark V
Model of Lamp: No. 4
Serial No. of Lamp: 148
Control: Electric
Date received in Harbor Defense: This date not known but the date of transfer from the U.S. Engineer Dept. to the Artillery Engineer was 28 July 1911.

MIRROR:

Type: Glass
Date Purchased: Not known
Present Condition: Good
Date last repaired: Was re-silvered in 1932

SWITCHBOARD:

Serial Number is 77652

CABLES:

Power Plant to Searchlight:
Type: Type A, lead covered.
Length and size: 125 feet of 4/0.
Installation: In conduit.
Controller to Light:
Type: Type C, lead covered.
Length and size: 920 feet, 8 conductor
Installation: In conduit.
Auxiliary Controller:
There is no auxiliary controller installed.

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON.

SEARCHLIGHT NO. 1. → No. 100

Form 4. Corrected to June 30, 1921 Size 60" Portable or fixed. Fixed.

PROJECTOR	: 350' S.W. of Power Plant	:	
	: for Searchlights Nos. 1 & 2	:	INSTALLATION
Location	: 2 south end of reservation.	:	General character
Manufacturer	: General Electric Co.	:	Date transferred to
Type of projector	: E. C.	:	troops
Form of projector	: Form N-2.	:	Cost to that date
* Serial No. of projector	: 8224	:	Shelter
Type of lamp	: Mark V.	:	Materials of construction
Model of lamp	: Model 4.	:	Interior of dimensions
Serial No. of lamp	: 148	:	Height and type of tower
Electric or hand control	: Electric	:	Means by which projector
Material of mirror	: Glass	:	is placed in operating
Date received in district	: 1910	:	position
From whom received	: General Electric Co.	:	Reference axis of project-
Age of mirror	: 11 years	:	or in operating position
Condition of mirror	: Good	:	Kind of protection in
Date last repaired	: None	:	operating position
Switchboard, serial No.	: 77652	:	Concealment of day shelter

CABLE #
Power plant to searchlight.
Type "A" L.C.
Length and size 551' 2/0 and 4/0
In conduits or in air Conduit
Controller to light
Type "C" L.C.
Length and size 304', 9 conductor
In conduit or in air Conduit
Aux. controller to light
Length and size
In conduit or in air

POWER PLANT : 350' N.E. of searchlight.
Location No. 1.
Maximum demand KW 16.5 kw (lights Nos. 1 & 2)
Type and size G.M.L.2, 2-25kw sets, 115V for search-
CONTROLLERS : In booth 170' E. and 60' N. of
Location light.
Type E.C.
Form Form N-2.
Serial No. 5972.
How protected or con- : In controller booth.
cealed

* See 470.31 A - 2114 : Mirror transferred to C.A., 1911. Used a total of 66 hours until 1932 when it was resilvered & used an additional 15 hours. Resilvering lately completed was done by W. P. Fuller & Co., San Francisco at a cost of \$40 as per 2nd Ind., para. 2, dated 3/25/38

Superseded; see Form IV corrected to 12/1/93

① See 475.1 (9th C.A.) 1 :-
470.31 A - 2302 :-
Designated #10

600,919 (Col. River) CM 71829
REPORT OF COMPLETED WORKS—SEACOAST FORTIFICATIONS
(Searchlights)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
SHELTERS FOR SEARCHLIGHTS NOS. 11 & 12
60" Portable Searchlights.

Part IV

Corrected to 15 November 1943

INSTALLATION:

Location by site description: The location allotted Searchlights Nos. 11 and 12 is at Fort Stevens, Oregon on Clatsop Spit. Clatsop Spit is approximately $2\frac{1}{2}$ miles north-westerly from the Fort Stevens administrative area.

General Character: These two shelters were constructed to house the 60" portable searchlights numbers 11 and 12. The shelters themselves are portable in that they are made up in sections which are bolted together. These shelters are made portable as it is anticipated that it will be desirable to be able to move them about this Harbor Defense. A shelter can be dismantled and re-erected in approximately 4 hours time.

Date transferred to troops: 26 July 1943.

Cost to date of transfer: \$386.22 for an average cost of \$443.11 each.

Shelter:

Materials of construction: The shelters are framed of fir lumber. The studding, knee braces, joists and rafters are all of 2x4's; the siding is of 1" T. & G. and the roof sheathing is 1" lumber. A medium weight roofing paper is provided. The sections are all painted with an olive drab paint and are bolted together with 1/2" machine bolts.

Interior dimensions: 11'-5" x 19'-3" with an over-head clearance of 8'-2".

REMARKS: (Cont'd.)

authorized under Directive Consecutive Numbers FS-447 & FS-448. Construction work was started 1 December 1942 and was completed 31 March 1943. For Construction details see drawing number DMCR 1094.

Note:

No co-ordinates are supplied for these searchlights positions as the searchlights will be at a different location each time they are taken from the shelters.

REMARKS:

These shelters were constructed by Government forces with funds under allotment advise number 5-(CAC)-115 P 270 A 1204-24. The work was

FS-447 & 448

Incl #2 Proj Card 42 & 43

CONFIDENTIAL

Control Approval Symbol SPEM-1

ED Form No. A-162D
16 September 1943

SUPPLEMENTARY REPORT.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA.
FORT STEVENS, OREGON.
SEARCHLIGHT NO.

Form 4.

Corrected to June 30, 1921. Size 36" Portable or fixed. Portable.

<p><u>PROJECTOR</u> :</p> <p>Location: In storehouse.</p> <p>Manufacturer: General Electric Co.</p> <p>Type of projector: E.C.</p> <p>Form of projector: M.</p> <p>Serial No. of projector ..: 3043.</p> <p>Type of lamp: H.</p> <p>Model of lamp: G.</p> <p>Serial No. of lamp: 5147.</p> <p>Electric or hand control..: Electric.</p> <p>Material of mirror: Glass.</p> <p>Date received in district : 1907.</p> <p>From whom received: Fort Totten.</p> <p>Age of mirror: Not known.</p> <p>Condition of mirror: Poor.</p> <p>Date last repaired: None.</p> <p>Switchboard, serial No...: None.</p> <hr/> <p><u>CABLE #</u></p> <p>Power plant to searchlight.</p> <p>Type</p> <p>Length and size</p> <p>In conduits or in air</p> <p>Controller to light</p> <p>Type</p> <p>Length and size</p> <p>In conduit or in air</p> <p>Aux. controller to light ..</p> <p>Length and size</p> <p>In conduit or in air</p>	<p>: <u>INSTALLATION</u> :</p> <p>: General character: This searchlight is now obsolete</p> <p>: Date transferred to: and the disposition of same</p> <p>: troops: is with the Artillery in ac-</p> <p>: Cost to that date: cordance with Circular Letter,</p> <p>: Shelter: O. C. of E., July 15, 1920</p> <p>: Materials of construction : 400.7-F (See 2nd Ind., O. C. of</p> <p>: Interior of dimensions : E., April 15, 1921, 400.F(Col.R)</p> <p>: Height and type of tower : Fl, Reqn 4010).</p> <p>: Means by which projector : is placed in operating</p> <p>: is placed in operating : position</p> <p>: Reference axis of project- or in operating position:</p> <p>: Kind of protection in : operating position</p> <p>: Concealment of day shelter : from approach channel :</p> <p>: Dates & cost of extensive : remodeling or reconstruc-</p> <p>: tion</p> <hr/> <p>: <u>POWER PLANT</u> :</p> <p>: Location</p> <p>: Maximum demand KW</p> <p>: Type and size</p> <hr/> <p>: <u>CONTROLLERS</u> :</p> <p>: Location</p> <p>: Type: Not given.</p> <p>: Form</p> <p>: Serial No.: 5862.</p> <p>: How protected or con- cealed</p>
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*m. file copy 7-9-31
Not at Ft Stevens*

SUPPLEMENTARY REPORT.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA.
FORT STEVENS, OREGON.
SEARCHLIGHT NO.

Form 4. Corrected to June 30, 1921. Size 30" Portable or fixed. Semi-Portable.

PROJECTOR :

Location: In storehouse.

Manufacturer: General Electric Co.

Type of projector: E.C.F.

Form of projector:

Serial No. of projector ...: 261.

Type of lamp: H.F.

Model of lamp:

Serial No. of lamp: 341.

Electric or hand control...: Electric.

Material of mirror: Glass.

Date received in district : 1898.

From whom received: Willets Point, N.Y.

Age of mirror: Not known.

Condition of mirror: Fair.

Date last repaired: None.

Switchboard, serial No....: None.

CABLE #

Power plant to searchlight.

Type

Length and size

In conduits or in air

Controller to light

Type

Length and size

In conduit or in air

Aux. controller to light ..

Length and size

In conduit or in air

INSTALLATION

: General character.....:

: Date transferred to : This searchlight is now obsolete
: troops: and the disposition of same is
: Cost to that date: with the Artillery in accord-
: Shelter ... : ance with circular letter, O.
: Materials of construction C. of E., July 15, 1920, 400.7-F
: Interior of dimensions (See 2nd Ind., O. C. of E.
: Height and type of tower : April 15, 1921 400.F(Col.R)Fl
: Means by which projector : Reqn 4010).

: is placed in operating :
: position:

Reference axis of project-
or in operating position:
Kind of protection in
: operating position

: Concealment of day shelter
: from approach channel ..:

: Dates & cost of extensive:
: remodeling or reconstruc-
: tion

POWER PLANT

: Location

: Maximum demand KW

: Type and size

CONTROLLERS

: Location

: Type: Not given.

: Form

: Serial No.:

: How protected or con-
: cealed

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Searchlights)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON.
SEARCHLIGHT NO. 5 CADILLAC OUTFIT.

Form 4.

Corrected to June 30, 1921. Size 60" Portable or fixed. Portable.

<p>PROJECTOR</p> <p>Location Shelter 225' S.W. of M'/1.</p> <p>Manufacturer General Electric Co.</p> <p>Type of projector Open type P-1.</p> <p>Form of projector None.</p> <p>Serial No. of projector ... Mounting #39, portable.</p> <p>Type of lamp Mark X.</p> <p>Model of lamp Model O.</p> <p>Serial No. of lamp 121.</p> <p>Electric or hand control... Hand.</p> <p>Material of mirror Glass.</p> <p>Date received in district : July 26, 1920.</p> <p>From whom received General Electric Co.</p> <p>Age of mirror 1 year.</p> <p>Condition of mirror Badly broken.</p> <p>Date last repaired None.</p> <p>Switchboard, serial No. L.W. 55812, type CDG.</p> <p>CABLE #</p> <p>Power plant to searchlight.</p> <p>Type</p> <p>Length and size 300' Duplex cable.</p> <p>In conduits or in air On automobile chassis to</p> <p>Controller to light separate, auto power plant</p> <p>Type from light, if desired.</p> <p>Length and size</p> <p>In conduit or in air</p> <p>Aux. controller to light ..</p> <p>Length and size</p> <p>In conduit or in air</p>	<p>INSTALLATION</p> <p>General character In shelter on Cadillac mount.</p> <p>Date transferred to</p> <p>troops Built by GMC June 20, 1906.</p> <p>Cost to that date \$745.</p> <p>Shelter</p> <p>Materials of construction Wood frame, cor. iron cover.</p> <p>Interior of dimensions 17' x 27' x 12'.</p> <p>Height and type of tower : None.</p> <p>Means by which projector :</p> <p>is placed in operating : Moving light and plant to de-</p> <p>position sired location.</p> <p>Reference axis of project- Movable.</p> <p>or in operating position:</p> <p>Kind of protection in : Depends on location.</p> <p>operating position</p> <p>Concealment of day shelter : Trees all around.</p> <p>from approach channel :</p> <p>Dates & cost of extensive : remodeling or reconstruc-</p> <p>tion tion None.</p> <p>POWER PLANT</p> <p>Location On Cadillac automobile chassis.</p> <p>Maximum demand KW 16.5 kw. (200 Amp.)</p> <p>Type and size G.E. generator, No. 1027, 105 volts, /</p> <p>CONTROLLERS</p> <p>Location Hand controlled.</p> <p>Type</p> <p>Form</p> <p>Serial No.</p> <p>How protected or con- : cealed</p>
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*Mr. Letts says 7-9-31
not at Fort Stevens.*

Subject: Report on Central Power Plant.

1st Ind.

U.S.E.O., Portland, Oregon, October 24, 1933. - To the Chief of Engineers,
U. S. Army, WASHINGTON, D. C.

1. The Central Power Plant, Ft. Stevens, Oregon was placed out of commission during the year of 1921, and has not been used for fortification or post lighting since that time.
2. The plant listed on photostat copy of Report of Completed Works is in the Central Power Plant at present date.
3. At the time the plant was placed out of commission, the pistons were removed from the cylinders and the inside of the cylinders, etc., protected from rusting. The boilers were also properly cared for. The engines are apparently in fair condition at the present time.
4. In my opinion, a boiler test would be necessary to determine the condition of the boilers on account of their having been out of commission some twelve years.
5. A revised report of completed works, form 5, is submitted. On this report the equipment is listed but is shown as out of commission since 1921.

1 incl. added.
Revised Form 5, in dup.

C. F. Williams,
Major, Corps of Engineers,
District Engineer.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
POWER FORMERLY USED FOR FORTIFICATIONS AND POST LIGHT-
ING AS CENTRAL POWER PLANT

Form 5.

Corrected to October 24, 1933.

	Serial No.	Type	Size	Manufacturer	Date of transfer	Cost	Condition	RPM	Belt or Drive	Radiator for Engine No.	Fuel	Switchboard Material	No. of Panels
Boiler No. 1	No	Hor-Wt:	100 hp.	Keeler & Co.	12-15-1910		Unknown				Oil		
No. 2	number	Hor-Wt:	100 hp.	Keeler & Co.	12-15-1910		Unknown				Oil		
No. 3													
Engine No. 1	12915	Steam	70 hp.	Buf-For-Co.	12-15-1910		Fair	305					
No. 2	12916	Steam	70 hp.	Buf-For-Co.	12-15-1910		Fair	305					
No. 3													
Generator No. 1	48103	L3½K	50kw220-	West.E.Co.	12-15-1910				Dir.				
No. 2	48104	L3½K	50kw220-	West.E.Co.	12-15-1910				Dir.				
No. 3			250 v										
Radiator No. 1	None												
No. 2	-												
No. 3	-												
Motor Generator No. 1	None												
No. 2	-												
No. 3	-												
Switchboard	12255	N	60"x 82"	Walker E. Co.	12-15-1910		Good					Marble	3
Storage Battery	None												2-gen.
Transformer No. 1	None												1-feeder
No. 2													
No. 3													
Auxiliaries No. 1	None												
No. 2													
No. 3													

Cost of plant, exclusive of conduit lines and underground cables, \$54,013.

DISTRIBUTION OF KW. Not now used, plant out of commission since 1921.

8/3/36 Plant surplus and to be placed
on I & I. C of E 141.81 (9th CA) 122

10/7/36 Plant placed on I & I Report
C. of E 141.81 (9th CA) 124

Superseded
See Report dated Oct. 24, 1933.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF... THE COLUMBIA.....
FORT... STEVENS, OREGON.....
POWER FOR FORTIFICATIONS & POST LIGHTING.....
(CENTRAL POWER PLANT)

Form 5.

Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard	
												Mater- ial.	No. of Panels
Boiler No. 1	No	Hor-Wt	100hp	Keeler & Co.	12-15-1910	Cost of plant, exclusive of conduit lines and under-ground cables, \$34,013.	Good				Oil		
No. 2	number	Hor-Wt	100hp	Keeler & Co.	12-15-1910		Good				Oil		
No. 3	-												
Engine No. 1	12915	Steam	70hp	Buf-For-Co.	12-15-1910	Good	305						
No. 2	12916	Steam	70hp	Buf-For-Co.	12-15-1910	Good	305						
No. 3													
Generator No. 1	48103	L3 $\frac{1}{2}$ E	50kw220-250v	West.E.Co.	12-15-1910				Dir.				
No. 2	48104	L3 $\frac{1}{2}$ E	50kw220-250v	West.E.Co.	12-15-1910				Dir.				
No. 3													
Radiator No. 1	None												
No. 2	-												
No. 3	-												
Motor Generator No. 1	None												
No. 2	-												
No. 3	-												
Switchboard	12255	N	60"x82"	Walker E.Co.	12-15-1910		Good					Marble	3
Storage Battery	None												2-gen.
Transformer	None												1-feeder
No. 1													
No. 2													
No. 3													
Auxiliaries	None												
No. 1													
No. 2													
No. 3													

DISTRIBUTION OF KW. Fortification lights 35.9 kw.; dismantled batteries, lights 8.5 kw.; motors, shot hoists 7.2 kw.; switchboard room 2.0 kw.; post lighting 73.8 kw.; Total, 127.4 kw.

The plant includes one 50-kw. direct connected, generating set and balancer set for Post lighting.
SUPERSEDE - See Form 5, Oct. 24, 1933

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
POWER FOR SEARCHLIGHT POWER PLANT #5.....
CADILLAC OUTFIT.

Form 5.

Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard		
												Material.	No. of Panels	
Boiler No. 1	None													
No. 2	-													
No. 3	-													
Line No. 1	57-896	8cyl. auto on chassis	60hp	Cadillac M.Co.	7-27-1920		Good	1400			Gas.			
No. 2	-													
No. 3	-													
Generator														
No. 1	910467	G.E.	200amp.	Gen.E.Co.	7-27-1920		Good		Dir.					
No. 2	-	1027	150v.											
No. 3	-													
Radiator														
No. 1	No number	Auto	--	Cadillac M.Co.	7-27-1920		Good							
No. 2	-													
No. 3	-													
Motor Generator														
No. 1	None					Not known								
No. 2	-													
No. 3	-													
Switchboard	LW55812	CDG	24"x24"	Gen.E.Co.	7-27-1920		Good					Asbestos wood	1-gen.	
Storage Battery														
Transformer														
No. 1														
No. 2														
No. 3														
Auxiliaries														
No. 1														
No. 2														
No. 3														

DISTRIBUTION OF KW.

SUPPLEMENTARY REPORT.

Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
POWER FOR Portable 36" Light.....

Form 5.

Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard		
												Material.	No. of Panels	
Boiler No. 1														
No. 2														
No. 3														
Engine No. 1	3905	Vertical	3 cyl.	Westinghouse	Jan. 1908	Not known	Fair	600			Gasoline			
No. 2		gas engines	6"x6"	Co.										
No. 3														
Generator														
No. 1	114889	M.P.C.	9.6 kw.	Westinghouse	Jan. 1908	Not known	Fair	600	Direct					
No. 2		Form C		Co.										
No. 3														
Radiator	-	Auto	-	Whitlock	Jan. 1908	Not known	Fair			3905				
No. 1				Coil & Pipe										
No. 2				Co.										
No. 3														
Motor Generator														
No. 1														
No. 2														
No. 3														
Switchboard	-	-	18"x25"		Jan. 1908	Not known	Fair					Steel	1	
Storage Battery														
Transformer														
No. 1														
No. 2														
No. 3														
Auxiliaries														
No. 1														
No. 2														
No. 3														

DISTRIBUTION OF KW. This plant is now obsolete and the disposition of same is with the Artillery in accordance with circular letter, O. C. of E., July 15, 1920, 400.7-F (See 2nd Ind., O. C. of E., April 15, 1921, 400.F(Col.R)Fl. Reqn 4010).

SUPPLEMENTARY REPORT.

Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
POWER FOR... Semi-Portable 30" light.....

Form 5.

Corrected to June 30, 1921.

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard	
												Mater- ial.	No. of Panels
Boiler No. 1	Removed												
No. 2													
No. 3													
Engine No. 1	402	Marine	Single cylinder 6½" x 5"	Gen.E.Co.	Mar. 1901	Not known	Fair	450	-	-	-		
No. 2													
No. 3													
Generator	13269	M.P. Form A	10kw	Gen.E.Co.	Mar. 1901	Not known	Fair	450	Direct				
No. 1													
No. 2													
No. 3													
Radiator													
No. 1													
No. 2													
No. 3													
Motor Generator													
No. 1													
No. 2													
No. 3													
Switchboard	7062		30"x48"	Gen.E.Co.	Mar. 1901	Not known	Good					Slate	1 comb genera- tor & feeder
Storage Battery													
Transformer													
No. 1													
No. 2													
No. 3													
Auxiliaries													
No. 1													
No. 2													
No. 3													

DISTRIBUTION OF KW. This plant is now obsolete and the disposition of same is with the Artillery in accordance with circular letter, O. C. of E., July 15, 1920, 400.7-F (See 2nd Ind., O. C. of E., April 15, 1921, 400.F (Col.R)Fl. Reqn. 4010).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA.....
FORT.... STEVENS, OREGON.....
POWER FOR SEARCHLIGHTS NO. 3 & 4.....

Form 5.

Corrected to June 30, 1921.

Nos 7 & 8 (1)

	Serial No.	Type	Size	Mfgr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard		
												Material.	No. of Panels	
Boiler No. 1	None													
No. 2	-													
No. 3	-													
Engine No. 1	5512	GM12-A2	43/54 hp	Gen.E.Co.	3-7-1912	\$3,920.00	Good	560			Gas.	110 DC 2	Used for OM Power	No
No. 2	14363	GM12-A2	43/54hp	Gen.E.Co.	2-7-1919	\$3,830.00	Good	560			Gas.	110 DC 2		No
No. 3	-					\$5,627.53								
Generator						\$13,077.53								
No. 1	195130	MPC	25kw115v	Gen.E.Co.	3-7-1912	-	Good		dir.					
No. 2	679066	MPC	25kw115v	Gen.E.Co.	2-7-1919	-	Good		dir.					
No. 3														
Radiator														
No. 1	-	Auto.	--	Rome-T.R.Co.	3-7-1912	-	Good			5512				
No. 2	14757	FF54form	B5 -	Gen.E.Co.	2-7-1919	-	Good			14363				
No. 3														
Motor Generator														
No. 1	None													
No. 2														
No. 3														
Switchboard	524	2-A's	40"x82"	Gen.E.Co.	3-7-1912		Good						Asbestos	2-gen
Storage Battery	None												wood.	
Transformer	None													
No. 1														
No. 2														
No. 3														
Auxiliaries	None													
No. 1														
No. 2														
No. 3														

DISTRIBUTION OF KW.

2-60" projectors 33.0 kw.
Plant lights - - - .7 kw.
Total - - - 33.7 kw.

(1) See 475.1 (9th C.A.) 1:-
New designations Nos. 7 & 8

B. P. of plant was furnished in compliance with Cir. Letter
C. of E. dated Feb. 15, 1917. (E.D. 104541).

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Electric Plants)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
POWER FOR SEARCHLIGHTS NOS. 1 & 2.

Form 5.

Corrected to June 30, 1921.

Nos. 9 & 10 ①

	Serial No.	Type	Size	Mfr.	Date of transfer	Cost	Con- dition	RPM	Belt or Direct Drive	Radiator for Engine No.	Fuel	Switchboard			
												Mater- ial.	No. of Panels		
Boiler No. 1	None														
No. 2	-														
No. 3	-														
Line No. 1	5514	GM12-A2	43/54hp	Gen.E.Co.	7-28-1911	Approx. \$10,430. Building & equipment installed.	Good	560			Gas.	110 DC 2	See 675.1 (9th C.A.) Volts Wire	(9th C.A.) Used for Q.M. Power No	
No. 2	5515	GM12-A2	43/54hp	Gen.E.Co.	7-28-1911		Good	560			Gas.	110 DC 2	No	No	
No. 3															
Generator No. 1	195129	MPC	25kw115V	Gen.E.Co.	7-28-1911		Good			dir.					
No. 2	195122	MPC	25kw115V	Gen.E.Co.	7-28-1911		Good			dir.					
No. 3															
Radiator No. 1	No number	Auto.	--	Rome-Turney	7-28-1911		Good								
No. 2	do.	Auto.	--	Radiator Co.	7-28-1911		Good								
No. 3				do.			Good								
Motor Generator No. 1	None														
No. 2															
No. 3															
Switchboard	84	A	40"x82"	Walker E.Co.	7-28-1911	Good							Marble	2 gen.	
Page Battery	None														
Transformer	None														
No. 1															
No. 2															
No. 3															
Auxiliaries	None														
No. 1															
No. 2															
No. 3															

DISTRIBUTION OF KW.

2-60" searchlight projectors, 33.0 kw.
plant lights - - - - - .7 kw.
Total - - - - - 33.7 kw.

① See 675.1 (9th C.A.) 1 :-
New designations Nos. 9 & 10

HARBOR DEFENSES OF THE COLUMBIA
MINE UNLOADING FACILITIES
FORT STEVENS, OREGON

SCALE
24" 0' 5' 10'

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

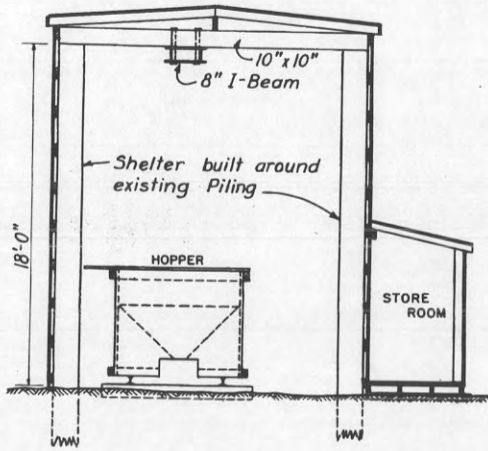
Approved: *G.S. Doney*
G.S. Doney
Colonel, C.A.C., Commanding

21 June 1945
DATE
M.E.M.
INITIAL

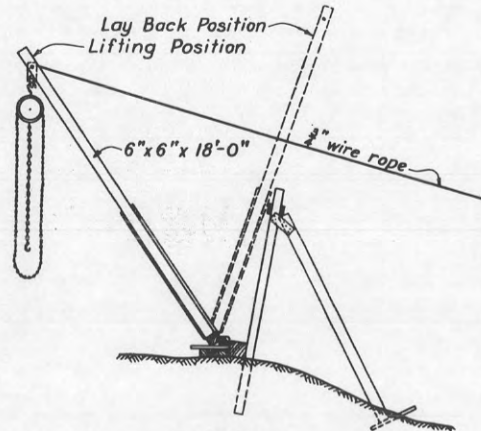
SUBMITTED: *M.E.M.*
SENIOR ENGINEER
RECOMMENDED: *M.E.M.*
PRINCIPAL ENGINEER

APPROVED: 23 June 1945
M.E.M.
COLONEL, CORPS OF ENGRS
DISTRICT ENGINEER
DRAWN: M.E.M. DATE June 1945
TRACED: M.E.M. CHECKED:

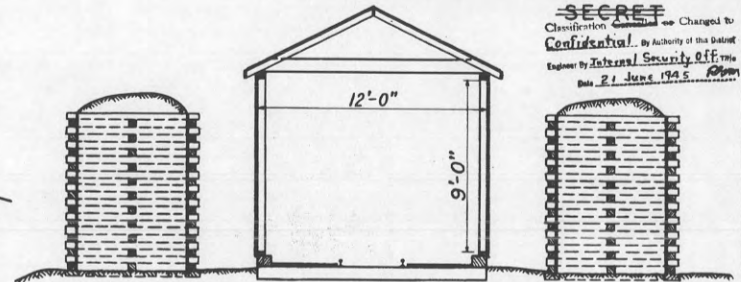
~~SECRET~~
Classification Changed to
Confidential by Authority of the District
Engineer by Internal Security Office
Date 21 June 1945



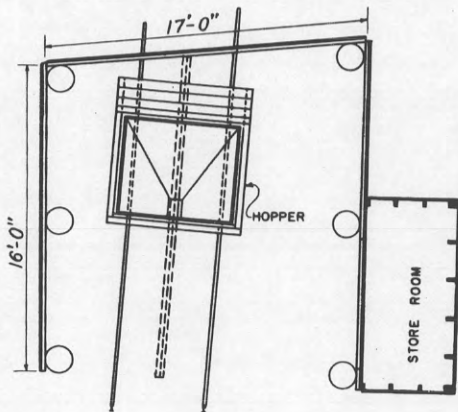
ELEVATION
TEMPORARY MINE UNLOADING SHELTER



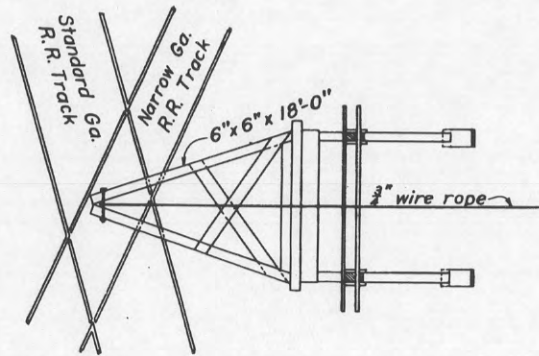
ELEVATION
TRANSFER HOIST



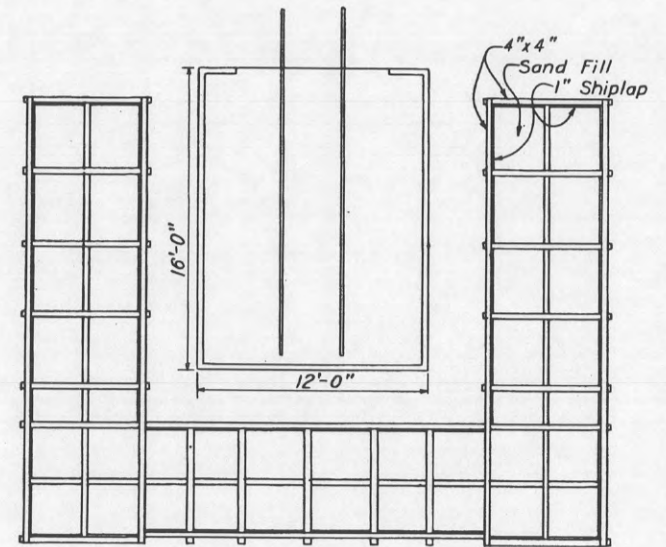
SECTION
BARRICADED MINE-BOOSTER REMOVAL SHELTER



PLAN
TEMPORARY MINE UNLOADING SHELTER



PLAN
TRANSFER HOIST



PLAN
BARRICADED MINE-BOOSTER REMOVAL SHELTER

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
 FORT STEVENS, OREGON
 TEMPORARY MINE UNLOADING FACILITIES

Part II Corrected to 15 June 1945

SECRET

Control Approval Symbol SPEKM-1

STRUCTURES:

143848

General: These mine unloading facilities include (1) a shelter, wherein the mine booster is removed before taking the mines near the residential portion of the reservation; (2) a transfer hoist, which is used to transfer the mines from narrow gage railway cars onto standard gage railway cars and (3) a unloading shelter, wherein the explosives are removed from the mines. As the three structures are of a temporary construction, salvaged materials were used in the construction wherever possible.

Location: Within the Military Reservation of Fort Stevens, Oregon. See drawing No. DMCR-1191.1.

Date of transfer: 15 June 1945.

Cost to date of transfer:	
Booster Removal Shelter	\$936.88
Transfer Hoist	255.42
Unloading Shelter	303.84
Total	\$1,496.14

Type of construction:

Booster Removal Shelter: This shelter is of a wooden frame construction; is 12' x 16' with an overhead clearance of 9'; the building is open on one side for access of railroad flat cars. A barricade, 8' high and constructed of 4 x 4's lined with 1 x 8 shiplap and filled with sand, is constructed on 3 sides. A 330 ft., narrow gage, railway siding was constructed to get the mines to the shelter.

Transfer Hoist: Is a wooden frame stiffleg mounting a 3 ton chain block. The chain block was furnished by the army.

Unloading Shelter: This shelter is of wooden frame construction; is 17' x 16' with a overhead clearance of 18'. The building is constructed around piling left from another project; one side of the shelter is open for access of the railroad flatcars; and a small storeroom 5' x 10' adjoins the shelter. A hopper 7' x 6' x 6' was constructed within the shelter. The construction of a railway approach was not necessary as the shelter is constructed over a siding not otherwise in use.

UTILITIES:

No utilities, of any kind, were provided in this construction.

REMARKS:

This work of constructing temporary mine unloading facilities was performed with funds having Advise No. 508-2015 P 270 A 212/51204 (SM). The work was accomplished by Government forces; was started 16 February 1945 and was completed 1 May 1945. The work was designated Job No. The Columbia FS-8 by Directive Consecutive No. FS-1604. For construction detail plans see drawing numbered DMCR-1191.1.

ED Form A-162B
16 Sept. 1943

D. C. Con. # 1604.

SECRET

Incl. # 11-

Part II Corrected to 1 September 1944

CONFIDENTIAL

STRUCTURE:

Location by co-ordinates: South 1,573.07 yards
East 5,205.29 yards
Origin of co-ordinates for this Harbor Defense is Cape Disappointment Lighthouse, which is on Cape Disappointment, Fort Canby, Washington.

Location by site description: The station is located on the easterly peninsula of Sand Island which is near the mouth of the Columbia River and is on the north side of the river channel. Sand Island is a Military Reservation with the Harbor Defenses of The Columbia.

Date of transfer: 19 April 1944.

Cost to date of transfer: \$5,622.17 (Cost of cable huts not included).

Type of construction:

Station: This station is constructed atop of a 24 foot wooden frame tower. The station is 12 feet in diameter and is constructed to simulate a wooden stave water tank. The tower is anchored to pedestals constructed of reinforced concrete of a 1:2:4 mix. The instrument base is also constructed of reinforced concrete of a 1:2:4 mix; is a column 24" in diameter and extends from a 9'x9' concrete footing to the floor level of the station. Access to the station is by ladders.

Power House: Is a wooden frame structure 8'x8', sealed by 1"xl2" sheathing and roofing paper with battens. This structure was constructed to house a portable generator which furnished the station and its facilities with the necessary electricity.

Concealment: The M-4 Station is located on a barren part of Sand Island and is in plain view of the river channel and the open sea and is concealed only in that it resembles a water tank built to serve the locomotives of the Sand Island railroad. The station, and its facilities, are painted to conform to the surrounding grass and soil.

Conspicuousness: The tower can be seen from as far at sea as visibility and curvature of the earth allows. The power house and quarters, being much smaller structures, blends more with the surrounding sand knolls and are not conspicuous at a distance of 2,000 yards or more.

UTILITIES:

Electric Power:

Source: Power for this station and its facilities is provided by a portable, electric, gasoline driven generator built by the Hobart Mfg. Co. The generator was furnished and installed by the Army. The structures are provided with 110 volts, single phase by No. 6 weatherproof wires. The wiring was installed by the Corps of Engineers.

Characteristics: 110-volts, AC, single phase.

Kilowatts required: A maximum of 3.0.

Type of lighting fixtures: Are incandescent lamps in porcelain lamp receptacles.

Heat: No heating facilities were provided.

Water: No water was provided in this project, however the Army has driven a sand point well which provides the water.

Latrine: A small T/O type pit latrine was constructed by the Army.

Control Approval Symbol SPEKM-1

111337

ED Form A-162B
16 Sept. 1943

Part II

Corrected to 1 September 1944

CONFIDENTIALREFERENCE:

The elevation at the top of the instrument pipe pedestal is 39.06 feet, the datum plane of reference being Mean Sea Level.

OBSERVING INSTRUMENT:

Azimuth Instrument, M1910 A1 furnished and installed by the Ordnance Dept.

DATA TRANSMISSION:

Data transmission is by telephones which were furnished and installed by the Signal Corps.

DATUM POINTS:

Datum points visible from the M-4 Station are: Desdemona Light; Black Tank; Tracker Tower AMTB#2; Outer Datum, South Jetty and Knuckle Datum, South Jetty. All datum points are visible from Forts Canby, Columbia and Stevens.

QUARTERS:

Two, 20'x20', T/O type barracks buildings were constructed to serve the personnel operating this station. The construction of these barracks buildings was not a part of this project; they were constructed under WDC Project No. 4001.

CABLE HUTS:

Three concrete cable huts were constructed by the Corps of Engineers in conjunction with constructing the M-4 and M-5 Stations. These cable huts have interior dimensions of 6'-0" x 6'-0" x a ceiling height of 6'-0"; the walls and floor are 6" in thickness and the roof pyramids from 6" to 9" in thickness. Each hut has one window 40" x 16" and is entered thru a 2'-0" x 3'-9" doorway. Each hut is entered by 3-3" conduits on each side and rear. See drawing No. DMCR 1143.2. The three huts were constructed at a cost of \$1,839.34 and were transferred to the Army at the same time and on the same transfer as the M-4 and M-5 Station.

REMARKS:

This work was constructed with funds having Advise No. 8-25636 P 270 A 1204-N (SM). The work was accomplished by Government forces; was started 7 Oct. 1943 and was completed 7 March 1944. This construction was designated Job No. Sand Island FS-1 by Directive Consecutive No. FS-1269. For construction detail plans see Drawing Numbered DMCR 1143.1; DMCR 1143.2; DMCR 1143.3 and DMCR 1143.4.

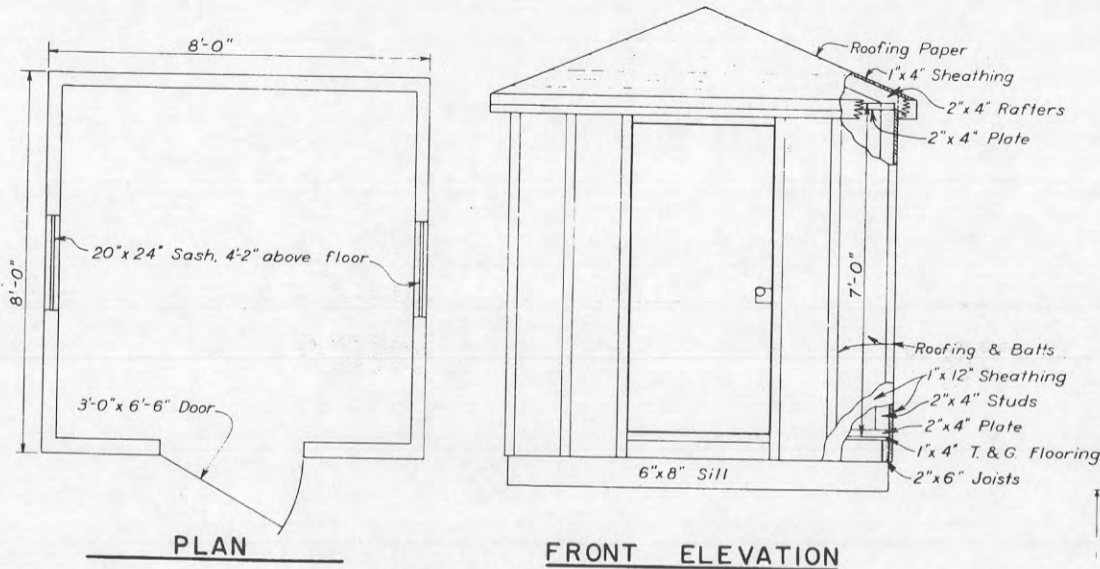
CONFIDENTIAL

APPROVED: *C.S. Dorey*
 C.S. DOREY
 COLONEL, C.A.C. COMMANDING

HARBOR DEFENSES OF THE COLUMBIA
 MINE DEFENSE STRUCTURES
 SAND ISLAND, OREGON

SCALE AS SHOWN
 U.S. ENGINEER, OFFICE, PORTLAND, OREGON, DISTRICT
 SUBMITTED: *[Signature]* APPROVED: *[Signature]*
 COLONEL, CORPS OF ENGINEERS
 RECOMMENDED: *[Signature]* SENIOR ENGINEER
 PRINCIPAL ENGINEER
 DRAWN: M.E.H. DATE: April 1944
 TRACED: M.E.N. CHECKED: *[Signature]*

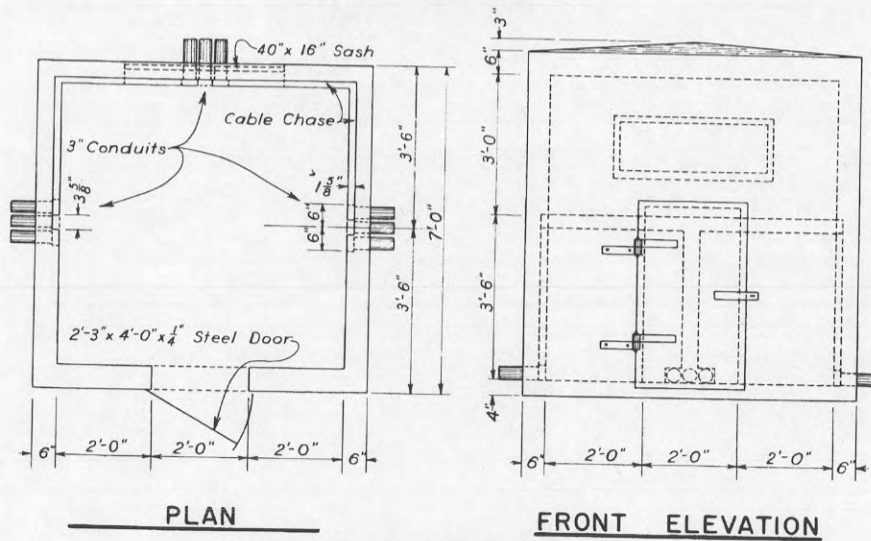
CONFIDENTIAL



PLAN

FRONT ELEVATION

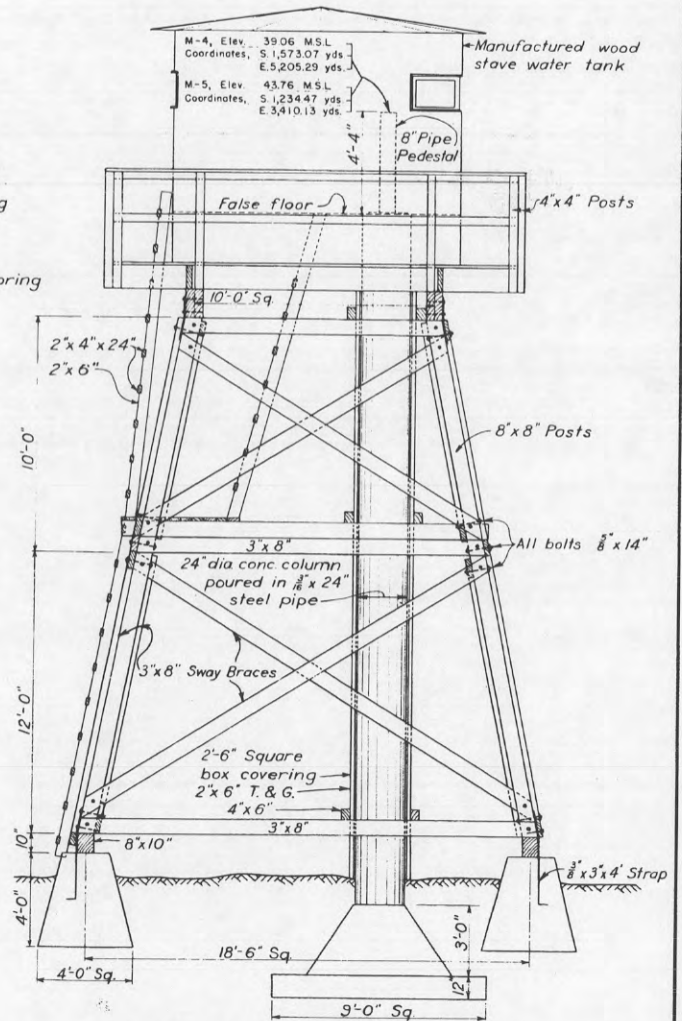
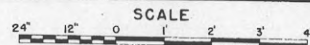
POWER HOUSE



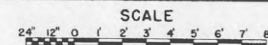
PLAN

FRONT ELEVATION

CONCRETE CABLE HOUSE



ELEVATION - TOWER - M⁴ & M⁵



Part II

Corrected to 1 September 1944

CONFIDENTIALREFERENCE:

The elevation at the top of the instrument pipe pedestal is 43.76 feet, the datum plane of reference being Mean Sea Level.

OBSERVING INSTRUMENT:

Azimuth Instrument, M1910 A1 furnished and installed by the Ordnance Dept.

DATA TRANSMISSION:

Data transmission is by telephones which were furnished and installed by the Signal Corps.

DATUM POINTS:

Datum points visible from the M-5 Station are: Desdemona Light; Black Tank; Tracker Tower AMTB#2; Outer Datum, South Jetty and Knuckle Datum, South Jetty. All datum points are visible from Forts Canby, Columbia and Stevens.

QUARTERS:

Two, 20'x20', T/O type barracks buildings were constructed to serve the personnel operating this station. The construction of these barracks buildings was not a part of this project; they were constructed under WDC Project No. 4001.

CABLE HUTS:

Three concrete cable huts were constructed by the Corps of Engineers in conjunction with constructing the M-4 and M-5 Stations. These cable huts have interior dimensions of 6'-0" x 6'-0" x a ceiling height of 6'-0"; the walls and floor are 6" in thickness and the roof pyramids from 6" to 9" in thickness. Each hut has one window 40" x 16" and is entered thru a 2'-0" x 3'-9" doorway. Each hut is entered by 3-3" conduits on each side and rear. See drawing No. DMCR 1143.2. The three huts were constructed at a cost of \$1,839.34 and were transferred to the Army at the same time and on the same transfer as the M-4 and M-5 Stations.

*See Supplemental sheet
collected to 1 July 1945*

REMARKS:

This work was constructed with funds having Advise No. 8-25636 P 270 A 1204-N (SM). The work was accomplished by Government forces; was started 7 Oct. 1943 and was completed 7 March 1944. This construction was designated Job No. Sand Island FS-1 by Directive Consecutive No. FS-1269. For construction detail plans see Drawings Numbered DMCR 1143.1; DMCR 1143.2; DMCR 1143.3 and DMCR 1143.4.

ED form A-162B
16 Sept. 1943

CONFIDENTIAL

Part II Corrected to 1 September 1944

CONFIDENTIAL

STRUCTURE:

Location by co-ordinates: South 1,234.47 yards
East 3,410.13 yards
Origin of co-ordinates for this Harbor Defense is Cape Disappointment Lighthouse, which is on Cape Disappointment, Fort Canby, Washington.

Location by site description: The station is located on the easterly peninsula of Sand Island which is near the mouth of the Columbia River and is on the north side of the river channel. Sand Island is a Military Reservation with the Harbor Defenses of The Columbia.

Date of transfer: 19 April 1944.

Cost to date of transfer: \$5,622.17 (Cost of cable huts not included).

Type of construction:

Station: This station is constructed atop of a 24 foot wooden frame tower. The station is 12 feet in diameter and is constructed to simulate a wooden stave water tank. The tower is anchored to pedestals constructed of reinforced concrete of a 1:2:4 mix. The instrument base is also constructed of reinforced concrete of a 1:2:4 mix; is a column 24" in diameter and extends from a 9'x9' concrete footing to the floor level of the station. Access to the station is by ladders.

Power House: Is a wooden frame structure 8'x8', sealed by 1"x12" sheathing and roofing paper with battens. This structure was constructed to house a portable generator which furnished the station and its facilities with the necessary electricity.

Concealment: The M-5 Station is located on a barren part of Sand Island and is in plain view of the river channel and the open sea and is concealed only in that it resembles a water tank built to serve the locomotives of the Sand Island railroad. The station, and its facilities, are painted to conform to the surrounding grass and soil.

Conspicuousness: The tower can be seen from as far at sea as visibility and curvature of the earth allows. The power house and quarters, being much smaller structures, blends more with the surrounding sand knolls and are not conspicuous at a distance of 2,000 yards or more.

UTILITIES:

Electric Power:

Source: Power for this station and its facilities is provided by a portable, electric, gasoline driven generator built by the Hobart Mfg. Co. The generator was furnished and installed by the Army. The structures are provided with 110 volts, single phase by No. 6 weatherproof wires. The wiring was installed by the Corps of Engineers.

Characteristics: 110-volts, AC, single phase.

Kilowatts required: A maximum of 3.0.

Type of lighting fixtures: Are incandescent lamps in porcelain lamp receptacles.

Heat: No heating facilities were provided.

Water: No water was provided in this project, however the Army has driven a sand point well which provides the water.

Latrine: A small T/O type pit latrine was constructed by the Army.

Control Approval Symbol SPEKM-1;

138114

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
BASE END STATIONS M-4 and M-5
(Supplemental Report)

CONFIDENTIAL

Part II Corrected to 1 July 1945

CABLE HUT:

General: The purpose of this supplemental report is to cover the re-location of Cable Hut No. 3. The sand was washed from beneath the hut by extreme high tides and the surge from the sea, thus letting it settle over and become unuseable. The construction of the hut was completed in March 1944 and was transferred to troops on 19 April 1944.

Location: Cable Hut #3 is located on the easterly peninsula of Sand Island which is near the mouth of the Columbia River and is on the north side of the river channel. Sand Island is a Military Reservation within the Harbor Defenses of the Columbia. As shown on drawing No. DMCR 1143.1, Cable Hut #3 was moved westerly approximately 500 feet from its original location.

Cost of Re-locating Cable Hut No. 3: \$793.49.

Type of Construction: The cable Hut is constructed of reinforced concrete of a 1:2:4 mix. The interior dimensions are 6'-0" x 6'-0" x a ceiling height of 6'-0"; the walls and floor are 6" in thickness and the roof pyramids from 6 to 9" in thickness. The hut has one window 40" x 16" and is entered thru a 2'-0" x 3'-9" doorway. Three, 3", conduits are provided on each side and rear of the hut for entrance of the cables. See Drawing No. DMCR 1143.2. No change was made in the construction work of the Hut during this relocation job.

REMARKS:

This work of salvaging Cable Hut No. 3 was performed with funds having advise No. 508-2015 P 270 A 212/51204 (SM). The work was accomplished by Government forces; was started 6 February 1945 and was completed 16 February 1945. The work was designated Project No. 3160 by the W.D.C. For construction detail plans see drawings numbered DMCR 1143.1 and DMCR 1143.2.

ED Form A-162B
16 Sept. 1943

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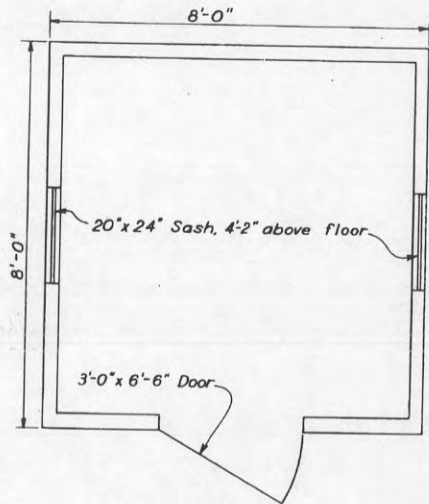
138114

APPROVED: *C. S. Doherty*
 C. S. DOHERTY
 COLONEL, C.A.C., COMMANDING

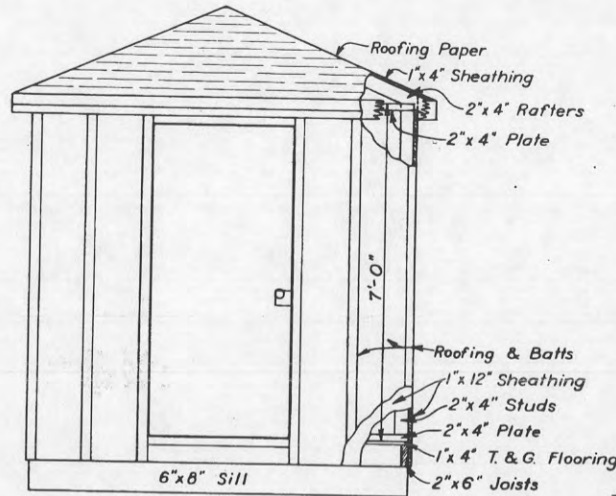
HARBOR DEFENSES OF THE COLUMBIA
 MINE DEFENSE STRUCTURES
 SAND ISLAND, OREGON

SCALES AS SHOWN
 U.S. ENGINEER, OFFICE, PORTLAND, OREGON, DISTRICT
 SUBMITTED: *C. S. Doherty* APPROVED: 15 APR 1944
 ENGINEER DISTRICT ENGINEER
 RECOMMENDED: *W. H. Jackson* COLONEL, CORPS OF ENGINEERS
 PRINCIPAL ENGINEER DISTRICT ENGINEER
 DRAWN: M.E.M. DATE: April 1944
 TRACED: M.E.M. CHECKED:

CONFIDENTIAL

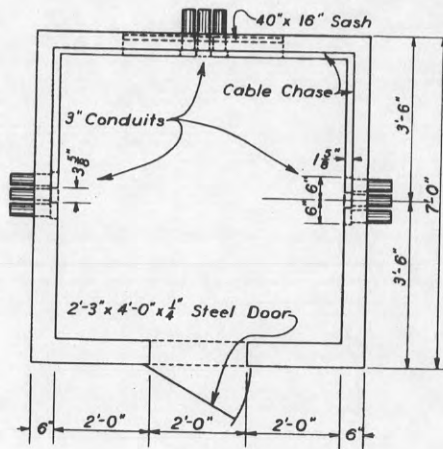


PLAN

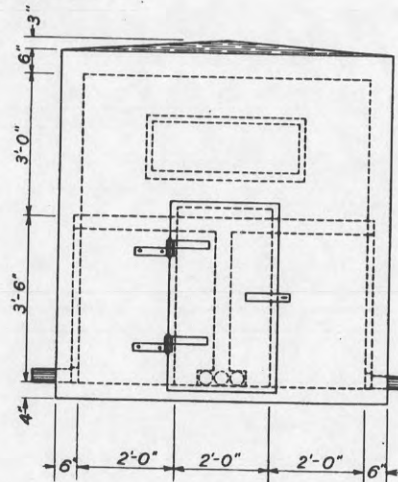


FRONT ELEVATION

POWER HOUSE

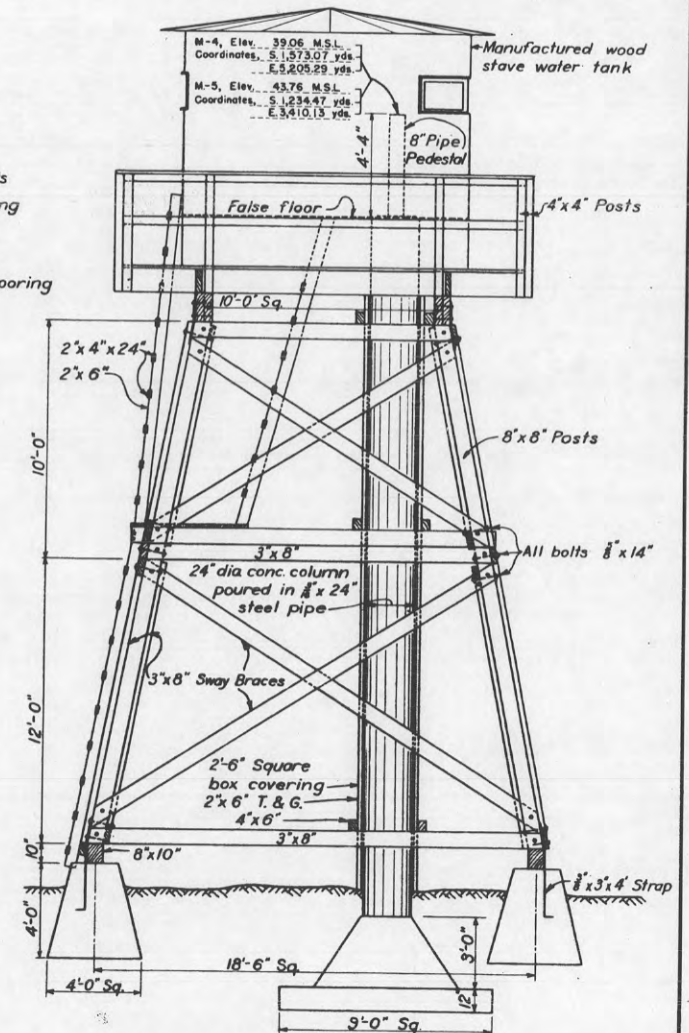


PLAN

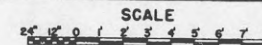


FRONT ELEVATION

CONCRETE CABLE HOUSE



ELEVATION - TOWER - M⁴ & M⁵

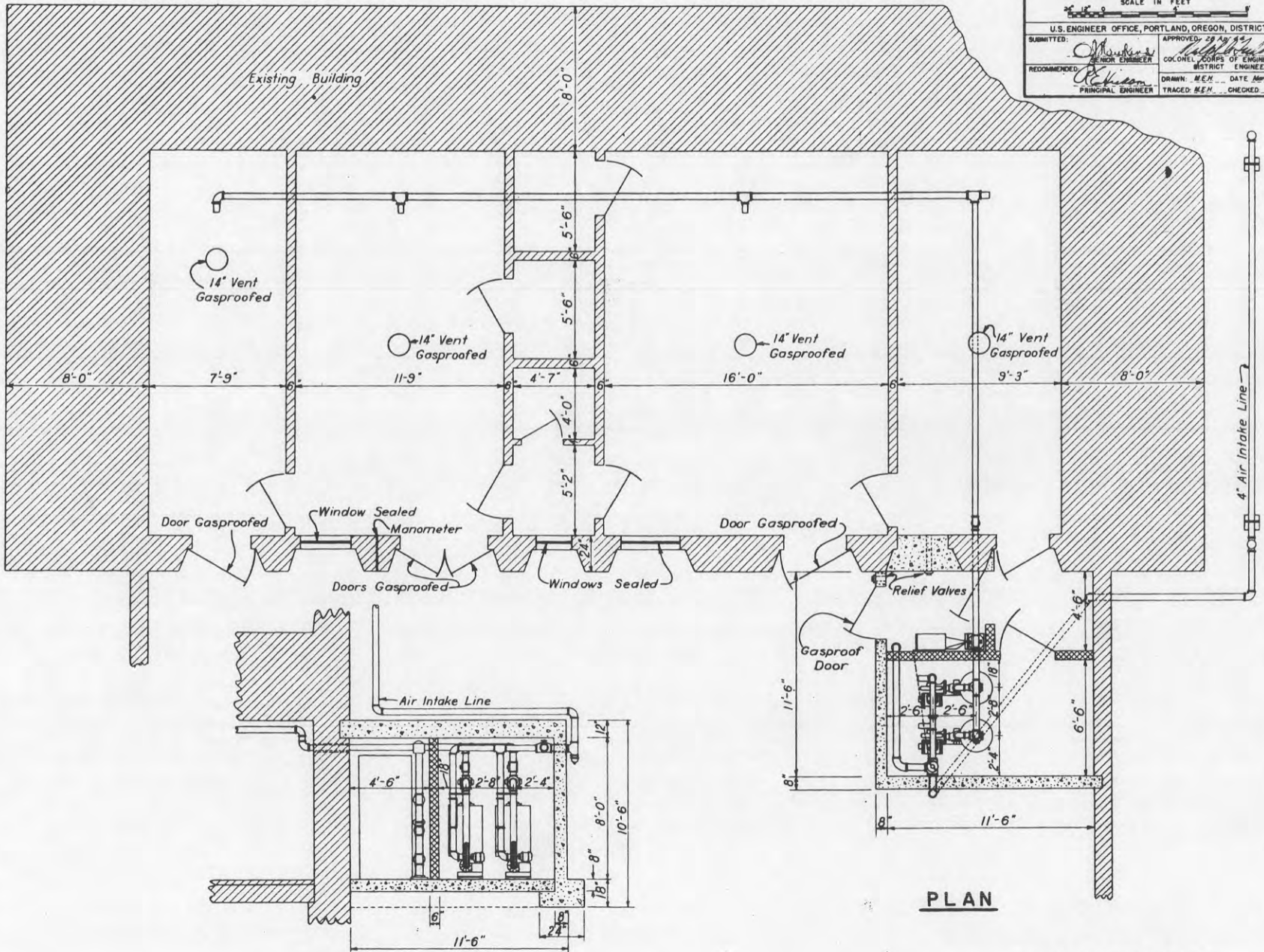


APPROVED: *E.E. Doherty*
E.E. DOHERTY
COLONEL, C.A.C., COMMANDING

HARBOR DEFENSES OF THE COLUMBIA
RADIO ROOM GASPROOFING
FORT STEVENS, OREGON

SCALE IN FEET

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT	
SUBMITTED: <i>[Signature]</i>	APPROVED: <i>[Signature]</i>
RECOMMENDED: <i>[Signature]</i>	COLONEL, CORPS OF ENGINEERS, DISTRICT ENGINEER
PRINCIPAL ENGINEER	DATE: March 1919
TRACED: M.E.H.	CHECKED:



SECTION

PLAN

CONFIDENTIAL

600.914 (Col Rev) 102977

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
RADIO TRANSMITTER ROOM

(Supplemental Report for Gasproofing)

CONFIDENTIAL

Part II Corrected to 15 July 1944

Control Approval Symbol SPEKM-1

STRUCTURE:

Location: The Radio Transmitter Room is located within the U.S. Military Reservation of Fort Stevens, Harbor Defenses of The Columbia, Oreg.

General: This supplemental project of gasproofing the Radio Room at Fort Stevens consisted of constructing an addition to house the collective protectors, installation of the collective protectors and of remodeling the openings of the original structure so the collective protectors would be affective. All new equipment, the piping and all exterior concrete surfaces were painted.

Date of Transfer: Of the supplemental work was 19 April 1944.

Cost to date of Transfer: Of the supplemental work was \$2,034.64; the cost of the collective protector assemblies not being included.

Type of construction: This addition is constructed of reinforced concrete of a 1:2:4 mix. The walls and floor are 8" in thickness and the roof is 12" in thickness. The interior partitions are constructed of structural, hollow clay tile. The interior dimensions are 11'-6" x 11'-6" with a ceiling height of 8'-0".

Concealment: The addition is not concealed in any way except it is painted to conform to the surrounding vegetation.

UTILITIES:

Electric power: Power for this addition and the equipment was obtained by extending the circuits

UTILITIES (Cont'd.)

of the original structure.

Characteristics: 110 volts, AC, single phase.

Kilowatts required for this addition and the equipment is approximately 1.0.

Type of lighting fixtures: Are incandescent lamps in porcelain lamp receptacles.

Other Utilities: No other utilities were provided in this addition; the utilities of the original structure being available.

EQUIPMENT:

Two Protector M-1A1 Collective Assemblies were installed in this project. The collective protectors, the special fittings and the extra cannisters were received by requisition on the Chief of Engineers. All the piping, pipe fittings and the gasproof doors were purchased locally.

REMARKS:

This supplemental work was constructed with funds having Advise No. 5-(CAC)-115 P 270 A 1204-24 (FC). Construction work was accomplished by Government forces and was started 1 January 1943 but was not completed until 27 January 1944 due to delayed delivery of the collective protectors. The work was designated Job Number Fort Stevens FS-8 by Directive Consecutive No. FS-446. For construction details see drawings numbered DMCR 1166.1 and DMCR 1166.2.

ED Form A-162B
16 Sept. 1943

FS 446

CONFIDENTIAL

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, ORE. AND COLUMBIA, WASH.
BATTERIES CLARK, PRATT & MURPHY

SECRET

*Latrines for
Clark, Pratt & Murphy*

Form 1.

Corrected to May 14, 1943

~~(Supplemental Report)~~

*w/ 600.914 (Col. Rivers)
CM 44984*

GENERAL : This supplemental work consisted of con-
 : structing Latrines for Batteries Clark and
44984 : Pratt at Fort Stevens and for Battery
 : Murphy at Fort Columbia.
 :
 Location : These latrines are located adjacent to the
 : respective batteries and are within the
 : U.S. Military Reservations.
 :
 Date of transfer : of supplemental work: March 31, 1943.
 :
 Cost to date of transfer . . . : of supplemental work: Latrine for Battery
 : Clark \$1,346.11; for Battery Pratt \$1,514.32
 : and for Battery Murphy \$1,176.46, all for
 : a total cost of \$4,036.95.

(See ~~attached~~ plan)

TYPE OF CONSTRUCTION : All three latrines are of identical con-
 : struction. The floors are reinforced con-
 : crete of a 1:2:4 mix. The buildings are
 : of wooden frame construction. The exter-
 : rior walls are of 8" shiplap and 8" beveled
 : cedar siding. The roof is finished with
 : cedar shingles laid with 4 $\frac{1}{2}$ " to the weather.
 : The interiors are finished with 1/4" veneer.
 : The interior dimension are 9 ft. by 17 ft.
 : with a ceiling height of 8'-0". The lat-
 : rines are partitioned off for officers and
 : enlisted men. Facilities provided for the
 : officers are one toilet, one urinal and one
 : wash basin. Facilities for the enlisted
 : men are two toilets, two urinals and two
 : wash basins.

WATER & SEWER : Water and sewage facilities were connected
 : to the adjacent systems of the batteries;
 : no appreciable amount of work was necessary
 : to make the connections.

*Map File
No. 92-98-58*

Inc.

Proj Card 23

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF THE COLUMBIA
FORTS STEVENS, ORE. AND COLUMBIA, WASH.
BATTERIES CLARK, PRATT & MURPHY
(Supplemental Report)

SECRET

Form 1.

Corrected to May 14, 1943

ELECTRIC CURRENT:

Source of : Electric current for lighting these latrines was obtained by connecting
: to the commercial systems of the respective reservations; no appreciable
: amount of work was necessary to make the connections.

Type of lighting fixtures . . : Incandescent lamps in porcelain receptacles.

Kilowatts required : For each latrine 0.3 Kilowatts are required.

REMARKS

: This work was authorized by Western Defense Command on April 8, 1942 as
: Urgent Emergency Construction. On May 25, 1942, the Office Chief of
: Engineers authorized funds for this construction under P/A Eng.-30759
: P 340 A 0905-23. The work was performed by hired labor; was started
: April 25th and was completed June 25th, 1942. See drawing number DMCR
: 1108 for construction details.

SECRET

REPORT OF COMPLETED WORKS - LAST FORTIFICATIONS
(Searchlights)

Form 4

Corrected to July 24, 1939

HARBOR DEFENSES OF THE COLUMBIA
SHELTER TO ACCOMMODATE TWELVE (12) PORTABLE
60-INCH A.A. SEARCHLIGHTS Def. 661/116.16

Location ----- : Fort Stevens, Oregon.

General Character ----- : Fabricated steel superstructure covered with 20 ga. corrugated steel on concrete foundation.

Date of transfer ----- : No transfer. An extension to structure transferred Sept. 16, 1937.

Cost to date: ----- : To accommodate:

Original structure -----	\$3,682.73	4 searchlights
Extension -----	5,992.92	8 searchlights
Total cost -----	\$9,675.65	

Paid for by ----- : U. S. Engineer Department.

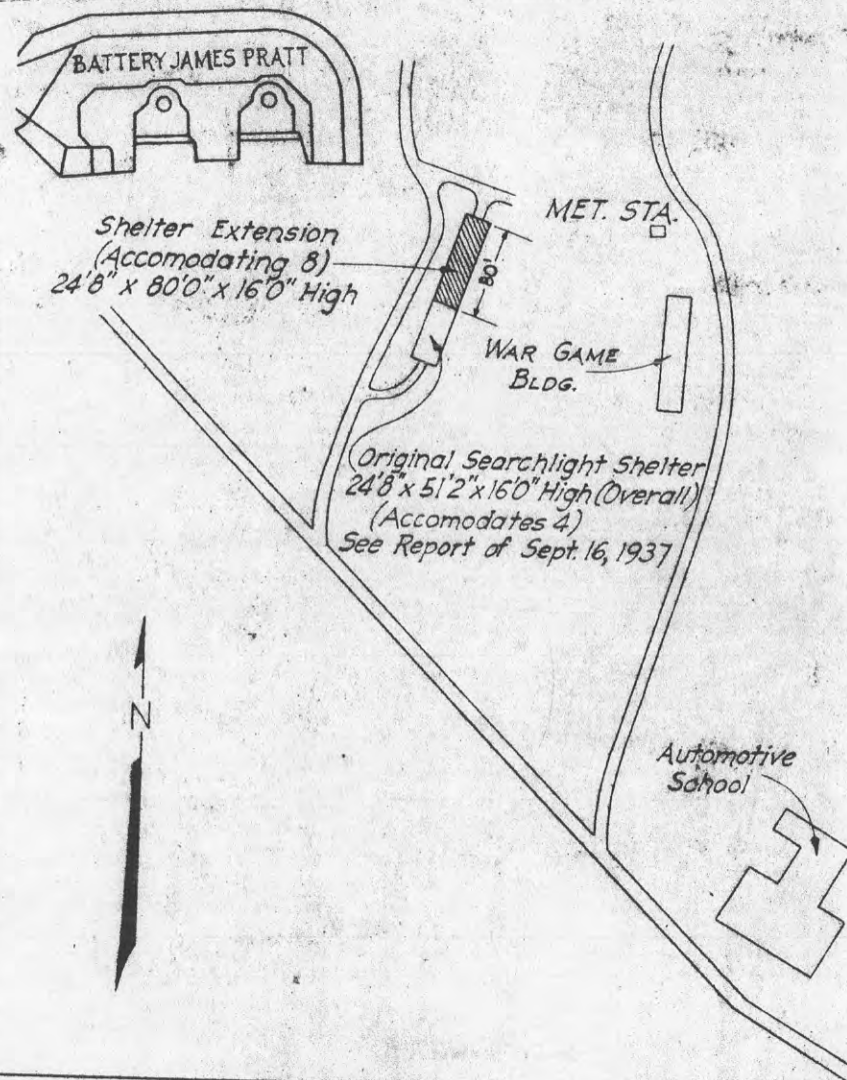
Interior dimensions, including extension ----- : Width: 22'-6" clear between columns.
: Length: 120'-0" inside walls.
: Height: 10'-0" under trusses.

Material of construction - : Steel columns and roof trusses,
: 20 ga. galv. corrugated steel siding and roof, metal doors and sash, wire inserted glass, concrete foundation and floor.

Type of concrete ----- : 1:2:4 mix in foundation and floor.

Concealment from approach channel ----- : Well concealed.

Condition ----- : Excellent.



FORT STEVENS, ORE.
PORTABLE SEARCHLIGHT
SHELTER ADDITION
Scale 1:2000

Remarks: The original structure was fabricated by Kyle Steel Construction Co., Vernon, Calif., and erected by Gilpin Construction Co., Portland, Oregon, on foundations and floor constructed by the U.S. Engineers. The extension constructed by authority dated O.C.E., Sept. 29, 1938, file C. of E. 470.35, was fabricated by the Gabriel Construction Co., Portland, Oregon, and erected by the U.S. Engineers. The original building was transferred to the Coast Artillery under authority contained in 4th indorsement dated O.C.E., Aug. 2, 1937, file C. of E. 660 B (Columbia R.)-18. Four searchlights, C. of E. serial Nos. 585, 586, 587, and 588, were received July 24, 1939.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
 (Searchlights) With 660 B (Columbia River) 19
 Form 4 September 16, 1937.

HARBOR DEFENSES OF THE COLUMBIA.....
 SHELTER TO ACCOMMODATE FOUR (4) PORTABLE
 60-INCH A.A. SEARCHLIGHTS.
 Ft. Stevens, Ore.

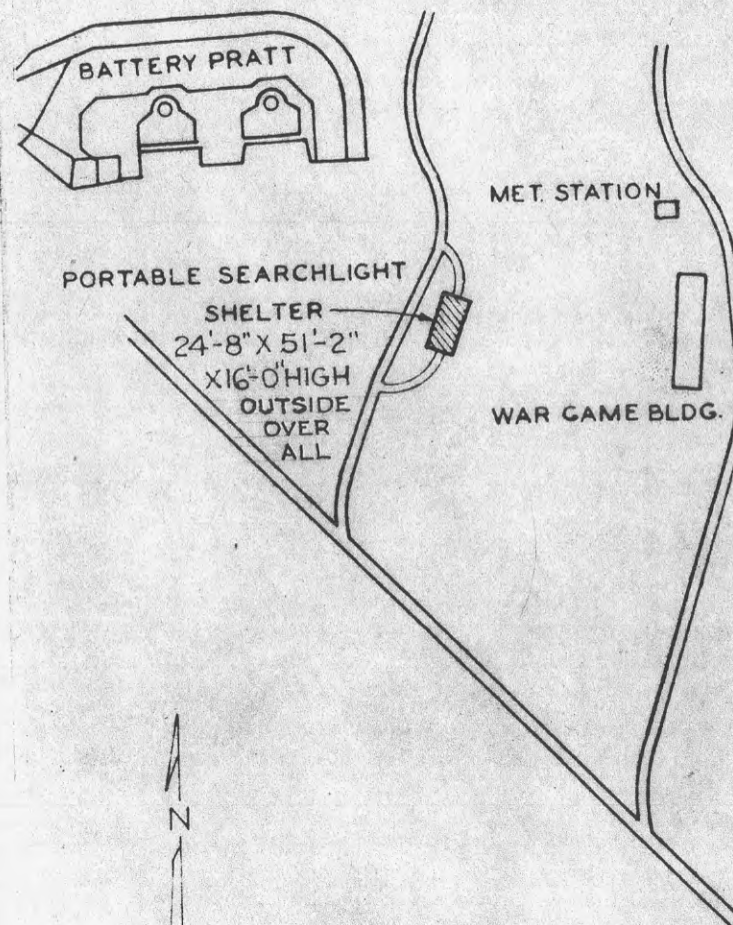
Location - - - - - Fort Stevens, Oregon.
 General character - - - - Fabricated steel super structure covered with 20 ga. corrugated iron, on concrete foundation.
 Date transferred to troops September 16, 1937.
 Cost to that date - - - - \$3,682.73.
 Interior dimensions - - - - Width: 22' 6" clear between columns.
 Length: 51' 0" " inside walls.
 Height: 10' 0" " under trusses.
 Materials of construction Steel columns and roof trusses, corrugated iron siding and roof, metal doors and windows, concrete foundation and floor.
 Type of concrete - - - - 1:2:4 mix in foundation and floor.
 Concealment from approach channel - - - - - Well concealed.
 Condition - - - - - New.

Remarks: The structure was fabricated by Kyle Steel Construction Company, Vernon, California, and shipped knocked down to U.S. Engineer Department, Fort Stevens, Oregon, where the Gilpin Construction Company, Portland, Oregon, erected it on foundation and floor constructed by the U.S. Engineer Department.

The building was transferred to the Coast Artillery under authority contained in 4th indorsement dated O.C.E., August 2, 1937, File C. of E. 660B(Columbia R.)18.

The searchlights (4) have not been received up to this date.

*SUPERSEDED - See Form A,
 corrected to 7/24/39*



FORT STEVENS, OREGON
 PORTABLE SEARCHLIGHT
 SHELTER
 SCALE: 1:2000

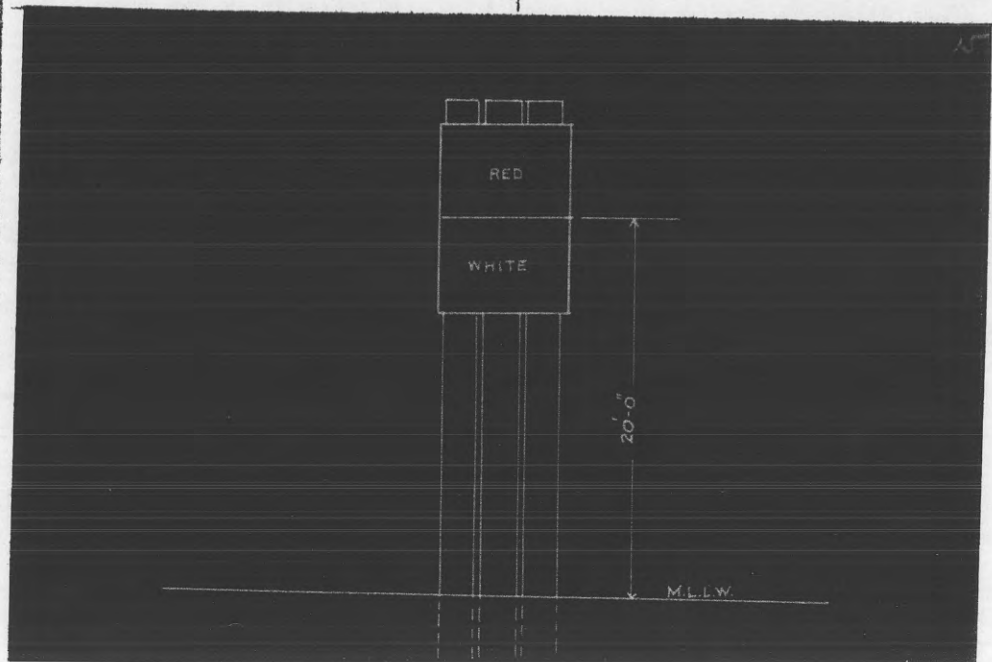
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE... NEW SANDS DATUM

Form 2.

Corrected to January 1, 1923 *
June 30, 1921

Location	North side of South Jetty, inside "Sands" Clatsop Spit, S. 20461.53, E. 15259.27' from Canby light.	Type of data transmission	
Date of transfer	February 25, 1920.	Date of transfer	
Cost to that date	\$416.05	Cost of data transmission equipment	
Type of construction	Octagonal target 8' high around 5-pile dolphin.	For tide stations give descrip- tion of tide gauge	
(a) Roof		For datum points give Forts from which visible	Forts Canby and Columbia.
(b) Remainder of blc		For dormitories give stations served	
How concealed	Not concealed.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 4,000 yds.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation			
Present condition			
Reference of site	M.L.L.W.		
Reference of instrumental axis	Center of target 20' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



* See 660 B (Col. K) F-11

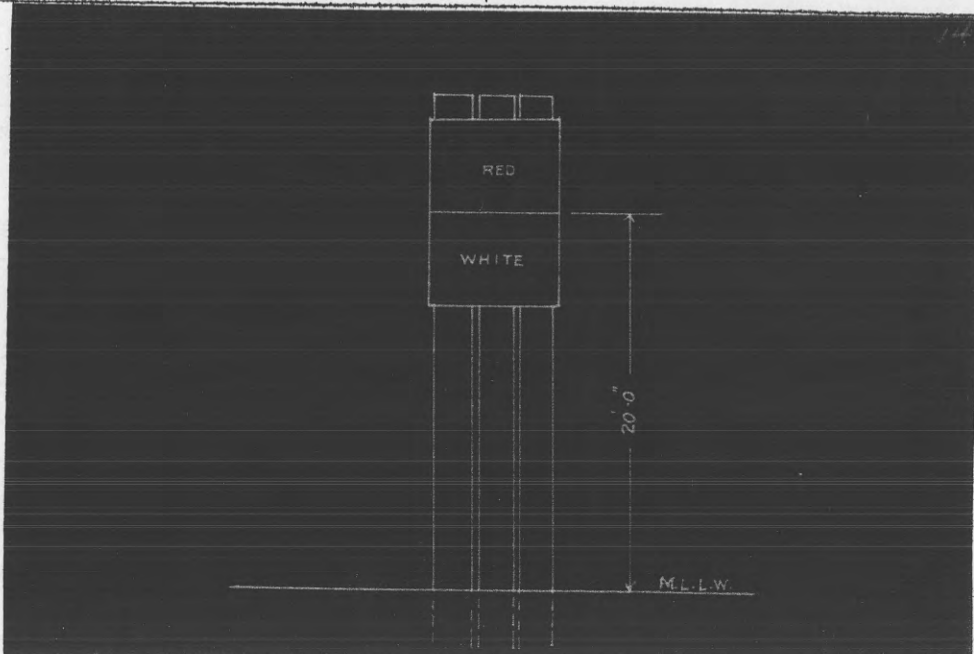
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
 (Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
 FORT. STEVENS, OREGON
 STRUCTURE..NEW SAND ISLAND DATUM.....

Form 2.

Corrected to June 30, 1921.

<p>Location</p> <p>Date of transfer</p> <p>Cost to that date</p> <p>Type of construction (a) Roof (b) Remainder of blc</p> <p>How concealed</p> <p>How protected</p> <p>Height above concealment</p> <p>Height above protection</p> <p>Conspicuous at.....yards</p> <p>Source of electric current</p> <p>Kilowatts required</p> <p>Type of lighting fixtures</p> <p>How heated</p> <p>Connected to water mains</p> <p>Connected to sewer</p> <p>Type of latrine</p> <p>Permanent or temporary installation</p> <p>Present condition</p> <p>Reference of site</p> <p>Reference of instrumental axis</p> <p>Type of observing inst.</p> <p>Type of plotting board</p> <p>Type and capacity of crane</p> <p>Max. dimensions of reel handled</p>	<p>North side of Sand Island, S. 3814.68', E. 14031.01' from Canby light. February 25, 1920. \$416.05</p> <p>Octagonal target 8' high around 5-pile dolphin.</p> <p>Not concealed.</p> <p>Not protected.</p> <p>About 6,000 yds.</p> <p>M.L.L.W. Center of target 20' above M.L.L.W.</p>	<p>Type of data transmission</p> <p>Date of transfer</p> <p>Cost of data transmission equipment</p> <p>For tide stations give description of tide gauge</p> <p>For datum points give Forts from which visible</p> <p>For dormitories give stations served</p> <p>For cable hut give S. C. type</p>	<p>Forts Canby, Columbia and Stevens.</p>
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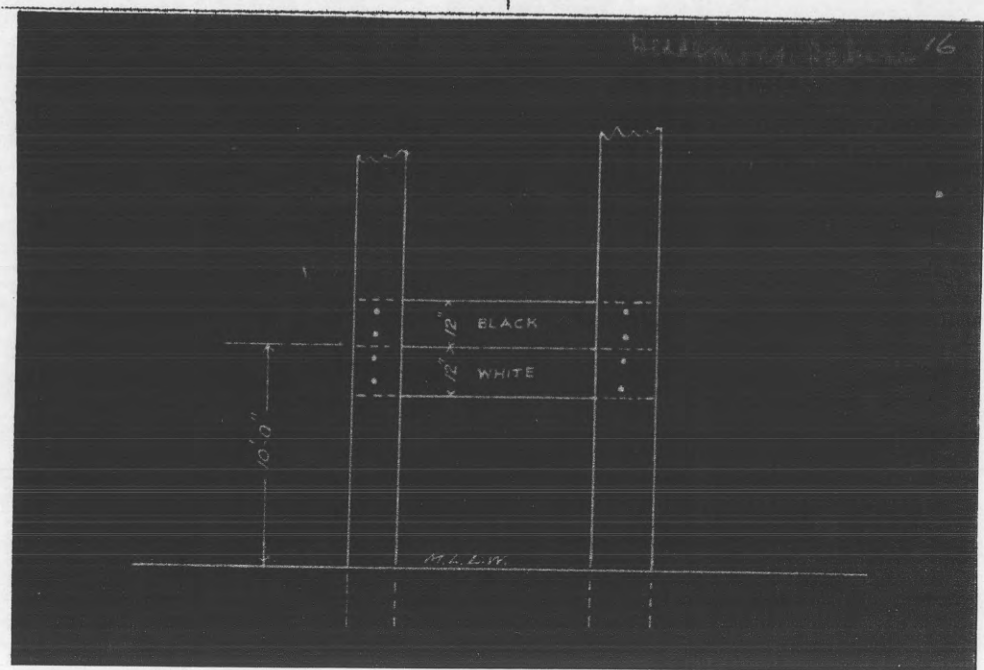
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE... DESDEMONA LIGHT DATUM

Form 2.

Corrected to June 30, 1921.

Location	On Desdemona Light Station	Type of data transmission	
Date of transfer	August, 1905.	Date of transfer	
Cost to that date	\$27	Cost of data transmission equipment	
Type of construction	Target 2' high bolted to piling.	For tide stations give description of tide gauge	
(a) Roof		For datum points give Forts from which visible	Fort Stevens, Canby and Columbia.
(b) Remainder of building		For dormitories give stations served	
How concealed	Not concealed.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 3,000 yds.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation	Permanent.		
Present condition	Poor.		
Reference of site	M.L.L.W.		
Reference of instrumental axis	Center of target 11' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



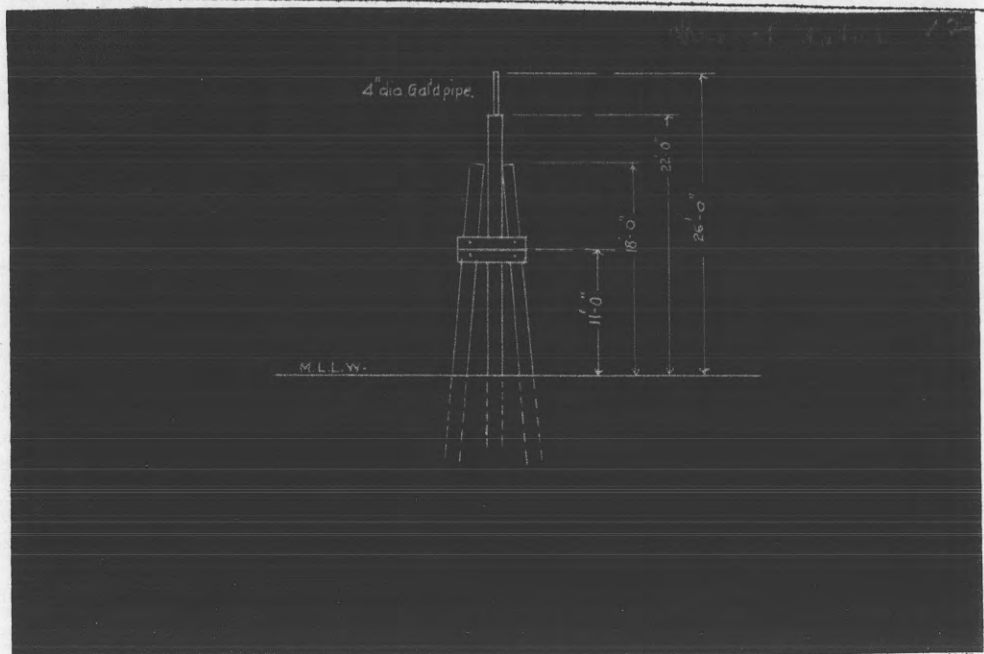
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA
FORT. ... STEVENS, OREGON.
STRUCTURE... CHINOOK DATUM

Form 2.

Corrected to June 30, 1921.

Location	On dolphin in Baker Bay, S. 8453.54, E. 26870.48 from Canby light.	Type of data transmission	
Date of transfer	Aug. 1905 (Rebuilt in	Date of transfer	
Cost to that date	\$150. (Sept. 1916, cost	Cost of data transmission	
Type of construction	Triangular target 2' high around 4-pile dolphin.	equipment	
(a) Roof		For tide stations give description of tide gauge	
(b) Remainder of bld		For datum points give Forts from which visible	Forts Stevens, Canby and Columbia.
How concealed	Not concealed.	For dormitories give stations served	
How protected	Not protected.	For cable hut give S. C. type	
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 3000 yds.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation			
Present condition			
Reference of site	M.L.L.W.		
Reference of instrumental axis	Center of target 11' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



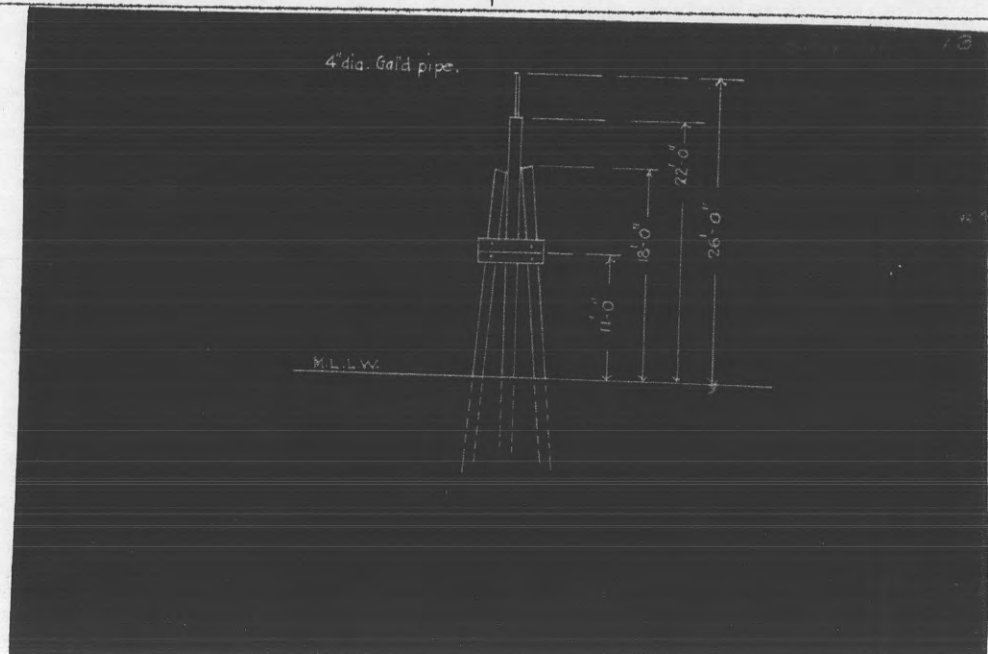
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE... BAKER'S BAY DATUM.....

Form 2.

Corrected to June 30, 1921.

<p>Location</p> <p>Date of transfer</p> <p>Cost to that date</p> <p>Type of construction</p> <p>(a) Roof</p> <p>(b) Remainder of bldg</p> <p>How concealed</p> <p>How protected</p> <p>Height above concealment</p> <p>Height above protection</p> <p>Conspicuous at.....yards</p> <p>Source of electric current</p> <p>Kilowatts required</p> <p>Type of lighting fixtures</p> <p>How heated</p> <p>Connected to water mains</p> <p>Connected to sewer</p> <p>Type of latrine</p> <p>Permanent or temporary installation</p> <p>Present condition</p> <p>Reference of site</p> <p>Reference of instrumental axis</p> <p>Type of observing inst.</p> <p>Type of plotting board</p> <p>Type and capacity of crane</p> <p>Max. dimensions of reel handled</p>	<p>Dolphin back of Sand Island, S. 1754.51' E. 11908.12' from Canby light. August, 1905.</p> <p>\$125</p> <p>Triangular target 2' high around 4-pile dolphin.</p> <p>Not concealed.</p> <p>Not protected.</p> <p>About 3,000 yds.</p> <p>M.L.L.W.</p> <p>Center of target 11' above M.L.L.W.</p>	<p>Type of data transmission</p> <p>Date of transfer</p> <p>Cost of data transmission equipment</p> <p>For tide stations give description of tide gauge</p> <p>For datum points give Forts from which visible</p> <p>For dormitories give stations served</p> <p>For cable hut give S. C. type</p>	<p>Forts Stevens, Canby and Columbia.</p>
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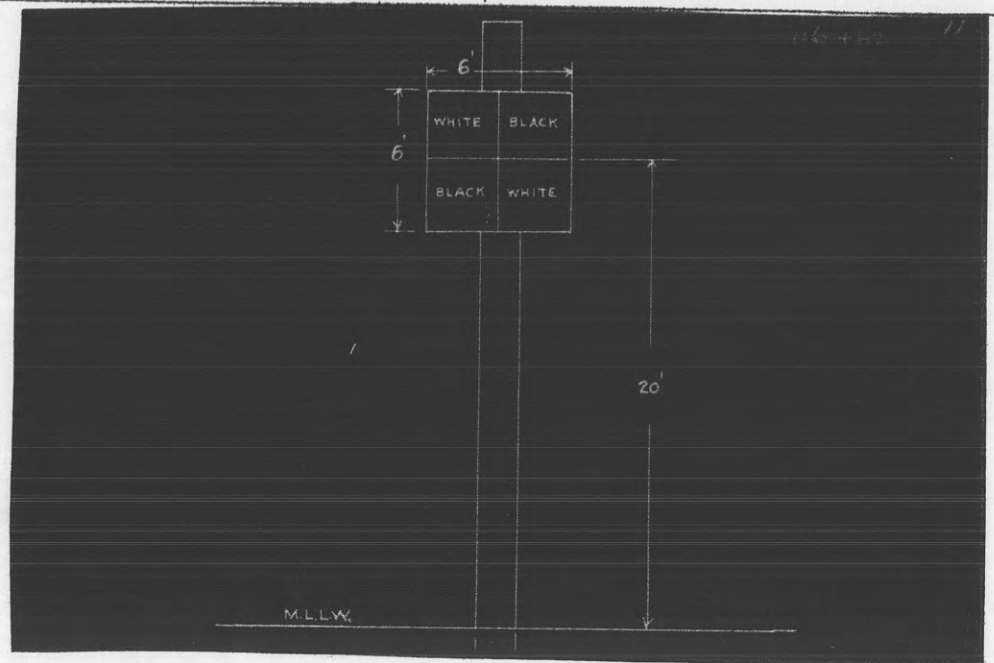


REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE... JETTY TRESTLE DATUM

Form 2. Corrected to June 30, 1921.

Location	On south side of South Jetty, about 2 miles from Fort Stevens.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$20	Cost of data transmission equipment	
Type of construction	Flat target 6' square on pile.	For tide stations give description of tide gauge	
(a) Roof		For datum points give Forts from which visible	Fort Stevens.
(b) Remainder of bld		For dormitories give stations served	
How concealed	By jetty on north side.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	None		
Height above protection			
Conspicuous at.....yards	Not conspicuous from channel of approach.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation			
Present condition			
Reference of site	M. L. L. W.		
Reference of instrumental axis	Center of target 20' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



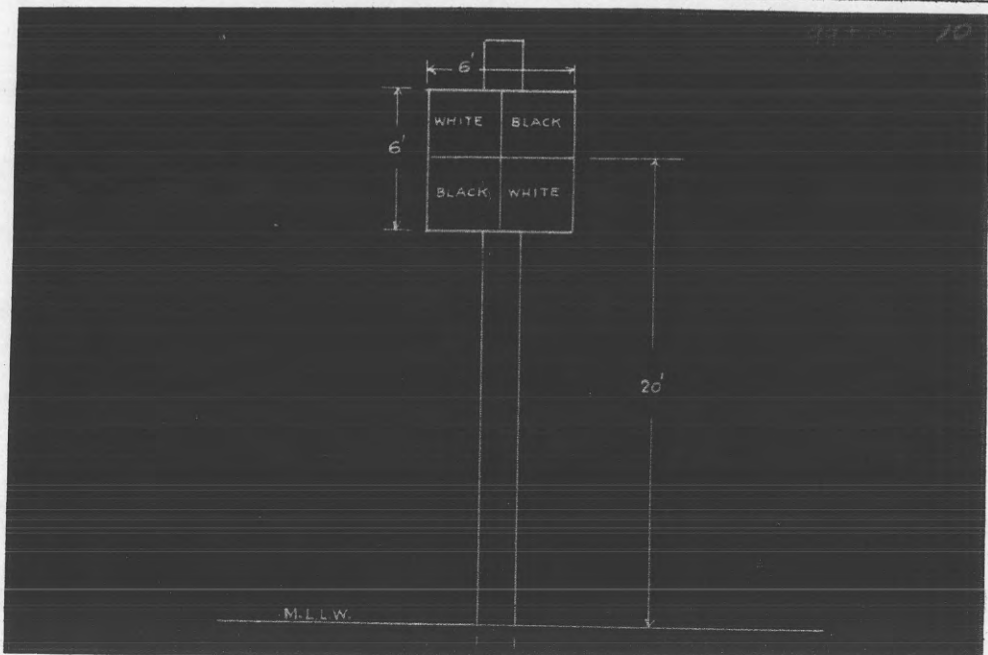
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA
FORT STEVENS, OREGON
STRUCTURE... JETTY TRESTLE DATUM

Form 2.

Corrected to June 30, 1921.

Location	North side of South Jetty, about $1\frac{1}{2}$ miles from Fort Stevens.	Type of data transmission	Forts Canby and Columbia.
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$19.50	Cost of data transmission equipment	
Type of construction	Flat target 6' square on pile.	For tide stations give description of tide gauge	
(a) Roof		For datum points give Forts from which visible	
(b) Remainder of bld		For dormitories give stations served	
How concealed	Not concealed.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment			
Height above protection			
Conspicuous at.....yards	About 3,000 yds.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation			
Present condition			
Reference of site	M.L.L.W.		
Reference of instrumental axis	Center of target 20' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			

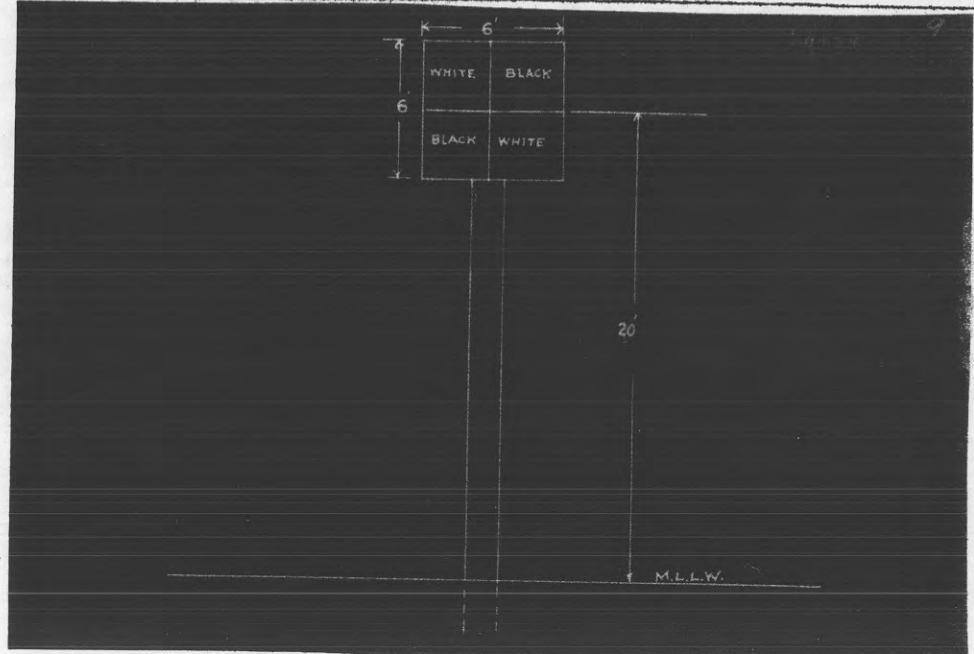


REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE... JETTY TRESTLE DATUM

Form 2. Corrected to June 30, 1921.

<p>Location</p> <p>Date of transfer</p> <p>Cost to that date</p> <p>Type of construction (a) Roof (b) Remainder of bld</p> <p>How concealed</p> <p>How protected</p> <p>Height above concealment</p> <p>Height above protection</p> <p>Conspicuous at.....yards</p> <p>Source of electric current</p> <p>Kilowatts required</p> <p>Type of lighting fixtures</p> <p>How heated</p> <p>Connected to water mains</p> <p>Connected to sewer</p> <p>Type of latrine</p> <p>Permanent or temporary installation</p> <p>Present condition</p> <p>Reference of site</p> <p>Reference of instrumental axis</p> <p>Type of observing inst.</p> <p>Type of plotting board</p> <p>Type and capacity of crane</p> <p>Max. dimensions of reel handled</p>	<p>South side of South Jetty, about 1 mile from Ft. Stevens. November 9, 1911.</p> <p>\$20</p> <p>Flat target 6' square on pile.</p> <p>Not concealed.</p> <p>Not protected.</p> <p>Not conspicuous from channel of approach.</p> <p>M.L.L.W. Center of target 20' above M.L.L.W.</p>	<p>Type of data transmission</p> <p>Date of transfer</p> <p>Cost of data transmission equipment</p> <p>For tide stations give description of tide gauge</p> <p>For datum points give Forts from which visible</p> <p>For dormitories give stations served</p> <p>For cable hut give S. C. type</p>	<p>Fort Stevens.</p>
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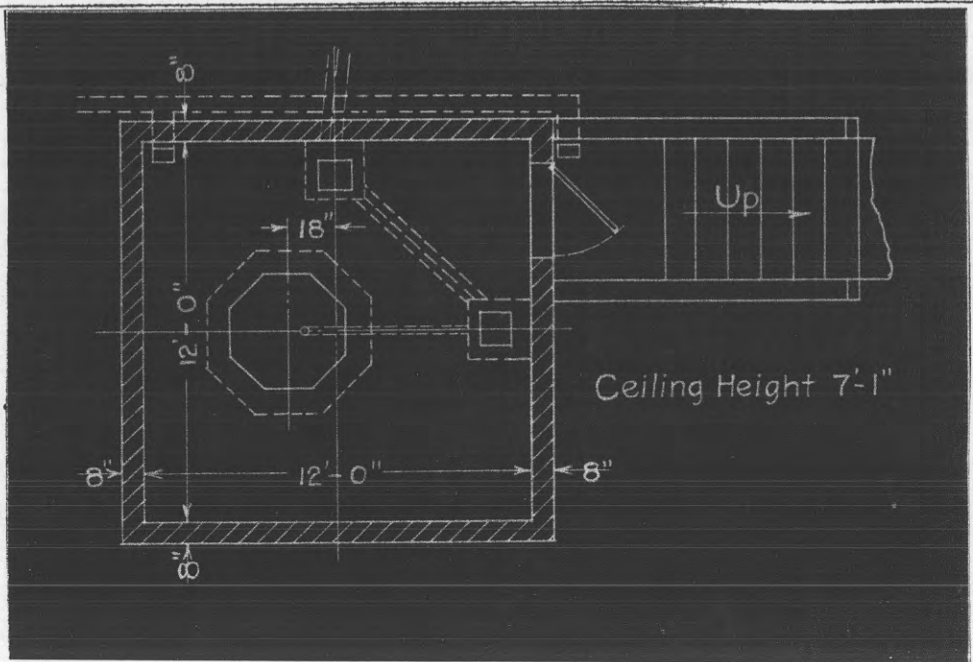
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. . . STEVENS, . . . OREGON.
STRUCTURE.. B' / 1. . RUSSELL.

Form 2. Corrected to June 30, 1921.

(81)

Location	F.C. hill, south end of reservation.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$1,050.	Cost of data transmission equipment	
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Buried to slot, hill and brush behind.	For dormitories give stations served	
How concealed	Buried to slot.	For cable hut give S. C. type	
How protected			
Height above concealment	6' above ground; none		
Height above protection	6' above hill and brush		
Conspicuous at.....yards	About 3 miles.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	.2 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	95' above M.L.L.W.		
Reference of instrumental axis	98' above M.L.L.W.		
Type of observing inst.	Swasey DPF type "A-II" #108.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



Obsolete

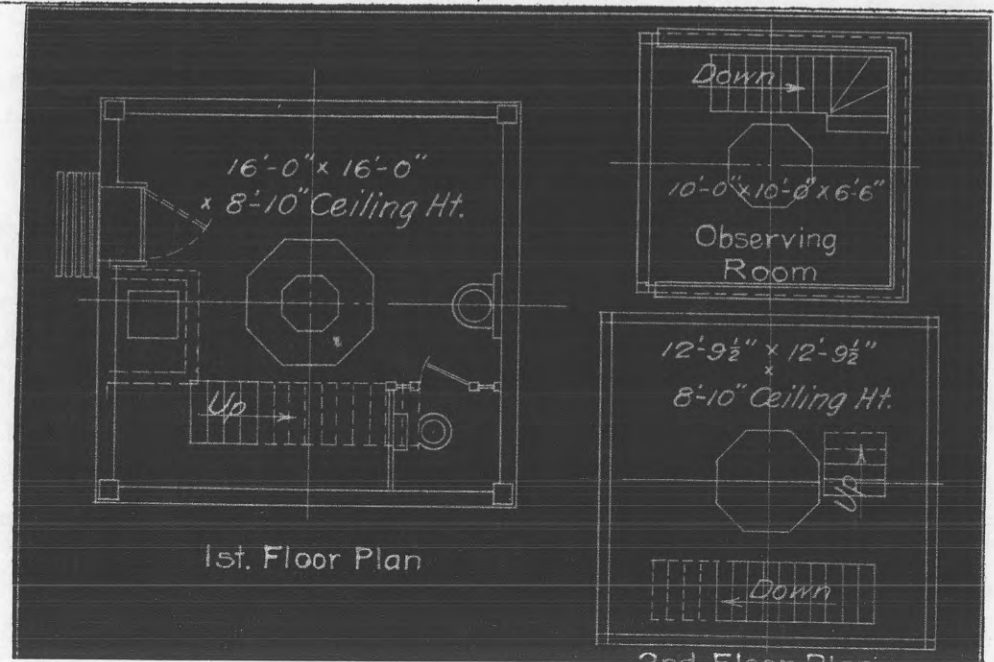
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE... B"/1 RUSSELL WITH DORMITORY.

Form 2. Corrected to June 30, 1921.

B"

Location	600' south of Battery Mishler.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$2,717.57.	Cost of data transmission equipment	
Type of construction	Tower.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame corrugated iron cover.	For dormitories give stations served	
How concealed	In scattered timber.	For cable hut give S. C. type	B"/1.
How protected	None.		
Height above concealment	About 10'.		
Height above protection			
Conspicuous at.....yards	About 6 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.6 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stoves.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	10' above M.L.L.W.		
Reference of instrumental axis	40' above M.L.L.W.		
Type of observing inst.	Swasey DPF type "AII" #201.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



TO BE REMOVED - 2nd Ind. dated 11 Feb. 46
SPOPS 602 (31 Jan. 46)

Obsolete

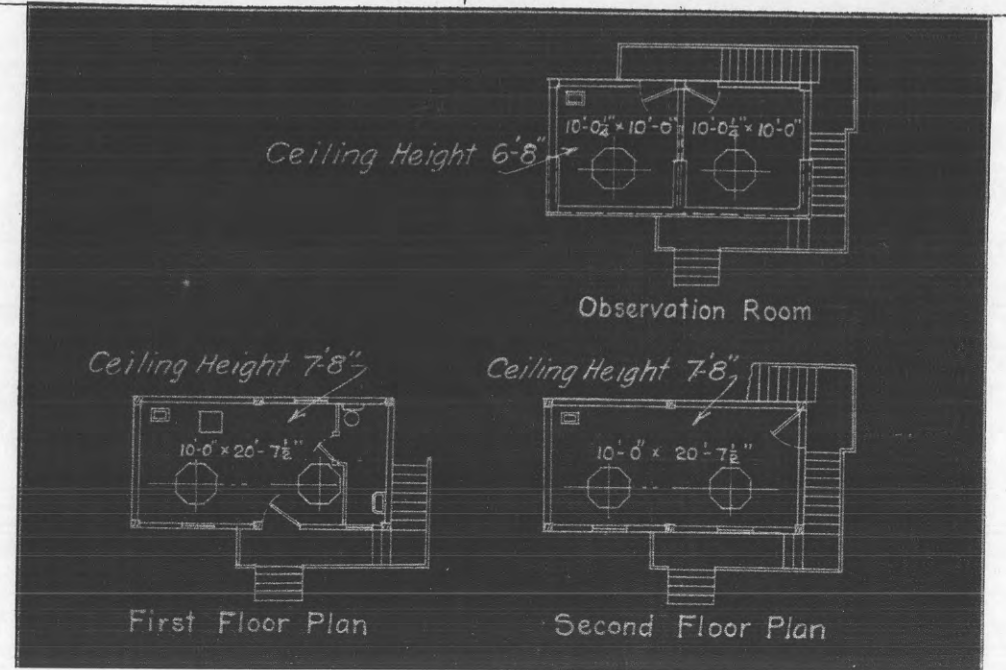
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE..F"/3 & OLD F"/2 WITH DORMITORY...

Form 2. Corrected to June 30, 1921.

Location	3600' east of reservation; 850' east of Hammond Depot.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$3,496.29.	Cost of data transmission	
Type of construction	Tower.	equipment	
(a) Roof	Wood, asphalt, felt & gravel	For tide stations give descrip-	
(b) Remainder of bld	Wood frame, cor. iron cover.	tion of tide gauge	
How concealed	Trees directly behind.	For datum points give Forts	
How protected	None.	from which visible	
Height above concealment	None.	For dormitories give	
Height above protection	None.	stations served	
Conspicuous at.....yards	About 4 miles.	For cable hut give	
Source of electric current	None.	S. C. type	
Kilowatts required	None.		
Type of lighting fixtures	None.		
How heated	Stoves.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary	Permanent.		
installation			
Present condition	Good.		
Reference of site	13' above M.L.L.W.		
Reference of instrumental	40' above M.L.L.W.		
axis			
Type of observing inst.	F"/2-Lewis DPF type "A" #62;		
Type of plotting board	F"/3-Lewis DPF type "A" #93.		
	None.		
Type and capacity of crane			
Max. dimensions of reel handled			

F"/3, F"/2.



TO BE REMOVED - 2nd Ind. dated 11 Feb. 1946
SPOPS 602 (31 Jan 46)

obsolete

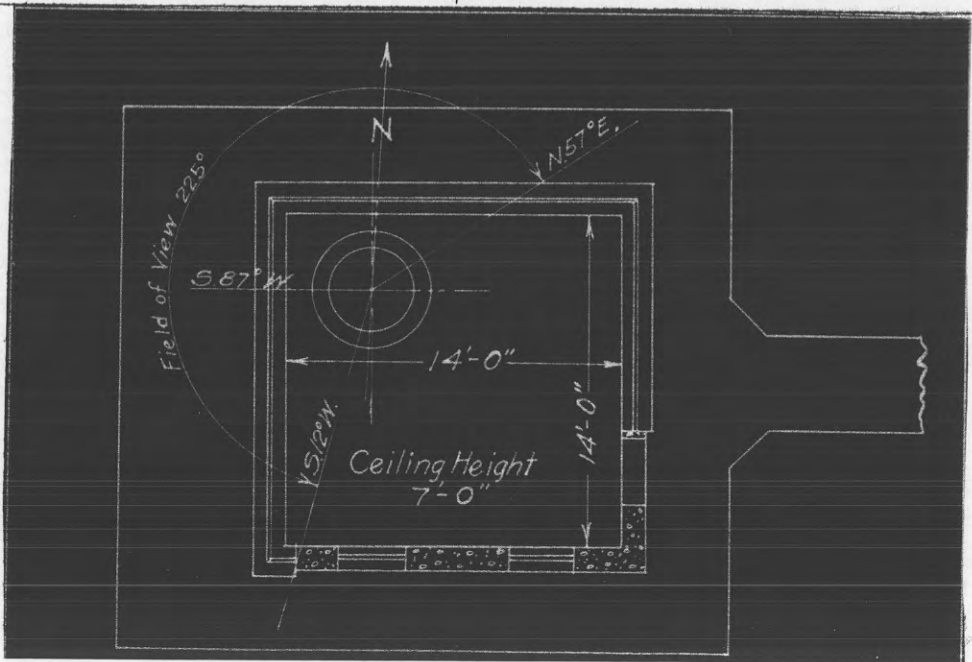
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. . . STEVENS, OREGON.....
STRUCTURE. B.C. & B. / 2. MISHLER. ALSO USED.....
AS SIGNAL STATION. B 60

Form 2. Corrected to June 30, 1921.

Location	200' rear of Battery. Mishler.
Date of transfer	November 29, 1900.
Cost to that date	\$2,729.
Type of construction	
(a) Roof	Steel, 3/16" tank.
(b) Remainder of bld	Concrete.
How concealed	Some trees to rear.
How protected	None.
Height above concealment	8' above ground; none
Height above protection	above trees.
Conspicuous at.....yards	About 8 miles.
Source of electric current	Central or Reserve Power Plant.
Kilowatts required	.2 kw.
Type of lighting fixtures	Commercial.
How heated	Stove.
Connected to water mains	No.
Connected to sewer	No.
Type of latrine	None.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	54.65' above M.L.L.W.
Reference of instrumental axis	60' above M.L.L.W.
Type of observing inst.	Swasey DPF type "AII" #105.
Type of plotting board	Whistler & Hearn #65 in battery.
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give descrip- tion of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	



TO BE REMOVED - 2nd Ind dated 11 Feb. 46
SPOPS 602 (31 Jan. 46)

obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

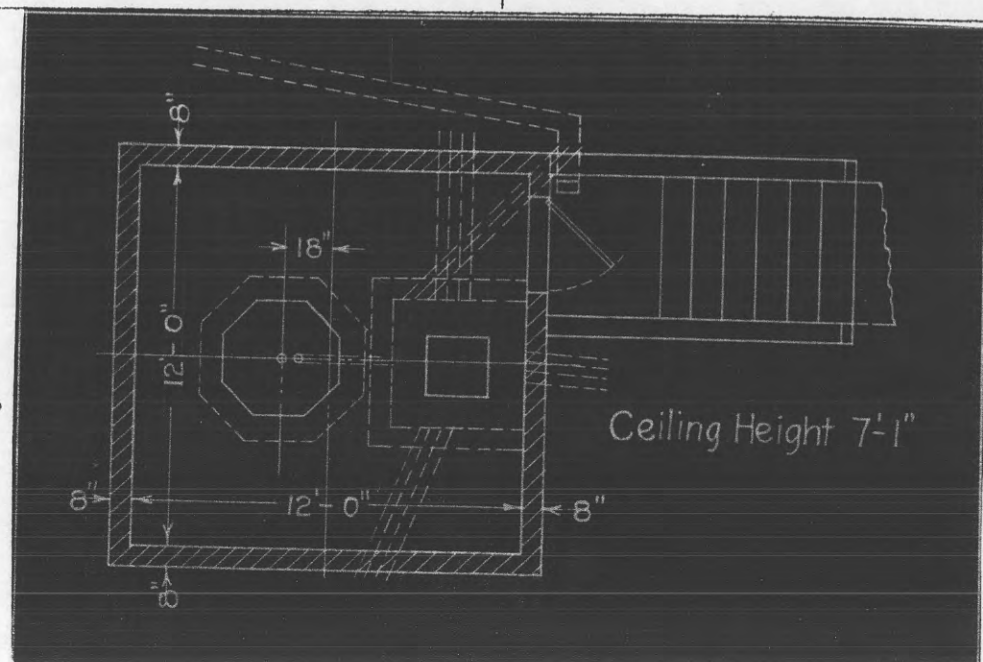
COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.
STRUCTURE... B¹/2.....

Form 2.

Corrected to June 30, 1921.

82

Location	F.C. hill, south end of reservation.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$1,050.	Cost of data transmission equipment	
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Buried to slot, hill and brush behind.	For dormitories give stations served	
How concealed	Buried to slot.	For cable hut give S. C. type	
How protected			
Height above concealment	6' above ground, none		
Height above protection	6' above hill and brush.		
Conspicuous at.....yards	About 3 miles.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	.2 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	95' above M.L.L.W.		
Reference of instrumental axis	98' above M.L.L.W.		
Type of observing inst.	Swawey DPF type "A-II" #141.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



TO BE REMOVED - 2nd Ind dated 11 Feb. 1946
SPOPS 602 (31 Jan. 46)

Obsolete

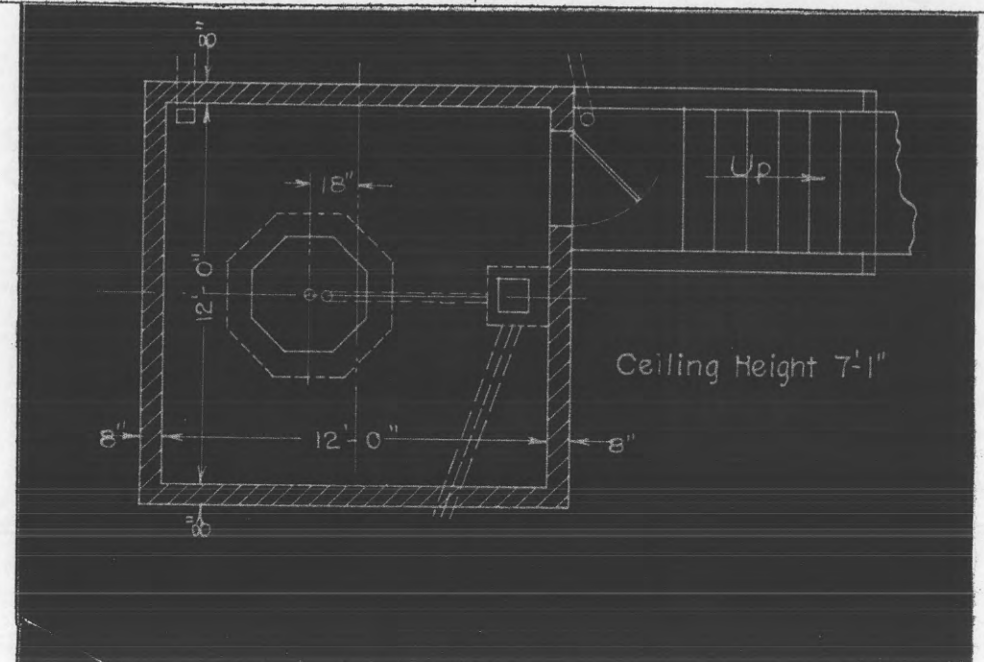
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE.. F./1. formerly F./2.....

Form 2. Corrected to June 30, 1921.

(51)

Location	F.C. hill, south end of reservation.	Type of data transmission
Date of transfer	March 30, 1911.	Date of transfer
Cost to that date	\$1,050.	Cost of data transmission equipment
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible
(b) Remainder of bld	Buried to slot; hill and brush behind station.	For dormitories give stations served
How concealed	Buried to slot.	For cable hut give S. C. type
How protected		
Height above concealment	6' above ground; none	
Height above protection	6' above hill and brush.	
Conspicuous at.....yards	About 3 miles.	
Source of electric current	Battery Russell Power Plant.	
Kilowatts required	.2 kw.	
Type of lighting fixtures	Commercial.	
How heated	None.	
Connected to water mains	No.	
Connected to sewer	No.	
Type of latrine	None.	
Permanent or temporary installation	Permanent.	
Present condition	Good.	
Reference of site	95' above M.L.L.W.	
Reference of instrumental axis	98' above M.L.L.W.	
Type of observing inst.	Swasey DPF type "A" #95.	
Type of plotting board	None.	
Type and capacity of crane		
Max. dimensions of reel handled		



TO BE REMOVED - 2nd Ind. dated 11 Feb. 1946
SPOPS 602 (31 Jan. 46)

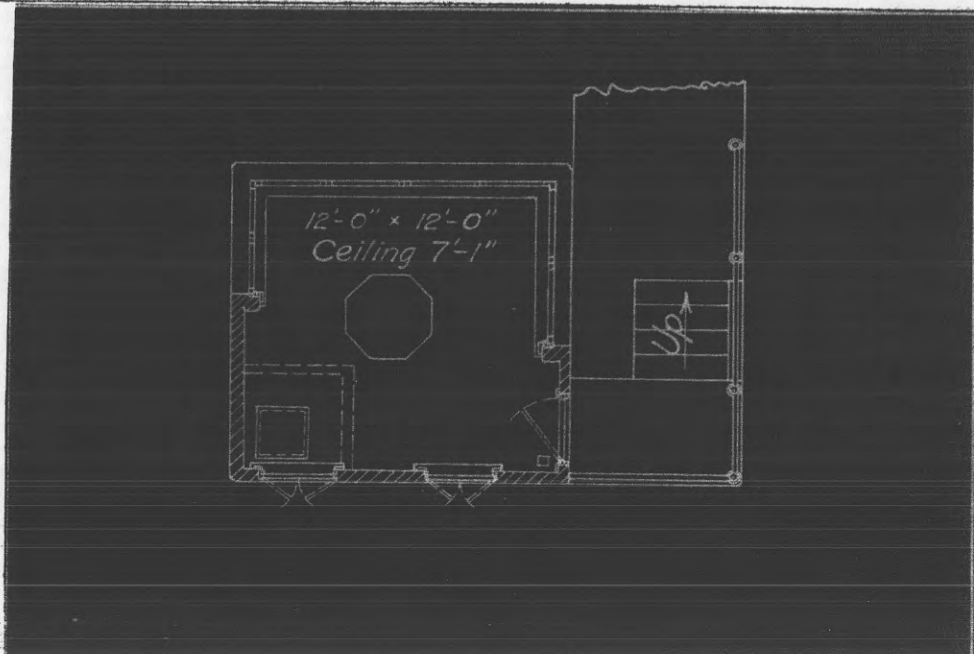
Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE... STATION M"/1

Form 2. Corrected to June 30, 1921.

Location	200' rear (south) of Battery Walker.	Type of data transmission
Date of transfer	March 30, 1911.	Date of transfer
Cost to that date	\$1,510.36.	Cost of data transmission equipment
Type of construction	Wood, asphalt, felt & gravel	For tide stations give description of tide gauge
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible
(b) Remainder of bld	Buried to slot; some trees to rear.	For dormitories give stations served
How concealed	Buried to slot.	For cable hut give S. C. type
How protected		
Height above concealment	4' above ground.	
Height above protection	4'.	
Conspicuous at.....yards	About 4 miles.	
Source of electric current	Central or Reserve Power Plant.	
Kilowatts required	.2 kw.	
Type of lighting fixtures	Commercial.	
How heated	None.	
Connected to water mains	No.	
Connected to sewer	No.	
Type of latrine	None.	
Permanent or temporary installation	Permanent.	
Present condition	Good.	
Reference of site	53' above M.L.L.W.	
Reference of instrumental axis	55.45' above M.L.L.W.	
Type of observing inst.	Lewis DPF #87.	
Type of plotting board	None.	
Type and capacity of crane		
Max. dimensions of reel handled		



TO BE REMOVED - 2nd Ind. dated 11 Feb. 1946
SPLPS 602(31 Jan 46)

Obsolete

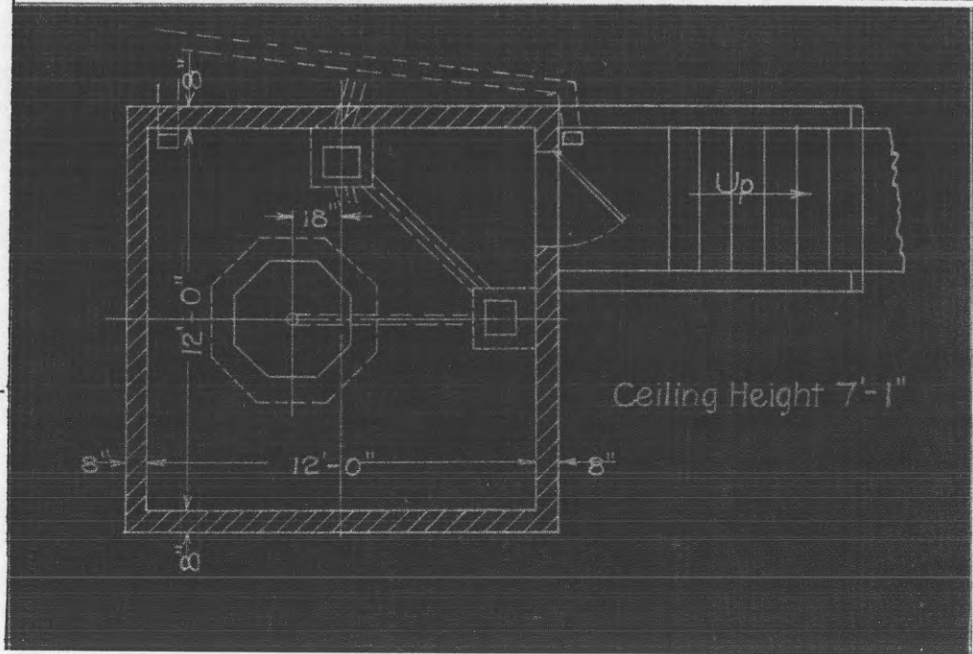
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE.. F-3

Form 2. Corrected to June 30, 1921.

B3

Location	F.C. hill, south end of reservation.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$1,050.	Cost of data transmission equipment	
Type of construction		For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Reinforced concrete.	For dormitories give stations served	
How concealed	Buried to slot; hill & brush behind station.	For cable hut give S. C. type	
How protected	Buried to slot.		
Height above concealment	6' above ground; none above hill and brush.		
Height above protection	6'		
Conspicuous at.....yards	About 3 miles.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	.2 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	95' above M.L.L.W.		
Reference of instrumental axis	98' above M.L.L.W.		
Type of observing inst.	Swasey DPF type "A-II-#1		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



TO BE REMOVED - 2nd Ind. dated 11 Feb. 1946

SPOPS 602 (31 Jan 46)

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

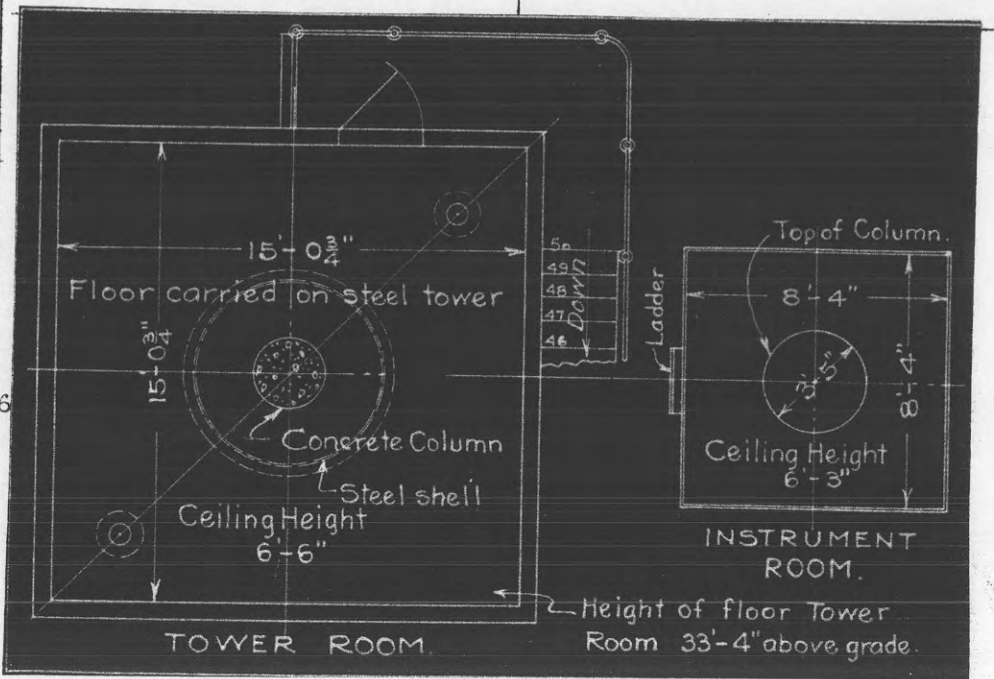
COAST DEFENSES OF... THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE. METEOROLOGICAL STATION & CONTROL
~~BOOTH FOR S.L. #3. (Old 1/2)~~

Form 2. Corrected to June 30, 1921.

B₃ S₃ # 246

Location	About 350' S.E. of Battery Pratt.
Date of transfer	October 4, 1904.
Cost to that date	\$7,572.98.
Type of construction	Tower, steel.
(a) Roof	Steel frame, wire glass cover.
(b) Remainder of bld	Steel frame & siding, wood ceiling.
How concealed	Some trees in rear.
How protected	None.
Height above concealment	20'.
Height above protection	
Conspicuous at.....yards	About 8 miles.
Source of electric current	Central or Reserve Power Plant.
Kilowatts required	4 kw.
Type of lighting fixtures	Commercial.
How heated	None.
Connected to water mains	No.
Connected to sewer	No.
Type of latrine	None.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	25' above M.L.L.W.
Reference of instrumental axis	73' above M.L.L.W.
Type of observing inst.	Swasey DPF type "A-II" #106
Type of plotting board	Observing telescope Model None.
Type and capacity of crane	
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	

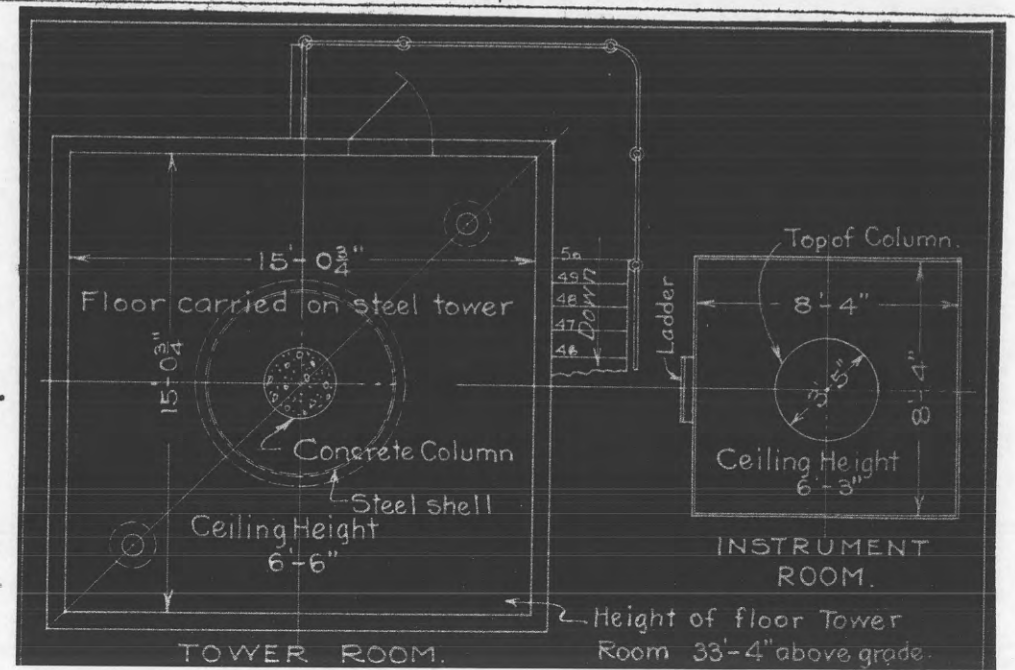


REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEWENS, OREGON.
STRUCTURE... B.C. B1/3 PRATT formerly B1/5
(WALKER)

Form 2. Corrected to June 30, 1921.

Location	About 550' S.E. of Battery Clark.	Type of data transmission	
Date of transfer	September 13, 1904.	Date of transfer	
Cost to that date	\$7,844.57.	Cost of data transmission equipment	
Type of construction	Tower, steel.	For tide stations give description of tide gauge	
(a) Roof	Steel frame, wire glass cover.	For datum points give Forts from which visible	
(b) Remainder of bld	Steel frame & siding; wood ceiling.	For dormitories give stations served	
How concealed	Trees topped to slot; high trees to rear.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	4' above front concealment		
Height above protection			
Conspicuous at.....yards	About 4 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.4 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	20' above M.L.L.W.		
Reference of instrumental axis	72' above M.L.L.W.		
Type of observing inst.	Swasey DPF, type "AII" #107.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



To be Removed - 224 Ind dated 11 Feb 46.
SPORS 602 (31 Jan. 46)

Obsolete

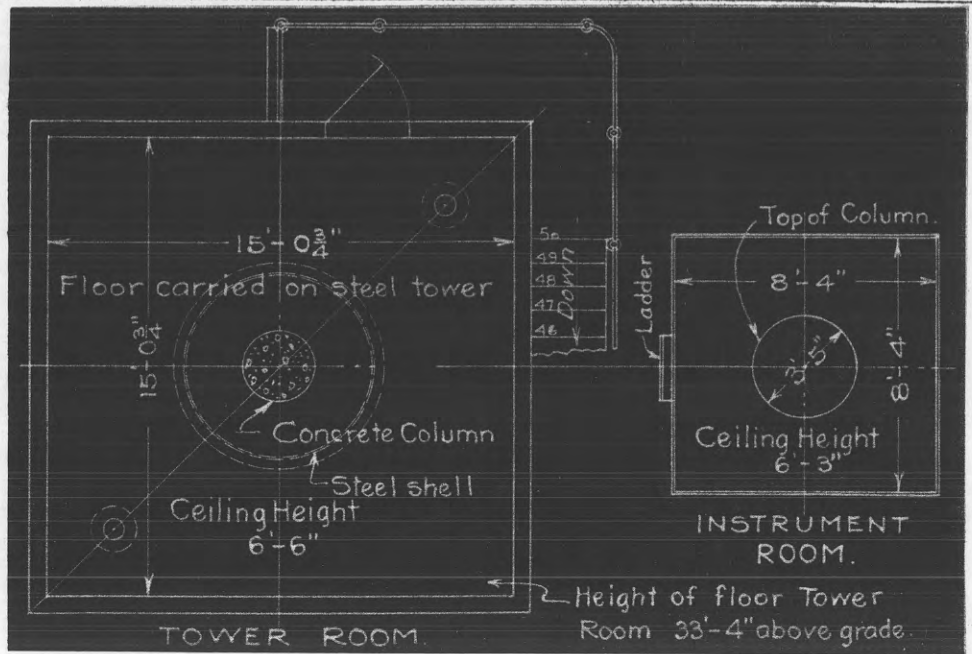
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF...THE COLUMBIA.....
FORT...STEVENS, OREGON.....
STRUCTURE..B!./4..(LEWIS)..(Unused).....

Form 2. Corrected to June 30, 1921.

Lewis (B) -> Not used

Location	About 700' S.E. of Battery Clark.	Type of data transmission	
Date of transfer	September 13, 1904.	Date of transfer	
Cost to that date	\$7,832.20.	Cost of data transmission equipment	
Type of construction	Tower, steel.	For tide stations give description of tide gauge	
(a) Roof	Steel frame, wire glass ceiling.	For datum points give Forts from which visible	
(b) Remainder of bld	Steel frame & siding, wood ceiling.	For dormitories give stations served	
How concealed	Trees topped to slot; high trees to rear.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	About 4' above front concealment.		
Height above protection			
Conspicuous at.....yards	About 4 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.4 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	23' above M.L.L.W.		
Reference of instrumental axis	73' above M.L.L.W.		
Type of observing inst.	Swasey DPF type "AII" #124.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			
TO BE REMOVED - 2nd Ind dated 11 Feb. 46			
SPOPS 602 (31 Jan. 46)			



Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

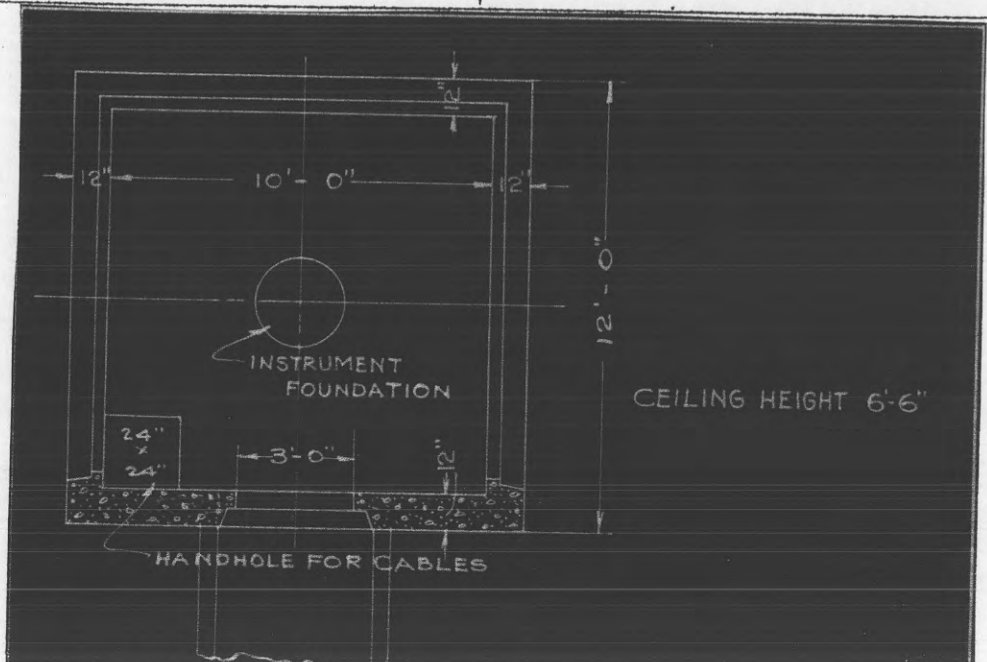
COAST DEFENSES OF...THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE...C.R.F. SMUR..(Unused).....

Form 2.

Corrected to June 30, 1921.

5
CRF

Location	About 150' east of Battery Smur.	Type of data transmission	
Date of transfer	January 31, 1921.	Date of transfer	
Cost to that date	\$2,388.13.	Cost of data transmission equipment	
Type of construction	Reinforced concrete.	For tide stations give description of tide gauge	
(a) Roof	Plain concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Buried to slot, brush & trees to rear.	For dormitories give stations served	
How concealed	Buried to slot.	For cable hut give S. C. type	
How protected			
Height above concealment	3' above ground.		
Height above protection	3'.		
Conspicuous at.....yards	About 2 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.1 kw.		
Type of lighting fixtures	E.D. Standard.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	23.5' above M.L.L.W.		
Reference of instrumental axis	Elev. Inst. pier 19.62' above M.L.L.W.		
Type of observing inst.	None, battery dismantled.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE. B.C. & F' / 3. with DORMITORY.

Form 2. Corrected to June 30, 1921.

83-63-G3

Location 600' N.E. of Battery Clark.

Date of transfer March 30, 1911.

Cost to that date \$8,072.68.

Type of construction Tower.

(a) Roof Wood, asphalt, felt & grave

(b) Remainder of bld Wood, frame, cor. iron.

How concealed Some trees in rear.

How protected None.

Height above concealment 20'.

Height above protection

Conspicuous at.....yards About 8 miles.

Source of electric current Central or Reserve Power Plant.

Kilowatts required 1.8 kw.

Type of lighting fixtures Commercial.

How heated Stoves.

Connected to water mains Yes.

Connected to sewer Yes.

Type of latrine Syphon.

Permanent or temporary installation Permanent.

Present condition Good.

Reference of site 20' above M.L.L.W.

Reference of instrumental axis 72' above M.L.L.W.

Type of observing inst. Swasey DPF type "AII" #111.

Type of plotting board Warner & Swasey, model 1910.

None. (Azimuth #3.

Type and capacity of crane

Max. dimensions of reel handled

Type of data transmission

Date of transfer

Cost of data transmission equipment

For tide stations give description of tide gauge

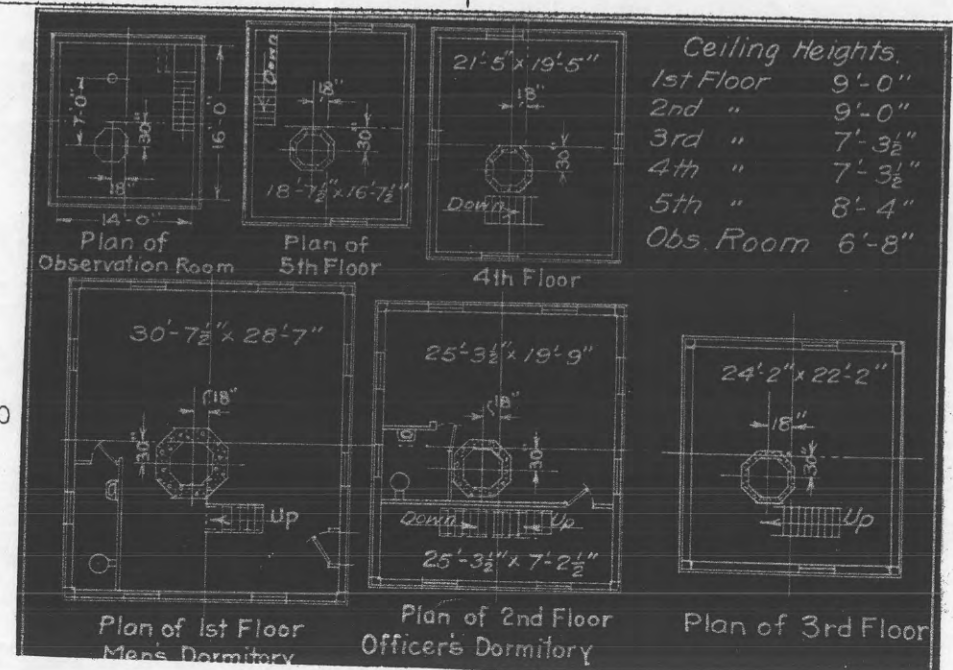
For datum points give Forts from which visible

For dormitories give stations served

For cable hut give S. C. type

Plant.

B.C. F' / 3.

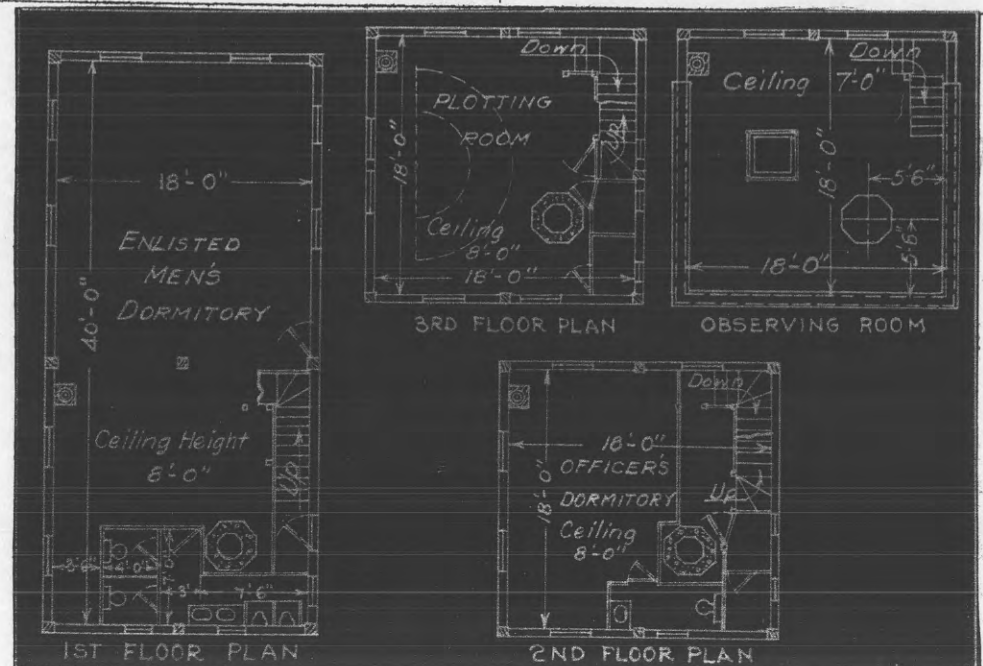


REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.
STRUCTURE..M³/1. & CONTROLLER FOR S.C. NO. 4...

Form 2. Corrected to June 30, 1921.

Location	About 500' S.E. from Battery Freeman (old Fort Stevens).	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$5,660.80.	Cost of data transmission equipment	
Type of construction	Tower with dormitory.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame, cor. iron cover.	For dormitories give stations served	
How concealed	Trees partly in rear.	For cable hut give S. C. type	
How protected	None.		
Height above concealment	10 feet.		
Height above protection	10 feet.		
Conspicuous at.....yards	About 8 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	2.20 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stoves.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	13' above M.L.L.W.		
Reference of instrumental axis	50' " M.L.L.W.		
Type of observing inst.	Lewis DPF type "A" #159		
Type of plotting board	and observing instrument. #17 submarine plotting board, model 1906.		
Type and capacity of crane			
Max. dimensions of reel handled			



Obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

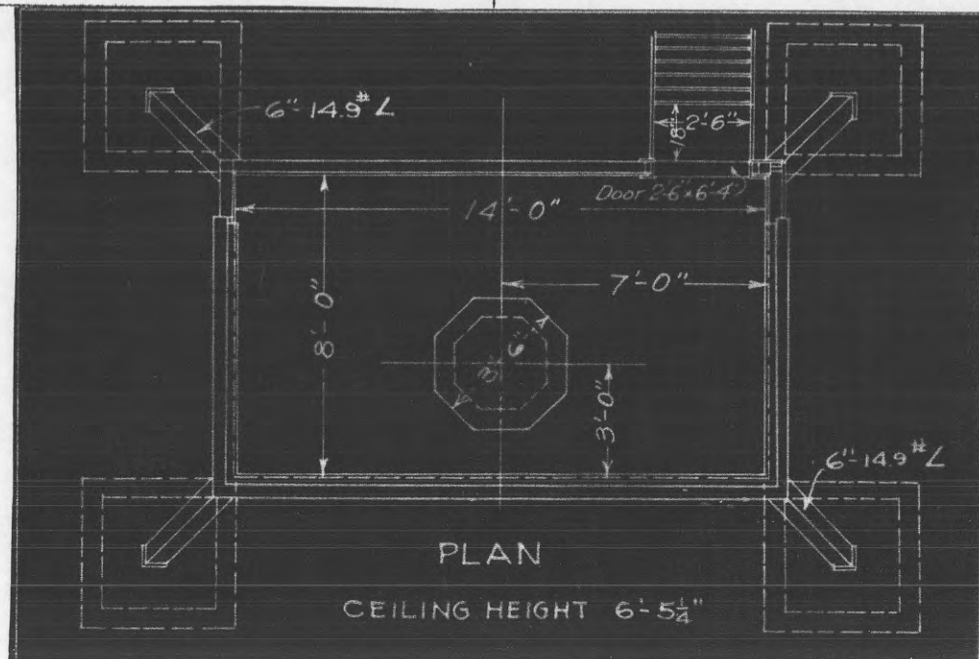
COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE..Combined Supplementary.....
F^v/3, B^u/1, B^v/2 (Station X).

Form 2.

Corrected to June 25, 1922.

Location	About 6 miles S.E. from Ft. Stevens.
Date of transfer	April 15, 1922.
Cost to that date	\$5,252.92
Type of construction	Tower.
(a) Roof	Sheathing & J M asbestos roofing.
(b) Remainder of bldg	Steel tower wood frame bldg. sheathing & J M asbestos roofing.
How concealed	In heavy timber, trees to rear, not topped.
How protected	None.
Height above concealment	None.
Height above protection	Not protected.
Conspicuous at....	1,000 yards.
Source of electric current	None.
Kilowatts required	None.
Type of lighting fixtures	None.
How heated	None.
Connected to water mains	No.
Connected to sewer	No.
Type of latrine	None.
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	257.00' above M.L.L.W.
Reference of instrumental axis	275.50' above M.L.L.W.
Type of observing inst.	Provision for 2 azimuth
Type of plotting board	1 D.P.F.
Type and capacity of crane	None.
Max. dimensions of reel handled	

Type of data transmission	
Date of transfer	APR 15 1922
Cost of data transmission equipment	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	



Station destroyed by storm, winter 1927-28
 See '665 (Col. R) 81

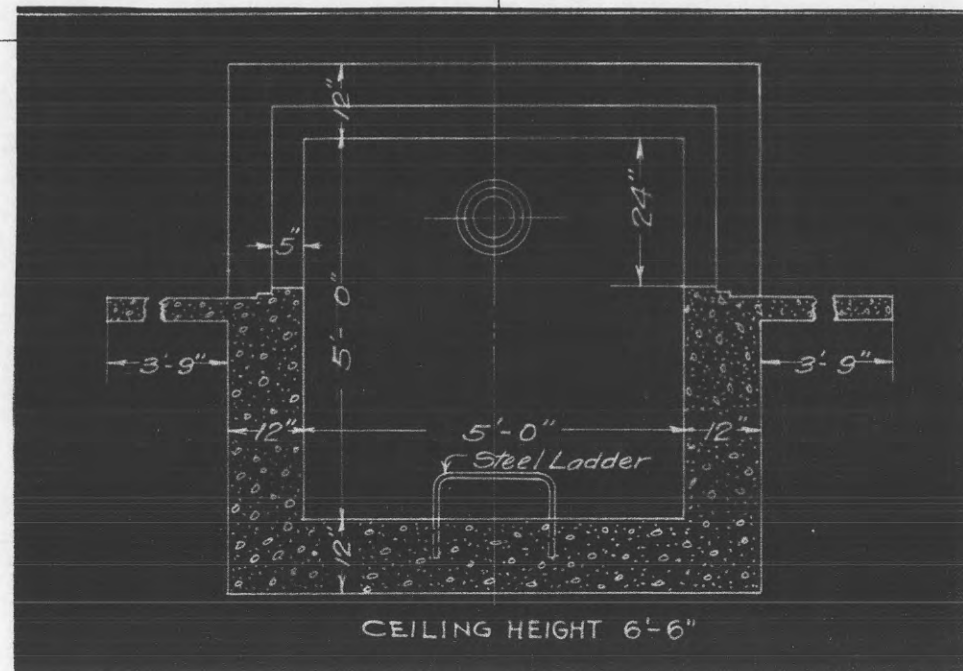
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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
 (Fire control or Torpedo Structures)

COAST DEFENSES OF...THE COLUMBIA.....
 FORT. STEVENS, OREGON.....
 STRUCTURE...Supplementary Station.....
 B'V/4

Form 2. Corrected to June 25, 1922.

Location	On "Sands" Clatsop Spit 17693.02'S.9018.20'E. from Canby Light, Wash.	Type of data transmission	
Date of transfer	April 15, 1922.	Date of transfer	APR 15 1922
Cost to that date	\$2,320.48	Cost of data transmission equipment	
Type of construction	Dug-in.	For tide stations give descrip- tion of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Reinforced concrete.	For dormitories give stations served	
How concealed	Dug in to slot with sand cover. Color blends with surrounding sand.	For cable hut give S. C. type	
How protected	Dug in to slot with re- inforced concrete roof and walls.		
Height above concealment	2 ft.		
Height above protection	2 ft.		
Conspicuous at...500...yards			
Source of electric current	None.		
Kilowatts required	None.		
Type of lighting fixtures	None.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	27.00' above M.L.L.W.		
Reference of instrumental axis	28.50' above M.L.L.W.		
Type of observing inst.	None.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			



CEILING HEIGHT 6'-6"

Obsolete

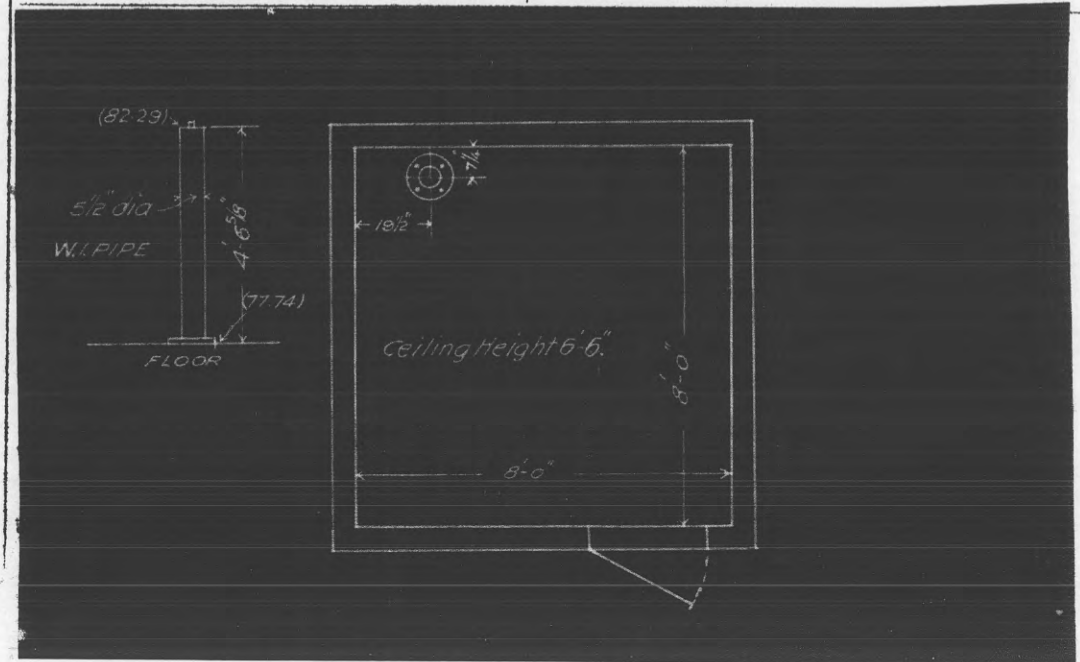
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF.....THE COLUMBIA.....
FORT....STEVENS,, OREGON.....
STRUCTURE... EMERGENCY STATION No. 1.....

Form 2. Corrected to November 7, 1922.

Location	In controller booth for S.L. No. 1. 1401.77'S. 612.65'E. of Gun No. 2. Batt. Russell.
Date of transfer	See note below.
Cost to that date	\$12.63
Type of construction	5 1/2" dia. W.I. pipe, bolted to floor.
(a) Roof	
(b) Remainder of bld	In controller booth.
How concealed	In controller booth.
How protected	In controller booth.
Height above concealment	None.
Height above protection	None.
Conspicuous at.....yards	Not conspicuous.
Source of electric current	None.
Kilowatts required	
Type of lighting fixtures	
How heated	
Connected to water mains	
Connected to sewer	
Type of latrine	
Permanent or temporary installation	Permanent.
Present condition	Good.
Reference of site	77.00' above M.L.L.W.
Reference of instrumental axis	Inst. not installed.
Type of observing inst.	Inst. not installed.
Type of plotting board	None.
Type and capacity of crane	
Max. dimensions of reel handled	
Station constructed in May, 1915. No record of date of transfer.	

Type of data transmission	
Date of transfer	
Cost of data transmission equipment	
For tide stations give descrip- tion of tide gauge	
For datum points give Forts from which visible	
For dormitories give stations served	
For cable hut give S. C. type	



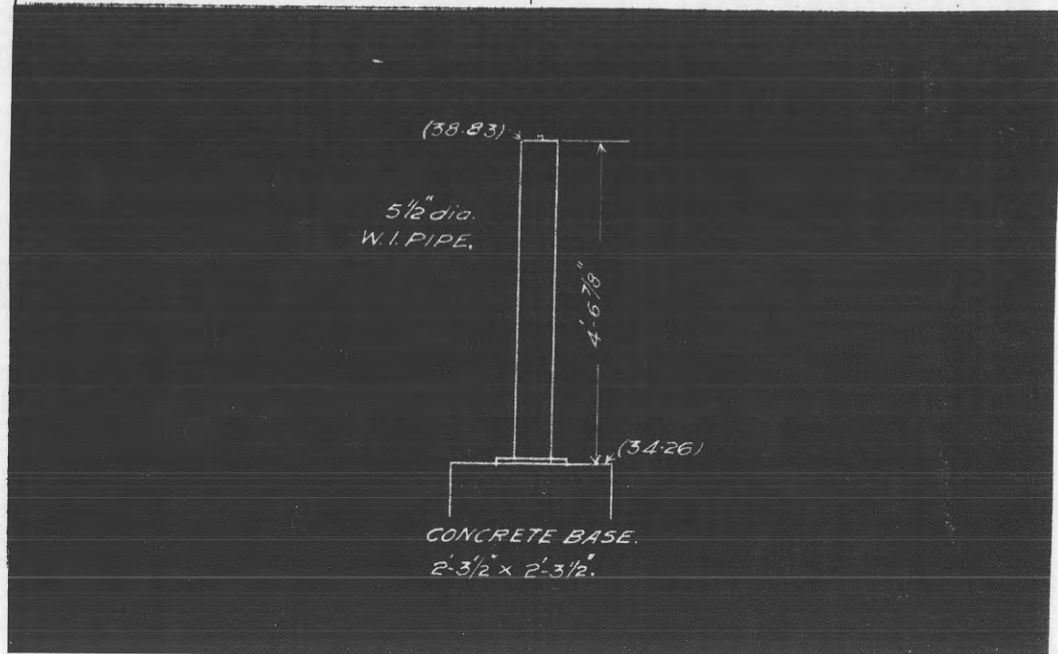
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

obsolete

COAST DEFENSES OF... THE COLUMBIA
FORT... STEVENS, OREGON
STRUCTURE... EMERGENCY STATION FOR FIRST
MINE COMMAND

Form 2. Corrected to November 7, 1922.

Location	About 45.00'N and 98.00'W of the Mine Primary Station, M'/1.	Type of data transmission	
Date of transfer	See note below.	Date of transfer	
Cost to that date	\$12.43	Cost of data transmission equipment	
Type of construction	5 1/2" dia., W.I. pipe, bolted to concrete base.	For tide stations give description of tide gauge	
(a) Roof		For datum points give Forts from which visible	
(b) Remainder of bld		For dormitories give stations served	
How concealed	By brush.	For cable hut give S. C. type	
How protected	By brush.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Not conspicuous.		
Source of electric current	None.		
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	35.00' above M.L.L.W.		
Reference of instrumental axis	Inst. not installed.		
Type of observing inst.	Inst. not installed.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			
Station constructed in April, 1916. No record of date of transfer.			



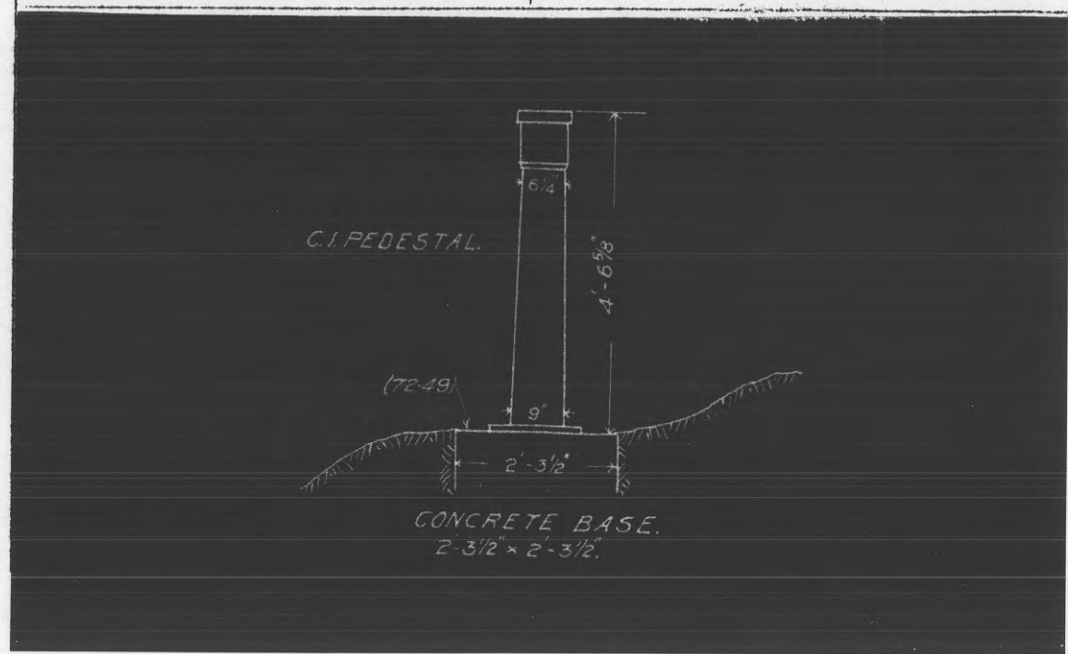
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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA
FORT... STEVENS, OREGON
STRUCTURE... EMERGENCY STATION No. 2.....

Form 2. Corrected to November 7, 1922.

Location	Near south end of Reservation. 769.47'S. 165.24'E. of Gun No. 2, Battery Russell.	Type of data transmission
Date of transfer	See note below.	Date of transfer
Cost to that date	\$28.63	Cost of data transmission equipment
Type of construction	C.I. pedestal on concrete base.	For tide stations give description of tide gauge
(a) Roof		For datum points give Forts from which visible
(b) Remainder of bld		For dormitories give stations served
How concealed	Hill & brush to rear.	For cable hut give S. C. type
How protected	Hill & brush to rear.	
Height above concealment	None.	
Height above protection	None.	
Conspicuous at...1000..yards		
Source of electric current	None.	
Kilowatts required		
Type of lighting fixtures		
How heated		
Connected to water mains		
Connected to sewer		
Type of latrine		
Permanent or temporary installation	Permanent.	
Present condition	Good.	
Reference of site	72.00' above M.L.L.W.	
Reference of instrumental axis	Inst. not installed.	
Type of observing inst.	Inst. not installed.	
Type of plotting board	None.	
Type and capacity of crane		
Max. dimensions of reel handled		
Station constructed in May 1915. No record of date of transfer.		



Obsolete

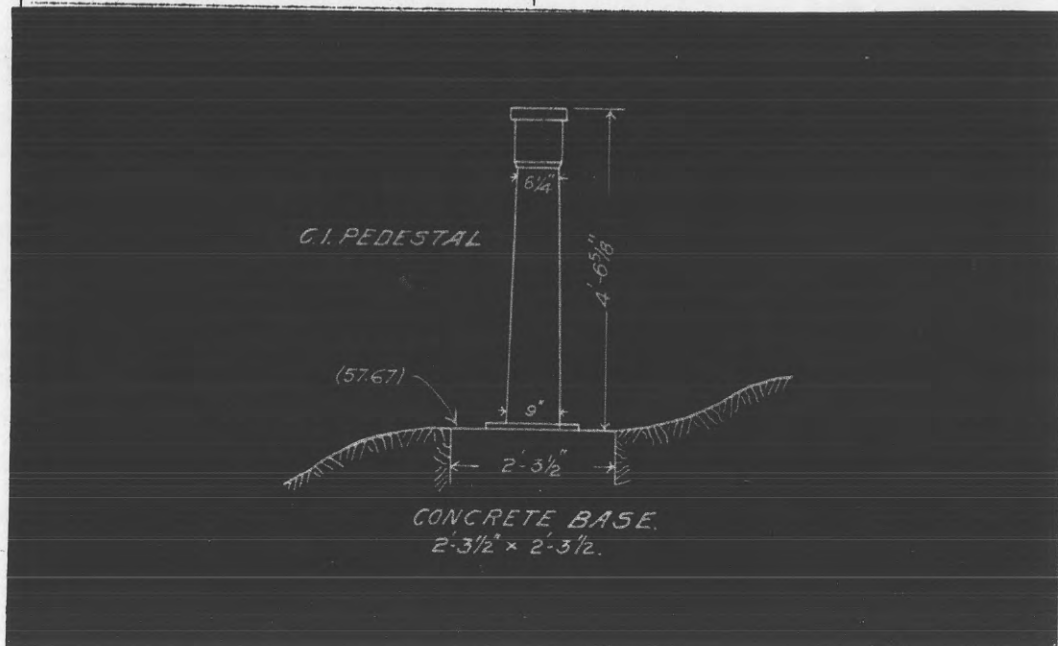
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA...
FORT... STEVENS, OREGON...
STRUCTURE... EMERGENCY STATION No. 3...

Form 2.

Corrected to November 7, 1922.

Location	Near south end of Reservation. 630.39' N. 275.15' W of Gun No. 1. Battery Russell. See note below. \$28.63	Type of data transmission	
Date of transfer		Date of transfer	
Cost to that date		Cost of data transmission equipment	
Type of construction	C.I. pedestal, on concrete base.	For tide stations give description of tide gauge	
(a) Roof		For datum points give Forts from which visible	
(b) Remainder of bld		For dormitories give stations served	
How concealed	Brush at rear.	For cable hut give S. C. type	
How protected	Brush at rear.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at... 1000 yards	None.		
Source of electric current			
Kilowatts required			
Type of lighting fixtures			
How heated			
Connected to water mains			
Connected to sewer			
Type of latrine			
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	57.00' above M.L.L.W.		
Reference of instrumental axis	Inst. not installed.		
Type of observing inst.	Inst. not installed.		
Type of plotting board	None.		
Type and capacity of crane			
Max. dimensions of reel handled			
Station constructed in May 1915. No record of date of transfer.			



Obsolete

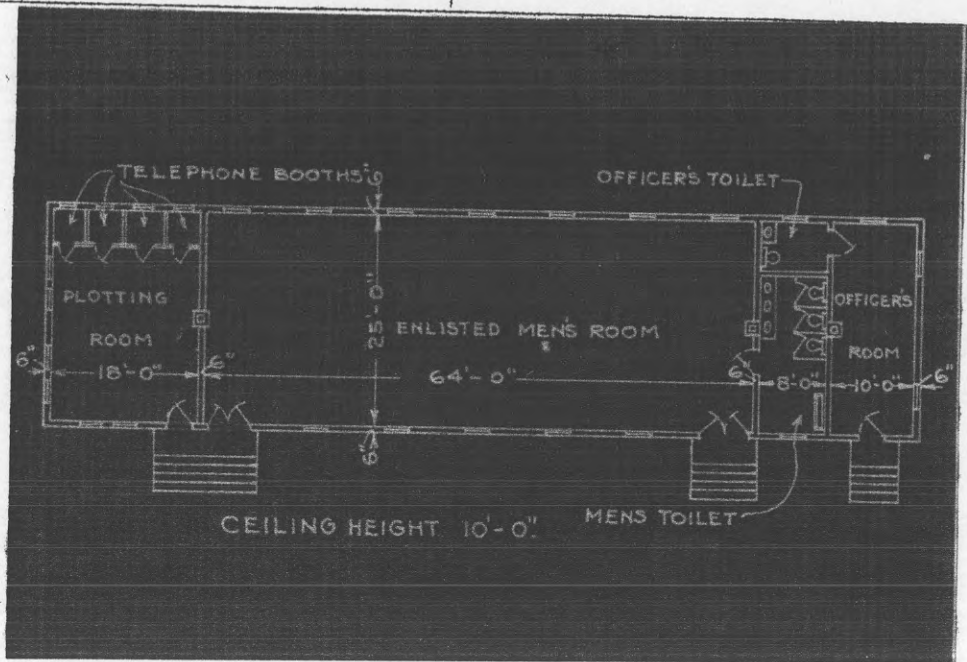
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE.. COMBINED P. R. & DORMITORY FOR.....
2nd FIRE COMMAND.

Form 2.

Corrected to June 30, 1921.

Location	400' S.E. of Battery Pratt.	Type of data transmission	Structure now used by Coast Artillery for war game purposes.
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$8,356.16.	Cost of data transmission equipment	
Type of construction	Sewell.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood, frame, expanded metal and plaster.	For dormitories give stations served	
How concealed	By brush.	For cable hut give S. C. type	
How protected	None.		
Height above concealment	None.		
Height above protection			
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	2.5 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stoves.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 16' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board	#18 Fire Commanders, model 1906.		
Type and capacity of crane			
Max. dimensions of reel handled			



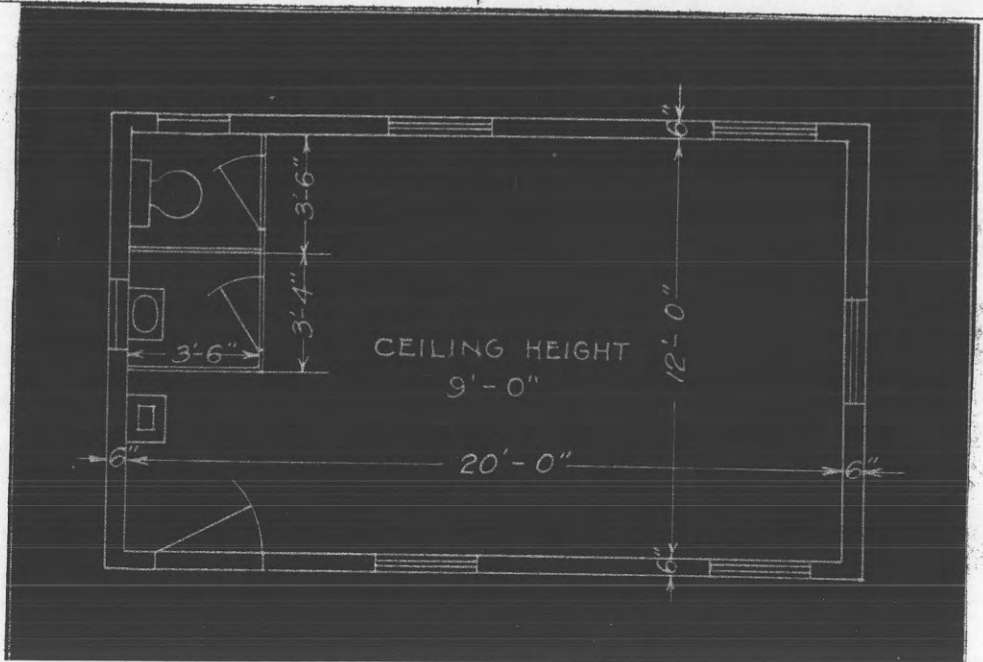
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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE. DORMITORY FOR OLD B' /4 & B' /3.....

Form 2. Corrected to June 30, 1921.

Location	1000' S.W. of Battery Clark.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$1,396.34.	Cost of data transmission equipment	
Type of construction	Sewell.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame, expanded metal, lath and plaster.	For dormitories give stations served	B' /3 Pratt.
How concealed	By trees.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	None.		
Height above protection			
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.3 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 20' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



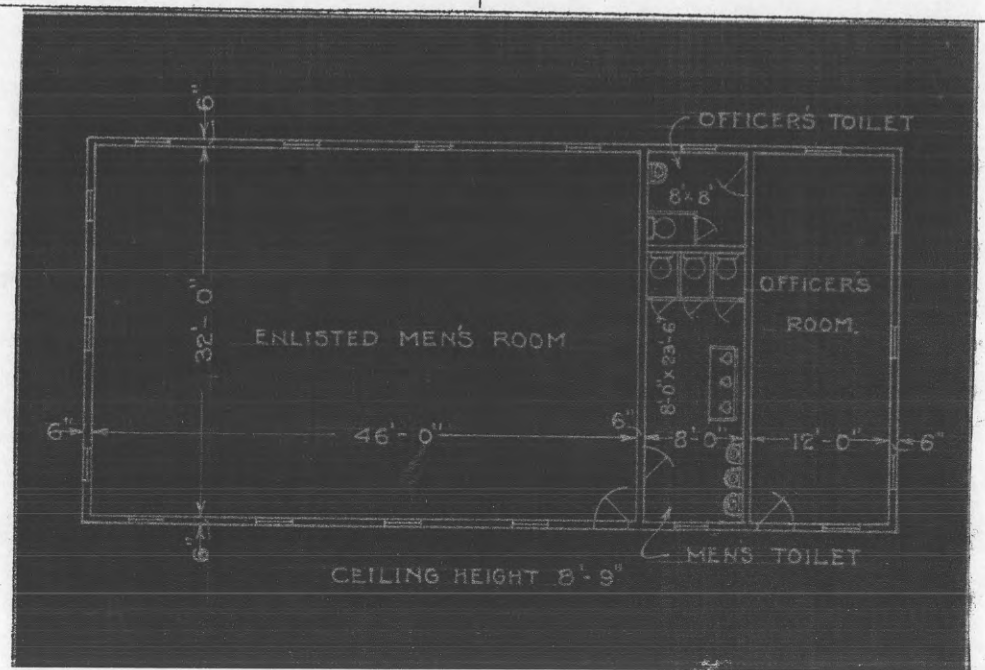
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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE..DORMITORY..AT..BATTLE..COMMANDERS.....
STATION.

Form 2. Corrected to June 30, 1921.

Location	F.C. Hill south end of reservation.	Type of data transmission	
Date of transfer	November 9, 1911.	Date of transfer	
Cost to that date	\$7,680.93	Cost of data transmission equipment	
Type of construction	Sewell.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame, expanded metal and plaster.	For dormitories give stations served	
How concealed	Behind hill.	For cable hut give S. C. type	C', B'/1, F"/3, B"/2 & F'/1, radio station.
How protected	Behind hill.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Battery Russell Power Plant.		
Kilowatts required	1.9 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stoves.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 90' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



CONFIDENTIAL

Part II

Corrected to 15 November 1943

UTILITIES: (Cont'd)

Characteristics: Voltage 110 or 220 Ac; triple phase.

Kilowatts required: Approximately 4.0

Type of lighting fixtures: Are incandescent lamps in porcelain lamp receptacles.

Heating: Heat for the station is provided by one Army No. 1 space heater. Plug-in receptacles are provided in each room so that electric heaters may be used if the one space heater should be inadequate during the cold seasons.

Hot water is provided by a 40 gal. automatic electric heater.

Water & Sewage: Water is obtained from a 1" lateral of the Mountain Springs Water Company's system of Long Beach, Washington. Water is carried 145 feet to the station by a 1" galvanized iron pipe.

The sewage from this station is treated by a small septic tank which, in turn, is drained to a 300 sq.ft. covered sludge bed.

The latrine is located on the first floor of the station. The facilities provided include one toilet, one wash basin and one shower head.

REFERENCE:

The elevations of the top of the concrete instrument bases are:

Of the southern-most 38.882 feet

Of the northern-most 38.379 feet

The datum plane of reference being Mean Sea Level.

INSTRUMENTS & EQUIPMENT:

Observing instruments: Two azimuth instruments
M1910 A1 is being provided by the Ordnance Department for this station.

DATA TRANSMISSION:

Type of : Telephones.
The telephones and lines were furnished and installed by the Signal Corps.

REMARKS:

This station was constructed by Government forces with funds from P/A CAC-115 P 270 A 1204-24. Construction work was started on 31 December 1942 and was completed 22 May 1943. For construction details see drawing numbers DMCR 1068.3, 1068.4 and 1068.5.

CONFIDENTIAL

Approved: *C. S. Doney*
C. S. Doney
Colonel, C.A.C., Commanding

HARBOR DEFENSES OF THE COLUMBIA

BASE END STATION B₃S₃

FORT STEVENS, OREGON

SCALE 3/16"=1'-0"

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

SUBMITTED: *J. Hartman*
SENIOR ENGINEER

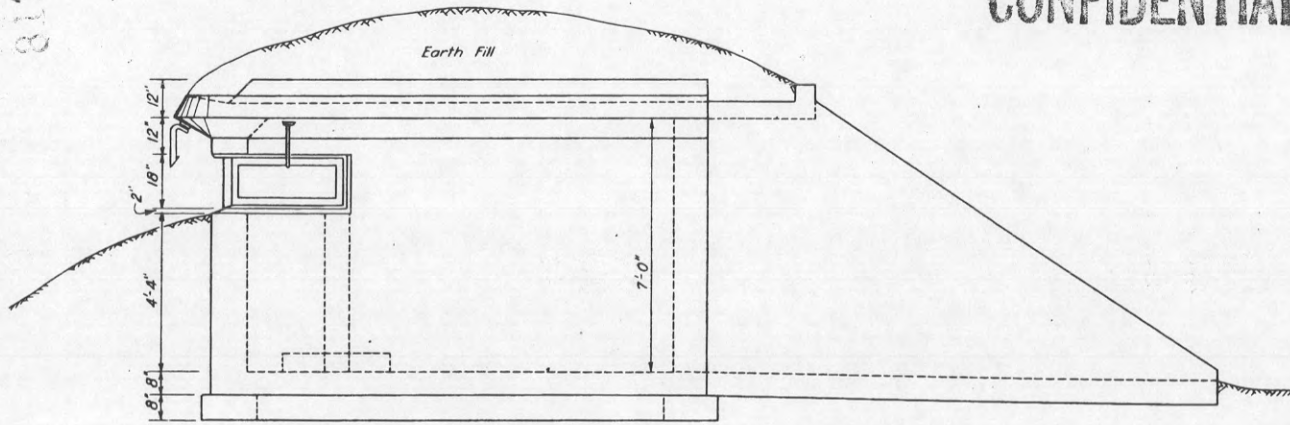
APPROVED: *M. H. ...*
LT. COL. CORPS OF ENGINEERS
DISTRICT ENGINEER

RECOMMENDED: *R. ...*
PRINCIPAL ENGINEER

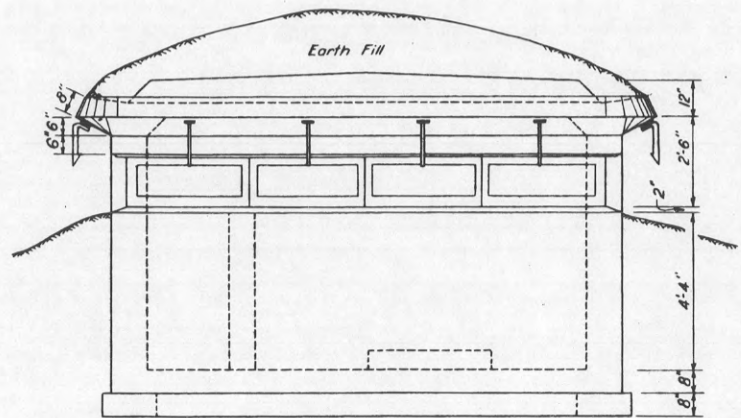
DRAWN: M.E.H. DATE 5. Dec. 1941
TRACED: M.E.H. CHECKED: ...

CONFIDENTIAL

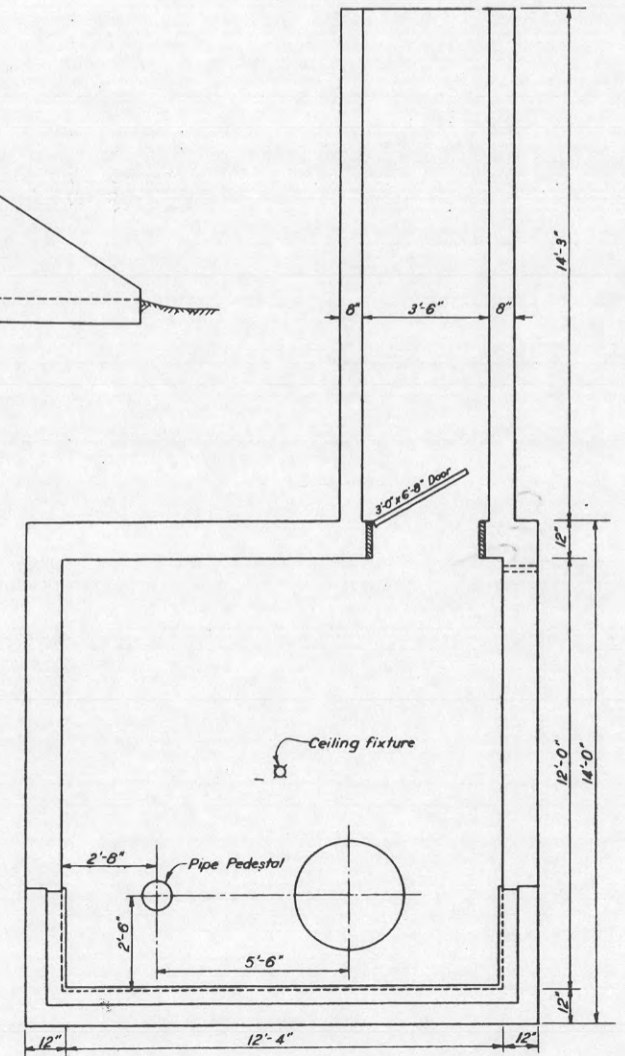
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SIDE ELEVATION



FRONT ELEVATION



PLAN

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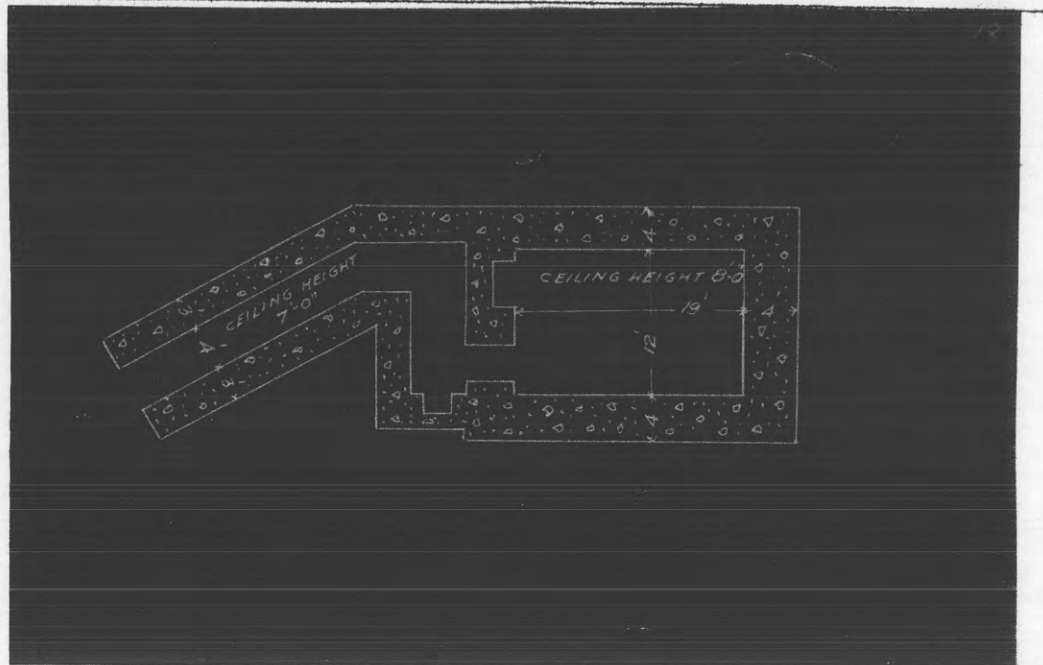
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF...THE COLUMBIA.....
FORT. STEVENS, OREGON.
STRUCTURE. MINING CASEMATE (OLD) (About 1898)...

Form 2.

Corrected to June 30, 1921.

Location	About 475' S.E. from Battery Freeman (old Fort Stevens).	Type of data transmission	
Date of transfer	April, 1901.	Date of transfer	
Cost to that date	\$7,885.25.	Cost of data transmission equipment	
Type of construction	Buried.	For tide stations give description of tide gauge	
(a) Roof	Concrete, with 8" I beams.	For datum points give Forts from which visible	
(b) Remainder of bld	Concrete.	For dormitories give stations served	
How concealed	Earth cover, tunnel entrance.	For cable hut give S. C. type	
How protected	Earth cover and concrete roof.		Now used by Coast Artillery as storeroom for explosives.
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Entrance only visible at site.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.4 kw.		
Type of lighting fixtures	Old E.D. Standard marine.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

Form 2.

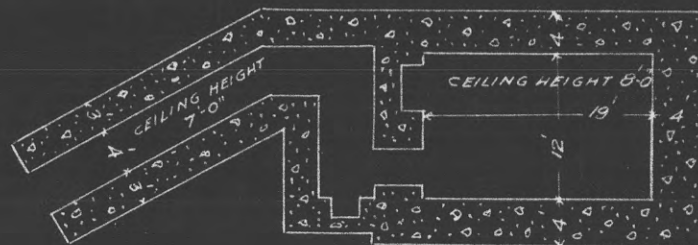
Corrected to June 30, 1921.

obsolete

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON.
STRUCTURE. MINING CASEMATE (OLD) (About 1898).

Location	About 475' S.E. from Battery Freeman (old Fort Stevens).	Type of data transmission	
Date of transfer	April, 1901.	Date of transfer	
Cost to that date	\$7,885.25.	Cost of data transmission equipment	
Type of construction	Buried.	For tide stations give description of tide gauge	
(a) Roof	Concrete, with 8" I beams.	For datum points give Forts from which visible	
(b) Remainder of bld	Concrete.	For dormitories give stations served	
How concealed	Earth cover, tunnel entrance.	For cable hut give S. C. type	
How protected	Earth cover and concrete roof.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Entrance only visible at site.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.4 kw.		
Type of lighting fixtures	Old E.D. Standard marine.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			

Now used by Coast Artillery as storeroom for explosives.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

Superseded

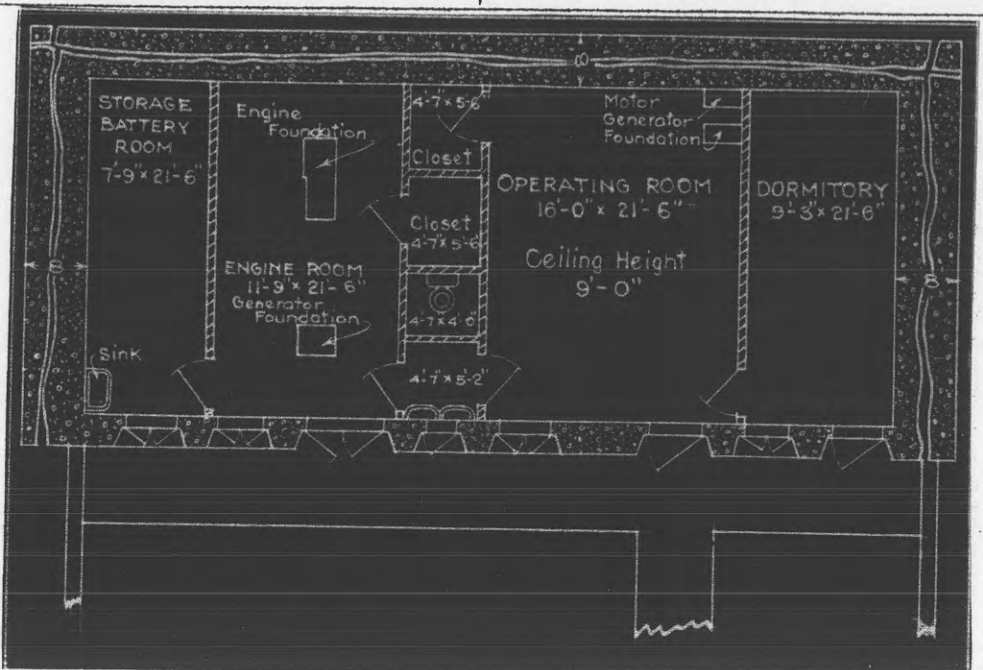
COAST DEFENSES OF THE COLUMBIA.....
FORT. STEVENS, OREGON.....
STRUCTURE..MINING.CASEMATE.(NEW)..(1921).....

Form 2.

Corrected to June 30, 1921.

Location	About 400' S.E. from Battery Freeman (Old Fort Stevens).	Type of data transmission	
Date of transfer	Jan. 31, 1921.	Date of transfer	
Cost to that date	\$19,513.06	Cost of data transmission equipment	
Type of construction	Bombproof.	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Plain concrete.	For dormitories give stations served	
How concealed	Dug into hill & covered with earth.	For cable hut give S. C. type	
How protected	5' concrete roof, 9' sand covering.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Rear visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	1.2		
Type of lighting fixtures	E.D. Standard.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			

Equipment not yet transferred from old (1909) casemate.



SUPERSEDED:- See Form 2, corrected to June 25 1922

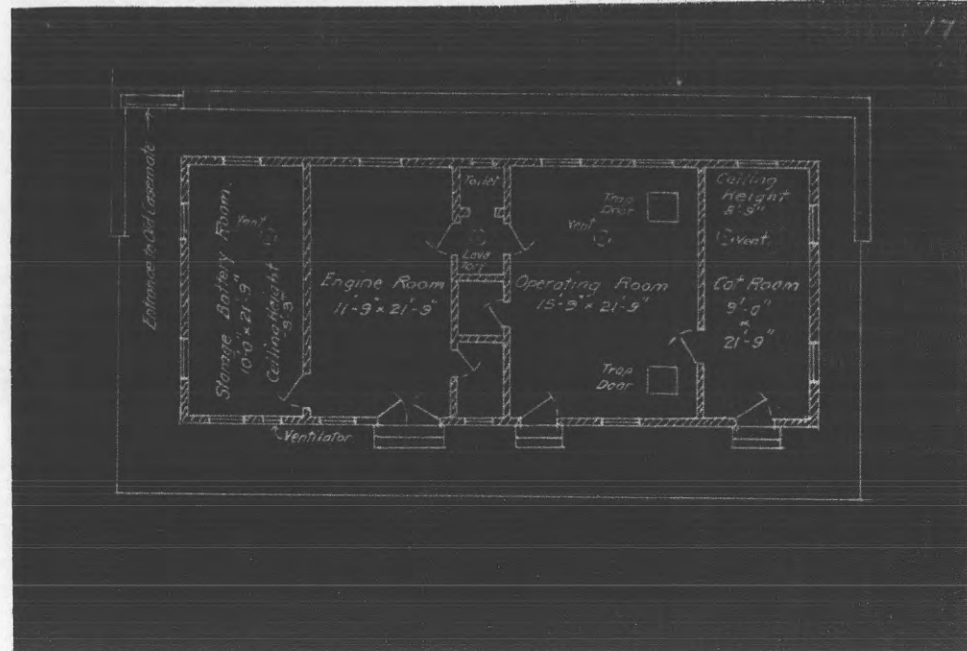
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE.. MINING CASEMATE (OLD). (1909).....

Form 2.

Corrected to June 30, 1921.

Location	About 500' S.E. from Battery Freeman (old Fort Stevens).	Type of data transmission	
Date of transfer	Sept. 22, 1909.	Date of transfer	
Cost to that date	\$5,155.98.	Cost of data transmission equipment	
Type of construction	Sewell.	For tide stations give description of tide gauge	Equipment not yet transferred to new (1921) casemate.
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame, expanded metal lath and plaster.	For dormitories give stations served	
How concealed	Behind hill.	For cable hut give S. C. type	
How protected	Behind hill.	Plant.	
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or Reserve Power		
Kilowatts required	1.0 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



SUPERSEDED: —
See Form 2, corrected
to June 25, 1922

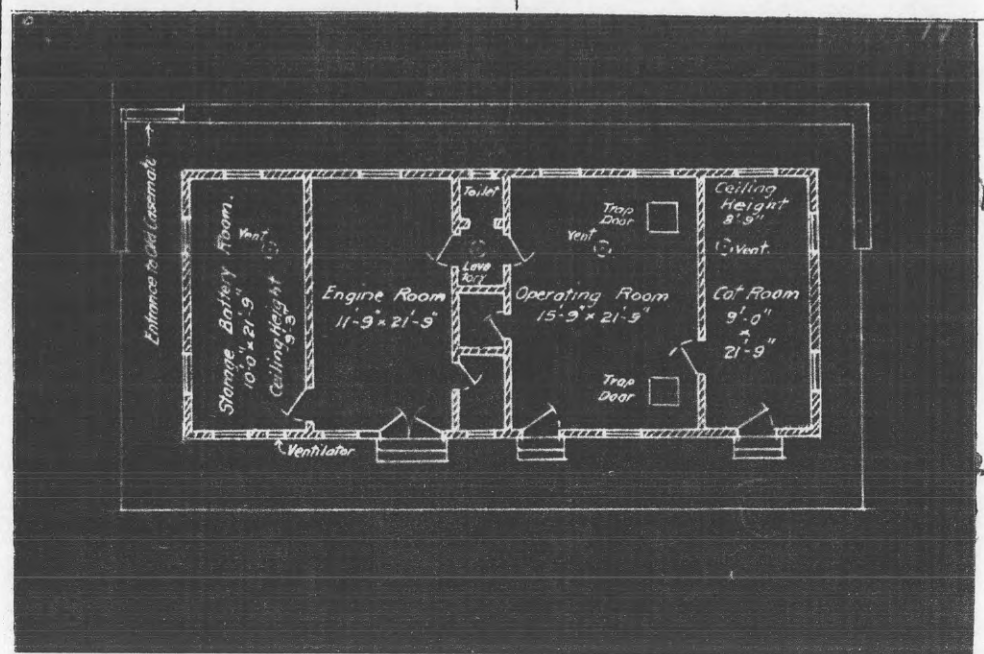
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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE. MINING. CASEMATE. (OLD). (1909).....

Form 2. Corrected to June 25, 1922.

Location	About 500' S.E. from Battery Freeman (old Fort Stevens).	Type of data transmission	
Date of transfer	Sept. 22, 1909.	Date of transfer	
Cost to that date	\$5,155.98	Cost of data transmission equipment	
Type of construction	Sewell.	For tide stations give description of tide gauge	
(a) Roof	Wood, asphalt, felt & gravel	For datum points give Forts from which visible	
(b) Remainder of bld	Wood frame, expanded metal lath and plaster.	For dormitories give stations served	
How concealed	Behind hill.	For cable hut give S. C. type	Equipment transferred to new (1921) casemate in 1921.
How protected	Behind hill.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or reserve power plant.		
Kilowatts required	1.0 kw.		
Type of lighting fixtures	Commercial.		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			

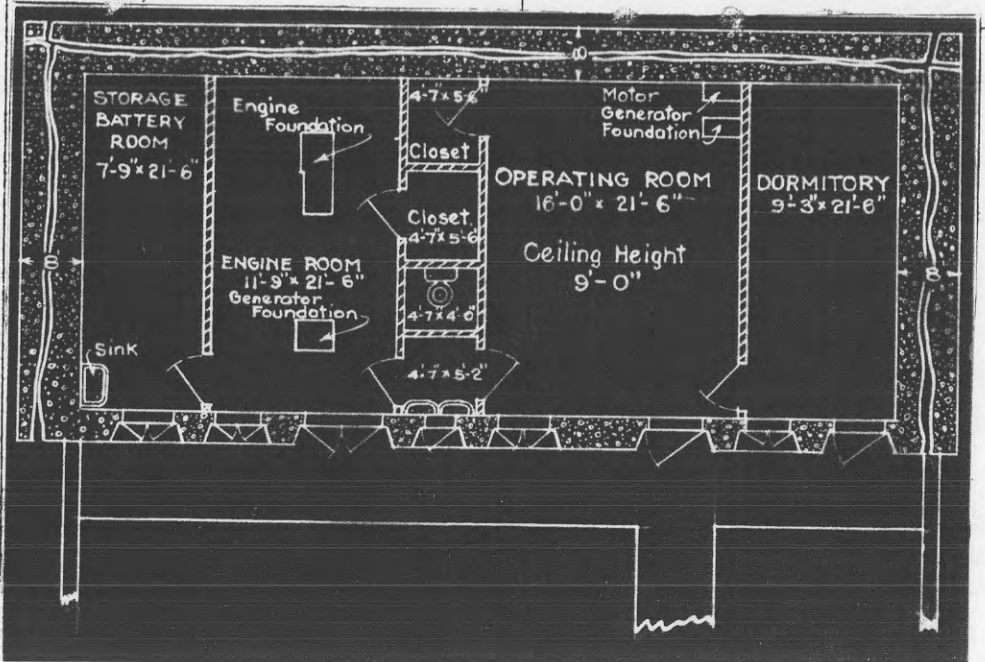


REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF... THE COLUMBIA
FORT. STEVENS, OREGON.
STRUCTURE. MINING CASEMATE (NEW)... (1921)...
Administrative Radio Station

Form 2. Corrected to June 25, 1922.

Location	About 400' S.E. from Battery Freeman (Old Fort Stevens).	Type of data transmission	
Date of transfer	Jan. 31, 1921.	Date of transfer	
Cost to that date	\$19,513.06	Cost of data transmission equipment	
Type of construction	Bombproof.	For tide stations give description of tide gauge	
(a) Roof	Reinforced concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Plain concrete.	For dormitories give stations served	
How concealed	Dug into hill & covered with earth.	For cable hut give S. C. type	Equipment transferred from old (1909) casemate in October, 1921.
How protected	5' concrete roof, 9' sand covering.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Rear visible from above only.		
Source of electric current	Central or reserve power plant.		
Kilowatts required	1.2		
Type of lighting fixtures	E.D. Standard.		
How heated	Stove		
Connected to water mains	Yes.		
Connected to sewer	Yes.		
Type of latrine	Syphon.		
Permanent or temporary installation	Permanent		
Present condition	Good		
Reference of site	About 13' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



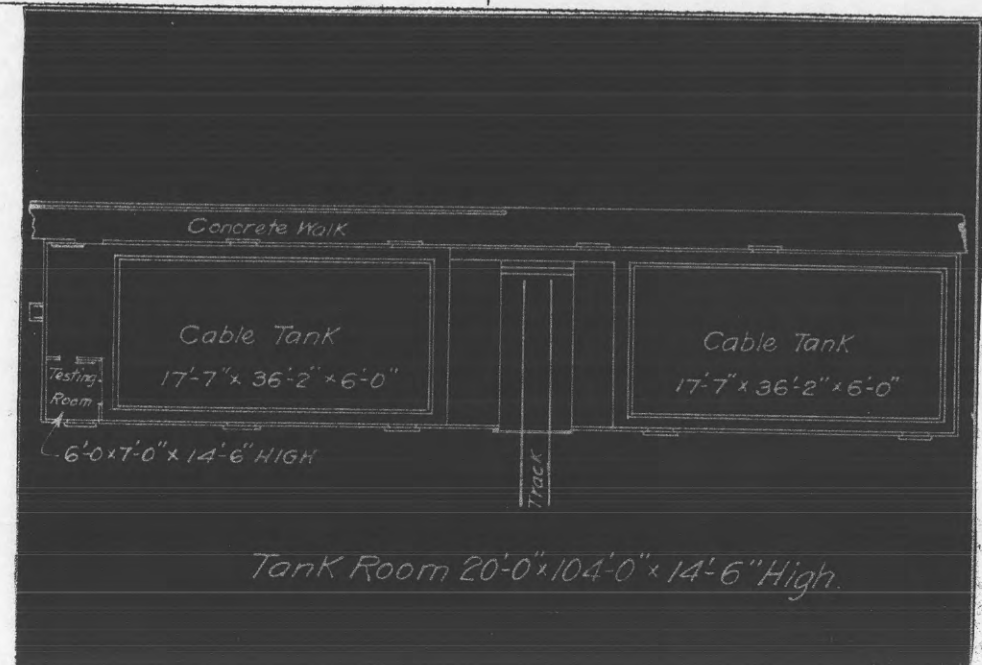
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF...THE COLUMBIA.....
FORT. STEVENS, OREGON
STRUCTURE...CABLE TANKS.....

Form 2.

Corrected to June 30, 1921.

Location	About 700' S.E. from Battery Clark.	Type of data transmission	
Date of transfer	April 30, 1901 2 tanks;	Date of transfer	
Cost to that date	Sept. 22, 1909 1 tank covered	Cost of data transmission equipment	
Type of construction	\$2,348.75 & \$2,935.34	For tide stations give description of tide gauge	
(a) Roof	Wood frame & corr. iron cover	For datum points give Forts from which visible	
(b) Remainder of bld	Concrete tanks, wood frame, corrugated iron cover.	For dormitories give stations served	
How concealed	Behind hill.	For cable hut give S. C. type	
How protected	Behind hill.		
Height above concealment	None		
Height above protection	None		
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.8 kw.		
Type of lighting fixtures	Commercial.		
How heated	None.		
Connected to water mains	Yes.		
Connected to sewer	Drains only.		
Type of latrine	None.		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 16' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane	4000-lb. traveling.		
Max. dimensions of reel handled	5' 6" diameter.		



Superseded:

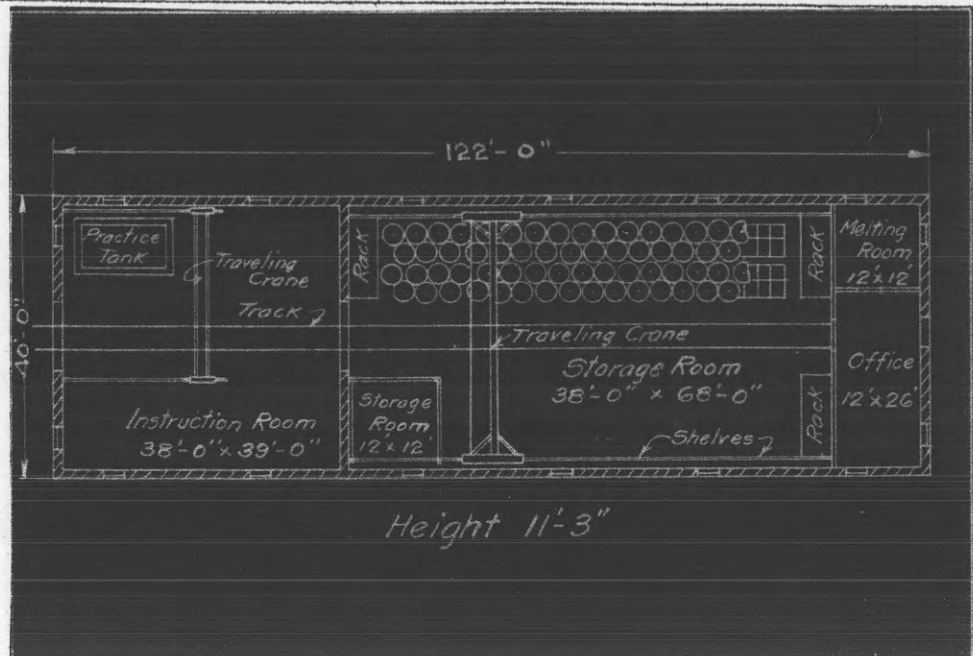
See form 3 corrected to 10/31/41

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE..MINE STORE HOUSE.....

Form 2. Corrected to June 30, 1921.

Location	About 700' S.E. from Battery Clark.	Type of data transmission	
Date of transfer	April 30, 1901 and	Date of transfer	
Cost to that date	Sept. 22, 1909 (Extension)	Cost of data transmission equipment	
Type of construction	\$8,148.75 & \$5,244.40.	For tide stations give description of tide gauge	
(a) Roof	Shingle (slate).	For datum points give Forts from which visible	
(b) Remainder of building	Concrete.	For dormitories give stations served	
How concealed	Behind hill.	For cable hut give S. C. type	
How protected	Behind hill.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	Visible from above only.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	3.70		
Type of lighting fixtures	Commercial.		
How heated	Office only, by stove.		
Connected to water mains	Yes		
Connected to sewer	Drains only.		
Type of latrine	None		
Permanent or temporary installation	Permanent.		
Present condition	Good.		
Reference of site	About 16' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane	1- 4000-lb. traveling;		
Max. dimensions of reel handled	1- 2000-lb. traveling. 6' diameter.		



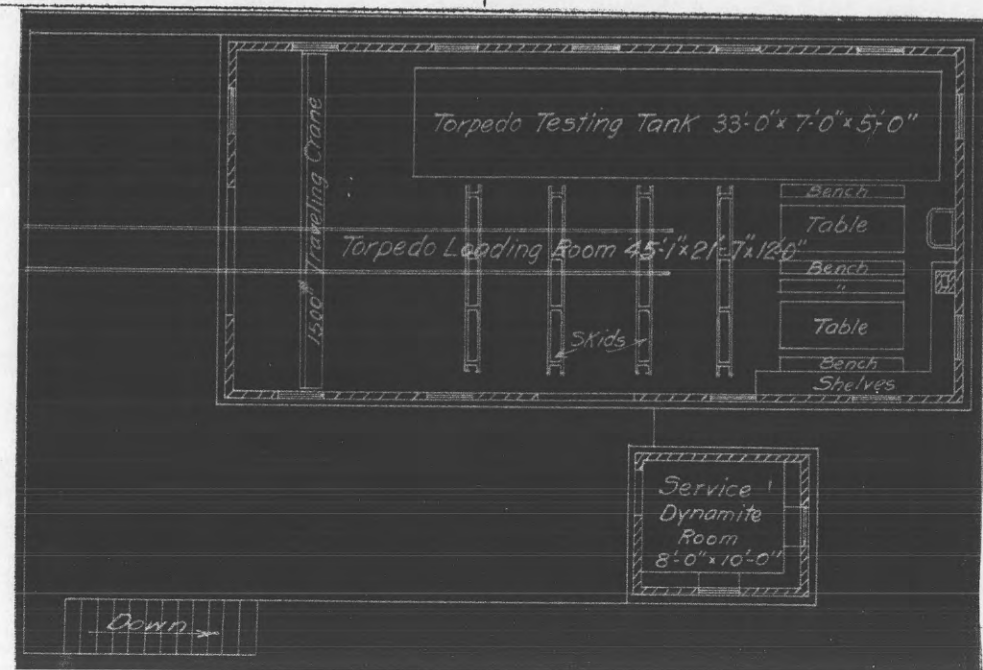
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT. STEVENS, OREGON
STRUCTURE. MINE LOADING ROOM.....

Form 2.

Corrected to June 30, 1921.

Location	100' S.W. of mine wharf; east end of reservation.	Type of data transmission	
Date of transfer	March 30, 1911.	Date of transfer	
Cost to that date	\$4,910.	Cost of data transmission equipment	
Type of construction	Shingle.	For tide stations give descrip- tion of tide gauge	
(a) Roof	Wood frame, cor. iron sides	For datum points give Forts from which visible	
(b) Remainder of building	reinforced concrete platform.	For dormitories give stations served	
How concealed	Low brush front and rear.	For cable hut give S. C. type	
How protected	Not protected.		
Height above concealment	0 to 20'.		
Height above protection			
Conspicuous at.....yards	5 miles.		
Source of electric current	Central or Reserve Power Plant.		
Kilowatts required	.8 kw.		
Type of lighting fixtures	Commercial		
How heated	Stove.		
Connected to water mains	Yes.		
Connected to sewer	Drains only.		
Type of latrine	None		
Permanent or temporary installation	Permanent		
Present condition	Good		
Reference of site	Ground about 10' above M.L.L.W.		
Reference of instrumental axis	Floor about 20' above M.L.L.W.		
Type of observing inst.			
Type of plotting board			
Type and capacity of crane	1500-lb. traveling.		
Max. dimensions of reel handled	4' 6".		



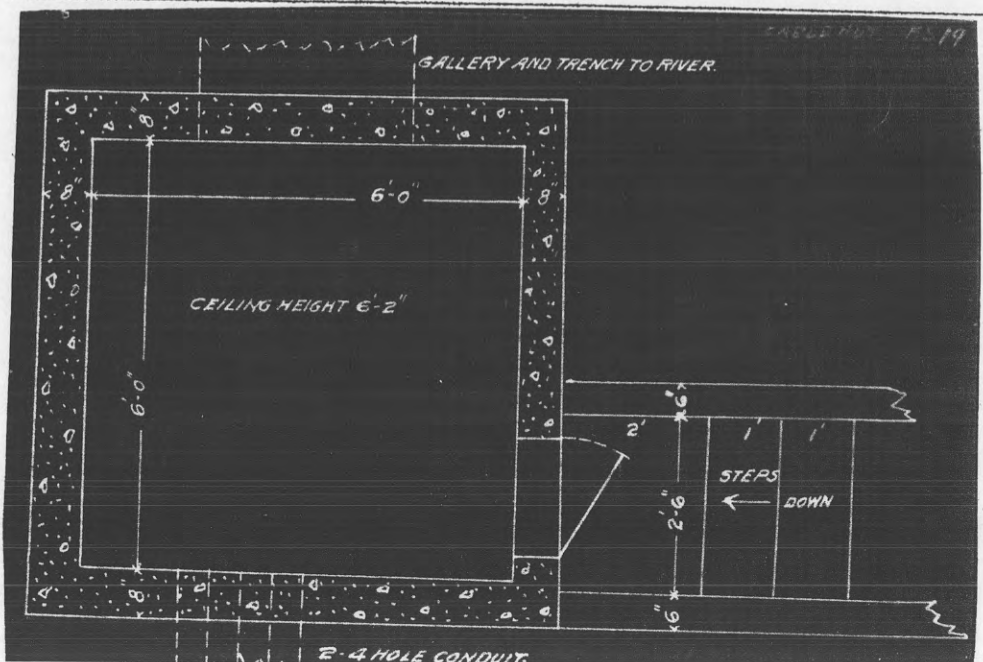
obsolete

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

COAST DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
STRUCTURE, CABLE HUT, MINE TERMINAL

Form 2. Corrected to June 30, 1921.

Location	River front about 550' N. of new mining casemate.	Type of data transmission	
Date of transfer	Sept. 22, 1909.	Date of transfer	
Cost to that date	\$197.12.	Cost of data transmission equipment	
Type of construction	Concrete.	For tide stations give description of tide gauge	
(a) Roof	Concrete.	For datum points give Forts from which visible	
(b) Remainder of bld	Behind shore (rock) revetment.	For dormitories give stations served	
How concealed	None.	For cable hut give S. C. type	Type B.
How protected	None.		
Height above concealment	None.		
Height above protection	None.		
Conspicuous at.....yards	About 1000 yards.		
Source of electric current	None.		
Kilowatts required	None.		
Type of lighting fixtures	None.		
How heated	None.		
Connected to water mains	No.		
Connected to sewer	No.		
Type of latrine	None.		
Permanent or temporary installation	Permanent		
Present condition	Good.		
Reference of site	About 10' above M.L.L.W.		
Reference of instrumental axis			
Type of observing inst.			
Type of plotting board			
Type and capacity of crane			
Max. dimensions of reel handled			



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.

COAST DEFENSES OF THE COLUMBIA.....
 FORT... STEVENS, OREGON.....

Form 6.

Corrected to Sept. 30, 1926. ENGINEER DEPARTMENT STRUCTURES.

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc. and cost if known.

- Round House No. 21 - - - Built in 1910; dimensions, 60' x 31'; construction, frame, corrugated iron; condition, fair; original cost, \$2,000.00; present use, used for housing Engineer locomotive and for storage purposes.
- Store House No. 27 - - - Built, date not known; dimensions, 50' x 30'; construction, frame, corrugated iron; condition, fair; original cost, not known; present use, used for storage purposes.
- Oil House No. 29 - - - - Built in 1899; dimensions, 14' x 14'; construction, concrete, corrugated iron; condition, good; original cost, \$400; present use, storing oils and paints.
- Office No. 32 - - - - - Built, 1890-1900-1908; dimensions, 60' x 26'; construction, frame; condition, poor; original cost, \$1,000.00; present use, not used. (See Barrack building No. 74.)
- Store House No. 32 - - - Built in 1890; dimensions, 64' x 26'; construction, frame; condition, poor; original cost, \$1,500.00; present use, used for storage purposes.
- Quarters No. 46 - - - - Built in 1898; dimensions, 50' x 44'; construction, frame, plastered; condition, fair; original cost, \$2,100.00; present use, used by Assistant Engineer, Engineer Department on fortification work.
- Quarters No. 47 - - - - Built in 1898; dimensions, 38' x 34'; construction, frame, plastered; condition, fair; original cost, \$1,500.00; present use, used temporarily by Engineer Department employees.
- Quarters No. 49 - - - - Built in 1906; dimensions, 42' x 26'; construction, frame; condition, poor; original cost, \$1,000.00; present use, not used.
- Quarters No. 50 - - - - Built in 1897; dimensions, 40' x 28'; construction, frame; condition, fair; original cost, \$800.00; present use, used by Engineer Department employee on fortification work.

Quarters No. 51 - - - - Built in 1900; dimensions, 38' x 34'; construction, frame; condition, fair; original cost, \$1,200.00; present use, used by Engineer Department employee on fortification work.

Pump House No. 58 - - - Built in 1912; dimensions, boiler room, 12' x 14', pump room, 12' x 8'; construction, frame, corrugated iron; condition, fair; original cost, \$300.00; present use, not used, water tank dismantled, on account of the weakened condition of the supports, and the pipe line was salvaged.

The above Engineer structures were built for use in connection with the improvement of the Mouth of the Columbia River.

Mess Building No. 73 - - Built in 1918; dimensions, 20' x 105'; construction, frame; condition, good; original cost, \$2,837.18; present use, used for carpenter shop, blacksmith shop and electrical storehouse by Engineer Department on fortification work.

Barrack Building No. 74. Built in 1918; dimensions, 30' x 60'; construction, frame; condition, good; original cost, \$2,822.00; present use, upper floor used for office quarters by Engineer Department on fortification work, lower floor used for storage purposes.

Barrack Building No. 75. Built in 1918; dimensions, 30' x 60'; construction, frame; condition, good; original cost, \$2,822.00; present use, used by Engineer Department as storehouse for materials, supplies and tools.

Mess Buildings Nos. 79 and 80. Built in 1918; dimensions, 20' x 105' each; construction, frame; condition, good; original cost, \$2,837.18 each; present use, retained by Engineer Department for possible future work.

Barrack Buildings, Nos. 84, 85, 88, 89. Built in 1918; dimensions, 30' x 60' each; construction, frame; condition, good; original cost, \$2,822.00 each; present use, retained by Engineer Department for possible future use.

Latrines Nos. 83, 90. Built in 1918; dimensions 20' x 60' each; construction, frame; condition, good; original cost, \$4,230.36 each; present use, retained by Engineer Department for possible future work.

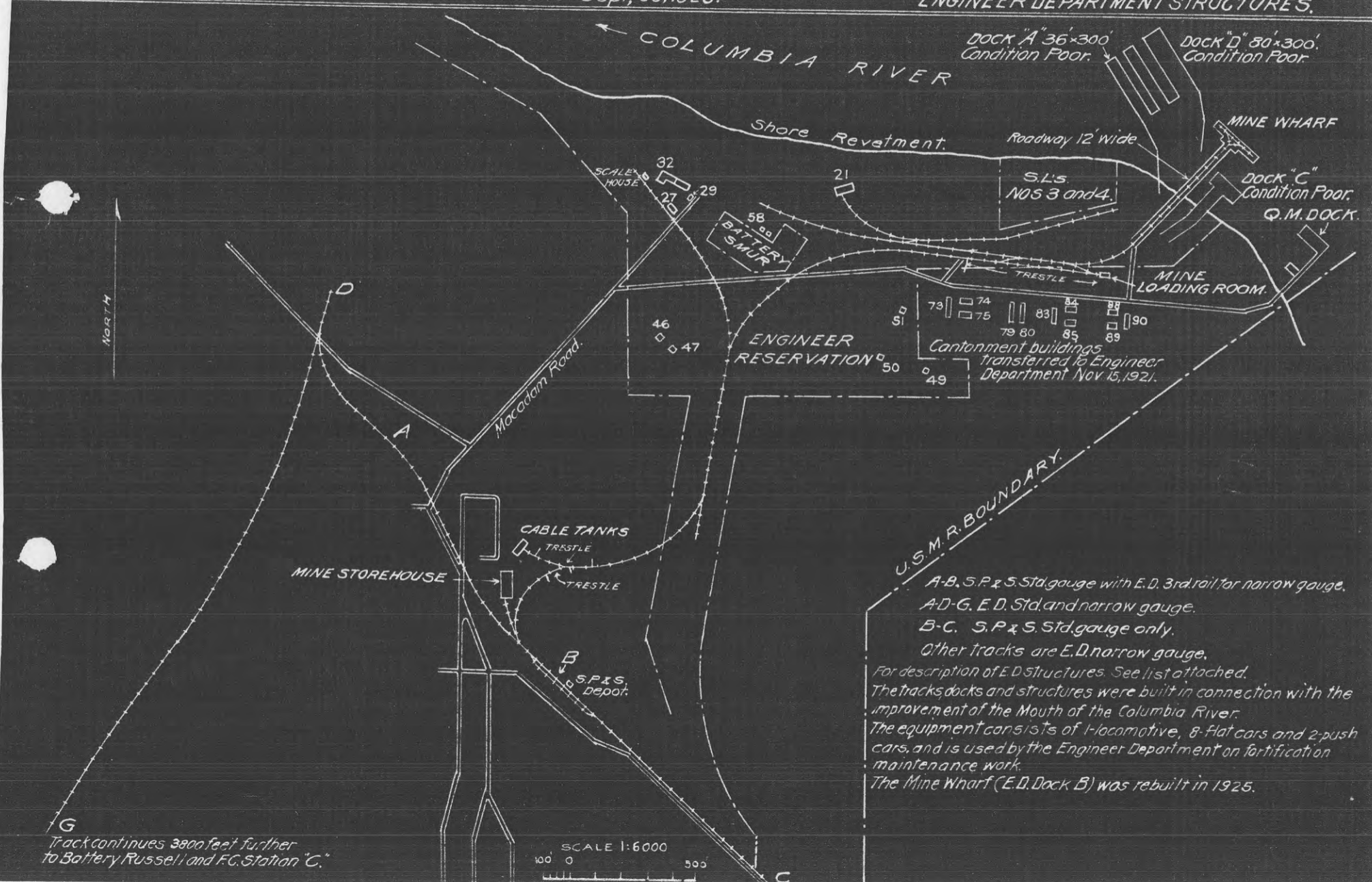
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.

COAST DEFENSES OF THE COLUMBIA.
FORT STEVENS, OREGON.

Form 6.

Corrected to Sept, 30, 1926.

ENGINEER DEPARTMENT STRUCTURES.



A-B, S.P. & S. Std. gauge with E.D. 3rd. rail for narrow gauge.
 A-D-G, E.D. Std. and narrow gauge.
 B-C, S.P. & S. Std. gauge only.
 Other tracks are E.D. narrow gauge.
 For description of E.D. structures. See list attached.
 The tracks, docks and structures were built in connection with the improvement of the Mouth of the Columbia River.
 The equipment consists of 1-locomotive, 8-flat cars and 2-push cars, and is used by the Engineer Department on fortification maintenance work.
 The Mine Wharf (E.D. Dock B) was rebuilt in 1925.

G
 Track continues 3000 feet further to Battery Russell and F.C. Station "C."



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Wharf and tramway)

HARBOR DEFENSES OF THE COLUMBIA.....
WHARF AND TRAMWAY APPROACH
TRAMWAY FILL AND BOATHOUSE

Form 3

Corrected to June 21, 1937.

With 660 B (Columbia R.) 17

Def. 762/453.3

WHARF & TRAMWAY APPROACH

Location - - - - - Fort Stevens, Oregon.

Date of transfer - - - - - Used by Artillery during the repairs and improvements. No transfer.

Cost to that date - - - - - \$16,868.99

Paid for by - - - - - U.S. Engineer Department.

Type of construction - - - - - T-head, with 1 slip and 2 offsets.

Materials of construction - - - - - Pile and timber.

Type of cement - - - - - No cement was used.

Depth of water-datum - - - - - 11 feet to 35 feet, M.L.L.W.

Mean range of tide - - - - - 8 feet.

Davits installed - - - - - 1 pr., steel, each with 2-ton hoist.

Type and capacity of derrick - - - - - No derrick.

Wharf used by - - - - - Mine layer and mine facilities.

Condition - - - - - Good.

Remarks - - - - - Cost given is only of latest repairs and improvements completed June 21, 1937. Prior cost not filed Portland district office.

TRAMWAY FILL & BOATHOUSE

Location - - - - - Fort Stevens, between boathouse and wharf.

Date of transfer - - - - - April 5, 1937. *

Cost - - - - - \$930.70+\$3,062.88 for boathouse.

Length - - - - - Approximately 540 feet.

Gauge - - - - - 3 feet.

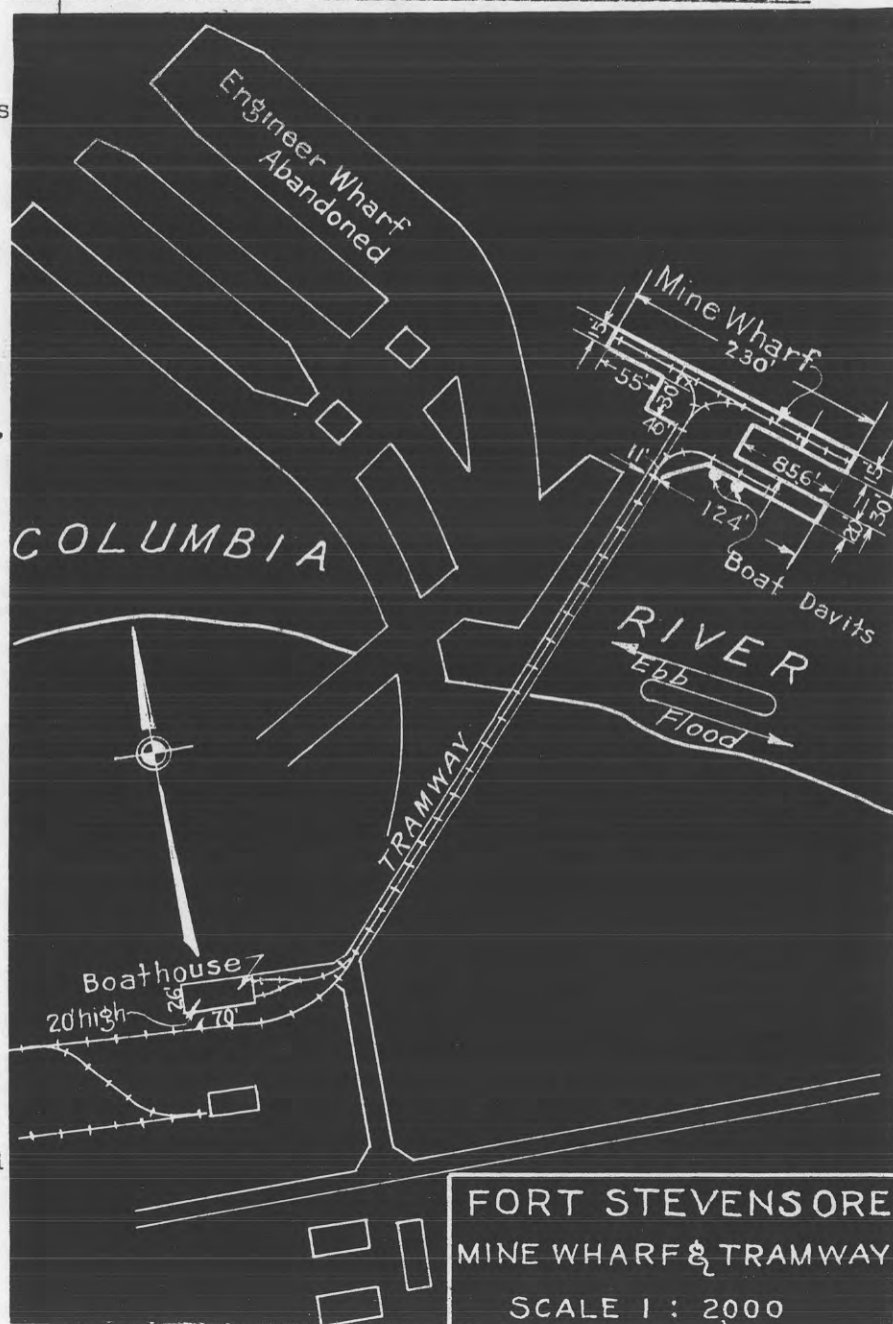
Steepest grade - - - - - Level.

Equipment - - - - - Gas pump and storage tank.

Condition - - - - - Good.

Remarks - - - - - Cost given is only of latest repairs and improvements completed June 21, 1937. Prior cost not filed Portland district office.

*Some work done between April 5, 1937 and June 21, 1937.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

(Wharf and tramway)

From 3

Corrected to Sept. 30, 1926.

COAST DEFENSES OF THE COLUMBIA.....

WHARF AND TRAMWAY
FORT STEVENS, OREGON.

WHARF

Location At east end of reservation.

Date of transfer Sept. 30, 1926. *660K(Col R)29*

Cost \$12,927.57.

Paid for by P. & R. F. (Structural) 1925.

Type of construction Piling, timber, deck.

Depth of water-datum 22' to 32', M.L.L.W.

Mean range of tide About 6'.

Davits installed None.

Type and capacity of derrick None.

Wharf used by Coast Artillery as mine wharf.

Condition Good.

Remarks The wharf was completed March, 1925, and replaces Engr. Dept. dock "B", which was used in connection with the improvement of the Mouth of the Columbia River.

TRAMWAY

Location See map herewith.

Date of transfer Sept. 30, 1926.

Cost See remarks below.

Length About 3,400', Mine St. Ho. to Loading R

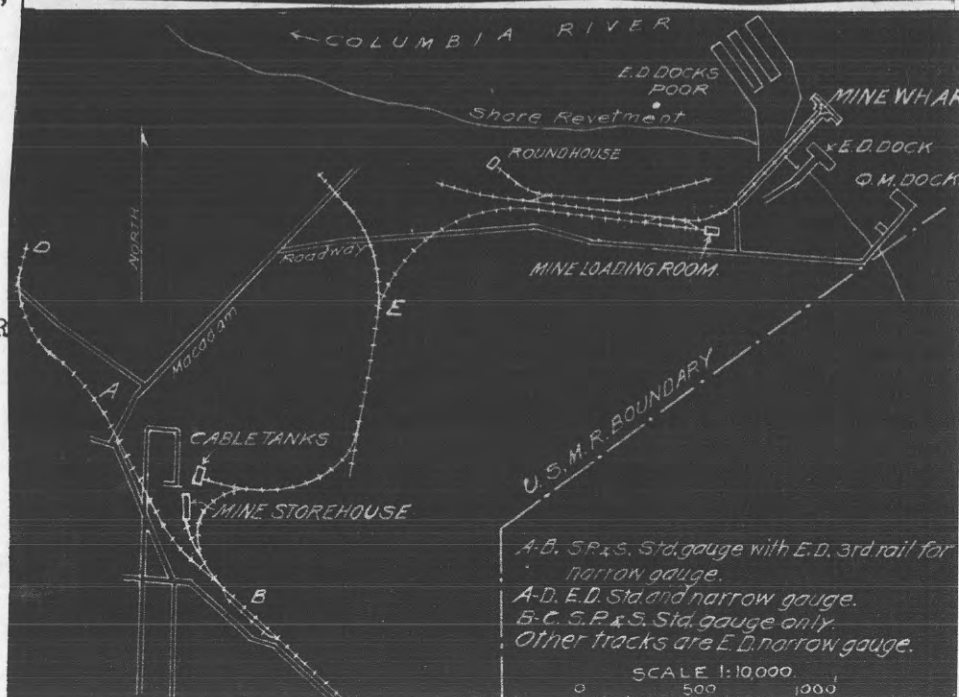
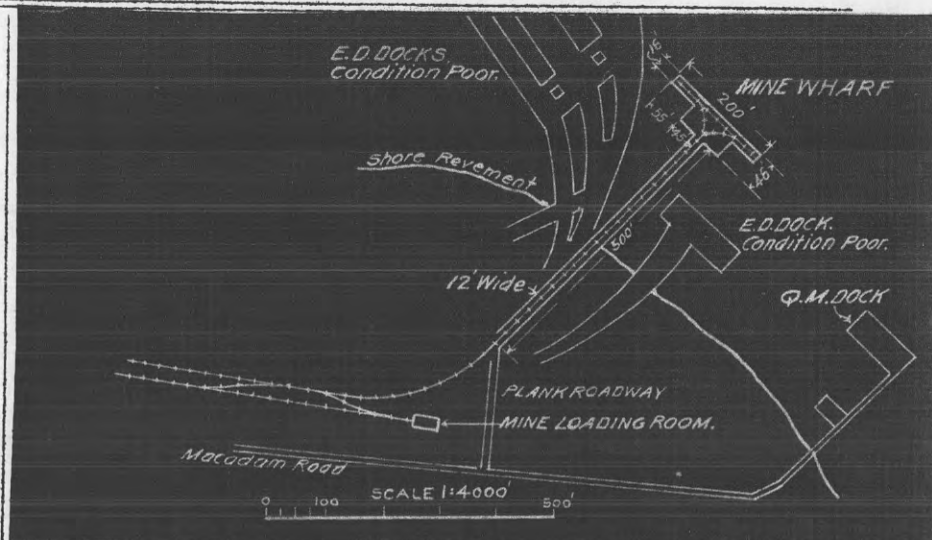
Gauge 3'.

Steepest grade About 1%.

Equipment Engr. Dept. locomotive and cars. (Flat and push.)

Condition Good.

Remarks Repairs to track from Mine St. Ho. to "E" and construction of new track from "E" to Loading Room were completed Nov. 25, 1925, at a cost of \$5,500, under P. & R. (Structural).



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Wharf and tramway)

HARBOR DEFENSES OF THE COLUMBIA
WHARF AND TRAMWAY APPROACH
TRAMWAY FILL AND BOATHOUSE
(COMPLETION OF FILL AND TRACK)

6608 (Columbia R.) 21

Form 3

Corrected to March 6, 1939

WHARF & TRAMWAY APPROACH

Location - - - - - : Fort Stevens, Oregon.

Date of transfer - - - : No transfer. Maintenance and continuation of existing tramway.

Cost to date - - - - - : *\$725.03 (Maintenance and continuation)

Paid for by - - - - - : U. S. Engineer Department.

Type of construction - : Sand fill with sodded slopes; concrete backwall.

Materials of construction: New ties; relay steel; new fastenings and spikes.

Type of concrete - - - : 1 : 2 : 5 mix in backwall footing; 1 : 2 : 4 mix in backwall.

Embankment used by - - : Battery Commander on Submarine Mine facilities.

Condition - - - - - : Good.

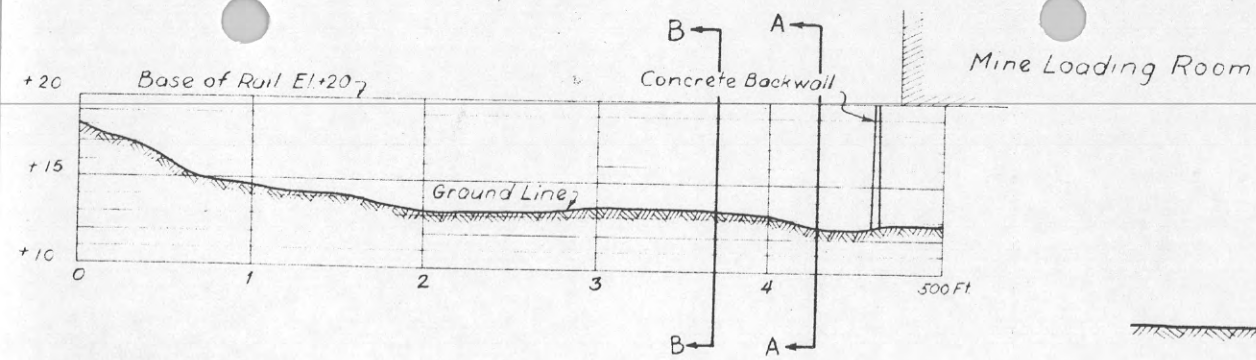
Remarks - - - - - : This 3450 cu. yd. embankment was constructed to replace a tramway leading to the Mine Loading Room. All materials were purchased by the U.S. Engineer Department. Engineer labor was used for the construction of the concrete backwall. One engineer truck was in service, continuously, hauling material for the fill. The fill was constructed by W.P.A. labor and trucks.

:
: Completes the tramway fill and track
: (C. of E. 662B(Columbia R.)5.)

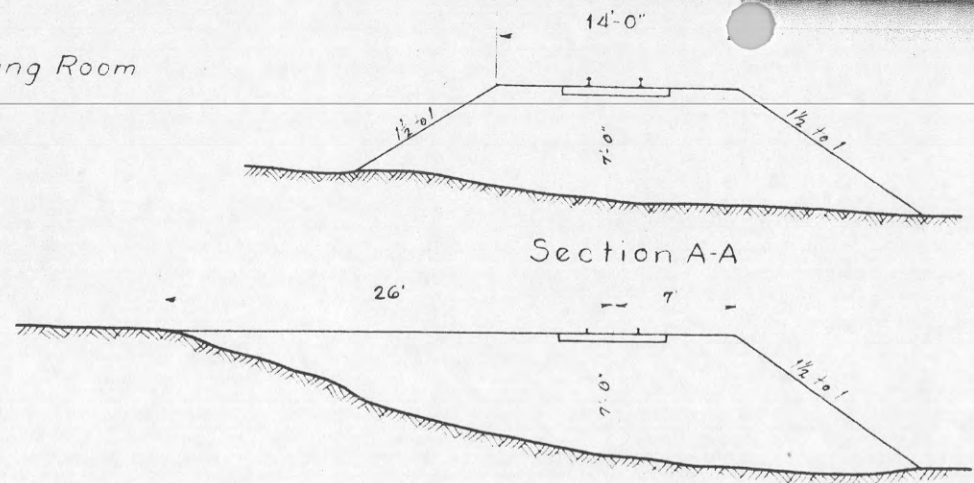


FORT STEVENS, ORE.
MINE WHARF AND TRAMWAY
SCALE 1:2000

* In addition to amount (\$930.70) noted in report corrected to June 21, 1937, attached

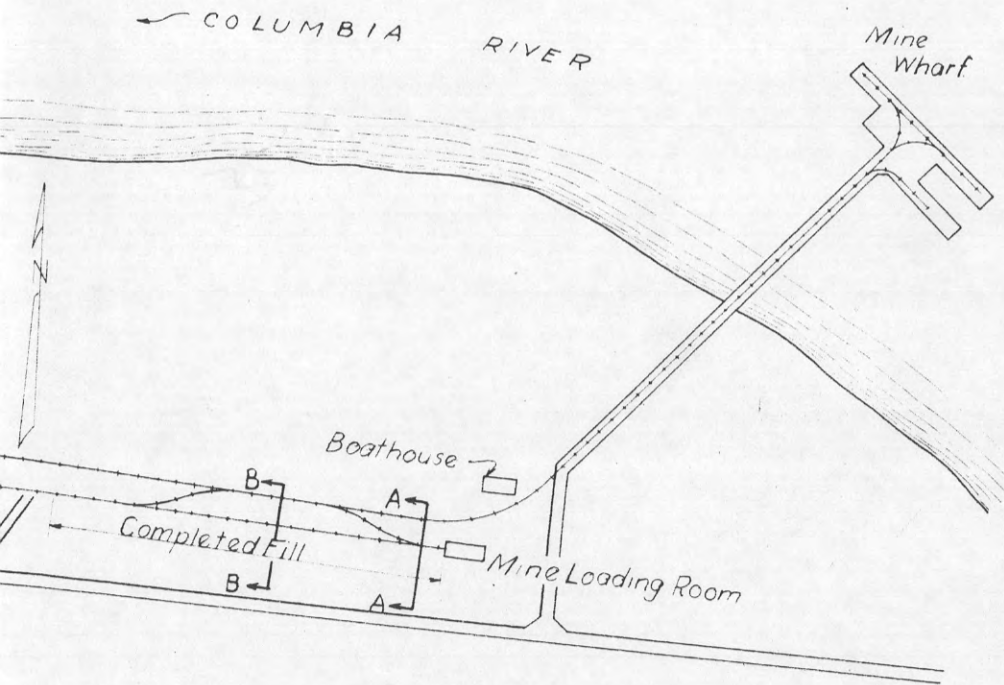


Profile
 Scale as shown

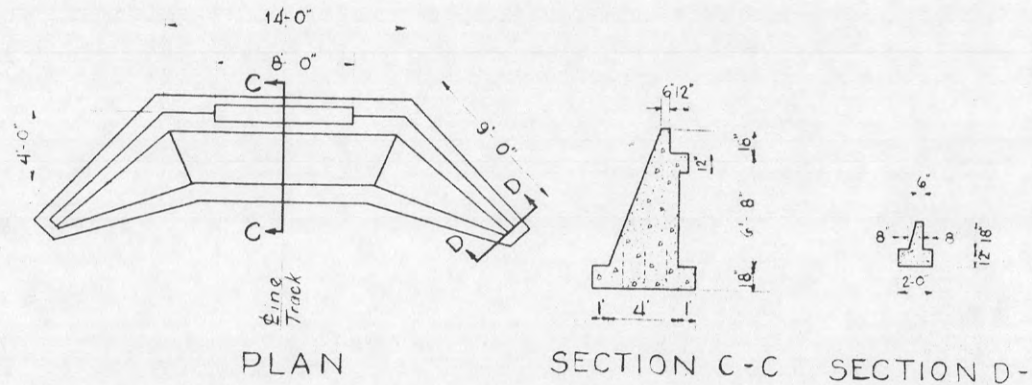


Section A-A

Section B-B
 Scale 1:100



Plan
 Scale 1:2000



PLAN

SECTION C-C SECTION D-D

BACKWALL
 As Constructed
 Scale 1:100

HARBOR DEFENSES OF THE COLUMBIA
 FORT STEVENS, OREGON
 MINE RAILWAY FILL
 As Constructed
 Scale As Shown

U.S. ENGINEER OFFICE, PORTLAND, OREGON DISTRICT
 Submitted *Olney A. Hawking* Approved *C. R. Moore*
 Associate Engineer Major, Corps of Engineers
 Recommended *W. H. ...*
 Principal Engineer

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Mine Cable Tank Addition)

HARBOR DEFENSES OF THE COLUMBIA
Construction of Addition
to Mine Cable Tanks Ft. Stevens
(Completion of Addition)

Form 3

Corrected to October 31, 1941

MINE CABLE TANK ADDITION

Location ----- : Fort Stevens, Oregon

Date of Transfer ----- : No transfer. An addition to structure
: already in troops possession

Cost to Date ----- : \$6,564.13

Designed for by ----- : U. S. Engineer Department

Type of construction ----- : Tank 17'-6" x 22'-2" x depth of 7'-3"
: constructed of concrete. Addition to
: building over tank is a wooden frame
: structure with corrugated steel sides
: and roof; concrete floor. Inside
: dimensions of building 19'-11" x 41'-6"
: x height of 14'-7".

Materials of construction ----- : Floor of building addition and tank
: constructed of concrete. Building
: frame of fir lumber with siding and
: roofing of 26 gauge corrugated gal-
:vanized steel.

Type of concrete ----- : 1 : 2 : 4 mix

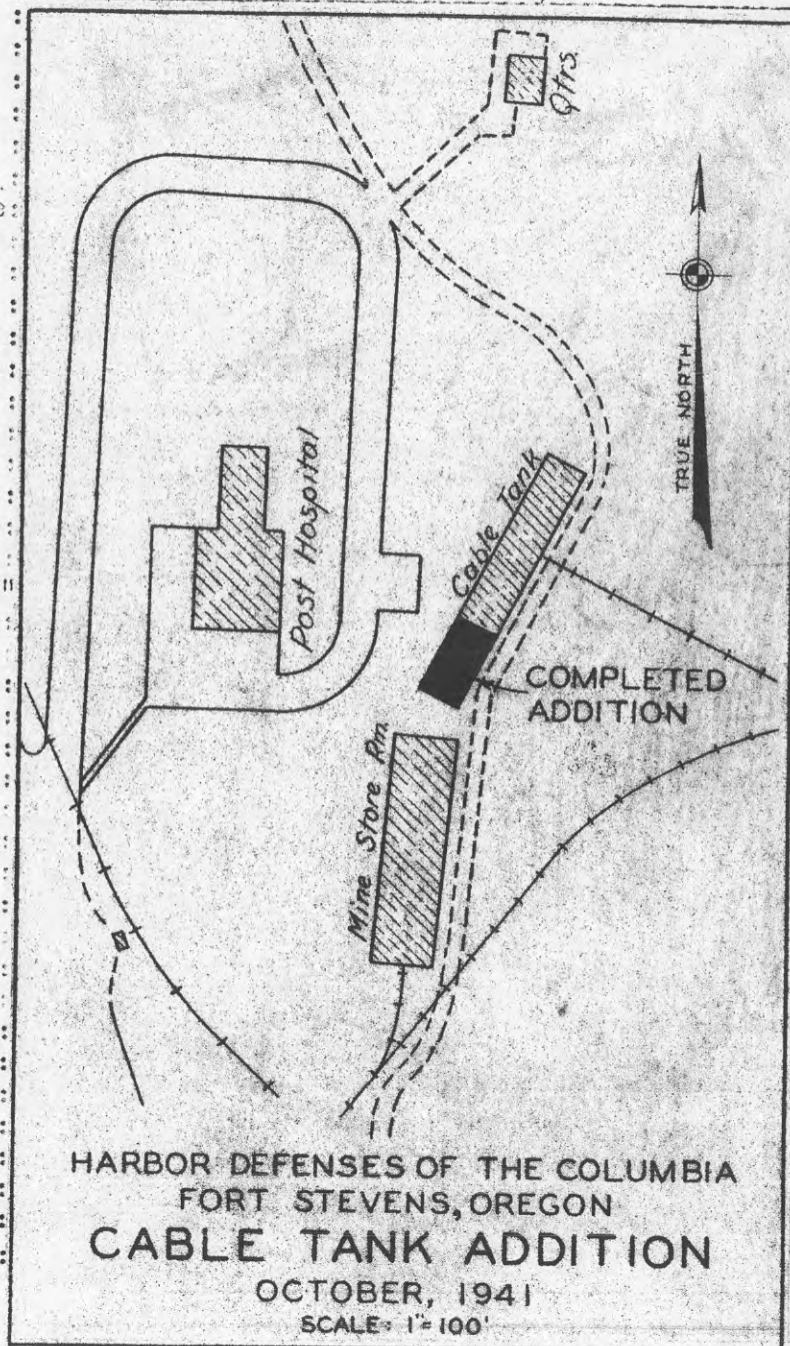
Condition ----- : Excellent

Remarks ----- : This structure is an addition to the
: cable tanks already in the troops
: possession. The addition was con-
: structed by government forces and
: completed October 31, 1941. See plan
: D.M.C.R. 928.

Constructed with funds under allot-
ment: Eng-341 P 99 A 14 1204-12.

MAR 6 - 1942
6636 (Col. River) - 17/1

Pay Card 17



663 (Col. River) CM 42,564
 REPORT OF COMPLETED WORKS—SEACOAST FORTIFICATIONS
 (Wharf and tramway)

SECRET

HARBOR DEFENSES OF THE COLUMBIA
 STIFFLEG DERRICK FOR OLD MINE
 WHARF, FORT STEVENS, OREGON
 (Supplemental Report)

Form 3.

Corrected to February 20, 1943.

WHARF (Facilities)

Location : Harbor Defenses of The Columbia,
 : Fort Stevens, Oregon.

Date of transfer : March 31, 1943

Cost to date of transfer : The stiffleg derrick completely out-
 : fitted with hoisting engine, cables,
 : etc., along with the necessary altera-
 : tions to the wharf cost \$9,338.46.

Paid for by : U.S. Engineer Department under P/A
 : Eng.-32439 P 273 A 0905-23.

Derrick:
 Type and capacity : This is a stiffleg derrick; has a
 : 32 foot mast and a 62 foot boom; has
 : a 5 ton capacity at 48 feet. The
 : derrick is operated by a gasoline
 : powered double drum hoist.

Materials of construction : The mast, boom, derrick platform and
 : the house over the derrick are all
 : constructed of lumber. The derrick
 : is constructed on a piling foundation
 : adjacent to the Old Mine Wharf and is
 : to serve this wharf.

Wharf used by : Army Mine Department of this Harbor
 : Defense.

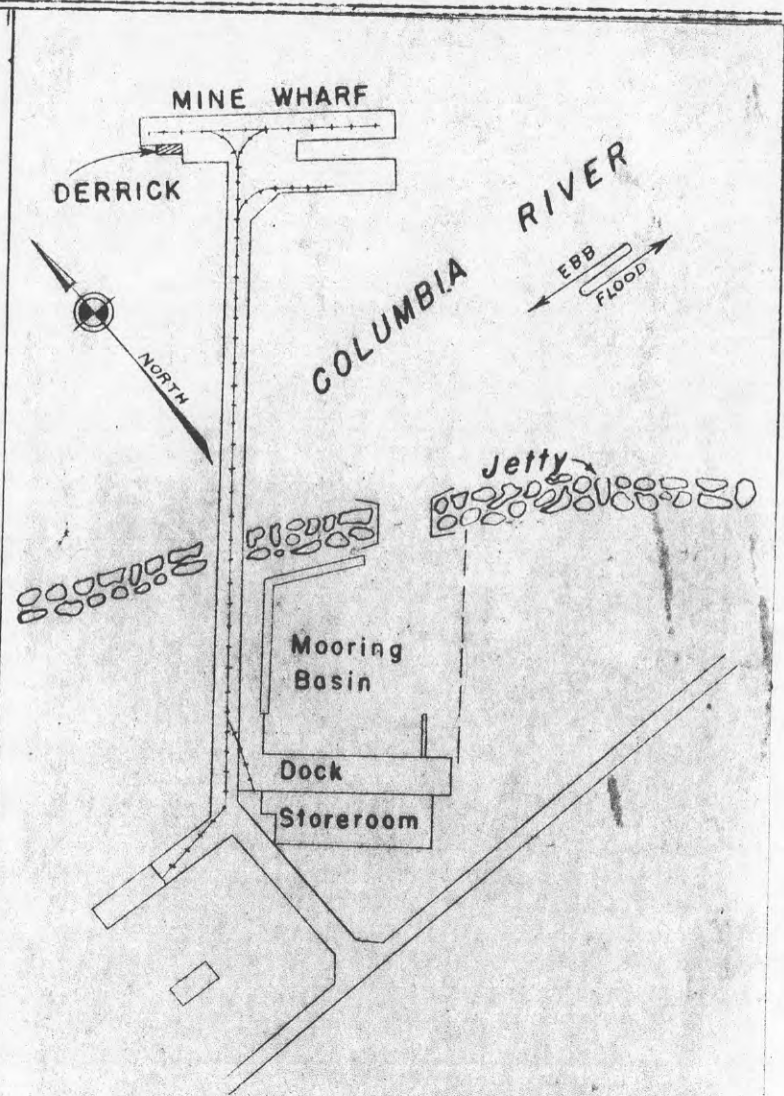
Condition : Of the stiffleg derrick is excellent.

Remarks : This is a new stiffleg derrick con-
 : structed to serve the Old Mine Wharf;
 : it was constructed by the Corps of
 : Engineers and was completed on Decem-
 : ber 16, 1942. See attached sheet
 : for detailed plan.

42564

Ray C. V

SECRET



HARBOR DEFENSES OF THE COLUMBIA
 FORT STEVENS, OREGON
 MINE WHARF DERRICK

DECEMBER 1942

SCALE 1"=200'

HARBOR DEFENSES OF THE COLUMBIA
MINE WHARF DERRICK

FORT STEVENS, OREGON

Scale as Shown

U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT

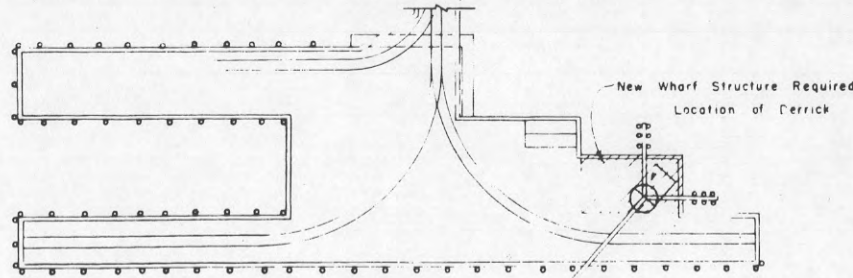
Submitted: *[Signature]*

Approved: *[Signature]*

Recommended: *[Signature]*
Principal Engineer

Col. Corps of Engineers

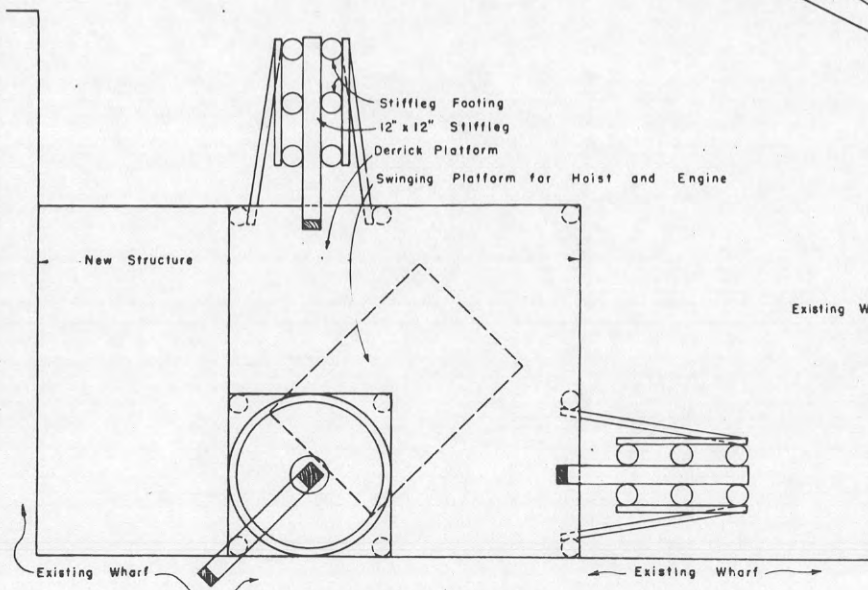
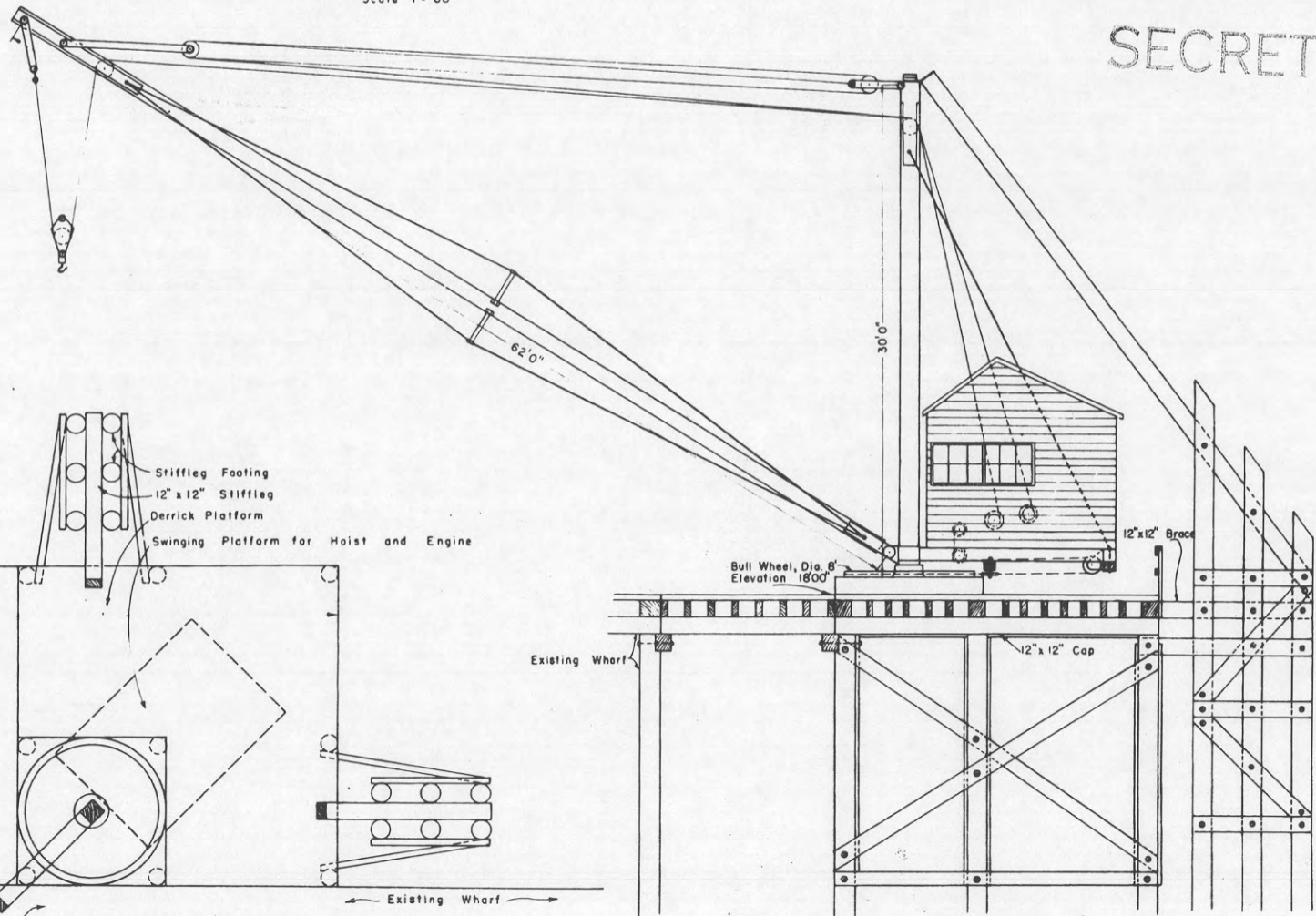
Drawn M.H.
Traced M.H. Checked



PLAN OF MINE WHARF
Scale 1" = 60"

CONFIDENTIAL

SECRET



PLAN OF DERRICK PLATFORM
Scale 3/4" = 1'

ELEVATION
Scale 3/4" = 1'

SECRET

Form 2.

Corrected to April 6, 1943

STRUCTURE : Installation of an overhead crane with
: chain blocks and the installation of a
: boat hoist.

Location : Installed in New Mine Storeroom at
: Fort Stevens, Oregon.

Date of transfer : March 31, 1943

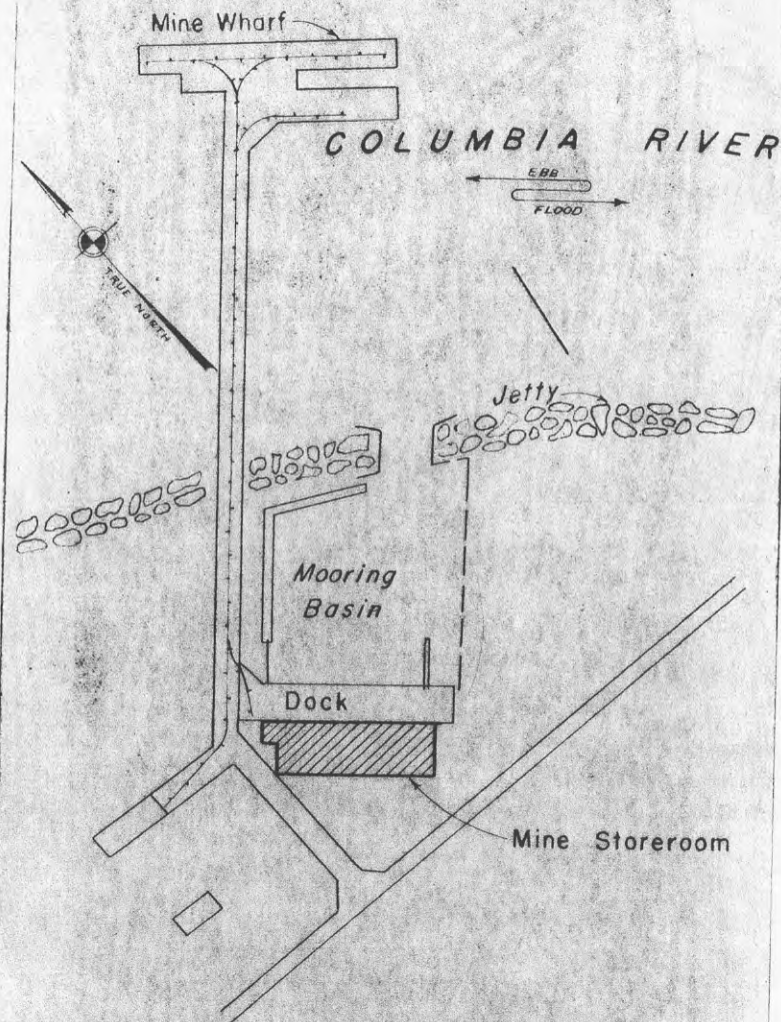
Cost to date of transfer . . . : \$1,985.66

Type of construction:
Overhead crane : Is a 5-ton, hand operated, overhead,
: bridge type crane fabricated of struct-
: ural steel by the Monarch Forge &
: Machine Works of Portland, Oregon in
: accordance with specifications pro-
: vided therefore. The crane is oper-
: ated on a track provided in original
: project and has a span length of 35'
: 4-3/4".

Chain blocks : Two spur geared 5-ton Yale chain
: blocks were provided.

Hoist : Is a single drum hoist, No. LH-241 com-
: plete with pinion for a Le Roi Engine;
: was purchased from the Columbia
: Equipment Co. at Portland, Oregon.

Hoisting Engine : Is a Le Roi engine for a single drum
: hoist; power unit Model XRP 209, 4
: cylinder, 14 h.p.; turns 1500 R.P.M.;
: is complete with all engine accessories;
: was purchased from the Columbia Equip-
: ment Co. at Portland, Oregon.



HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
MINE STOREROOM

DECEMBER 1942
SCALE 1:2,000

SECRET

REPORT OF COMPLETED WORKS-SEACOAST FORTIFICATIONS
(Submarine Mine Facilities)

SECRET

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
OVERHEAD CRANE & HOIST FOR NEW MINE
STOREROOM (Supplemental report)

Form 2.

Corrected to April 6, 1943

REMARKS

: This work consisted of purchasing and installing an overhead crane with
: two chain blocks and the purchasing and installing of a boat hoist with
: engine. The work was performed by Government forces and was completed
: December 16, 1942; was constructed with funds from P/A, Eng.-32439 P 273
: A 0905-23. This work was supplemental to the original project of con-
: structing the Storeroom which was completed February 28, 1942.

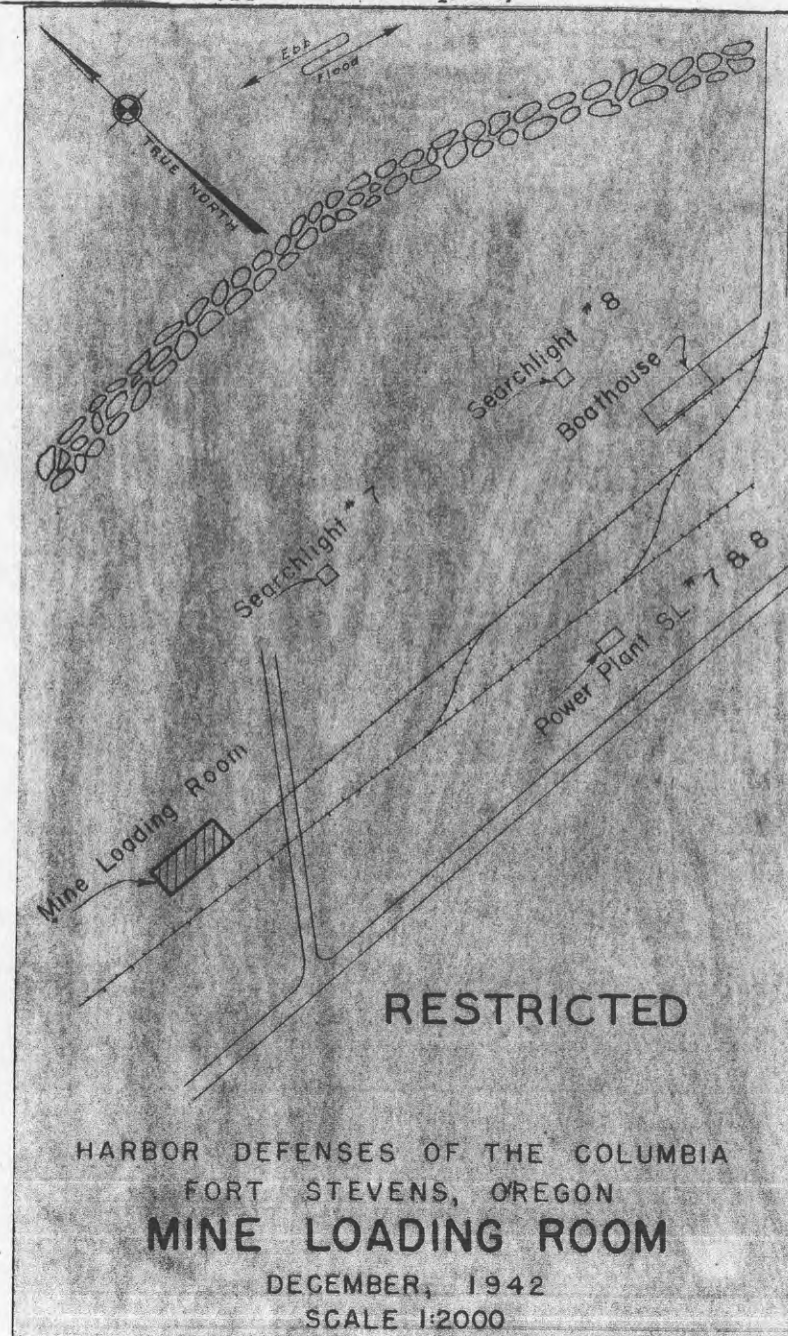
SECRET

SECRET

Form 2.

Corrected to February 20, 1943

STRUCTURE : Overhead traveler complete with chain
 : block.
 Location : Installed in New Mine Loading Room at
 : Fort Stevens, Oregon.
 Date of transfer : March 31, 1943
 Cost to date of transfer : \$1,761.90.
 e of construction:
 Overhead Crane : Is a 5-ton, hand operated, overhead,
 : bridge type crane fabricated of struct-
 : ural steel by the Monarch Forge &
 : Machine Works of Portland, Oregon in
 : accordance with specifications pro-
 : vided therefore. The crane is oper-
 : ated on a track provided in original
 : project and has a span length of
 : 23'-2-1/8".
 Chain block : Is a spur geared 5-ton Yale block.
 REMARKS : This work consisted of purchasing and
 : installing an overhead crane with one
 : chain block. The work was performed by
 : Government forces and completed Decem-
 : ber 16, 1942; was constructed with funds
 : from P/A, Eng.-32439 P 273 A 0905-23.
 : This work was supplemental to the origin-
 : al project of constructing the Loading
 : Room and completes the entire project
 : with all its facilities.



SECRET

PACIFIC OCEAN

SUNSET LAKE

CAMP CLATSOP
(STATE OF OREGON)



T.8.N. R.10W., W.M.
T.7.N., R.10W., W.M.

33 34
4 3



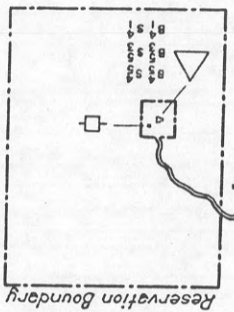
To Fort Stevens, 8 Mi.

To Seaside, 9 Mi.

S.P.&S. Ry.

Stipitation

River



Reservation Boundary

HARBOR DEFENSES OF THE COLUMBIA
COLUMBIA BEACH
DETAIL MAP

SCALE IN FEET
500 1000 1500 2000

SERIAL NO. []
CONFIDENTIAL
EDITION OF 1 MAY 1946
REVISED.

T. 8 N. R. 10 W., W. M.

T. 7 N., R. 10 W., W. M.

33 34

4 3



CAMP CLATSOP

(STATE OF OREGON)

To Fort Stevens, 8 Mi.



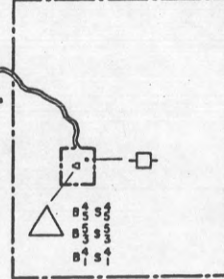
S.P.&S. Ry.

To Seaside, 9 Mi.

Skipatton

River

Reservation Boundary



PACIFIC OCEAN

SUNSET LAKE

SERIAL NO.
CONFIDENTIAL
EDITION OF 1 MAY 1946
REVISED:

HARBOR DEFENSES OF THE COLUMBIA
COLUMBIA BEACH
DETAIL MAP

SCALE IN FEET



CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON (Location 15)
BASE END STATION B2/582/5 #245
Clatsop

Form 2. Corrected to 20 September 1943

64034

STRUCTURE:

Location : This station is located on Government owned property
: and is in the N.W. $\frac{1}{4}$ of Section 29 of T. 8 N., R. 10 W.,
: Will. Mer., Clatsop County, Oregon; is also located on
: the Delaura Beach Road approximately 3,500 feet west
: from the Fort Stevens-Camp Clatsop Road. The Delaura
: Beach Road crosses the Fort Stevens-Camp Clatsop Road
: approximately $3\frac{1}{2}$ miles southerly from the east and main
: entrance to the Fort Stevens Military Reservation.

Date of transfer : 26 July 1943.

Cost to date of transfer : \$ 2,477.78.

Type of construction : The entire structure is constructed of reinforced con-
: crete of a 1:2:4 mix. The building has a single room
: with interior dimensions of 12'-0" x 12'-4" with a
: ceiling height of 7'-0". The concrete of the roof
: slab is 12" in thickness. The building is entered
: by way of a small access tunnel which is also con-
: structed of reinforced concrete. The structure is a
: permanent installation and is in excellent condition.

(See Flan Attached)

Map File
No. 92-98-56

Concealment. : The structure is covered with earth and is sodded leav-
: ing the windows and part of the front exposed. The ex-
: posed part is painted to conform with the immediate sur-
: roundings. The entrance to the tunnel is covered with
: camouflage netting.

ELECTRIC CURRENT:

Source of : Commercial power was not furnished at this station be-
: cause of the exorbitant cost of extending a power line to
: the station. Two 2.5 KW power plants, separately housed,
: are now being installed under a separate project for this
: and a neighboring station. The building is wired for
: electricity.

Requirements ; Approximately 1.00 KW.

CONFIDENTIAL

FS-436 Proj Card 31

DPD 600-6411

Form 2. Corrected to 20 September 1943

HEATING : No heating facilities were provided for this station, however,
: wall plugs are provided that electric heaters may be used.
:
WATER & SEWAGE : No water supply, sewage nor latrine facilities were provided.
:
REFERENCE:
Co-ordinates : The origin of co-ordinates for the instrument axis is Canby Light,
: located on Cape Disappointment, Fort Canby. The co-ordinates are as follows:
: Station B2/3S2/3 of the south instrument base
: East 8,091.80 Yds.
: South 15,283.10 Yds.
:
Elevations : At Station B2/3S2/3
: On top of south concrete pedestal - - - - - 81.772 ft.
: On shoulder of pipe pedestal, north position - - - - - 85.613 ft.
: The datum plane of reference being Mean Sea Level.
:
INSTRUMENTS:
Observing : Two azimuth instruments, M 1910 A1, is being provided for this station by
: the Ordnance Department.
:
DATA TRANSMISSION:
Type of : Telephones. The telephones and lines were furnished and installed by the
: Signal Corps.
:
REMARKS : This station was constructed by Government forces with funds from P/A
: CAC-115 P 276 A 1204-23. Construction work was started on 31 December 1942
: and was completed on 31 March 1943. For construction details see the
: attached plan which is a part of this completion report.

WAR DEPARTMENT

400,914 (Col. River) CM 81275

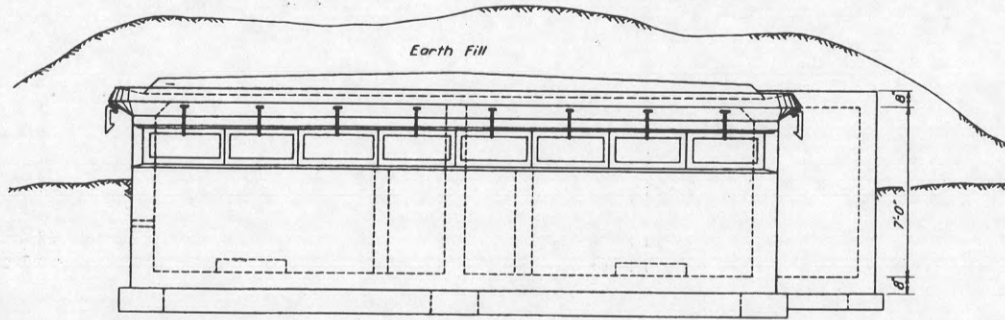
CORPS OF ENGINEERS, U.S. ARMY

Approved: *R. S. Denny*
C. S. Denny
Colonel, C.A.C., Commanding

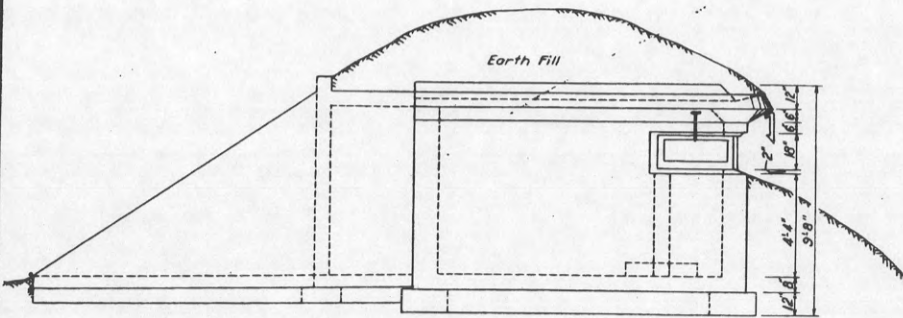
HARBOR DEFENSES OF THE COLUMBIA	
STATION B ₂ S ₂ & B ₁ S ₁	
FORT STEVENS, OREGON	
SCALE 1/8" = 1'-0"	
U.S. ENGINEER OFFICE PORTLAND, OREGON, DISTRICT	
SUBMITTED: <i>O. H. King</i>	APPROVED: <i>M. J. ...</i>
RECOMMENDED BY: <i>R. S. Denny</i>	CONTROL ENGINEER: <i>...</i>
PRINCIPAL ENGINEER: <i>R. S. Denny</i>	TRACED: <i>M.E.H.</i> CHECKED: <i>...</i>

91275

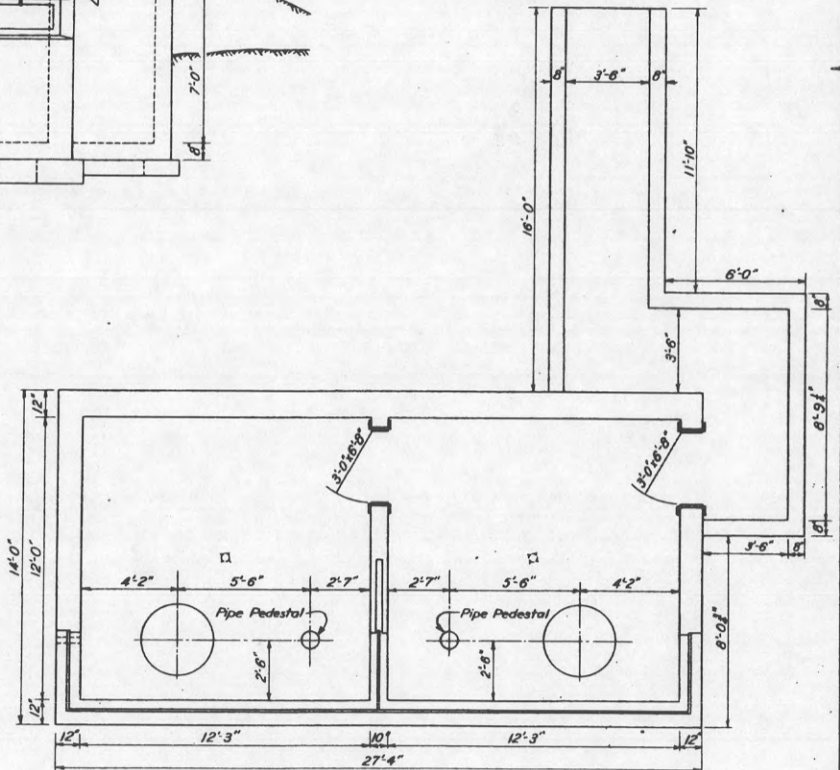
400,914



FRONT ELEVATION



SIDE ELEVATION



PLAN

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON (Location 15)
DOUBLE BASE END STATION
B6/1S6/1 & B7/2 S7/2

Form 2. Corrected to 20 September 1943

STRUCTURE:

B⁶S⁶ 5297 *B⁷S⁷ #296*

64033
Clatsop

Location : This station is located on Government owned property
: and is in the N.W. 1/4 of Section 29 of T. 8 N.,
: R. 10 W., Will. Mer., Clatsop County, Oregon; is also
: located on the Delaura Beach Road approximately 3,500
: feet west from the Fort Stevens-Camp Clatsop Road.
: The Delaura Beach Road crosses the Fort Stevens-Camp
: Clatsop Road approximately 3 1/2 miles southerly from
: the east and main entrance to the Fort Stevens Military
: Reservation.

Date of transfer : 26 July 1943.

(See Plan Attached)

Cost to date of transfer : \$ 4,700.58.

Type of construction : The entire structure is constructed of reinforced
: concrete of a 1:2:4 mix. The building is comprised
: of two rooms, each with interior dimensions of 12'-0"
: x 12'-3" with a ceiling height of 7'-0". The con-
: crete of the roof slab is 12" in thickness. The
: building is entered by way of a small access tunnel
: which is also constructed of reinforced concrete.
: The structure is a permanent installation and is in
: excellent condition.

Map File
No. 92-98-55

Concealment : The structure is covered with earth and is sodded,
: leaving only the windows and part of the front exposed.
: The exposed part is painted to conform with the
: immediate surroundings. The entrance to the tunnel
: is covered with camouflage netting.

ELECTRIC CURRENT

Source of : Commercial power was not furnished at this station be-
: cause of the exorbitant cost of extending a power line
: to the station. Two 2.5 KW power plants, separately
: housed, are now being installed under a separate pro-
: ject for this and a neighboring station. The build-
: ing is wired for electricity.

FS-433 Proj Card 28

001-60-60011

REPORT OF COMPLETED WORKS—SEACOAST FORTIFICATIONS
(Fire Control Structures)

CONFIDENTIAL

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON (Location 15)
DOUBLE BASE END STATION
B6/1S6/1 & B7/2S7/2

Form 2. Corrected to 20 September 1943

Requirements : Approximately 1.00 KW.
: HEATING : No heating facilities were provided for this station, however, wall
: : plugs are provided that electric heaters may be used.
: WATER & SEWAGE : No water supply, sewage nor latrine facilities were provided.
: REFERENCE:
Co-ordinates : The origin of co-ordinates for the instrument axis is Canby Light
: : located on Cape Disappointment, Fort Canby. The co-ordinates are
: : as follows:
: : B6/1S6/1
: : North instrument base in north room E 8,099.60 Yds.
: : S 15,332.60 Yds.
: : South instrument base in north room E 8,100.223 Yds.
: : S 15,334.323 Yds.
: : B7/2S7/2
: : North instrument base in south room E 8,100.907 Yds.
: : S 15,336.203 Yds.
: : South instrument base in south room E 8,101.53 Yds.
: : S 15,337.93 Yds.
: Elevations : B6/1S6/1: Brass shoulder, north pipe pedestal 83.399 feet
: : Axis of instrument on south pipe pedestal 84.157 feet
: : B7/2S7/2: Brass shoulder, north pipe pedestal 83.335 feet
: : Brass shoulder, south pipe pedestal 83.397 feet
: : The datum plane of reference being Mean Sea Level
: INSTRUMENTS:
Observing : For each station, B6/1S6/1 & B7/2S7/2 two azimuth instruments
: : M1910 A1 is being provided by the Ordnance Department.
: DATA TRANSMISSION:
Type of : Telephones. The telephones and lines were furnished and installed
: : by the Signal Corps.
: REMARKS : This station was constructed by Government forces with funds from
: : P/A CAC-115 P 276 A 1204-23. Construction work was started on
: : 10 November 1942 and was completed 16 March 1943. For construction
: : details see the attached plan which is a part of this completion report.

CONFIDENTIAL

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

Approved: *C. S. Denny*
C. S. Denny
Colonel, C.A.C., Commanding

HARBOR DEFENSES OF THE COLUMBIA
STATION B₂⁷ S₂⁷ & B₁⁶ S₁⁶

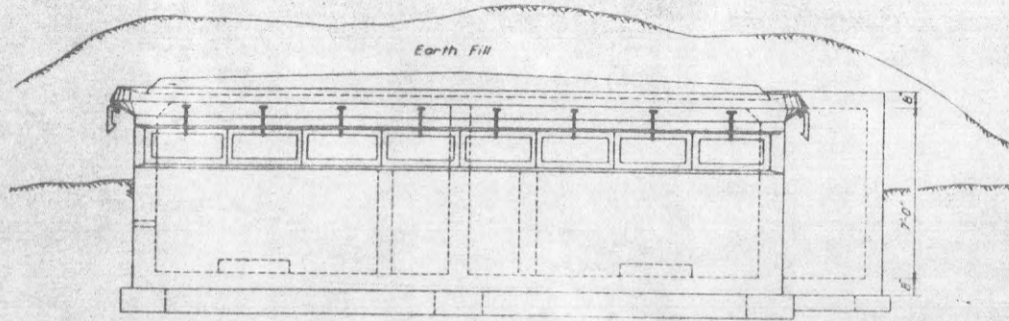
FORT STEVENS, OREGON

SCALE 1/8" = 1'-0"

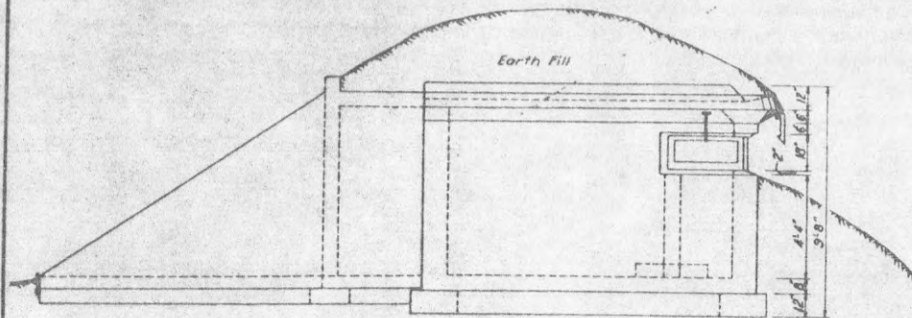
U.S. ENGINEER OFFICE PORTLAND, OREGON, DISTRICT

SUBMITTED	APPROVED
<i>[Signature]</i>	<i>[Signature]</i>
DESIGNED	U.S. CORPS OF ENGINEERS
RECOMMENDED BY	DISTRICT ENGINEER
<i>[Signature]</i>	DATE
PRINCIPAL ENGINEER	TRACED 24-3 UNCHECKED

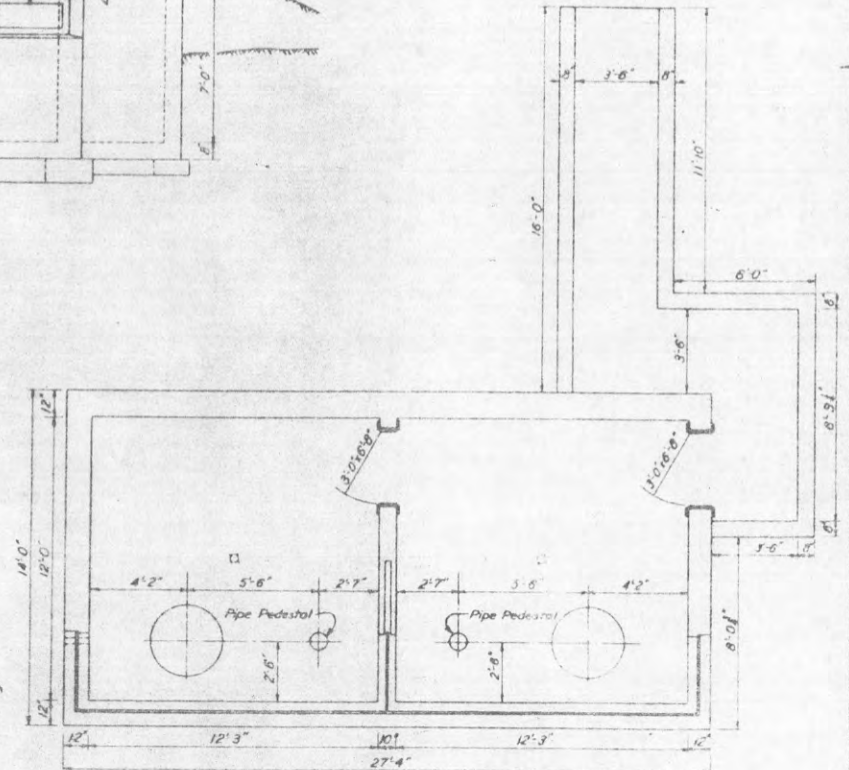
51075



FRONT ELEVATION



SIDE ELEVATION

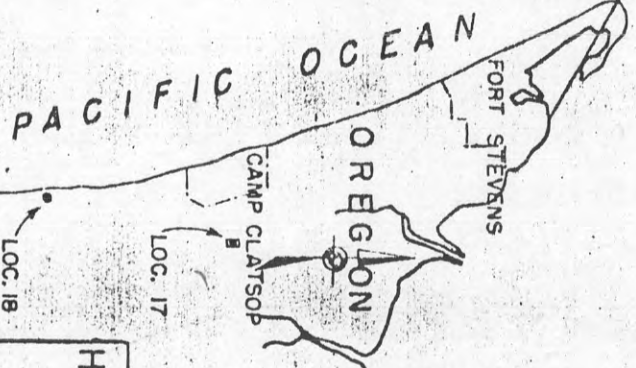


PLAN

CONFIDENTIAL

REGRADED UNCLASSIFIED
ORDER SEC ARMY BY TAG PER 7063

2
1
0
1
2
4
MILES
GEARHART

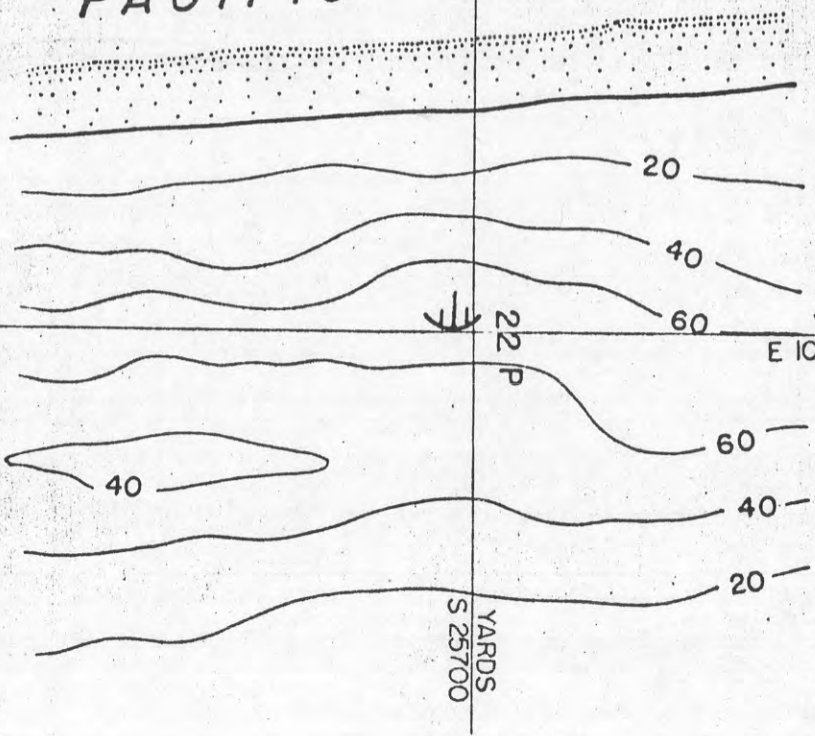


LOCATION 18

PACIFIC OCEAN

200 0 200 400 600 800 1000
YARDS

Contour Interval 20 feet



YARDS
E 10500

YARDS
E 12000

HARBOR DEFENSES OF THE COLUMBIA
TERRAIN MAP
LOCATIONS 17 & 18
REVISED DATE:

PREPARED BY: [illegible]
OFFICE OF THE ART. ENG.
FORT STEVENS, OREGON
EX 26-B ANNEX B
DATE: 26 MAY 1944

LOCATION = 17 & 18

HARBOR DEFENSES OF THE COLUMBIA
COLUMBIA BEACH
 DETAIL MAP

SCALE IN FEET



T. 8 N., R. 10 W., W. M.

T. 7 N., R. 10 W., W. M.

33 34

4 3



CAMP CLATSOP
 (STATE OF OREGON)

To Fort Stevens, 8 Mi.



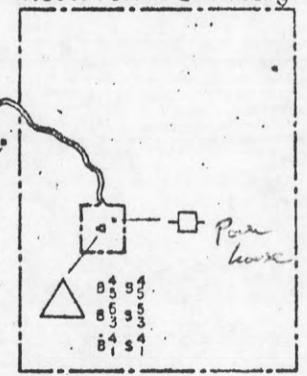
S.P.&S. Ry.

To Seaside, 9 Mi.

Skupatnon

River

Reservation Boundary



Bat 1 = 247 Casby
 3 = 246 Cl
 5 = 245 Stem

PACIFIC OCEAN

SUNSET LAKE

SERIAL NO.
CONFIDENTIAL
 EDITION OF 1 MAY 1946
 REVISED:

OF COMPLETED WORKS—SEACOAST FORTIFICATIONS *660 Clatsop River* HARBOR DEFENSES OF THE COLUMBIA
 (Fire Control Structures) *CM 42,422* FORT STEVENS, OREGON

SECRET

TRIPLE BASE END STATION
 B4/3 S4/3, B5/1 S5/1 & B5/2 S5/2.

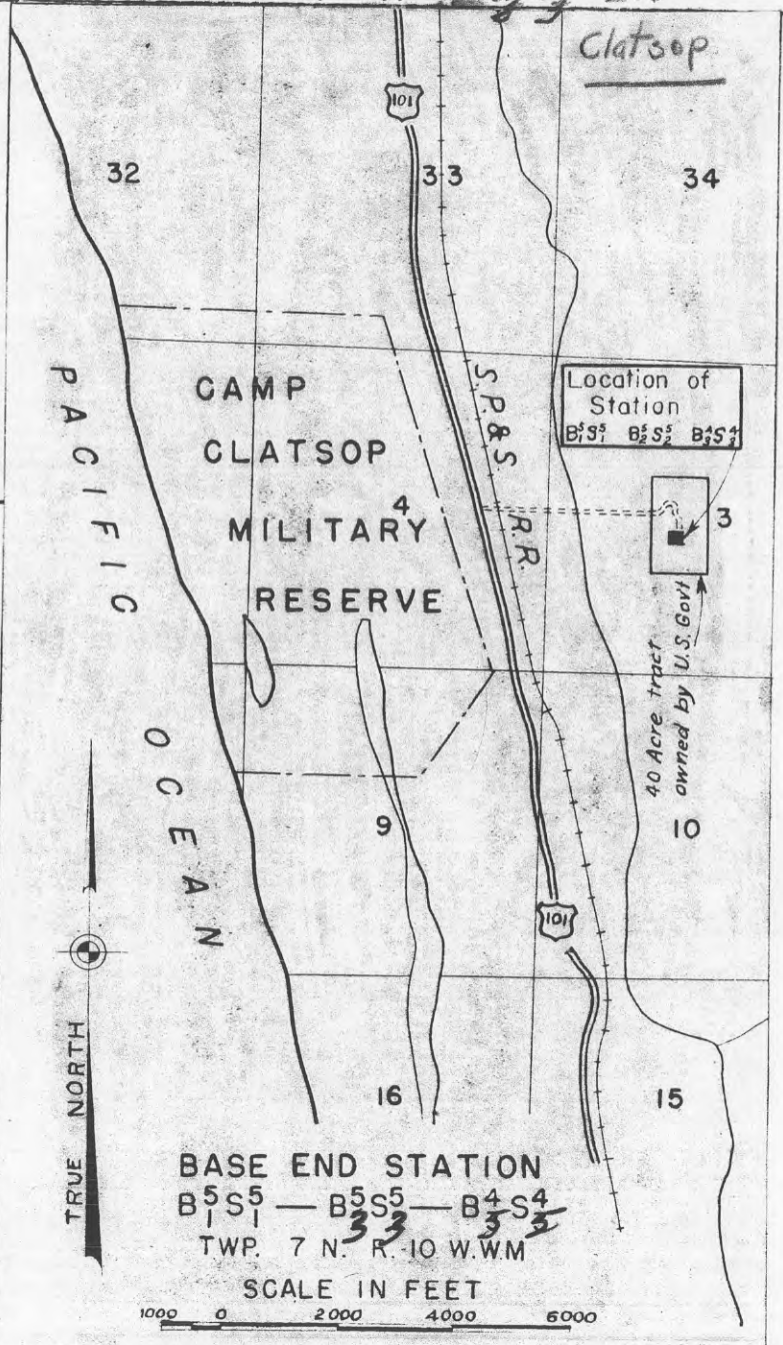
B5 S5 #245
B5 S5 #247
B5 S5 #246

Form 2.

Corrected to April 6, 1943

STRUCTURE:

- Location : Is on a 40 acre tract of land owned by the U.S. Government; said tract of land being located in Section 3, T7N, R10W, W.M. in Clatsop County, Oregon. The station is located approximately one mile east of the Camp Clatsop Military Reservation.
- Date of transfer : March 31, 1943
- Cost to date of transfer : \$15,822.60.
- Type of construction : With the exception of the footings, the main level floor and the instrument bases the entire structure is of a wooden frame construction. The footings, the main level floor and the instrument bases are all constructed of reinforced concrete of a 1:2:4 mix. This is a five story structure having an eight foot clearance on each floor. The studding and plates are 2"x6"; the floor joists are 2"x12" on 16" ctrs; and the sheeting is 1"x8" shiplap. The siding is 3/4"x10" beveled cedar and the roof is finished with cedar shingles with 4" to the weather. The interior is finished with a sub wall of 1"x8" shiplap on which is 1/4" veneer; the miscellaneous interior trim is of fir lumber. For interior dimensions and construction details see attached plans DMCR 1089.1 and 1089.2.
- Concealment : This station is constructed in a thickly wooded area and only the observation sections are visible from any distance. The visible part of this station is painted to conform to the surrounding



SECRET

OF COMPLETED WORKS—SEACOAST FORTIFICATIONS
(Fire Control Structures)

HARBOR DEFENSES OF THE COLUMBIA
FORT STEVENS, OREGON
TRIPLE BASE END STATION
B4/3 S4/3, B5/1 S5/1 & B5/2 S5/2

SECRET

Form 2.

Corrected to April 6, 1943

REFERENCE:

: Origin of co-ordinates for instrument axis is Canby Light Located
: on Cape Disappointment, Fort Canby. Co-ordinates for the three
: stations are as follows:
: B4/3 S4/3 S 19,105.80 E 11,818.10
: B5/1 S5/1 S 19,106.40 E 11,821.40
: B5/2 S5/2 S 19,103.70 E 11,821.40
: Co-ordinates are in yards.

INSTRUMENTS:

Observing : For each of the three units one DPF, M-1 Class 4 and one
: azimuth instrument M1910 A1 was provided. Instruments were all
: furnished by the Ordnance Department.

DATA TRANSMISSION:

Type of : Telephones. The telephones and lines were furnished and in-
: stalled by the Sig. Corps.

REMARKS:

: This station was constructed by Government forces with funds
: from P/A CAC-252 P 34 A 1204-23. Construction work was started
: July 8, 1942 and was completed November 30, 1942. For construct-
: ion details see attached plans which are a part of this com-
: pletion report.

SECRET

SECRET

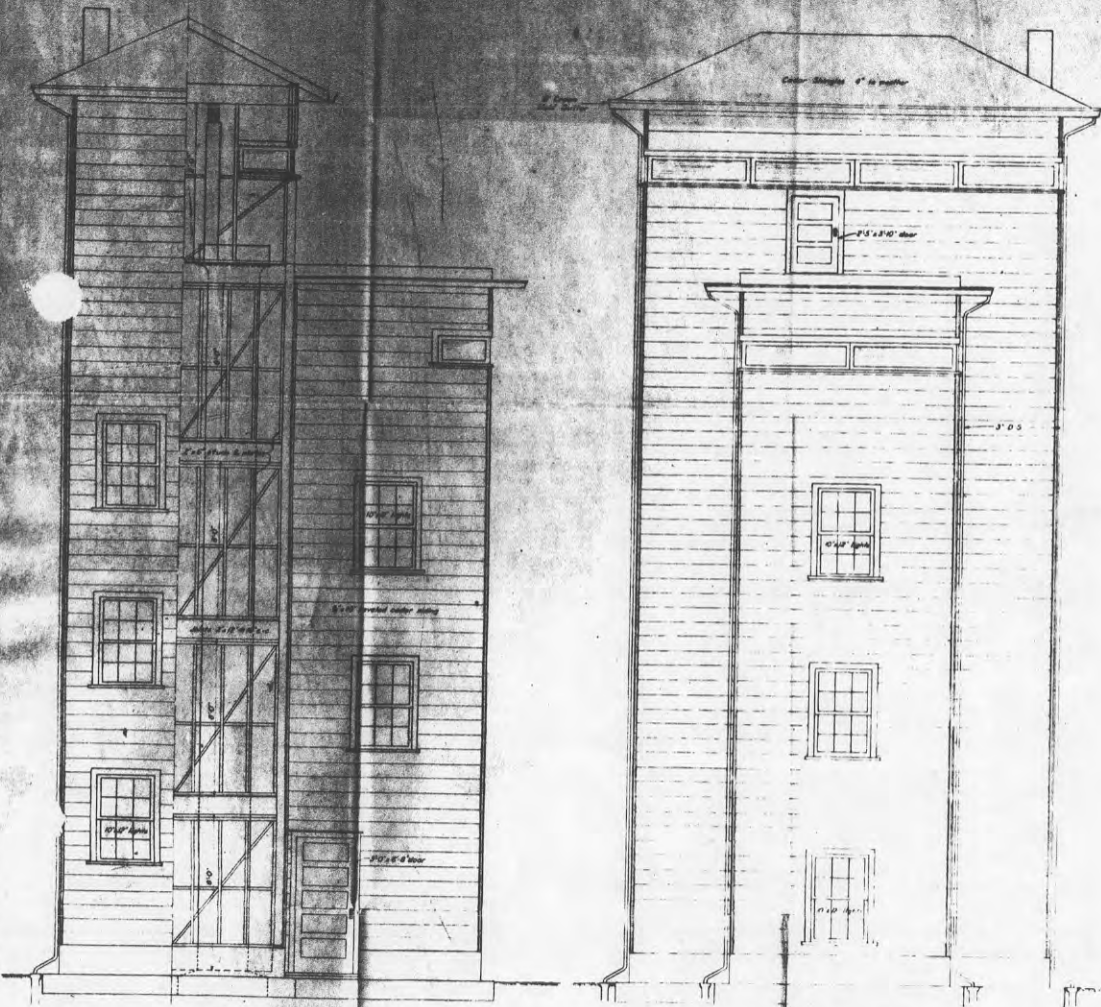
Form 2.

Corrected to April 6, 1943

Cont. : trees and is not conspicuous at any distance.
:
ELECTRIC CURRENT: :
Source of : Power for this station is drawn from the line of the Pacific Power
: and Light Company. This power line runs along the U.S. Highway 101
: and approximately 3900 feet of lateral line was necessary to get
: power to the station.
:
Requirements : Approximately 5 Kilowatts.
:
Type of lighting fixtures . . . : Incandescent lamps in porcelain receptacles.
:
HEATING: :
Air : No heating facilities were installed, however a flu was constructed
: with an outlet on each floor. Plug-in receptacles are provided in
: each room so that electric heaters may be used.
:
Water : A coal burning water heater was installed.
:
WATER & SEWAGE: :
Water Supply : Water is obtained from the 12" supply line of the City of Warrenton.
: A 2" galv. iron pipe carries the water a distance of approximately
: 300 feet to a booster pump. This pump is an electric jet type
: "Apco 4G"; has a 1/2 h.p. motor and delivers 4 g.p.m. against a 190
: foot head. The water is carried from the pump to the station, a
: distance of approximately 700 feet by a 1-1/2" galv. iron pipe.
:
Sewage : The sewage from this station is treated by a small septic tank which,
: in turn, is drained to the natural drainage of the vicinity.
:
Type of latrine : The latrine is located on the third floor of the station. The fix-
: tures provided include a toilet, wash basin and a shower head.
:
Class of installation : Structure and utility installations are all permanent.
:
Present condition : Excellent.

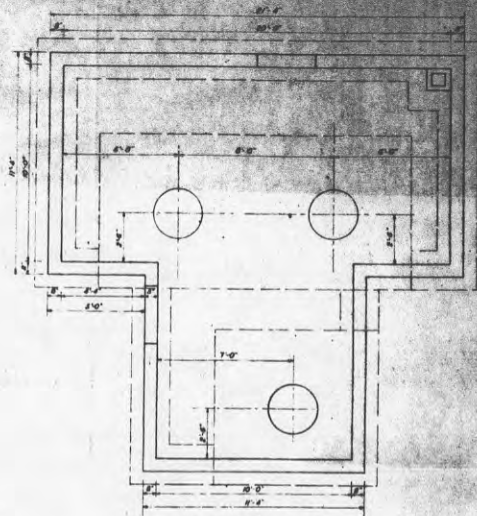
SECRET

DEPARTMENT

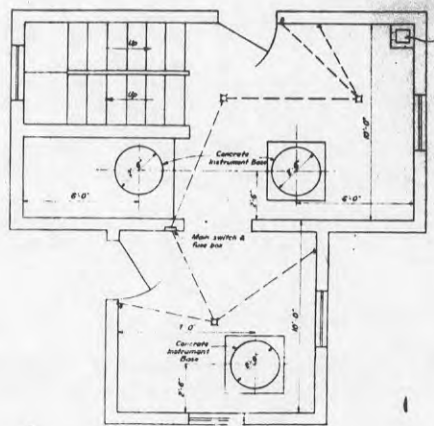


END ELEVATION
SCALE: 3/8" = 1'-0"

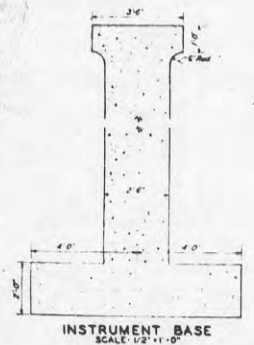
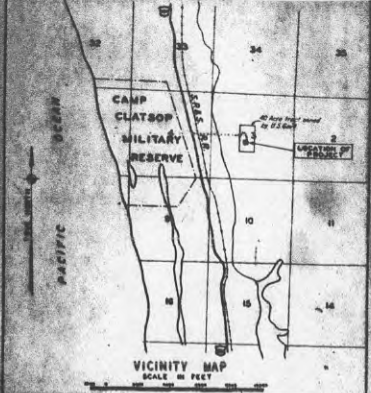
FRONT ELEVATION
SCALE: 3/8" = 1'-0"



FOUNDATION PLAN
SCALE: 3/8" = 1'-0"



FIRST FLOOR PLAN
SCALE: 3/8" = 1'-0"



INSTRUMENT BASE
SCALE: 1/2" = 1'-0"

AS CONSTRUCTED
CONFIDENTIAL

APPROVED
E. J. Downey
 E. J. DOWNEY
 COL. C.A.C.

SECRET
 HARBOR DEFENSES OF THE COLUMBIA
 BASE END STATIONS
 B¹S¹ - B²S² - B³S³
 LOCATION NO 17
 DECEMBER 1942
 IN 2 SHEETS SCALES AS SHOWN SHEET NO. 1
 U.S. ENGINEER OFFICE, PORTLAND, OREGON, DISTRICT
 SUBMITTED March 2, 1943 APPROVED
 RECOMMENDED *Chambers*
 ENGINEER
W. H. Johnson
 PRINCIPAL ENGINEER
 DRAWN BY S. TRACER B.M.M. CHECKED B.A.M.

P A C I F I C O C C E A N



12A



LONG BEACH
TO

AVENUE
FIRST ST.
ST.

LOTS 3, 4, 5 & 6
BLOCK 12, SEC. 9
T. 10N., R. 11W. WM
PIONEER TRACT
MILITARY RES.

PIONEER ROAD

4 3
9 10

TINKER LAKE

SERIAL NO.
CONFIDENTIAL
EDITION OF 1 MAY 1946
REVISED

HARBOR DEFENSES OF THE COLUMBIA
PIONEER TRACT
DETAIL MAP
SCALE IN FEET

