

SHI/VES/11#2

0664/M	0664/M.

(Formerly)

FASTEN Envelope by gumming this Label across flap.
 OPEN by cutting Label instead of Envelope.

SLIPWAY FOR M.V. PHILOMEL.
 < Jones

CONNECTED FILES.

NUMBER

0664/P

m.v. Philomel - Floating Dock

MEMORANDUM

is requested
in any refer-
ence to this memo-
andum the above
number and date
should be quoted.

9th March, 1961.

From: Superintendent of Works,
P. W. D.,

Stanley, Falkland Islands.

To: The Honourable,
The Colonial Secretary,
STANLEY.

SUBJECT:- Provisional Estimate for Proposed Slipway, Govt. Dockyard.

Having had a look at the proposed site I estimate the cost of this Slipway to be in the region of £2,000. This figure has been arrived at by the amount of timber, cement, metal etc. and labour as I see it from the surface.

Before a more accurate estimate can be given I consider soundings should be taken as I do not know:

1. Condition of sea bed.
2. Depth of water in which men will have to work.
3. Length of slipway so as to get Philomel on cradle.

(Sgd) A. E. Livermore.

Supt. of Works.

0664/11

9th May, 61.

From: The Colonial Secretary,

To: The Harbour Master,
Superintendent of Public Works,

STANLEY.

Slipway for 'Philomel'

3
I am directed to enclose a copy of a note regarding the proposed slipway for n. v. 'Philomel' and to request you to take action accordingly.

(Sgd) D.R.Morrison.

for Colonial Secretary

DRE/FH

No. _____

It is requested that in any reference to this memorandum the above number and date should be quoted.

MEMORANDUM.



9th March, 19 61

From: Superintendent of Works, P.W.D.

To: The Honourable,

The Colonial Secretary,

Stanley.

Stanley, Falkland Islands.

SUBJECT:- Provisional Estimate for Proposed Slipway, Govt. Dockyard.

Having had a look at the proposed site I estimate the cost of this Slipway to be in the region of £2,000. This figure has been arrived at by the amount of timber, cement, metal etc. and labour as I see it from the surface.

Before a more accurate estimate can be given I consider soundings should be taken as I do not know:

1. Condition of sea bed.
2. Depth of water in which men will have to work.
3. Length of slipway so as to get Philomel on cradle.

R. G. Luernell
Supt. of Works.

Copy on 0664/M.

KIV 576
Copy sent to CofC
and H/Master
Blw.

578

S/c

From the information supplied at 576 wd. you
please advise C/A. x at 562 refer.

579

20/3/61

Hc/

5

Draft - 2/c

D/L

- 21.3.61

- further action re
insurance re 0600/h

580

6

S/c

KIV 531

The plans referred to at 531 were missing 2 four weeks ago.
Can you renew the search for.

ACJ Regret ~~the~~ ^{the} ~~plans~~ cannot be found.

20.4.61

4/4/61

8

Slipway for 'Philomel'

1. H.M. and S.P.W. should examine the old slip at New Island.
This is admittedly too big but possibly could be scaled down to give us a plan.

Copy of note to H.M. and S.P.W. to consult together. I can then ask Mr. Davis if they may go and examine it.

2. Explain our position to C/AA and ask if they could put us on to somebody who would advise us.
3. Mr. Monk also promises to inform us of his plans. If we can't make our own and he makes one perhaps we could use it on payment of charges.

Spoke IDC ✓

9
C57 C

2 above. Would you put up a

~~25. 5. 61~~
B. 16. 4. 61

draft letter pl

SR

26.5.61

Spoken to H.N.

10

action on (i) proposed. One draft has not yet been made.

H.N.

Would you please put up a draft

✓

27/5/61

O.A.C.

Draft letter at b.c. please. Perhaps it would be advisable to get ~~some~~ SPW views before we make the final letter.

AG

24th.

3.8.61.

SPW for views here

to discuss we could discuss
to-morrow

5/3/61

1. Draft affid
2. Book care in from SPW
3. Mr Livermore very kindly promises to make enquiries at Looe & other places in England, charging us here travelling expenses if any. He will send us a plan.

or 7/3/61

16th August,

61.

Gentlemen,

In this Colony we are faced with the problem that there are no slipways or floating docks to accommodate vessels over 60 feet in length and of 60 tons weight. As Government owns and operates a m.f.v. ('Philomel') 75 feet long, it is considered necessary to build either a slipway or a floating dock to take a vessel of at least that size. It would however be preferable to be able to accommodate a vessel of say 100 feet in length and 120 tons dead weight. It is with this idea in view that I am instructed to enquire whether you can put us in touch with someone who could advise us on these matters.

2. We have in mind a slipway similar to the Naval slipway at Punta Arenas used for small vessels, i.e., a gradient of concrete with 3" x 9" planks set in the top surface. The vessel is drawn up the slipway on wooden skids. The actual skid is made from two 18" x 18" logs, two thirds of the vessel's length, to the top of which blocks are fastened at close intervals with a stout plank on top of these again, all to the shape of the vessel's bilge or bottom. A 60 H.P. steam winch, using suitable wire rope and four sheave blocks is the method used at Punta Arenas for pulling a vessel up the slipway. The idea is simple and effective, and could easily be employed in the Falklands by using an electrical winch of suitable power. Our biggest problem would be to lay the concrete for approximately 75 feet under water where the maximum depth at low water would be about 5 feet.

3. On the other hand, in view of the labour situation here in the Falklands, plus the cost of an electrical winch suitable for hauling vessels up the slipway, it may be more economical to build a small pontoon or floating dock to accommodate a vessel of the 'Philomel's' size. I would be very grateful for any help you can give as to the best means of tackling this problem.

I am,
Gentlemen,
Your obedient servant,

(Sgd.) D.R. Morrison

for

COLONIAL SECRETARY

Crown Agents for Oversea Governments and Administrations,
4, Millbank,
LONDON, S.W.1.

Copy to: H/Master

V/IM.

13
y41 New Island. Draft to the Dard of p
28
218.61.

23rd August,

61.

Sir,

Government has for some time been considering the question of building a slipway large enough to take the "Philomel". I understand that there is an old slipway at New Island. This I am told would be too large a slipway for our needs but that it might be possible to build one of similar design on a smaller scale. I should be grateful for any information you could give about this slipway and also should welcome your advice as to whether it would be desirable for the Superintendent Public Works and the Harbour Master to go to New Island to inspect it.

I am,

Sir,

Your obedient servant,

(Sgd.) *R. S. Mander*
R. S. Mander

For Officer Administering the Government

Mr. J. J. Davis,
NEW ISLAND.

Reply at 15.

SLC 10.9.61.

GOVERNMENT TELEGRAPH SERVICE

15

FALKLAND ISLANDS

RECEIVED

(W. & S. L. 50 Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
254	New Island	10	0915	25.8.61.
To Col Sec Stanley				

14 received letter suggest opt works regards

Davis.

16

SPW
 (cont. from) please arrange to do
 this
 28/7/61

JG

Time

17

Hes

Have looked passage first available
opportunities

noted in
Vita book

28.8.61

HMI informed of
position - at 11.15
29.8.61



28/8/61

SE houses to have
whitewash & major repairs
as wanted for 16.9.61

BU 10.9.61

BU 20.9.61

EXTRACT FROM LETTER FROM HON. COL. SEC. TO HON. G.C.R. BONNER, J.P.
OF 9TH SEPTEMBER, 1961.

(Original filed in: 1185/A)

m/v "Philomel"

I agree that the question of a slipway is exceedingly important. There is a school of thought which considers that we should wait and build our own slipway, and not send the "Philomel" to South America at all. The S.P.W. inspected the slipway at New Island, as was suggested by the S.F.C., and has got some extremely useful information.

No.

MEMORANDUM

It is requested that in any reference to this memorandum the above number and date should be quoted.

19th September 1961

To His Excellency

The Governor,

Government House.

From The Harbour Master.

Stanley, Falkland Islands.

SUBJECT :-

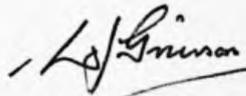
Slipway for M.V. "Philomel"

We spoke regarding the slipway for "Philomel". Attached is a small photograph of the "Philomel" on the slipway at Punta Arenas.

I have in mind a slipway similar to this one i.e., a gradient of concrete with 3" x 9" planks set in the top surface and the vessel is drawn up the slipway on wooden skids. The actual skid is made from two 18" x 18" logs, two thirds of the vessel's length, the top of which blocks are fastened at close intervals with a stout plank on top of these again, all to the shape of the vessel's bilge or bottom. A 60 H.P. steam winch, using suitable wire rope and four sheave blocks is the method used at Punta Arenas for pulling a vessel up the slipway. The idea is simple and effective, and could easily be employed in the Falklands by using an electrical winch of suitable power.

Correspondence on this matter has been sent to the Crown Agents asking for advice and is filed in 0664/M, page 12.

This photograph has been borrowed, but when Sollis returns I will forward his snaps taken from various angles and give more details.



Harbour Master.

H.C.S.

I think whatever is decided in the end about "Philomel", i.e. whether to carry on with her, or to replace her, we really must have a slipway. The S.P.W. told me he was preparing plans, and I also discussed the matter with the Harbourmaster, who sent me the minute which I attach.

19

23rd September 1961

[Handwritten mark]

H.N.

21

you will have seen S.P.W.'s plans
could you check the two on hand

23/9/61

H.C.S.

22

Monday quite consist.

[Handwritten signature]
H.N.

23.9.61

No.

MEMORANDUM

It is requested that, in any reference to this memorandum, the above number and date should be quoted.

22nd September, 19 61

To: The Honourable,

From: The Superintendent of Works.

The Colonial Secretary,

Stanley, Falkland Islands.

STANLEY.

SUBJECT:- Report on Slipway at New Island.

I have visited New Island on August 30th - September 4th and I have the following comments to make:-

- (1) The slipway is easily constructed and I recommend Stanley slipway should be built the same way. Drawing enclosed.
- (2) The timber work is no use at all for Stanley slipway but all the rollers are in good order and can be brought to Stanley anytime.
- (3) Mr. Davis should be thanked for all the help given to me on this visit.
- (4) No estimate can be given for the above work until site is selected.

W. G. Guinness

Supt. of Works.

*H. N. 24
for comments
22/9/61*

H.C.S.

25

I have been shown the drawings of the proposed slipway by the Superintendent of Public Works. The question now is the selection of a suitable sight. I would prefer to see it built on the present sight in the Dockyard which is handy to workshops etc. This may prove difficult on account of the depth of water. There is also another position which has been investigated down at the Canache, but here we are a long way off for electricity, should an electric winch be required to haul vessels up the slipway.

What is the position regarding these rollers at New Island. Is Mr. Davis prepared to let Government take them from New Island?

H. G.
Harbour Master.
25/9/61.

*9/10/61 by
re
P 2/10/61*

*To thank to
R. S. C.*

Bu Wed 27.9.61

*Bu Wed 22
210.61*

October,

61.

Sir,

I am directed to express to you Government's appreciation of the facilities afforded when the Superintendent of Works visited New Island recently to inspect the old slip-way.

2. It is understood that you have kindly promised to make the runners from the slip-way available for shipment to Stanley and I am to express the gratitude of Government for this also.

I am,

Sir,

Your obedient servant,

(Sgd.) W.H.D. Madam

COLONIAL SECRETARY.

Mr. J.J. Davis,
NEW ISLAND.

Communications to be addressed to
THE CROWN AGENTS
FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS
the following reference and the date
of this letter being quoted.



4, MILLBANK,
LONDON, S.W.1.

EC. 367/23



TELEGRAMS } INLAND : "CROWN SOWEST LONDON."
 } OVERSEAS : "CROWN, LONDON."

TELEPHONE : ABBEY 7730.

25th September, 1961.

Sir,

12
11

I am directed to acknowledge receipt of your letter
O664/M of 16th August on the problem arising in connection with
shipping the vessel Philomel.

2. It is considered here that it would be very much cheaper
and more satisfactory to construct a slipway than to obtain a
floating or pontoon dock, and a variety of reasons could be
adduced for this choice, viz. the necessity to maintain a crew
for the dock, to lay moorings, power lines etc. and take labour
out to the dock and back to shore for each shift etc.

3. It would be possible to engage consulting engineers for
design of a slipway but as it appears that use of this slipway
would be infrequent and its construction simple in character it
is suggested that design could be undertaken in this office,
from information supplied by your Works Superintendent.

4. The design would of course depend on the nature of
ground conditions available, and the freedom of choice for a
suitable site. With regard to the difficulty mentioned by
you, that of laying concrete underwater, would it be possible to
choose an inshore site so that the foundations could be excavated
and laid in the dry, prior to digging out an access channel?

5. If a consulting engineer were engaged, he would want
to visit the Falkland Islands to examine the site, investigate
the availability and technical capacity of labour and so on.
If you wished this office to undertake the work it might in the
same way be desirable for an engineer from this office to
examine the problem at the site.

6. If decision is taken to construct a slipway, is it
contemplated that the work would be done by contract or by
dedepartmental labour? This is an important question since
design for departmental construction might hinge on the
availability of plant to carry out the work.

7. Under separate correspondence, arrangements are being
made for the appointment of a new Works Superintendent for the
Falkland Islands and it is suggested that, if you wish this office
to undertake the design of the slipway, it would be advantageous
if before the newly appointed Works Superintendent leaves for the
Falkland Islands, he spent a day or two in this office being
briefed on the type of data which would be required to be collected
locally before the design could be commenced. Prior collection
of data would facilitate the work of any engineer sent to examine
the problem on the site. If you agree to this suggestion, will
you please give early authority to this office to meet the Works
Superintendent's expenses and salary for the period of his
visit to this office.

I am, Sir,
Your obedient servant,

Colonial Secretary,
Falkland Islands.

W. H. Hawley

H.A. 28

you have other things.

see 30

Reply at 29.9.61

Please check to make sure 29/9/61

J 30

29

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT



Number	Office of Origin	Words	Handed in at	Date
	Psy			20.11.61
To	PRIORITY etat CROWN LONDON			HOA/c

27

No. 401. Much regret your letter EC 367/23 of 25th September lost sight of in office authorisation granted stop Hope you can arrange

Secretary

BU p

Time RJDM/LH

See 30

BU 20.12.61 (mail)

THE FOLLOWING REFERENCE AND THE DATE OF THIS LETTER SHOULD BE QUOTED IN COMMUNICATIONS.

CROWN AGENTS

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS

EC. 367/23

4, MILLBANK.

LONDON. S.W.1.

TELEGRAMS } INLAND: "CROWN, SOWEST, LONDON"
 } OVERSEA: "CROWN LONDON"

TELEPHONE: ABBEY 7730

TELEX NO. 24209

23rd November, 1961.

Your reference 0664/M

Sir.

27
29

With reference to this office letter of 25th September I have to advise you that your telegram No. 401 arrived too late for Mr. Picton, the new Works Superintendent, to be contacted before he sailed. Consequently it has not been possible to discuss with him the type of data required to be collected locally in connection with the design of a slipway, and your further instructions in the matter are awaited.

I am, Sir,
Your obedient servant,

H. H. Aubrey

See 60.

The Colonial Secretary,
Falkland Islands

JHPH/DO

SPW. It is very annoying that, partly
 owing to a ~~mistake~~ ^{mistake} here you never had a
 chance to discuss this with the Crown Agents
 the proposal is
~~It is decided~~ that we should construct a
 ship which can accommodate a vessel
 of 100 tons & up to about 120 ft
 long.

It should be if possible near the
 existing ship where Alvest is situated
 near the Government jetty.

It is also suggested that we
 should consider whether we can make use
 of a design copied from Punta Arenas
 & ~~work~~ ^{now} work with Mr Adrian Biggs.

It is thought that possibly if
 this design is suitable we may be
 able to manage without having to get an
 engineer out from the Crown Agents.

(I can not express an opinion on this
could you please

32

in consultation with Mr. Grierson, the
Harbour Master make a report in due course.

This is clearly not a matter to be rushed
but on the other hand the sooner we can
get our ship home the better.

Suzanne/66

No. _____

MEMORANDUM.

It is requested that, in any reference to this memorandum the above number and date should be quoted.

29th January, 19 62.

To: The Honourable, _____

From: The Superintendent of Works, _____

The Colonial Secretary, _____

Stanley, Falkland Islands.

STANLEY, _____

SUBJECT:- Proposed Slipway for m.v. Philomel

On making enquiries as to the possibilities of constructing a slipway for the Philomel, I find that all this information plus drawings etc and estimated cost £2,000 have been forwarded to the Secretariat. I fail to see how Mr. Livermore could possibly arrive at this figure.

If we are to construct a slipway the following questions are to be considered:-

1. What kind of slipway do we need.
2. Do we want as has been suggested, a slip made up of a wooden cradle sliding on 9" x 3" timbers let into concrete beds.
3. Or a properly constructed concrete slip which could be used for vessels other than the Philomel of which the soundness is very doubtful.
4. How often would it be used and to what extent could we carry out repairs and maintenance.
5. Have we the plant and the technical capacity of labour.
6. How can we determine the nature of the sea bed and subsoils without equipment needed.
7. Where is the best place for the slipway to be built taking into consideration nature of sea bed subsoils tides and winds.

I think this calls for high level discussions before we can even think of gathering further information which would take quite a considerable time.

R. Pictou.
Supt. of Works.

34

H.R.

Please consider & report

Jr
21/1/62

H.G.S

35

*the above. Meeting arranged for 10 am Friday
16th February, 1962.*

Discussed Subway with SPW 36

& H. M. made of Philomet &
Mr Adrian Biggs.

1. Master promised to take soundings
and obtain information as regards
nature of bottom at proposed site
near Dockyard.

2. SPW will look for sketch
Plans of site

3. We will write to ~~write~~ write now to
Cousad Parker re ask if he would
kindly make available to ^{Stan} ~~him~~ Bennett
~~who is going in Devon~~
Plans and all possible information about
the Park Avenue site as we are
unlucky buildings are here.

copy of his to H.M. & in duplicate to SPW

After making his production in regard
to the Bennett has given us all the information
he can he will in consultation with SPW
have up a draft reply to 27 which will be
made it desirable to send out an engineer.

The draft should be drafted by G.L.

N.B. We did have the feeling the
matter to be Jack Barnes who would
probably have to do it eventually
but decided it would be best to consult

Crown -

Patton however I might
refer to Mr. Brown as the handle
contract after the information is in
x before we can do work

8/17/62

S/c

37

as at para 3 pl

d/ 19.2.62

38

ACJ

draft of



20.2.62

Psy

20.2.62

etat BRITAIN PUNTA ARENAS

HOA/c

We are considering building a slipway for Philomel and would be most grateful you arrange for plans and all possible information about Punta Arenas slipway to be made available to Stanley Bennett Foreman Carpenter arriving Darwin

Colonial Secretary

DRM/LH

Copies to: Harbour Master (1)
S/Works (2)

BW 6.3.62

Reply to mail for this

42
39A

BVF

THE FOLLOWING REFERENCE AND THE DATE OF THIS LETTER SHOULD BE QUOTED IN COMMUNICATIONS.

CROWN AGENTS

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS

EC.367/23

TELEGRAMS { INLAND: "CROWN, SOWEST, LONDON"
OVERSEA: "CROWN, LONDON"

TELEPHONE: ABBEY 7730

TELEX NO. 24209



4, MILLBANK.
LONDON, S.W. 1.

9th February, 1962

Sir,

12
27

With reference to your letter No. 0664/M of 16th August, concerning the slipway which is proposed to be built to accommodate the "Philomel", I am directed to enquire whether you have yet been able to reach a decision in response to this Office letter of 25th September, 1961.

I am, Sir,
Your obedient Servant,

The Colonial Secretary,
Stanley,
Falkland Islands,
South Atlantic.

file 60

511/62.



British Consulate,
Punta Arenas, Chile,
March 2nd, 1962.



Sir,

31
With reference to your request by cable, I am pleased to inform you that Mr. Stanley Bennett was given every facility at the Naval slipway in order to gather the necessary information required in the event of a slipway being constructed for m.v. "Philomel" at yours.

2. They were pleased to let Mr. Bennett have a plan of the slipway and, as they intend renewing the cradles, we may be able to secure a copy of the plan in due course.

I am,

Sir,

Your Obedient Servant,

Svend B. Rohm

British Consul.

The Colonial Secretary,
Port Stanley.

Reply at 50.

41 : K-1V to Thanks Carol

2 SPW.

You were also going to look for a structure plan of the site.

Mr. Sollis promises to produce information re depths in a week.

Do you wish to await it or to refer further now?

02/3/62.

Maid paid
at 3.30

42

Note.

Recalled for Ex. Co.

JB 19/3/62

H.C.S.

I am sure Unofficial Members will wish to have the latest news when they are in for the budget session. I am suspicious about the keel and plank fastenings as is Adrian Biggs. I should think that 'Philomel' is iron fastened, and the electrolytic action from her copper sheathing can be doing the iron fastenings no good, but I am sure the first thing to be done, whether we keep 'Philomel' or get a new ship, is to have a slipway.

March 6, 1962

44

~~SPW~~ ^S meeting.

I think it may now be said that Government policy is
(a) To get on with ~~the~~ slip as fast as possible.

SPW is investigating with view of ~~own~~ ^{own} BAS personnel.

(b) ~~Recommendation~~ ^{SHIP} NOT to buy a new ship till the slip is completed (or perhaps nearing completion.)

(c) It is recommended to keep the Philomel running and to spend as little as possible to keep her running reasonably. In view of ^(c) above I should now like recommendations from H.M. SPW or SPED as to what we should do now to repair or build or acquire

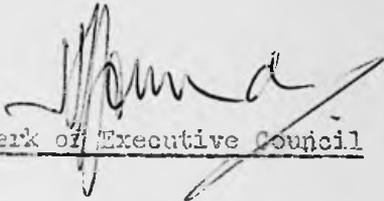
8/17/62

EXTRACT FROM MINUTES OF EXECUTIVE COUNCIL MEETING

HELD ON 20TH 21ST AND 22ND MARCH, 1962

Slipway for Philomel (0664/W)

It was considered desirable that a slipway should be erected in Stanley for m.v. Philomel.


Clerk of Executive Council

LN

0664/K

Copies to: 0660/M/O
2189

25th April, 62.

From: The Colonial Secretary,

To: The Harbour Master,
S.P.E.D. & S.P.W.D.

STANLEY.

m.v. Philomel

The question of repairs, replacement and construction of slipway for Philomel has been widely discussed for sometime and the resulting policy may now be summarised as follows:-

- (a) A slipway is essential and should be constructed as soon as possible.
- (b) Philomel should not be replaced till the slip is complete or nearing completion.
- (c) Meanwhile the vessel should be kept running with as little expense as possible being incurred on her maintenance and repairs.

2. In view of (c) above I am to invite you to submit your recommendations regarding the best means of repairing the hull and engines.

(Sgd) ~~H. H. B. B.~~

Edw. Sanders

For COLONIAL SECRETARY

HLB/FH

R 10 - 41

Hon C.S.

39 A Can we just say that the matter is still under consideration & a further communication will be addressed to them at a later date?

A1 I have now prepared a draft letter (at b.c.) for the Consul at P.A.

47.

26.4.62

39 A Yes.

41 - would SPW please see the draft. Does he still expect or want to be there?

27/4/62

48.

S.P.W.
P. see draft letter to British Consul, Punta Arenas, at b.c. & advise as indicated in 47.

C.S.
27.4.62

49

Hon. Col. Sec.

Further ground work has to be done at "Canache" before we can give Crown Agents full detail. To do this we have to work in with the High & Low water Spring Tides, plus weather conditions.

As regards draft to H.M.B.C. Punta Arenas, we would be very grateful if plans of the cradle could be obtained as soon as possible.

P. Picton
Supt. of Works.

1/5/62. see Draft of the
S.C.

5th May,

62.

Sir,

40 I am directed to refer to your letter 511/62 of 2nd March, and to thank you for the assistance you so readily gave to Mr. Bennett in connection with his enquiries regarding the construction of a slipway for m.v. "Philomel".

2. I would be most grateful if at some time you are able to secure a copy of the plans you refer to in paragraph 2 and forward them to me.

I am,

Sir,

Your obedient servant,

(Sgd.) H.L. Bound

for COLONIAL SECRETARY.

H.B.M. Consul,
British Consulate,
Punta Arenas,
CHILE.

0644/M.

8th May,

62.

Gentlemen,

394

I am directed to refer to your letter EC. 367/23 of the 9th February, 1962, regarding the proposed construction of a slipway for m.v. 'Philomel' and to say that the matter is still under consideration. A further communication will be addressed to you at a later date.

I am,
Gentlemen,
Your obedient servant,


COLONIAL SECRETARY.

rown Agents for Oversea Governments and Administrations,
Millbank,
LONDON, S.W.1.

HL/IM.

By 10/8/62 (59)

61

No.

MEMORANDUM

It is requested that, in any reference to this memorandum the above number and date should be quoted.

12th June, 19 62

From: Superintendent of Works, P.W.D.

To: The Honourable,
The Colonial Secretary,
Stanley.

Stanley, Falkland Islands.

SUBJECT :- Proposed Slipway for m.v. Philomel.

I have the honour to submit for forwarding to Crown Agents a Summary and Information for the Proposed Slipway for m.v. "Philomel".

J. Piton.
Supt. of Works.

62

Forward copy of the forwarding memo (but not to refer) (see you to H.E. at Colonial Office so that we will make it here again.
JZ.

.....12th June,..... 19.62.

SummaryProposed "Canache" Slipway Site.

COPY

A line of soundings was measured out from high water mark on 6th April, 1962 spring tides, this point is shown on land survey drawing.

The site is situated in a narrow channel of approx 350ft wide, entrance to "The Canache" It is adjacent and west of jetty, (See Port William, Stanley Harbour and Approaches Admiralty Chart 1614 engraved 1938.)

The soundings taken at Canache compare favourably with chart, (though not the soundings taken at Government jetty which would have been the ideal site, soundings there were shallow and not in accordance with chart, probably due to silting.)

The nature of beach at Canache is, bedrock outcrops at and above low water mark.

On the embankment there is a variation in depths, from the surface to bedrock. The embankment is of 2 feet peat and from 1foot to 4 feet of blue clay as you advance inland for 120 feet.

The bedrock consists of beds of quartzitic sandstone dipping steeply to the north. This rock is broken by numerous joint planes which cause the rock to break and weather into fairly small angular blocks.

With this summary are drawings of, land survey, depth soundings in channel, plan and elevation of Punta Arenas S.A. slipway and sketch of cradle.

The construction of the Punta Arenas slip is the type we would like to adopt here, it appears simple and adequate for the job.

I would be grateful for information as to the best way of doing the underwater work and material to use, cement, timber etc. Also an estimated cost from your drawings of the project. The cheapest we can turn out a yard of 1 - 2 - 4 concrete mix without reinforcing is £7. 10. -d. and we have no information of prices of pitch pine timbers if that is the most suitable to use for skids etc. Labour is 30/- per day and handymen 36/- per day.

The work will be done by departmental labour, though we are in the unlucky position of shortage of skilled labour and virtually no plant of any great value except a concrete mixer.

I had thought of an inshore site so that the foundations could be excavated and laid in the dry.

There is no site in Stanley Harbour where this could be done and at the same time have easy access.

Government's present vessel dimensions and weight is, Length over all 75' - 7", length L.W.L. 71' - 6½". Beam to outside ordinary planking 19' - 4", Depth U.S.K. to top of beam at side 10' - 11" approx 9' - 0" draught, tonnage dead weight 100 approx. It would be reasonable to assume that at some future date we would require to slip a larger vessel, and that the slip could be built to suit these requirements.

A. Picton
Supt. of Works.

to C/As

(sgd) H. L. Bound.
for Colonial Secretary.

64

25th June 62

Gentlemen,

I am directed to refer to your letter EC.367/23 of 9th February 1962 regarding the proposed construction of a slipway for m.v. 'Philomel', and enclose herewith drawings relative to the proposed site, together with a report by the Superintendent of Public Works.

39A

2. From the information available, I should be most grateful to receive your recommendations as to the most suitable means of construction, and an estimate of the cost of construction including labour and material.

I am, Gentlemen,
Your obedient servant,

H.W. Bound

(Signed R.N.D. Manders)

for COLONIAL SECRETARY

The Crown Agents for Oversea
Governments & Administrations,
LONDON, S.W.1.

HLB/MW

BU 20/10 or. Bujarshy 27.9.62

c.c. S.P.W.
c.c. HE at Col. office.
Reply at 68.

65

Yes. This is all being done with
BU after next week
gr.

BU 15.11.62

H. C. S.

Before I left London I saw some plans for a slipway which had been prepared by the Crown Agents and which should be coming here in the "Shackleton". The Crown Agents said they would also be prepared to give us a very full description of how best to set about its construction with the supervision and labour that we have available. The Officer doing the plans gave a very tentative figure of £16,000 for the cost of construction. He had done costings for a slip either in concrete or timber and it was interesting that the concrete construction worked out somewhat cheaper.

67

Would you check on the reference quoted in the attached letter. I had some difficulty in tracking down the right people because they said that the reference in our letter was not correct.

[Handwritten initials]

[Handwritten initials]

18th October, 1962.

HCA/SC

COPY

No. 0664/M

COLONIAL SECRETARY'S OFFICE.

STANLEY, FALKLAND ISLANDS.

(It is requested that, in any reference to this letter, the above Number and date may be)

.....25th June, 1962.

Gentlemen,

394

M

I am directed to refer to your letter EC.367/23 of 9th February, 1962, regarding the proposed construction of a slipway for m.v. 'Philomel', and enclose herewith drawings relative to the proposed site, together with a report by the Superintendent of Public Works.

2. From the information available, I should be most grateful to receive your recommendations as to the most suitable means of construction, and an estimate of the cost of construction, including labour and material.

I am, Gentlemen,
Your obedient servant,

(Sgd) H. L. Bound.

for COLONIAL SECRETARY.

Crown Agents for Oversea Governments and Administrations,
4, Millbank,
LONDON, S. W. 1.

HLB/MW
Copy typed FH

67A

BW 15/11/62 (R)

Reply at 68.

H.C.S.

Returned to await decision of council and
further instructions.

J. Pickett S.P.W.
28/11/62.

72

y.g.

We discussed in S.F.C. The general opinion seemed to
be that £25,000 was far too much but that it was said
that from any big firm one would probably not get
anything cheaper.

We sent Mr. Pickett to study the possibilities
with a view to getting some ideas from it
for constructing a site here. How (wonder whether
the Board will consider whether it is possible
actually to restore that site. Unfortunately Mr. L.
has left no notes which would help. The point is
that there might be some foundation life for a site
built on another. The idea was S.P.W.'s; H.M.
seemed to think it worth exploring so much that
Mr. Davies's ingenuity might help or that perhaps
he would maintain it in return for the right
to use it. Shall we write to Mr. Davies
and ask what he thinks and advise for S.P.W.
to see how far it is at all hopeful?
S 4/12/62

4.12.62

EXTRACT FROM MINUTES OF THE MEETING OF STANDING FINANCE COMMITTEE

HELD ON 27th AND 28th NOVEMBER, 1962.

5. The Chairman informed the Committee that the estimate for the proposed slipway for the 'Philomel' was £25,000. The Committee considered that this figure was too high and the proposal to construct a slipway of this type should not be pursued. It was suggested that the possibility of repairing and using the old slipway at New Island should be explored.

HTR/TB

12 December,

62.

Sir,

I am directed to address you on the subject of the old slip at New Island. It will be recollected that you kindly agreed to a visit by the Superintendent of Public Works some time ago to inspect the slipway and that you kindly rendered him assistance in this matter. At the time that the Superintendent of Public Works visited New Island the intention was to use the information gained from the New Island slip in constructing a slip at Stanley. Since then grave difficulties have been encountered in constructing a slip at Stanley and Government has been considering whether this project should be abandoned altogether and whether, as an alternative, with your permission it might be possible to restore the old slip at New Island. Since this idea had not been thought of at the time the previous Superintendent of Public Works inspected your slip no notes have unfortunately been made which would assist Government in deciding whether such proposals were practicable. It was felt that if the foundations of the New Island slip still remained it might be possible to construct on them without the complication of laying foundations afresh, and of course the better tide at New Island would be an advantage.

2. If you think that the proposal is at all practicable, I should be very grateful indeed if you would allow the present Superintendent of Public Works to visit New Island and inspect the slip.

I am,
Sir,
Your obedient servant,

COLONIAL SECRETARY.

Mr. J.J. Davis,
NEW ISLAND.

BW (R) 10-7-63

Reply at 75

75



New Island,
17 December 1962.

Dear Sir,

74
With reference to your letter dated 12 December 1962.
concerning the slipway at the ex Whaleing Station.

I consider your proposal about the slipway a good idear.
Also the best plan is for your Superintendent of Public ~~WORKS~~
Works to visit me , and so make his own plans.

I am,
Sir,
Your obedient servant.

J.J. Davis

Colonial Secretary,
Stanley.

70 3 PW in file
to 77 or w/r/12-

H.C.S. I will contact Mr Davis and arrange
flight for second week in January. L. Pickett S.P.W.
- P T O - 22/12/62.

*Ack'd
DR*

No. 0664/M

It is requested that in any reference to this memorandum the above number and date should be quoted.

MEMORANDUM



28th January, 1963.

From: Supt. of Works, P.W.D.

To: The Honourable,

The Colonial Secretary,

Stanley, Falkland Islands.

STANLEY.

SUBJECT :-

Please convey Government thanks to Mr. Davis New Island for the personal assistance and use of boat and Mrs Davis for her kind hospitality while on the survey of the old whaling slipway.

I will tender a full report when further information is received from Mr. Davis next week on rise and fall of moon tides.

A. P. Dixon
Supt. of Works.

17

29th January,

63.

Sir,

I am directed to convey to you and Mrs. Davis the thanks of Government for all the assistance and hospitality given to Mr. Picton, Superintendent of Public Works while on the survey of the old slipway.

I am,

Sir,

Your obedient servant,

(Sgd.) R.H.D. Manders

COLONIAL SECRETARY.

J.J. Davis, Esq.,
NEW ISLAND.

HNDE/IM.

BCC 9.2.63

30
Y.E.,

I discussed with S.P.W. and H.M. the results of S.P.W.'s visit to New Island to see the slip. If we are to build a slip at New Island it will have to be built afresh as the old one cannot be used. However there does appear to be one advantage which can be obtained from the old slip namely that the old sleepers under the water which are too rotten to be of any permanent use would be extremely useful as shuttering for the concrete foundations and this would make this job considerably easier. Apart from that the place itself seems to be almost ideal for construction of the slip. It is, so he says, sheltered in all weathers. It has a rise and fall of about 12 ft. - he is still trying to get further figures of the maximum rise and fall in March and September. There is no trouble with tidal currents. The gradient of the slip is about one in twelve which is probably as good as one could get anywhere, though the S.P.W. says that the ideal would be about one in fifteen or sixteen. There appears to be no sign of scour or silting, presumably as there is not much actual current in the Bay, and the slip which has I think been out of use for fifty years is remarkably well preserved except for the fact that the under water timbers have been destroyed by worm.

2. The great disadvantage of New Island of course is that it is about the most far distant place from Stanley which we could possibly find. We should consider further whether there is any other place nearer with all these advantages. H.M. is going to consult Mr. Sollis about this and will report further. The place with large rise and fall where we usually beach Philomel is Ranee Bay but this is exposed to some winds; Pebble which also, being on the West, has high rise and fall, is also, I believe, not so well sheltered.

3. I think the S.P.W. said that the laying of the actual concrete for the slip at New Island would cost about £2,000. The Crown Agents have not given us any details of how their estimate is made up and so we have no knowledge of how much we would have to spend on hauling gear etc. S.P.W. reckons that there would be a building in which we would keep our machinery which could also be used for accommodating the people who stayed there.

4. H.M. is reluctant to abandon the proposal to construct a slip in Stanley. The Canache seems to be going to be extremely difficult and expensive partly I think owing to the cross current but S.P.W. has not yet seen Sparrow Cove. He promises to do so. I think it would be well to address the Crown Agents again giving them as much information we can about New Island and trying to find out what would be the cost of various items that we would require, S.P.W. is very emphatic that we must not make any decision in a hurry. I will report further after further discussion with S.P.W. and H.M. but in the meanwhile I thought the Y.E. would like to know the present position.

36
January, 1963.

RHDM/TB

PA
1.2.63
BW 7.2.63

31
Hon. Col. Sec.

I have the honour to submit the following report on the old Whaling Station slipway at New Island.

The hopes of having a solid foundation to build on have proved negative. The site in my opinion is ideal, but would mean the construction of a complete new slip which I doubt would be of much lower cost than that of the Stanley project.

In most respects the site offers more than we can obtain in Stanley Harbour.

Requirements.

The site is ideal to take a vessel of the 'Philomels' size and larger if necessary.

Ease of Access.

A wide and deep waterway.

Currents

Little.

Silting.

None.

Winds.

The site is sheltered from the prevailing winds by the high land surrounding the harbour.

Foundation Conditions.

Appear to be sand where excavated but have held the original slipway and Whaling vessels of 50 years ago. The original slip approx 240 ft long was built of timber, 9" x 8" pitch pine bearers spaced at 12" apart, with 9" x 10" outer and 18" x 10" inner oak stringers, running on top and carrying the roller gear, each roller weighing well over a cwt. The cradle also of oak was 125' long by 18' wide. The only objection against timber is the worm which has eaten the slip away below water. The gradient is a natural beach fall of 1' in 12' which carries on into deep water.

Rise and Fall.

The rise and fall on the New Moon, 25th January was approximately 12 feet.

32

P. P. P. P.
Supt. of Works.

11th February, 1963.

H. N. for comments

8/2/63

I took two pictures at the island of a suggested
 site for a highway having borrowed the film from
 Mrs Davis. I will of course have to pay for developing
 & must give her a new film. I have film Kodak
 9/6 & don't know what developments will work

I believe it would be reasonable for someone to meet
 his expenditure but do not know from what fund.
 As far as I can see the best receipts are

of 6/2/63.

34

H.M.

As at 32 please

4/1/63 CS.

13/2/63

H.C.S

33

I have discussed this question with Solli, who claims that if it is going to cost £2,000 to rebuild the Slab at New Island, other sites such as Rance Bay, Pebble etc might be considered.

To rebuild the New Island Slab we must consider the distance in getting materials to the site.

J.G.

3.3.63.

EXTRACT FROM MINUTES OF MEETING NO. 1/63 OF EXECUTIVE COUNCIL

HELD ON THE 6TH 7TH & 8TH MARCH, 1963

4 in 0040/x

2. DEVELOPMENT POLICY (Memo. No. 34/62)

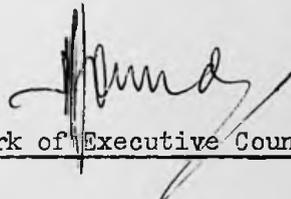
Opening the discussion on the proposed Development Policy, His Excellency outlined the difficulties such a scheme presented with regard to labour. Indeed labour at present was insufficient to carry out maintenance of existing roads. It was agreed that the present general labour shortage would prevent any large scale plans being carried out and Council advised that as an initial step enquiries should be made through the Crown Agents and the British Consul at Punta Arenas seeking information regarding the possibility of obtaining labourers either from the United Kingdom or Punta Arenas.

Council then went on to discuss the policy point by point and advised as follows:-

0664/M

(h) Slipway for Philomel

It was agreed that the Crown Agents estimate of £25,000 for the erection of a slipway was far beyond anything that Government had contemplated and the Colonial Secretary was directed to approach the Manager of Pebble Island with a view to ascertaining whether his need for slipping Malvinas and Government's need for slipping Philomel could be met by a single project.



Clerk of Executive Council

LH

12th March, 1963.

Dear Adrian,

As you know we are still in difficulties about the question of the slipway for 'Philonel' or her successor.

You remember that you kindly promised to let me know in due course whether you had any ideas for a suitable site. When we were discussing the question recently the question of what plans you had for the 'Malvinas' was raised and it was suggested that I should ask you what ideas you had and whether you thought there was any possibility of Government and you joining forces over this matter. My recollection is that when I first came out there was some such proposal but we thought at that time that our slipway ought to be in Stanley. The estimate of \$25,000 has made us think again. It seems possible that if you could construct a slip which would take our ship without danger of damaging her Government might be willing to help you with the cost of it. Of course we could make an offer in a more formal way later but in the first place if you could let me know what your plans are and whether you think there is any hope of a joint effort I should be most grateful.

Yours sincerely,

David Manders

The Honourable
A.B. Monk, J.P.,
PEBBLE ISLAND.

RNDN/IM.

HM CS

3736

Have explained the present position to HM.
Regarding the alternative sites to Hawks he
Suggests Hill Cove or Rannic Bay (Sawmills).
He hopes to take SW out to S farms
Cove to investigate that area very shortly.

14.3.63

NPH 91 31 San su.

10 4 63
Bul 28.3.63

KIV 36

DEAN BROTHERS LIMITED

CHAIRMAN: A. G. BARTON. DIRECTORS: H. C. HARDING, D. M. POLE-EVANS, D. BARTON.



GRAMS: "MITERJACK PORT STANLEY"



PEBBLE ISLANDS.
W. FALKLAND ISLANDS.

2nd April 1963.

R. H. Mander Esq.,
Col. Secretary,
Govt Secretariat
Stanley.

Dear Sir

Please excuse the

37 delay in answering your letter dated
12th March re slip, also the brevity
of the reply. I am particularly busy,
just now as we are more than
usually short-handed owing to a flu
epidemic here.

In your letter I am
proud to have caught me with "my
pants down", as we have had, so far,
after searching, found a suitable site

for a jetty ON THE COAST 40

PLAN, that is one with a gentle gradient and, a rise and fall Spring tides of 10' 6", also sheltered. There are several sites very suitable for laying a permanent slip here, but that is beyond our capabilities I think, and involve more finance than the firm can at present afford, though possibly that could be overcome in conjunction with government.

I have known an alternative idea how which would be heavily as satisfactory as a slip and I think reasonable in cost. It is basically the same system as used in the repair of

lots of river lighters, barges etc in the H1
Thames when slipping facilities don't exist
or people don't want to pay for them.

They set the craft upright on a hard,
nearly level, surface, keep it upright by
legs (not a difficult job) until the tide falls
and then jack it up 3 or 4 feet until
it is above ordinary tidal level (not spring).
I know one can get 50 ton Hydraulic Jacks
ready available for about £75 each - 4 would be
required - 2 under the keel and 2 under
2 Barge chocks which the feet in as soon as
the water receded. The operation sounds
difficult, and Hazardous, but I can assure
you it is not and 100 ton lighters barges etc
are treated this way very simply.

I propose
to propose full particulars for my
Discussion in a few weeks when I am less
busy and will let you have a copy

Ack'd. LH. 9/4/63

Yours faithfully,



H.N

42

for comments
gr.

H.G.S

This does not get us very far. It would appear that this proposed Shikony is an unwanted baby. If we get a news stick then we will have to send her to South America to undergo her annual overhaul, we cannot neglect her like the Philomet, or else we will be faced with the same problems.

H.G.S

Uthm.

26.4.63

43-

G.E 39 - 42 for information. (discussed with Captain Coleman who was unaware of his particular device but pointed out that you would need a very hard surface. I think we could send him to SPW now and await the copy of full particulars. SPW could also refer whether ✓ he has yet got any ideas from Thoren.

gr
4/5/63

gr

RAA

2.5.63

SPW.

As at 43 phase

35.63

45.

Hon. Col. Sec,

I'm not particularly impressed with the system in 39, and have had no ideas from Thorsan yet.

I think the first thing is, to find a suitable site before deciding on the construction, which depends on the site chosen.

D. Pickett.
Supt. of Works.
8th May, 1963.

46-

SPW. Sites. as I see it

The possibilities are

1. Camber.

Advantages - (Closer to Stanley).Disadvantages. technical difficulties in construction owing to (a) tidal current.

(b) low rate of rise and fall.

which involves an enormous work

2. New Island -

Advantages. you have seen it and found

it ideal from a constructional point of view

Disadvantages great distance from Stanley3. Manee Bay Saunders Island.Advantages according to Mr Solles

this has all the advantages of New Island and

is sheltered from easterlies except the north-east

47.

it has often been used in the past;
It is only about half the distance
from Stanley that the island is and is only
about 10 miles from Hill Cove when engineering
equipment is available. Review a chart
showing Rane Bay. Please note size and volume.

4. Somewhere else other than the ~~the~~
more mentioned. (We have no suggestions at present)
~~I would like a chart showing Rane Bay.~~

I wonder whether to send him would not
be far from to visit Rane Bay.

Would you then be in a position to produce a
firm proposal?

Please get us a reply in the course of 4 weeks.

We cannot give you a firm proposal but I
want to pass them but we are doing something

or
20/4/63.

48

Hon. Col. Sec.

It would be impossible to give a firm proposal
of any site without thorough investigation first and would take a
considerable time of which I have little with my work in
Stanley.

The chart of Rane Bay gives no indication of
depth or anything else within a mile and a half of the shore.

L. P. Dixon.

Supt. of Works.
21st May, 1963.

G.E.

49

I believe that G.E. is dealing with this?

or
21/7/63.

Chart returned
to Customs after being
1.7.63

50

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

Wt. P2809 5/61

Number	Office of Origin	Words	Handed in at	Date
	Psy			29.6.63
To				
	etat CROWN LONDON SW1			HOA/c

No. 142. Please telegraph prices quarter inch mild steel plate and three inch by four inch angle iron

Secretary

Original in 0825/A/II
Copy in 0664/H

Time LP/TB

HCS

SPW has been in touch with
 Mr. Johnson, and is making inquiries
 about the cost of steel plates for
 a small floating dock, which we
 could consider as an alternative
 to a slipway.

PA 1.7.63

52

for

S/C I believe a telegram came in this morning
 on this.

53

2.7.63

A.C.V.

Pl. see 318 in 0825/A/II

now 54 hereinP. (Ch)
2.7.63

DECODE.

TELEGRAM.

No. 12.

From Crown Agents, London.

To Colonial Secretary, Stanley.

Despatched :	1st July,	19 63.	Time : 1700
Received :	2nd July,	19 63.	Time : 0900

50

Your telegram No. 142 29th June. M/S plates eight feet by four feet by quarter inch £54 ton. Angles three inch by four inch by quarter inch not roller offer 5/16 inch at £52 ton or $\frac{3}{8}$ and $\frac{1}{2}$ inch at £50 10s ton. All prices fob London including oiling and subject to minimum one ton each item ordered. £2 lump sum charged each item if less. Delivery two weeks.

Crown

SPW
82

P/L : LH

Original in 0825/A/II
Copy in 0664/A

H.C.S.
Noted
Thank you.
& Paction. SPW.
82

~~B.U. 1.9.63.~~
i.e.

~~B.U. 16.7.63.~~

55

We are now awaiting a reply about the cost of a floating dock. File can go away for the time being.

L.G.

16.9.63

BW ~~30.11.63~~
30.
~~20.~~ 12.63

s/c

56

There was information this mail?

21.64

s/c

57

The mail was about the floating dock and was filed in 0664/P.

Ch 3.1.63.

Recd CSO 12/3/64

58

No.

MEMORANDUM

It is requested that, in any reference to this memorandum the above number and date should be quoted.

12th March, 1964

The Honourable,

The Colonial Secretary,

Stanley.

The Collector of Customs &
Harbour Master,
Stanley, Falkland Islands.

SUBJECT :-

GOVERNMENT SLIPWAY

The Government Slipway which was built some fifty years ago has had its day and requires re-newing. It is not our intention to re-new it on the same lines, but merely to lay down 3" x 9" deals set in concrete about 3 feet apart. A cradle will be made of timber on the sleigh principal which will give us almost an extra two feet of water and make it possible to slip small boats of the "Alert" type without having to wait for moon tides.

This question has been discussed with the Superintendent of Public Works and I am now to apply for your approval to make provision in the 1964/65 Estimates under Special Expenditure for the sum of £800 to meet the cost.

L. J. Grinson

HARBOUR MASTER.

Pa

A

0651/12

10th July

19
5
67

To: Superintendent of Works;
Harbour Master;
Master, H.V. Philomel.

From: Colonial Secretary,

Whipray - Craving Rock

Please get together and let me have a report on the feasibility of providing this locally. Together with a rough estimate of costs.

(W.H. Thompson)

COLONIAL SECRETARY

1930.

121

59 (a)

Extract from a minute from H.E. to H.M.

I understand you consulted Mr Gooch during his recent visit about the slipway. It would be useful if you would make a note in the file on the outcome of your consultation.

J.A.J.

20. 3. 70.

AC.

59(b)

Extract from a Minute from C.S. to H.M. of 10th April 1970.

2. However, although this is not the correct file for the subject we have other problems about "Forrest." ? How are they coming along.

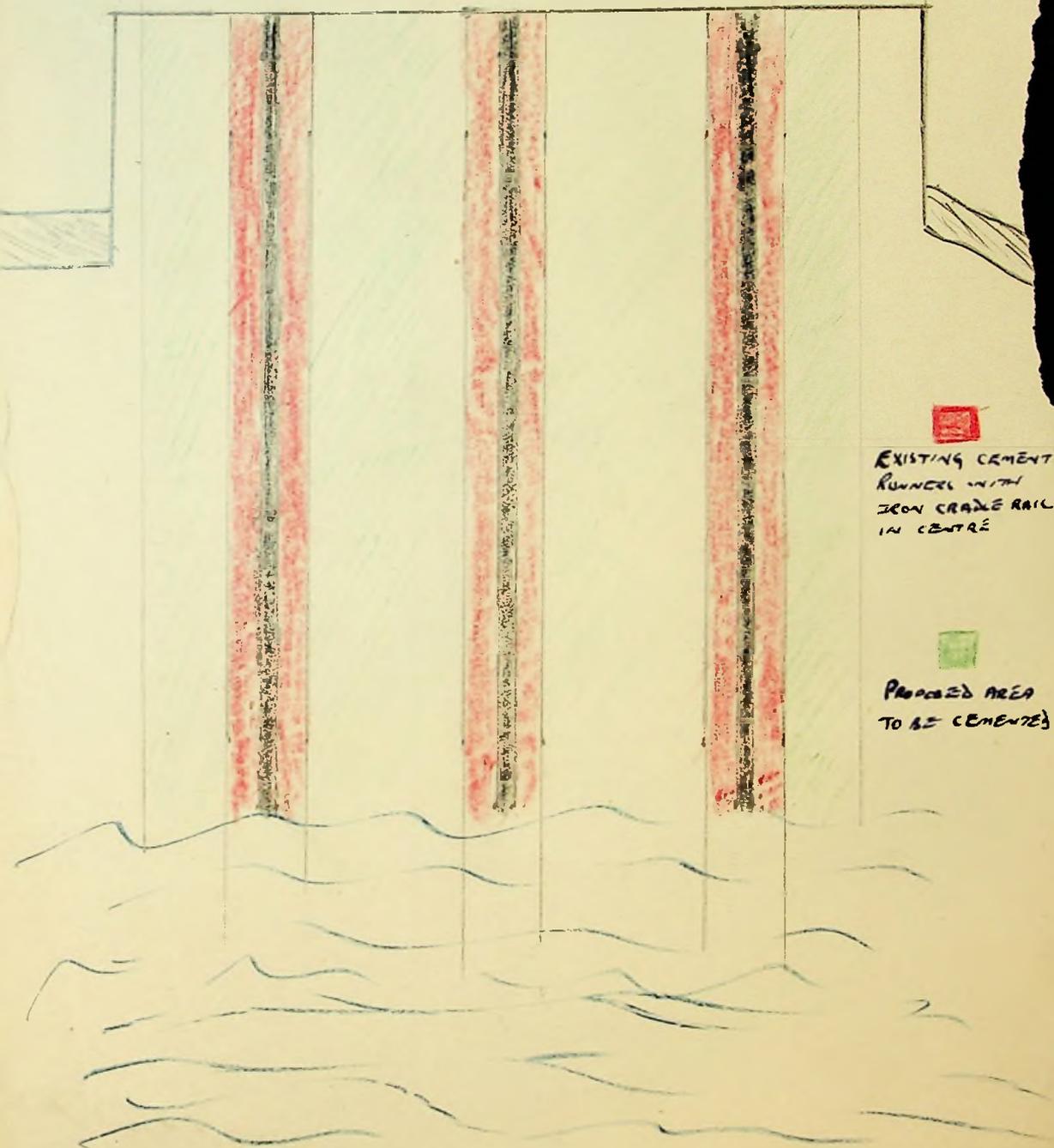
Extract from a Minute from H.M. to C.S. of 15th April 1970.

59(c)

1. Ref 493 and 495. Before returning to Montevideo Mr Gooch examined the present Slipways in Stanley. He was satisfied that the Government Slipway could, without too much trouble and expense, be widened to carry Forrest. This would entail widening the two outside runners and 'filling in' the spaces in-between the three existing runners. Rough sketch attached. Since Mr Gooch's departure however, considerable interest has been shown in the pontoon - Mulus III, and the possibility of a smaller version for docking local vessels of Forrest's size. As you know the Pontoon Experts have been extremely busy ever since they arrived in Stanley but I have arranged to discuss this matter with them once they get the pontoon safely moored alongside the Public Jetty. Of the two suggestions the latter would certainly be the most beneficial. in so far as sinking and lifting can be done at any time, whereas with a slipway we must work with tides. The Pontoon Scheme would possibly be of interest to the Admiralty also, bearing in mind the difficulty they experience in maintaining their two Oil Barges.

BOAT SHED

59(d)



EXISTING CEMENT
RUNNER WITH
IRON CRANE RAIL
IN CENTRE

PROPOSED AREA
TO BE CEMENTED

EXTRACT FROM MINUTES OF EXECUTIVE COUNCIL MEETING NO. 5/70

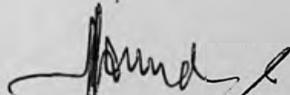
HELD ON 17th, 18th, 20th. and 22nd to 30th APRIL, 1970

501(a)
60

(37) Docking of 'Forrest' and other small craft

Mention was made of the difficulty experienced in providing dry-docking facilities for m.v. 'Forrest' and other small craft, and in discussion the general view was taken that a pontoon on a smaller scale to that which was used in connection with the 'Great Britain' project might provide the solution. Such a construction might also be used as an extension to the Public Jetty thus affording the use of the jetty to larger craft that would otherwise be required to anchor some distance off. Another possibility to be considered was the use of the dry dock at South Georgia.

Council advised that enquiries be made regarding both suggestions.


CLERK OF COUNCIL

~~60~~
61

EXTRACT FROM 'MOTOR BOAT AND YACHTING' PUBLICATION
DATED NOVEMBER 14th 1969.

PONTOONS

PONTOONS, 28 ft. by 8 ft. by 3 ft. scow-ended detached
with bolted hatch, heavy plate, suitable for con-
struction work, £180. Can be inspected in Scotland/
Sussex. Forster of Climping, Littlehampton 6094.

ZEM-546

WITH AN INCREASING SCARCITY of service pontoons, and
the increasing demand, there is a great need for
cheap pontoons.

D.T.A. HAS THE following advantages: it is immensely
strong and requires no maintenance; they will inter-
lock together in units to permit the formation of
landing stages and fingers; there is no fire or
work hazard. Robust units in standard sizes, but
this company would manufacture units to clients'
requirements.

YARDARM MARINE SERVICES LTD., 45-46 New Bond St.,
Mayfair, London, W1Y 9HB. 01-499 0025-6.

338-8

13th May 1970

FA

(b)(a)

Extract from a Letter to Crown Agents

dated 20th March - fil 2189/V

2. While in no way wishing the condition of the vessel to deteriorate, voyages to Punta Arenas in Chile or Montevideo in Uruguay for docking and survey are becoming extremely and increasingly expensive and we need to explore the possibility of less expensive methods of effecting surveys. Answers to the above questions would be helpful in the context of our thinking regarding the possible construction of a local slipway suitable for "Forrest".

See 72

AC.

Harbour Master,

f. 60. For your comment on the size of pontoon mentioned, pl.

J C.S.
14.5.70.

Col. Sec.

The pontoon suggested by Mr. Hermt Kaulen is 4/5 times larger than the one advertised at 60. Dimensions suggested by Mr. Kaulen were 40m (130ft) x 12m (39ft) x 1.5m (4.9ft) as opposed to 28 x 8 x 3 ft.

J.P. 21.4.70.

G.F.

From p. 60 submitted i.c.w. your letter on magazine at b.c.f.

J 23/5

M 23/5/70

Magazine taken to ~~not~~ return to owner.

H/M. Are any firm ideas being worked out as regards limits of pontoon vs shipway?

C.S. We are seeking the advice of the Crown Agents on this matter.

J 23/5

J.P.

In file on dock/chapter for 'Forrest'

2nd June

507
63
70

The Colonial Secretary,

Harbour-master,

Stanley.

Estimates 1970/71

The following items require examination and report, as indicated below, by you as a result of initial examination of them in connection with the 1970/71 estimates.

(1) Wharfage Fees

The suggestion has been made that government wharfage fees should be increased and it will in due course be necessary to submit the matter in a formal Memorandum to Executive Council. I shall be glad if you will examine the subject and provide me with a draft of a paper setting out the arguments for increasing fees. Among other material the draft should include information stating when the public jetty was last repaired and at what cost.

The feeling is that government wharfage fees are much too low when considered in the light of devaluation and the continual fall in the value of money, but it is appreciated that the fees charged must to some extent be relative to the facilities offered.

(2) Docking of S.V. 'Forrest' and other small craft

The suggestion has been made that a pontoon of the same kind as, but smaller than that which was used in connection with the 'Great Britain' salvage operation might provide the best solution to the problem of docking S.V. 'Forrest' and other small craft. It is considered that such a pontoon might also be used as an extension to the public jetty thus affording the use of the jetty to larger craft who would otherwise have to anchor off-shore. Reference has also been made to the possibility of acquiring the dry dock at South Georgia.

You have obtained some information from the Master of the Varanus II about pontoons and I suggest that, if you have sufficient material upon which to base an enquiry, you draft, for my approval, a letter to the Crown Agents telling them the dimensions and type of pontoon which we are considering, the purpose for which it is required, and so forth. Crown Agents could be asked to make enquiries of availability of this type of equipment, costs, delivery, etc. At the same time enquiries could be made of the Base Commander, South Georgia, regarding the state of the dry dock there and of Brandt's as to whether the dock is for sale and if so at what price. (We would need to bear in mind in this connection that there would presumably be an expensive exercise of towing the dock from South Georgia to Stanley).


(J. A. Jones)
Colonial Secretary

cc Colonial Treasurer
Superintendent, Public Works

B.V. 11. 6. 70.
/ (S.O.A.)

54464

PONTOON IN PLACE OF SLIP.

FORREST SOME 3 YEARS WITHOUT SLIPPING.

POSSIBLE USES FOR PONTOON:-

FOR FORREST AND OTHER LOCAL CRAFT

OIL BARGES

KELP HARVESTERS

OIL CONTAINER

JETTY EXTENTION, (B.A.S new vessel, Endurance and other ships too large for present jetties)

WATER BARGE.

CS. Note handed to me in
EXCO mtg month by
Major Goss. Please BV
on file re pontoon

MS

22/6/70

MEMORANDUM

20th July, 19 70.

It is requested that, in any reference to this memorandum the above number and date should be quoted.

From: Harbour Master,

To: The Colonial Secretary,

Stanley, Falkland Islands.

STANLEY.

SUBJECT:- Wharfage Fees and Docking of m.v. 'Forrest'

Wharfage Fees were increased by 100% in 1968. The vessels making most use of the Public Jetty, and consequently causing most damage, are vessels who unfortunately do not pay any wharfage fees, i.e., B.A.S. vessels, 'Darwin' and 'A.E.S.'. Our revenue is therefore derived from small local vessels such as the 'Malvinas' and 'Gentoo' and from the occasional small trawler of the Russian Fishing Float. To me it appears unreasonable that these small vessels, especially the former, should be expected to pay higher fees in an attempt to off-set the damage caused by non-paying vessels. Should we not now review the position regarding vessels of the British Antarctic Survey, especially since the Dependency and B.A.T. contribution to Central Administration has been greatly reduced? Our present law makes no provision for vessels that moor at the jetty but do not actually berth - this could be rectified. During the Financial Years 1952/53 - 1955/56 the sum of £4,324 was spent on repairs to the Public Jetty.

2. (i) A smaller version of the Pontoon 'Mulus III' would, I am sure, be the answer to our problems for docking small vessels and also for extending the Public Jetty when circumstances demand. The cost of purchasing such a pontoon and towage to Stanley would, in my opinion be exorbitant. For a similar sum we could probably be able to dock 'Forrest' at least ten times in either Montevideo or Punta Arenas. Until firm facts and figures are available this is only assumption and I attach herewith a draft letter to the Crown Agents on the subject.

(ii) A Floating Dock from South Georgia is virtually on our door step and would probably, in the first instance, be less expensive. Operational costs and maintenance would however be greater than a pontoon. A dock would only be suitable for one specific purpose while a pontoon could be dual or treble purpose. Enquiries from Mr. Brandts and Chr. Salvesen cost us nothing and I attach herewith draft letters of enquiry.

[Signature]
Harbour Master.

H/M. T.Y. Please both Drafts.

2 both regard to your point. I foresee some difficulty over changing our policy in this respect as regards the B.A.S. as it raises much wider issues. However, I can see no valid reason why 'Darwin' & 'AES' (which I assume use our jetty only very rarely?) should be exempt from wharfage fees. Can you explain to me why they are exempt?

[Signature]

19th August

70.

Dear Sirs,

Floating Dock at South Georgia.

I should be grateful if you would kindly forward the following particulars of your Floating Dock at South Georgia.

- (a) Lifting capacity.
- (b) Present state of serviceability.
- (c) Whether sale is contemplated and if so the estimated price.

Yours faithfully,

for COLONIAL SECRETARY.

Messrs Wm. Brants,
36, Fenchurch Street,
P.O. Box 95,
LONDON E.C.3.

see 70

19th August

70.

Dear Sirs,

Floating Dock at South Georgia.

I should be grateful if you would kindly forward the following particulars of your Floating Dock at South Georgia.

- (a) Lifting capacity.
- (b) Present state of serviceability.
- (c) Whether sale is contemplated and if so the estimated price.

Yours faithfully,



for COLONIAL SECRETARY.

Chr. Salvesen & Co. Ltd.,
29, Bernard Street,
Leith,
Scotland.

AC.

19th August

70.

Dear Sirs,

Pontoon for docking small
vessels.

Suggestions have recently been made that a small pontoon might be suitable for docking the Government vessel 'Forrest' and other small local vessels. The pontoon 'Mulus III', owned by the German Salvage firm of Ulrich Harms, was recently used in these islands for the salvage and restoration of the old sailing ship 'Great Britain'. A smaller version of the 'Mulus III' is envisaged and suggested dimensions are 40 x 12 x 1.5 metres.

2. Your views and comments on the feasibility of such a project are requested together with approximate purchase and delivery costs in the Islands for:

- (a) a second hand pontoon and
- (b) a new unit constructed in a British yard.

3. Second hand pontoons are advertised by the Dutch firm of J. Verheul/Metacenter, N.V., Scheepmakershaven, 53, Rotterdam, 3001, and we assume they will also be available on the British Market.

4. 'Forrests' particulars are as follows:

Length - 80 feet. Breadth - 22 feet. Draft - 8 feet.

Deadweight - 135 tons. Lightweight 116 tons.

see 71

Yours faithfully,

S.

for COLONIAL SECRETARY.

The Crown Agents,
for Oversea Governments & Administrations,
4, Millbank,
LONDON S.W.1.,
England.

Reply 71

Reply 73

AC.

Harbour Master,

To you with ref. to para 2 of 65.B.

C.S.
20.8.70.

C.S.

Action 4 of the Government Wharves Ordinance (Cap 29) exempts vessels under mail contract from wharfage fees.

JA
22.8.70.

x/

H/M This amply seems desirable in 1970. There may be a case for amending the law? Please discuss with C.T.

JA

H/M

Please KIU 65A.

JA
18.9.70

C.S. No action required on 65A at present. P. 20970.

T.E.

Reference x/ above, although the provision could unambiguously be removed from the law, it also forms part of the Shipping Subsidy Contract which is in force until 31.12.71.

The wharfage fees Regs are due for review under the 1970/71 estimates programme.

The wharfage fees Regs are due for review under the 1970/71 estimates programme.

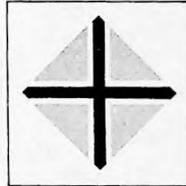
L.G.
30.9.70

Christian Salvesen (Managers) Limited

G.P.O. Box 217
29 Bernard Street
Leith
EH6 6SW
Scotland
Telephone
031-554 4311(20 Lines)

71
Telegrams, Inland & Foreign
'Salvesen, Leith, Telex'
Telex
Leith 72222

Colonial Secretary,
Colonial Secretary's Office,
Stanley,
Falkland Islands.



Date
8th September, 1970.

Our Ref.
TBMS/MB
Operations Dept.

Your ref.
0664/M

Dear Sir,

Floating Docks at South Georgia

We thank you for your letter of 19th August. ⁶⁸ In fact we have two floating docks at Stromness, South Georgia. One with a lifting capacity of about 700 tons and the other a lifting capacity of about 975 tons.

With regard to their condition, in June 1968 our whaling stations were inspected by Captain R.N. Millar, master of r.m.s. DARWIN. His comments on the dry docks were brief and ran as follows:-

"Both floating docks appear in reasonable condition but no examination was made of any pumping machinery etc. Power cables will require extensive overhaul and possibly renewal."

We have had no further information on the state of the docks since then.

With regard to price, our ideas are about £20,000 for the larger dock and about £10,000 for the ^{smaller} ~~other~~ dock, both "as is where is".

We await to hear if you wish to develop the matter further.

Yours faithfully,
For CHRISTIAN SALVESEN (MANAGERS) LIMITED

T.B.M. Bell-Scott S.M.

T.B.M. Bell-Scott

See 76

Directors: L.M. Harper Gow, M.B.E. G.H. Elliot
R.B. Weatherstone Barry E. Sealey R.S. Salvesen
W.M. Bruce

THE FOLLOWING REFERENCE AND THE
DATE OF THIS LETTER SHOULD BE
QUOTED IN COMMUNICATIONS.

Q367/37

Telegrams: "Crown, London S.W.1"
Telephone: 01-222 7730
Telex No. 916205

CROWN AGENTS

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS
'Q' Department,
4, MILLBANK,
LONDON, S.W.1.



24th August, 1970.

Dear Sir,

Your Ref: 2189/V
Slipway for M.V. "Forrest"

We refer to the last paragraph of your letter dated 20th March, to which our letter dated 27th July was an earlier reply. We wonder if you have had any further thoughts about the action which you wish to take regarding inspections of M.V. "Forrest" and the possible provision of a slipway. If you are still considering the latter you might like to take advantage of the assistance which the Advisory Services Department can offer. We would be able to fully investigate the problem, design a suitable slipway and organise its construction for you should this appear to be the best solution, or recommend and if necessary design and arrange construction of alternative means of accomplishing the surveys if a cheaper method than slipping can be found. We would be very interested in assisting you with this project and if you would like us to make an offer in more specific terms we should be pleased to do so on receipt of your request.

Yours faithfully,

P. H. H. H.

for the Director of Advisory Services.

The Colonial Secretary,
Colonial Secretary's Office,
Stanley,
Falkland Islands.

JAC

75

Pp 71-1

Please arrange for p.71 to be acknowledged and for Salvesens to be told we are considering the matter.

2. If there is any likelihood (though I should not think there is) of "Biscoe" visiting Stromness we could ask for a report on the state of the floating docks. Alternatively Base Commander, South Georgia, might, in due course, though possibly not until he has a boat next season, be able to let us have a report. We could not envisage spending sums in the region of £10,000 without proper inspection and report on the state of the floating docks. I suggest you discuss with O i/c B.A.S.

3. P.72 seems worth following up, without commitment. It would be worth reply to p.72 thanking them and asking them if they would be prepared, without commitment on either side, to make an offer in specific terms.



(J. A. Jones)
Ag't Governor
7/10/70

9th October

70

Dear Sirs,

71

Thank you for your letter TBMS/MB (Operations Dept) of 8th September 1970 regarding the floating docks at South Georgia.

2. This administration is now considering the matter, and I shall be addressing you further on the subject in due course.

Yours faithfully,

(Sgd) L. Gleadell.

ACTING COLONIAL SECRETARY

Messrs Christian Salvesen (Managers) Limited,
G.P.O. Box 217,
29 Bernard Street,
Leith,
EH6 6SW,
Scotland

(for attention Mr T.B.M. Bell-Scott)

FA

77

13th October

70

Dear Sirs,

Slipway for m.v. "Forrest".

Thank you for your letter ⁷²Q367/37 of 24th August 1970. We are still considering ways and means of docking/slipping "Forrest" and wonder whether you would be prepared (without commitment on either side) to make an offer in specific terms.

Yours faithfully,

(sgd) L. G. Gendell.

ACTING COLONIAL SECRETARY

The Crown Agents for Oversea Governments
and Administrations,
"Q" Department,
4, Millbank,
LONDON S.W.1.

CLA.

Y.E.

O/c B.A.S. thinks there is a good chance that his Ship Master will be able to look at the clocks before the end of 1970/71 season.

L.E.

 12/10/70

C.S.

Mod. It might be as well, in that case, for a memo. to be sent to O/c B.A.S. saying that it is understood that it might be possible for inspections to be made & asking if they could indeed be made & reports upon the condition (+ other relevant information which an intending purchaser would need) of them made to the P.G.

J
1/14/10

14th October 70

From: The Colonial Secretary,

To: Officer-in-Charge,
British Antarctic Survey,STANLEYFloating Docks at South Georgia

You were kind enough to undertake to assist us in obtaining an opinion of the two docks at Stromness when the "John Biscoe" calls there probably during the coming season.

2. We would be grateful for a report by the Master/Chief Engineer. According to information provided by Chr. Salvesen Ltd. one dock has a lifting capacity of 700 tons and the other 975 tons. Your officers may wish to comment on their suitability for docking m.v. Forrest, in addition to technical detail regarding their present condition and other relevant information that a prospective purchaser might wish to know.

(Sgd) L. Gleadell.
ACTING COLONIAL SECRETARY

FA

By 14. 2. 71.
(K.W.)

Copy H.C.S.

80

0664/11

NR19 SOUTH GEORGIA CX62 19 1145z

LF

BRADYSONS LONDON



FLOATING DOCK THERE ARE SOME RUST HOLES IN DOCK SIDES AND
SOME SECTION INSIDE ARE BAD BUT LIFTING DECK IS GOOD THERE
ARE NOT ANY LEAK UNDER WATERLINE LAST TIME ON SLIPWAY HERE
1956 STOP BUT AFTER REPAIR WILL BE SERVICABLE MUST BE
WELDED SOME PLACE BEFORE REMOVAL STOP PERHAPS IRON FOR
REPAIR CAN BE SUPPLIED FROM HERE

!!

LBION

CS/CT via HCS & H/M.

P.79. Prof. B.A.S. has told me that he foresees no difficulty in meeting our request. You will probably receive a written reply from him. In case you do not, this note will take the place of a written reply.

2 H/M should Bk for appropriately.

c/c Please B.U. after 'John Biscois' return from South Georgia.
About Christmas time I would say.

by 22.12.70

24/10
W. 27-1070.

DECODE.

82.

TELEGRAM.

From HILTON CROMIE

To SECRETARY POST STANLEY

Despatched : 6th November 19 70 Time : 1711

Received : 9th November 19 70 Time :

0367/37

72.77 refer

Reference your query possible slipway for Forrest possible we may have engineer in Buenos Aires shortly who could visit you if able fly to Stanley. Grateful if you would advise if any means of flying South America to Stanley is possible as our queries indicate not possible

HILTON CROMIE

PL: JR

A.C.S.

Reply 82.

Draft reply at b.c. pt.

§

11.11.70.

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

15148-821 585968/704663 500 pads 9/69 Grp.782

83

Number	Office of Origin	Words	Handed in at	Date
	STANLEY			15.11.70
To	LTF HILTON BROWN LONDON S.W.1			HO a/c

No 217 82

Yuritel 6th 0367/37 Slipway for
 Forrest stop Regret no external a/service
 monthly sea connection Montevideo only

SECRETARY

Time

JE

By 22.12.70.

THE FOLLOWING REFERENCE AND THE
DATE OF THIS LETTER SHOULD BE
QUOTED IN COMMUNICATIONS.

89

CROWN AGENTS

FOR OVERSEA GOVERNMENTS AND ADMINISTRATIONS

FD Falk Is. 0/37991

Z. Dept.
4, MILLBANK,

LONDON, S.W. 1.

Telegrams: "Crown, London S.W.1"
Telephone: 01-222 7730
Telex No. 916205



10th November, 1970

Dear Sir,

Pontoon for Docking Small Vessels

In reply to your ⁶² letter, reference O664/M dated 19th August, we would advise that enquiries have been made for a second-hand pontoon/floating dock but without success.

This is undoubtedly due to the small size of dock required as very few have been built as small as this. Slipways are generally used for vessels of the size of the "FORREST" and in fact, we understand our Advisory Services Department are already dealing with a request from you to investigate the feasibility of a slipway.

The suggestion to use a smaller version of the pontoon used to salvage the "GREAT BRITAIN" would probably have been impracticable for a number of reasons such as, it would not be self contained as regards pumping services, it would need to have specially shaped large chocks as well as keel blocks to support the vessel and there could be mooring problems.

As you are probably aware, the conventional floating dock has side walls against which the vessel can be shored. The side walls also contain the pumps and other services required for the dock operation. You may recall that we looked into the question of a floating dock in 1963 and in fact, sent you a quotation for a small dock offered by Messrs. Head, Wrightson Teesdale Limited.

See 6
0664/P

/Enclosed

The Colonial Secretary,
Colonial Secretary's Office,
Stanley
FALKLAND ISLANDS.

SU/EVW

The Colonial Secretary,
Stanley.

Enclosed is a copy of their specification provided at the time, for your information. The price quoted in 1963 was £55,000 FOB. Unfortunately, the firm say they would not now be interested in this project and decline to give an up to date price, which of course would now be considerably more than previously quoted.

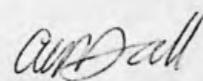
There are, of course, two major problems in providing a floating dock or, indeed, a pontoon. These are the necessity for a sufficient depth of water at site to allow for sinkage and the problem of delivery to Stanley. As regards depth of water, you will note from the enclosed specification copy that the Head Wrightson dock would require a minimum depth of 20 ft. at site. As the dock proposed had to have an electric shore supply for operating pumps etc. this would mean the dock would have to be permanently moored in this depth of water near the shore or jetty.

You will, of course, appreciate only too well the problem of getting such a dock to Stanley whether it is towed out in one piece or whether it is shipped out in sections, the latter involving heavy lifts and the question of how it would be re-erected at site. The cost of either of these alternatives would be very high and added to the cost of the dock, might be more than the cost of building a slipway, the materials for which could probably be shipped out in small sections.

For this reason we have not for the time being approached other builders for new floating dock proposals as we feel that you will wish to consider the relative merits of a slipway versus a floating dock before proceeding any further.

We shall, of course, be pleased to provide any further information that you may require in the meantime.

Yours faithfully,



A. G. Hall
for the Crown Agents

Y.E.,

Ex. Co. will no doubt wish to have some information about the 'Philomel' and indeed Mr. Gilruth has asked for some figures which are given at 266 of 0664/C/II. His comments are at 267.

The position at present is as follows:-

- (i) Plans have been received from Norway through the A/O. This matter is dealt with in 2189. The question arises whether it would be possible to have a vessel built to the same design on a bigger scale.
- (ii) The condition of 'Philomel'
 - (a) Hull. After the expression of various opinions it has now been agreed partly on the suggestion of Mr. Monk that Adrian Biggs can do a survey here on the hull and give us a reasonably accurate idea as to whether it is sound or not. This is being put in hand now.
 - (b) Engines. We know that it is possible at some expense to get the necessary spare parts to keep the engines going satisfactorily for many years but it would be waste of money to spend money on the engine if the bottom of the sump was eroded and this nobody can see. At 69 of 0664/O the S.P.E.D. has explained what we can do and this is being put in hand too.

It is possible that we may have at least an interim report on both these matters before Ex. Co meeting is finished.
- (iii) Slipway. It is I think now recognized that whether we keep the 'Philomel' or replace her we must have a slipway. I think that most of our troubles are really due to the absence of one. At present the only way we can get things done is -
 - (a) by shoving her up on the beach at an appropriate time of the tide which is very bad for her and also makes it very difficult to do the job properly; or
 - (b) by using the Naval Diving Party when Protector is in.

At present we do both.

I think that most of the wasted days which have naturally shocked Mr. Gilruth are due to this.

Regarding the matters dealt with at 31 of 0664/O item 4 replacing of iron fittings with non-ferreous metals it is now agreed that this would not be necessary if we had a slipway. I consulted Lt. Commander Burley on this matter too and he agrees. The present proposal about the slip is that it should be on the other side of the Government jetty an extension of the present slip where the Alert is slipped and Sollis took some soundings but the S.P.W. is not satisfied with the information he has produced and he has been asked to do his exercise again. We shall then be in a position to address the Crown Agents.

There is a file about the re-planning of the dockyard which is now with the S.P.W. The question of the re-planning of the dockyard was brought up in Sir Miles Clifford's time and it was reckoned that we did not need a slip at all and that the 'Philomel' could always go to Punta to be slipped. I think this was a terrible mistake from which we have suffered ever since and are still suffering.

When we mention this at Ex. Co. we might get their approval for the proposal to go ahead with the slipway we might also sound them in general on the question of repair or replacement of the 'Philomel'. We cannot make a final decision till we have a definite report on the hull and the engines when we should be able to make an estimate of the cost of repairs. The question of whether at a reasonable cost we can get an ideal replacement is also very relevant and I think we might mention that we are trying to find out whether it is possible to get a vessel of the design given in the plans but on a larger scale. My present impression is that we probably would be able to repair the 'Philomel' and carry on with her and that it would be a great deal cheaper to do this than to buy a new ship especially since we might not be able to sell the 'Philomel'. But as against this there is the question of whether a ship with a larger carrying capacity would be more economical in the long run. I think there is probably room for more research work at this point and I will ask the Master to try to produce some figures in support of the contention that we need a vessel with a larger cargo carrying capacity.

Harbour

Please also see 0604/vi

8
14/3/62.

RHDM/IM.

HEAD OFFICE OF A ...
... ..

SPECIFICATION

OF

PROPOSED FLOATING DOCK

OF 200 TONS LIFTING POWER

FOR

STANLEY - FALKLAND ISLANDS

CROWN AGENTS

FOR

FALKLAND ISLANDS DEPENDENCY

DRG. NOS. DH.565/63/1 and 2

HEAD WRIGHTSON TEESDALE LIMITED,
THORNABY,
ENGLAND.

NOVEMBER, 1963.

OUTLINE PARTICULARS OF A SECTIONAL PONTOON TYPE

FLOATING DOCK OF 200 TONS LIFTING POWER

TYPE

To be of the double sided type known as "Sectional Pontoon" (self-docking) consisting of 3 similar Pontoons attached to two parallel Side Walls continuous over the full length of the Pontoons, as shown on the General Arrangement Plan, Drawing No. DH.565/63/1.

DIMENSIONS

Overall length of Dock over Platforms	100'-0"
Overall length of Dock over Pontoons	86'-0"
Overall width of Dock	42'-0"
Clear width of Dock between Fenders	29'-0"
Overall depth of Pontoon	6'-0"
Number and length of Pontoons	3 @ 27'-0"
Clear space between Pontoons	2'-6"
Overall length of Side Wall	86'-0"
Overall height of Side Wall above outer edge of Pontoon ..	16'-6"
Overall width of Side Wall	5'-0"
Draught of water over Keel-blocks	9'-6"
Corresponding freeboard of Side Walls	3'-6"
Height of Keel-blocks	3'-6"
Minimum depth of water required at site	20'-0"
Time of lift	45 Min.

DISPLACEMENT, WEIGHT AND LIFTING POWER OF DOCK

	<u>Tons</u>	<u>Tons</u>
<u>Displacement</u>		
Displacement of pontoons at 35 cu. ft. per ton to 1'-0" freeboard		486
Gross weight of Dock	212.0	
Water remaining in pontoons	<u>74.0</u>	
Gross weight of Dock including balance water		286
		<u>---</u>
Net lifting power of Dock		<u>200</u>
		<u>---</u>

GENERAL CCNDITIONS

The Dock is designed to Lloyd's Register of Shipping class "A. Floating Dock" and is to be of all welded construction.

All steelwork to be shotblasted to remove mill scale and immediately given one coat zinc rich priming paint. (At our works)

Painting:- All exterior surfaces of pontoons and inside all ballast tanks to be given one coat each bituminous solution and enamel. All other external surfaces to be coated with 2 coats red lead and 2 coats good oil paint. (At site by erector)

HULL

End platform at each end of Dock.

Longitudinal mild steel stage to be provided on each inner Side Wall approximately 8'0" below the Top Deck, fitted with pitch pine nosing pieces.

Vertical fenders made up of 9" x 9" pitch pine timbers are to be provided at all four inner corners of the Side Walls.

A house of mild steel construction to be fitted at centre of top deck Port Wall to accommodate the pump motor, switchboard and valve controls etc.

HULL FITTINGS AND EQUIPMENT

Necessary bollards, fairleads, guard rails and stanchions to be fitted on top decks of Side Walls.

The Dock is to be fitted with a central row of timber keel blocks over the complete length of each Pontoon top.

Necessary bilge blocks to be fitted comprising timber blocks on mild steel seats.

Mooring of the Dock to be effected by means of 4 1" stud link cable clenches and hawse rings to be provided.

Deck covering to be laid in the valve house.

Insulation to be applied to walls and roof of valve house.

Windows fitted in deck house.

Four (4) electrically driven reversible warping capstans, each of 1 ton pull, to be fitted two on each top deck of Side Wall.

One trim and one list indicator to be fitted in valve house.

Necessary air pipes to be fitted to all tanks.

Fire and washdown mains and air mains to be fitted and to be supplied from shore.

Necessary portable fire extinguishers to be provided.

ELECTRICAL SUPPLY AND EQUIPMENT

Main electrical system is to be supplied from shore via flexible cables. Supply to the dock is assumed as being 440/220 V.

The Dock is to be illuminated to latest modern practice. Loud hailer and shore to Dock telephone equipment is to be installed.

The electrical installation is to comply with the requirements of Lloyd's Register of Shipping.

MAIN PUMPING SYSTEM

The pumping plant is to be of capacity suitable for lifting a ship of 200 tons within a time of 3/4 hour, due allowance being made for any stoppage of machinery for purposes of berthing the vessel.

There is to be one pump of the electrically driven centrifugal type with the motor situated on the top deck and controlled from the valve house. The pump is to be connected directly to the main drain. Pump casings and impellers to be of cast iron.

Pump to draw from each watertight compartment of the pontoons through direct lift valves and to discharge overboard through a sluice valve.

One inlet is to be provided for each pontoon.

All piping of mild steel, butt welded throughout, with Viking-Johnson type expansion pieces as necessary.

Direct lift valves to be operated by means of vertical and horizontal rods leading to the valve house where they are attached to suitable hand levers.

All particulars as shown on Drawing No. DH565/63/2 attached.

TIMBER Pitch Pine or equivalent

21 Keel-blocks

8 Bilge-blocks

End platforms:-

 Edging timber

Rubbing timber on sides of pontoons

Shoring stages:-

 Rubbing timber

Vertical fenders

Rubbing timber to front extensions on top deck

Timber in valve house

Timber in deck houses

PUMPING SUMMARY

Weight of ship lifted	200 Tons
Draught of ship	9.5 feet
Height of C. of B. of ship above keel	5.83 "
Height of keel-blocks	3.5 "
Weight of Dock	212 Tons
Total weight of water pumped	628 Tons
Work done against gravity	4,872 Ft.-Tons
Work done against friction	2,198 " "
	<hr/>
Total work done in pumping Dock	7,070 " "
	<hr/> <hr/>

Gross time of lift	45 Minutes
Net time of lift	40 "
Margin in which to operate valves	5 "
Maximum head including frictional head	16.5 feet
Mean " " " "	11.3 "
Mean frictional head	3.5 "
Theoretical horse power for whole Dock	12
Electrical " " v " " "	20

Or 1 set of 20 E.H.P. each (15 kW).

Assumed efficiencies:--

Motor 90%, Shafting 95%, Pump 70%.

Number of pumps	1
Diameter of pump (V = 10 ft. per second)	13"
Diameter of main drain	16" rising to
Diameter of compartment pipes	6"
Diameter of Inlets	3 @ 9"

MACHINERY

Electric power distribution system, including junction boxes, switchboards, cables, etc.

1 15 kW. Electric Motor

1 Controller for ditto.

1 Set of Vertical Shafting, Ball Bearings, Couplings and Pedestals, including Motor Stools.

1 13" Centrifugal Pump.

Cast iron bellmouths, glands, etc.

Valves:-	<u>Screw down</u>	<u>Direct lift</u>	<u>Retaining</u>
	1 @ 13"	9 @ 6"	3 @ 9"
	3 @ 9"		

Mild steel water pipes.

Mild steel air pipes.

Compartment valve lifting gear.

Valve turning gear.

Inlet flap valves and cages.

" " " lifting gear.

Electric light standards, cables, switchboards, lamps, etc.

FITTINGS

Mild Steel

Handrailings and stanchions.

Fastenings for Keel Blocks.

Manhole & mudhole covers.

Joint bolts.

Bollards:- 8 - 6" Doubles
8 - 4" "

MECHANICAL GEAR

4 Electric capstans 1 ton pull

4 Fairleads for ditto.

Hauling gear for Bilge Blocks consisting of 1/4" Endless chain on each side of each block.

DELIVERY AND INSPECTION

We have included for complete assembly of the Floating Dock in our works, and dismantling into pre-fabricated sections for delivery to site.

Access to our works is to be afforded to your appointed engineer during normal working hours for the purpose of inspection and testing.

R E P O R T
on
PROPOSED SLIPWAY
at
PORT STANLEY, FALKLAND ISLANDS.

EC. 367/23

R E P O R T
on
P R O P O S E D S L I P W A Y
at
P O R T S T A N L E Y , F A L K L A N D I S L A N D S .

Introduction

There are at present no facilities in the Falkland Islands for slipping vessels over 60 feet in length and 60 tons in weight. As Government owns and operates the m.f.v. 'Philomel' which exceeds these limits and may operate larger vessels in the future, it is felt desirable to build either a slipway or a floating dock to accommodate vessels of up to 100 feet in length.

On 16th March, 1961 the Crown Agents were requested to advise on the provision and installation of such facilities.

The use of a floating dock was ruled out on the grounds of cost so that the problem resolved itself into finding the most suitable type of slipway. In view of the simplicity of operation, interest was expressed in the timber grillage/skid type of slipway at present in use at Punta Arenas for small vessels and this report, inter alia, considers the merits of such a slipway together with those of one employing wheeled cradles running on track.

Related Correspondence.

Letter 0664/M of 16th August 1961.

Falkland Islands to Crown Agents.

Letter EC.367/23 of 25th September, 1961.

Crown Agents to Falkland Islands.

Letter 0664/M of 25th June, 1962.

Falkland Islands to Crown Agents,

this latter letter giving details of costs of local layout and materials, and accompanied by the following drawings.

- (i) Survey near Jetty in Entrance to The Canache, Port Stanley F.I.
- (ii) Soundings of Canache Channel at Site for Proposed Slipway Port Stanley, F.I.
- (iii) General Details of Slipway at Punta Arenas
- (iv) Sketch of Timber Skid.

In the preparation of this Report, frequent reference has been made to Admiralty Chart 1614.

Attached to this Report are:-

- Sketch No.1. Location of Proposed Slipway at Port Stanley, Falkland Islands.
- *Sketch No.2. Survey near Jetty in Entrance to the Canache.
- *Sketch No.3. Soundings of the Canache Channel.
- Sketch No.4. Proposed Slipway at Entrance to the Canache Port Stanley: Scheme A
- Sketch No.5. Timber Skids.

* Compiled from Surveys done by S.P.W. Falkland Islands.

1. Requirements of the Slipway.

- (i) The slipway must be capable of taking, in the first instance, vessels up to the size of the m.f.v. 'Philomel'. The leading dimensions of this vessel are given as -

Length overall	75'	7"
Length L.W.L.	71'	6½"
Beam to outside ordinary planking	19'	4"
Depth U.S.K. to top of beam at side	10'	11"
*Draught, approx.	9'	0"

* This is assumed to be the laden draught.

- (ii) The slipway must be capable of taking, in the future vessels up to 100 feet in length.

2. Siting of the Slipway

A site for the slipway has been provisionally chosen locally in the channel leading from Stanley Harbour to the Canache and just West of the existing jetty. It is shown in red on Sketch No.1 attached to this Report. In these early stages such information as is to hand (regarding this site) is necessarily scanty and to assist in reaching a final decision on the location of the slipway, factors which will determine the suitability of the site are listed below.

(i) Ease of Access to the Site.

By water, a good passage for the largest vessel expected at the slipway is required, with ample room to manoeuvre when the slipway is reached. By land the site should be readily accessible for workmen and the transportation of equipment, etc.

(ii) Depth of Water Available at the Site.

Sufficient depth of water is required not only in the immediate vicinity of the slipway itself but for an ample area around to permit manoeuvring of the largest vessels on to and away from the cradles. Any restrictions in this respect due to the proximity of the existing jetty should be carefully studied.

(iii) Currents.

Unwanted currents will add to the problems associated with the slipping of vessels. From Admiralty Chart No.1614 it appears that the Canache is a shallow inlet connected to Stanley Harbour by a narrow channel. During the ebb and flow of the tide strong currents may be produced in the channel, aggravated possibly by the presence of the jetty. The effects of these can be offset by slipping vessels only during the slack at high tide, but knowledge of the speed and scouring/silting effects of the currents at other times and the influence of the jetty upon them will be required to enable an adequate design to be prepared for the slipway itself.

/(iv) Silting

(iv) Silting

The site chosen should not be subject to silting up and consequent loss of depth of water. The effect of the jetty in trapping water borne material in its lee and its effect on the slipway area should be noted.

(v) Winds etc.

The difficulties associated with slipping a vessel are greater at exposed sites than at sheltered ones. Should the prevailing winds be such as to cause wave motion broadside to the vessel, slipping will be more difficult. If wave motion is to be experienced it is best experienced stern on.

(vi) Foundation Conditions.

Heavy loads are transmitted to the foundations during the slipping of vessels and the availability of suitable bearing strata near the surface will have a marked influence on the cost of the slipway. From preliminary information it appears that rock outcrops at the proposed site so that there should be no grounds for concern in this respect. Further tests along the line of the slip will of course be required before finalisation of the siting of the Works.

(vii) Space Available Ashore for Working Area.

Sufficient area is required ashore to enable the vessels to be conveniently serviced when hauled clear of the water. Space will be required for the storage of equipment, materials, tools etc. and for shelters, workshops, etc.

(viii) Availability of Power for Winch, Tools etc.

The type of power available will control the type of equipment to be used. If no electricity supply is available, a diesel winch would be employed. Should the use of small power tools be envisaged, a portable power plant may be required.

3. The Slipway

General

In considering the treatment of the slipway structure, the following assumptions have been made -

- (i) The site, as provisionally chosen locally, and shown in red on Sketch No.1 satisfies the requirements listed under Section 2 of this Report.
- (ii) Rock is found at or near the surface over the entire area of the Works as shown on Sketches Nos.2, 3 and 4.
- (iii) The light displacement (for slipping purposes) of the m.f.v. 'Philomel' is of the order of 100 tons, and in the unladen condition ready for slipping her draught forward is 3' 6", her draught aft 7' 0".

/ (iv)

- (iv) The light displacement (for slipping purposes) of the 100 feet long vessel to be provided for in the future will be of the order of 200 tons, and in the unladen condition ready for slipping, her draught forward will be 5'6", her draught aft 8'0". It is proposed to make allowance of 1'0" of clear water between the forward keel block and the keel of the ship at H.W.C.N.T. to allow for a ship in a damaged condition having to use the slipway, with appropriate allowances in the design of the slip and cradles. These assumptions will cover the majority of ships 100 feet long, but as they govern the design of the slipway it is essential that they be fully considered before detailed designs are undertaken.
- (v) All slipping will be done during the slack at high water.

Two schemes for the slipway were examined - Scheme A which envisages the use of cradles supported on wheels which run on track, and Scheme B which gives consideration to the use of a timber skid running on cross-timbers let into the supporting concrete. Both schemes involve the use of a power operated winch. Hand-operated winches, whilst simple to maintain, are not suitable for this particular application due to their very slow rate of haul.

Scheme A.

Details of this scheme are shown on Sketch No. 4. Flat-bottomed rails are fastened to a concrete base which lies on the rock formation. The rails extend for a distance seawards sufficient to allow cradles which run upon them to be positioned at high water under the largest vessel likely to use the slip. Stop ends prevent the cradles from running beyond the limits of the rails. The cradles are made of steel and in units approximately 25 feet long which can be linked together to cater for vessels of various lengths. It is considered that two such units could cope with the m.f.v. 'Philomel', and three with a vessel 100 feet long. The steel cross-beams of the cradles are fitted with timber keel blocks and sliding timber bilge blocks.

The slipping procedure is visualised as follows:-

The cradles are brought to their lowest position under water, their shoreward limit being indicated by a staff fixed to the front of the leading cradle and projecting above water level. The stem of the vessel is brought to within a foot or so of the staff and the vessel lined up with the cradles with the aid of lines to the shore and to the dolphins constructed alongside the slip. The cradles are then gently edged shorewards, the vessel being moved in unison with the aid of the lines, until the fore part of the keel makes contact with the forward keel blocks. Thereafter the cradles and vessel move shorewards together. As the vessel emerges, care is taken to keep her in line with the cradles by stern lines, and the bilge blocks are adjusted to keep the vessel in the upright position. Foreknowledge of the underwater shape of the vessel will enable the bilge blocks to be placed roughly in position beforehand so that only minor adjustments will be required. Care must be taken to ensure that the weight of the vessel is taken on the keel blocks, the bilge blocks functioning only to keep her in the upright position. When the vessel is completely clear of the water, the cradles are anchored in position to prevent an accidental return to the water, and final adjustments made to the bilge blocks.

To return the vessel to the water the above procedure is reversed save that the bilge blocks will not require to be adjusted. Due to the narrowness of the channel, the operation must be carried out slowly and with care.

When the vessel is clear of the water there would be a minimum clearance from ground level to underside of keel of 3 feet. A concrete working area is provided all round the vessel to facilitate maintenance. Should ground conditions here be favourable, the concrete apron may be reduced in size or dispensed with entirely, thus effecting a saving in cost. The presence of peat is noted, however, and on the assumption that this will not provide a suitable working surface, an area some 150 feet by 70 feet has been concreted over, which will give at least 20 feet clear all round the largest vessel to be catered for.

Winch house, stores and workshops can be provided to the south of the area as required.

It will be noted that mooring dolphins have been provided alongside the slipway - three on the eastern side and one on the western side. These are located as close to the slipway as possible to facilitate positioning the vessels centrally over the cradles. It is noted that the approach channel to the slipway is narrow, so that space is at a premium. To allow the vessels to be manoeuvred into position, the western side has been kept as clear as possible, only one dolphin being provided. This point of space to manoeuvre is of paramount importance and in conjunction with observations of currents, winds, etc., must be carefully examined at site before any final decision can be taken with regard to the location of the slipway and the positioning of the dolphins.

It is observed that the site lies just west of an existing jetty, shoreward of which is an ammunition store (not used). No knowledge is available here of the materials of construction or the structural condition of either the jetty or the store, or of the levels of the foreshore, etc. in the immediate vicinity. Were it possible, however, to build the slipway directly alongside this jetty, the jetty would replace the line of three dolphins shown on sketch No. 4, the fourth dolphin being re-positioned to suit. Thus a saving in cost would result, combined with the great advantage of having a substantial (depending on condition) wharf alongside the entire length of the slipway, making for much easier handling of vessels. It would appear that at least partial demolition of the ammunition store and a certain amount of excavation would be necessary. In addition vessels would be deprived of the use of the jetty as a wharf during slipping operations. Nevertheless, this site should be seriously considered before a final choice of the line of the slipway is made, due attention being given to the Tee-head and its possible interference with slipping operations.

Scheme B.

This scheme is basically the same as Scheme A, the difference being that the rails are replaced by cross-timbers sunk into the concrete and the cradles by timber skids. Typical skids are shown schematically on sketch No. 5, and generally the arrangement and operation of the slipway would be as shown and described for Scheme A. This type of slipway is considered to be quite unsuitable for the size of vessel contemplated and the following notes are added only in view of

/the

the interest expressed in it.

It will be seen that Skid Type 1 (Sketch No. 5) follows the arrangement of the cradles shown on Sketch No. 4 very closely, the main difference being that the wheels are replaced by heavy timbers. These are dragged along the cross-timbers. The arrangement is, in fact, merely a primitive form of that shown on Sketch No. 4.

Skid Type 2 allows the keel of the vessel to bear directly on the cross-timbers and the skid serves only to keep the vessel upright, the haulage ropes being connected directly to the keel. In this case there is very little clearance between the cross-timbers and the bottom of the vessel, making it difficult to effect repairs to that part.

Both types of skid suffer from the greater frictional resistance of timber on timber (or steel on timber if the keel or runners are shod) vis-a-vis wheels on track. This will necessitate the use of a more powerful winch for the same rate of haul, with consequently heavier tackle and a loss of sensitivity of control. Downhaul gear becomes a necessity. Additionally the wear and tear on the sliding parts is high. When larger and heavier vessels are involved all these factors weigh prohibitively against the system.

4. Approximate cost of the Slipway

Based on the details shown on Sketch No. 4 it is estimated that the cost of the works will be in the region of £20,000-£25,000. It is emphasised that this estimate is approximate only, based on the information at hand to date. The estimate makes an allowance for local labour and assumes a rate of haul of 15 feet per minute for m.f.v. 'Philomel', 7½ feet per minute for the 100 feet long vessel.

5. Conclusions and Recommendations

(i) It is strongly recommended that a slipway of the type shown on Sketch No. 4 be adopted, the precise arrangement of rails and cradles being decided when fuller details of requirements, ground conditions, etc. are known.

A slipway of the grillage/skid type should not be employed.

(ii) Before any detailed designs are prepared, information would be required on the following points:-

(a) The overall length, beam, light displacement (for slipping purposes), draughts forward and aft (for slipping purposes) of the largest vessel for which the slipway is to cater, together with what depth of clear water, if any, will be required above the forward keel block to allow for vessels in a damaged condition using the slipway.

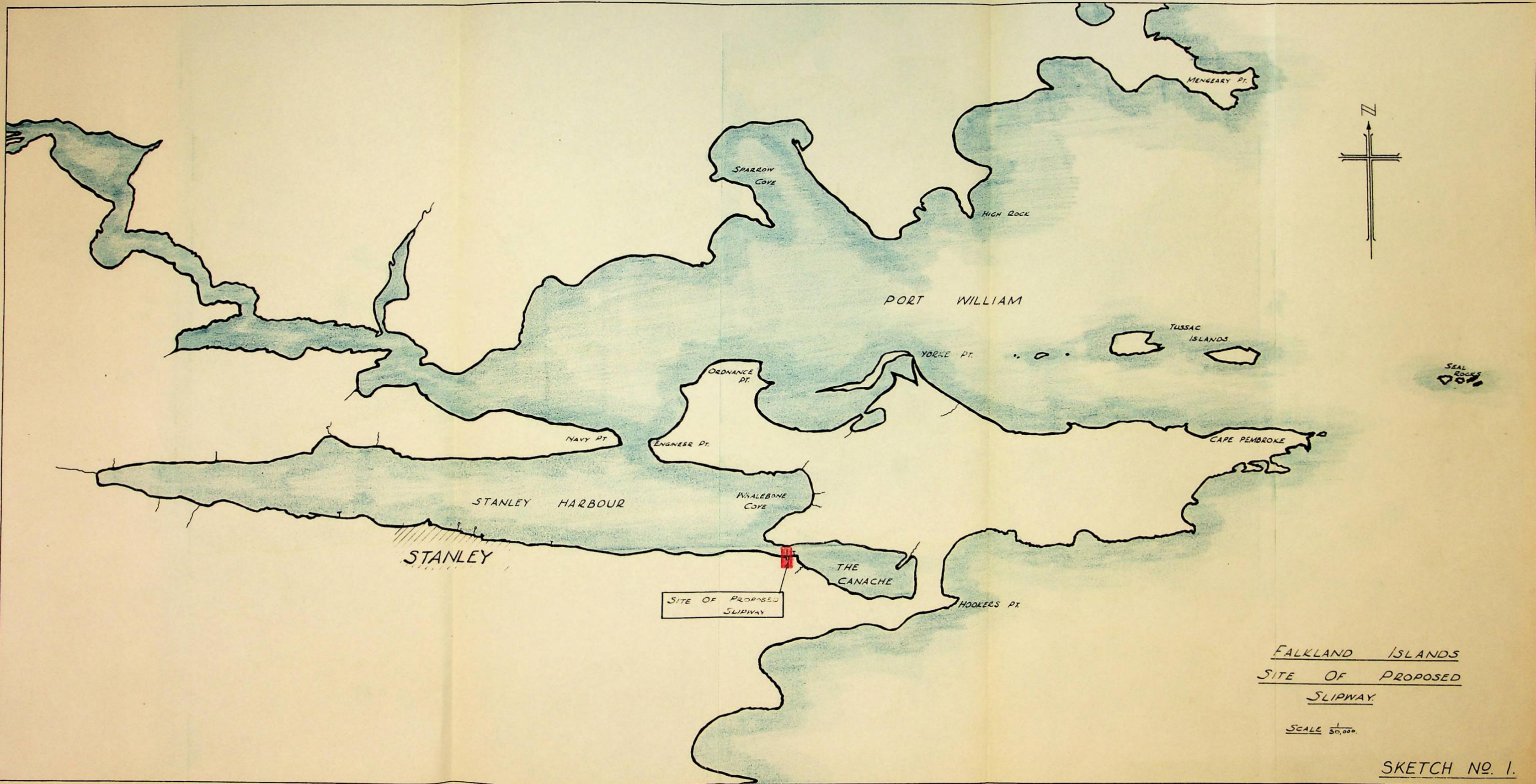
(b) Levels, related to a known temporary ^{bench} ~~mark~~ mark, of H.W.O.N.T., L.W.O.N.T., H.W.O.S.T. and L.W.O.S.T.

(c) The precise location of the slipway. The final choice should be made after careful study of all the points made in Sections 2 and 3 of this Report. Especially should due consideration be given to siting the slipway alongside the existing jetty and the possible interference of its Tee-head with slipping operations.

- (d) After final location of the slipway, details of the substrata, as obtained by digging pits and driving probes, over the entire area covered by the works, above and below water. Information as full as possible on the nature of the sea-bed underlying the slipway. Soundings not only over the area of the slipway but also over the entire area likely to be covered by the largest vessel whilst approaching and manoeuvring on to the cradles.
 - (e) Information regarding the availability of impervious materials such as clay which might be used to form a dam, to assist in determining the most suitable method of construction under water.
 - (f) Should it be decided to locate the slipway alongside the existing jetty, full details of its dimensions, line and level, materials of construction and their condition.
 - (g) The availability of power at the site.
 - (h) The availability of plant for construction, particularly concrete mixers and pumps.
 - (j) The provision to be made for stores, shelters, etc. and the extent of the concrete working area.
 - (k) The maximum dimensions and weights which can be handled conveniently at Port Stanley and also at the site.
- (iii) It is understood that the slipway will be constructed departmentally and that the facilities at Port Stanley are limited. Consequently it would be prudent to keep the design details as simple as possible. As much use as possible should be made of prefabrication. Much will be gained if very close liaison is maintained between the S.P.W. and the design office in all stages of the work from collection of site information to final construction, each making the other fully aware of his particular problems. It is felt that the slipway could be satisfactorily constructed on this basis.

R. Mullin.

for Chief Civil Engineer



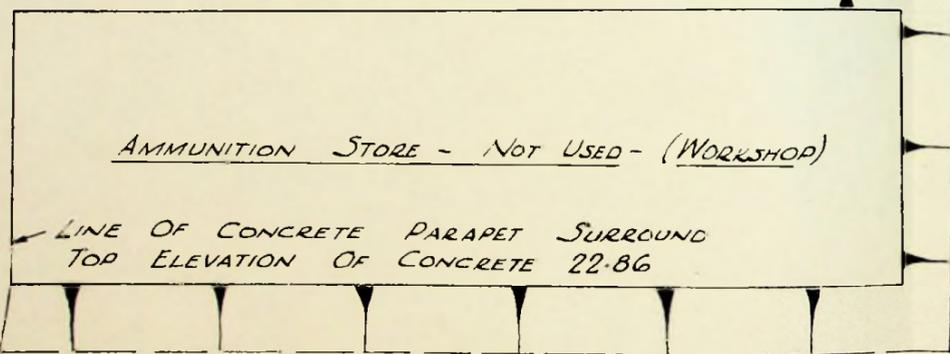
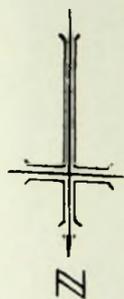
FALKLAND ISLANDS
SITE OF PROPOSED
SLIPWAY.

SCALE 1/50,000.

SKETCH NO. 1.

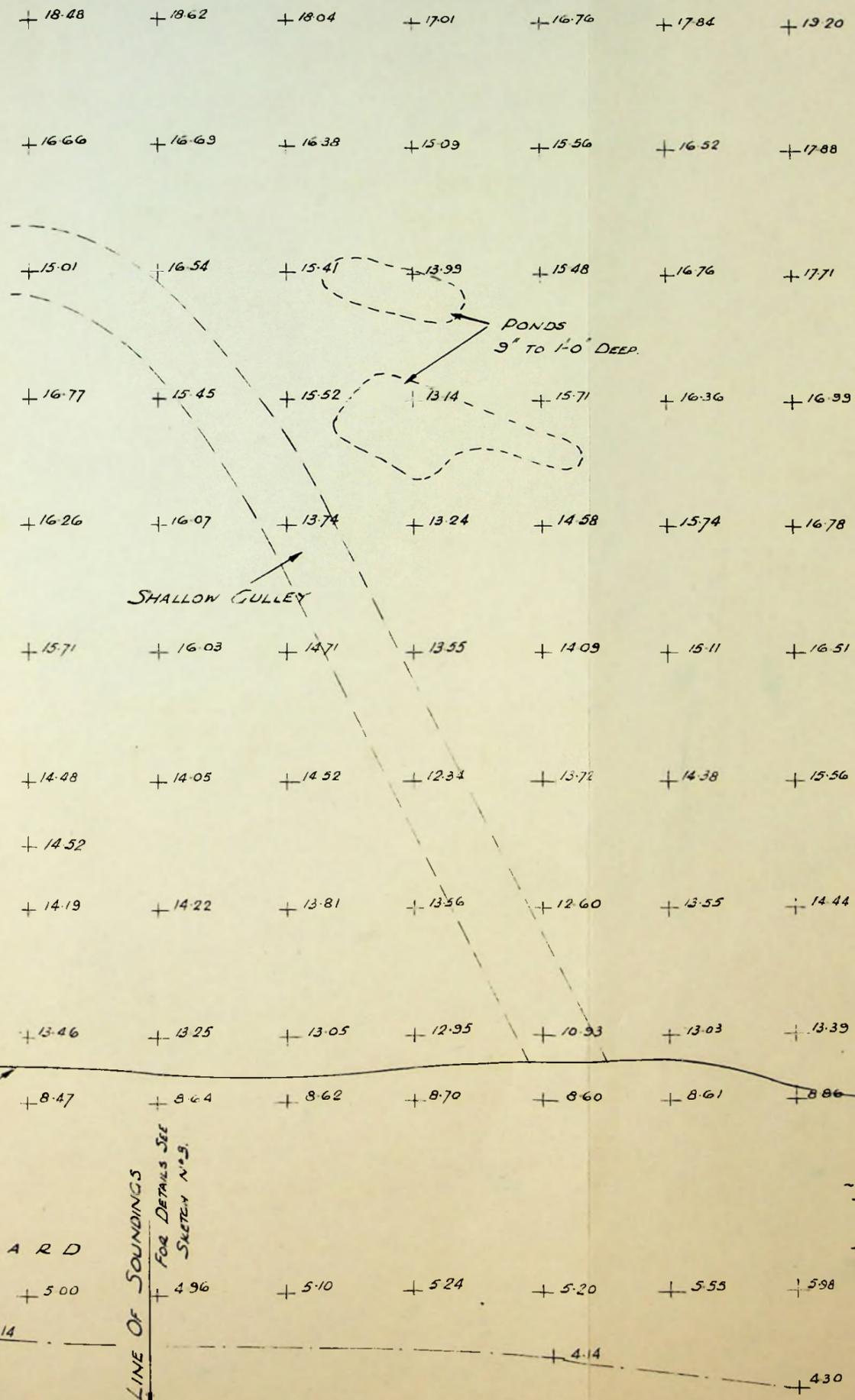
SURVEY CARRIED OUT BY
L. PICTON S.P.W. - APRIL 1962
SCALE 1" TO 20'-0"

ALL LEVELS IN FEET.



+1496 +1070 +1486 +1517 +1460 +1495 +1485 +1466

BENCH MARK SET UP ON TOP OF WALL AND MARKED ARBITRARY VALUE OF +15.00 TAKEN FOR BENCH MARK ELEVATION.



EDGE OF BANK SHOWING 3' TO 4' OF PEATY SOIL ON TOP OF BEDROCK PROBABLE LINE OF HIGHEST TIDE

BEACH SLOPING EVENLY TO SEAWARD

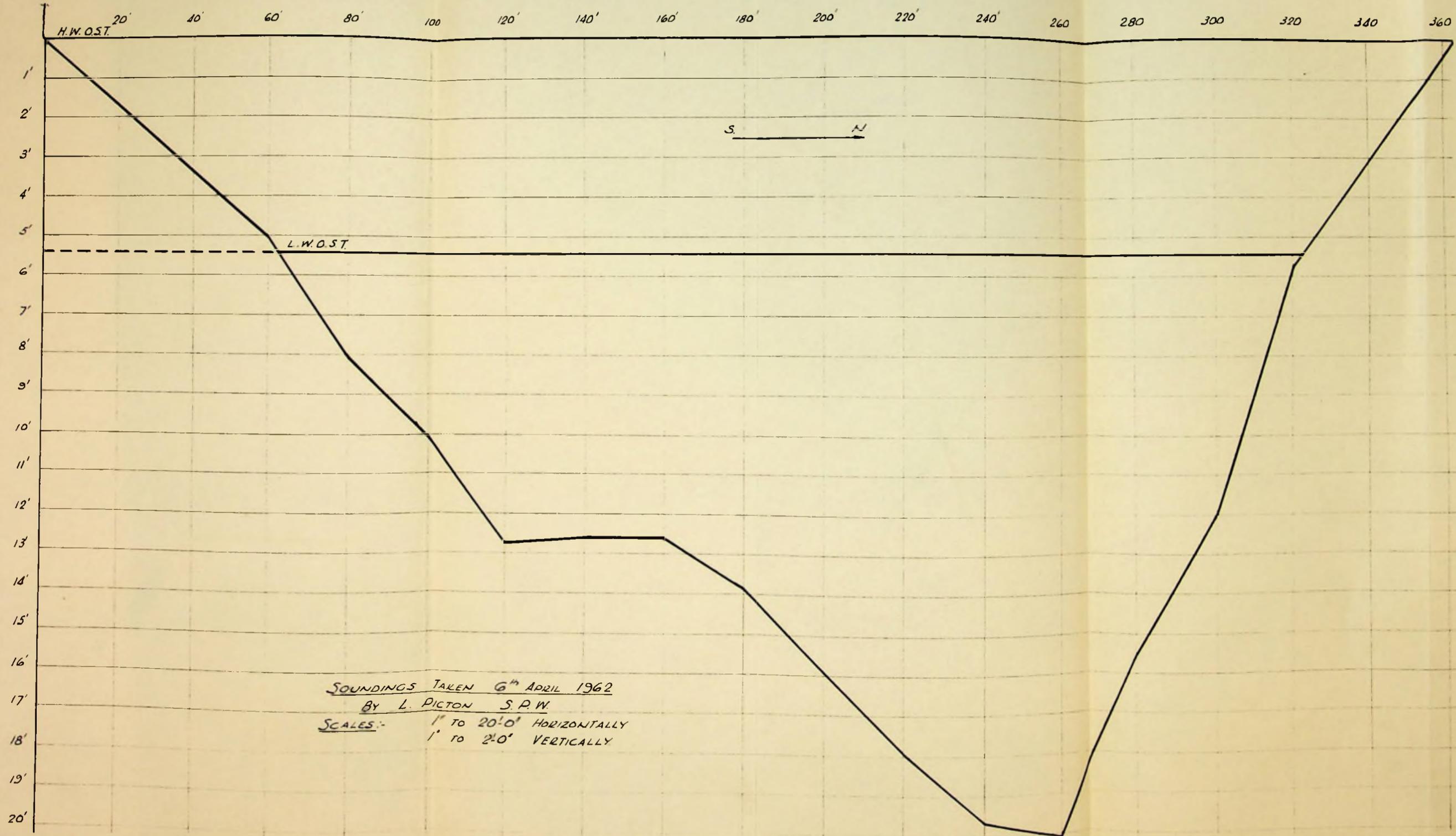
+6.24 +5.45 +5.60 +5.65 +5.53 +5.50 +5.14 +5.00

+4.34 +4.20 LOW WATER LINE - 22ND APRIL 1962 +4.14

- FALKLAND ISLANDS -
 SURVEY NEAR JETTY
 IN ENTRANCE TO
 THE CANACHE
 SKETCH N° 2

JETTY

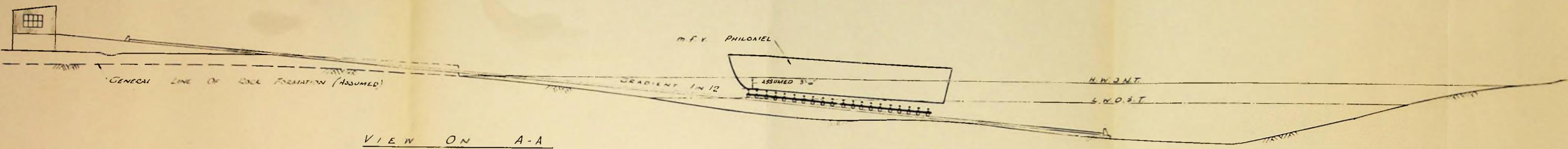
EMBANKMENT



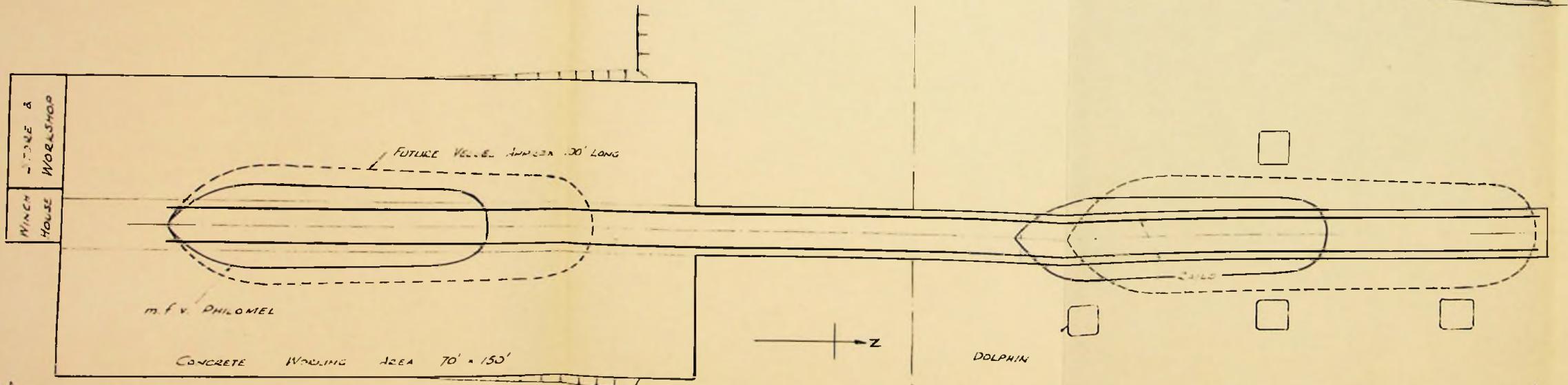
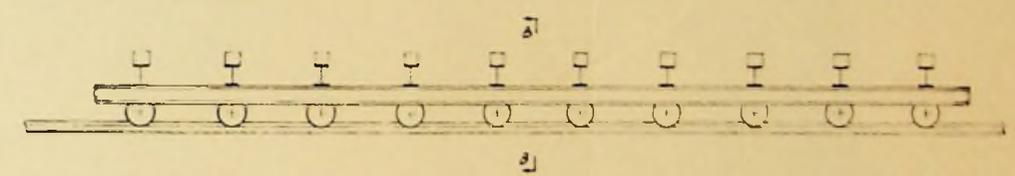
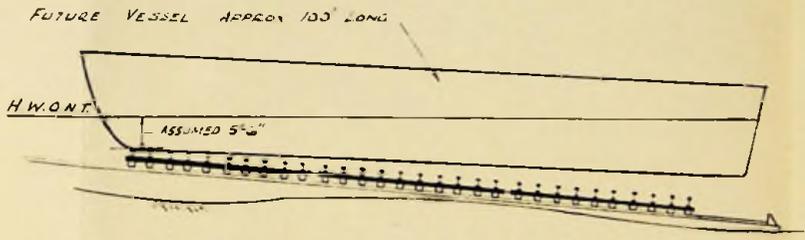
SOUNDINGS TAKEN 6th APRIL 1962
BY L. PICTON S.P.W.
SCALES:- 1" TO 20' 0" HORIZONTALLY
1" TO 2' 0" VERTICALLY

FALKLAND ISLANDS
- PROPOSED SLIPWAY -
SOUNDINGS OF THE
CANACHE CHANNEL

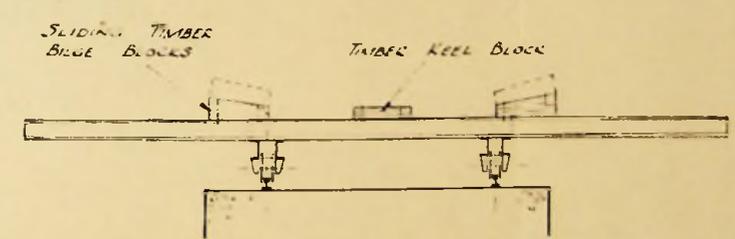
SKETCH N° 3



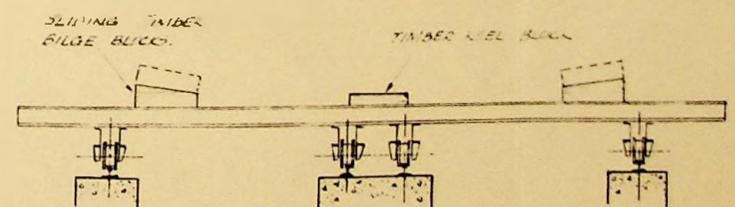
VIEW ON A-A



GENERAL ARRANGEMENT OF PROPOSED SLIPWAY
SCALE 1" TO 20' 0"

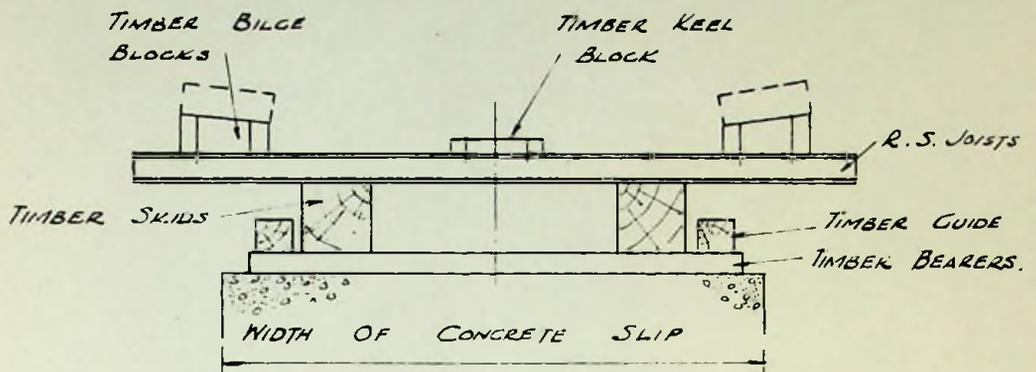


SECTION B-B

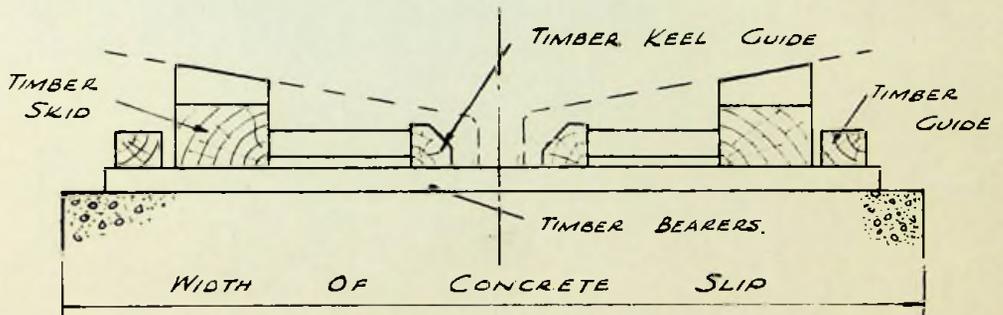


ALTERNATIVE SECTION B-B

- FALKLAND ISLANDS -
PROPOSED SLIPWAY AT
ENTRANCE TO THE CANAL
- PORT STAULEY -
SCHEME A
SKETCH NO. 4.



TYPE 1



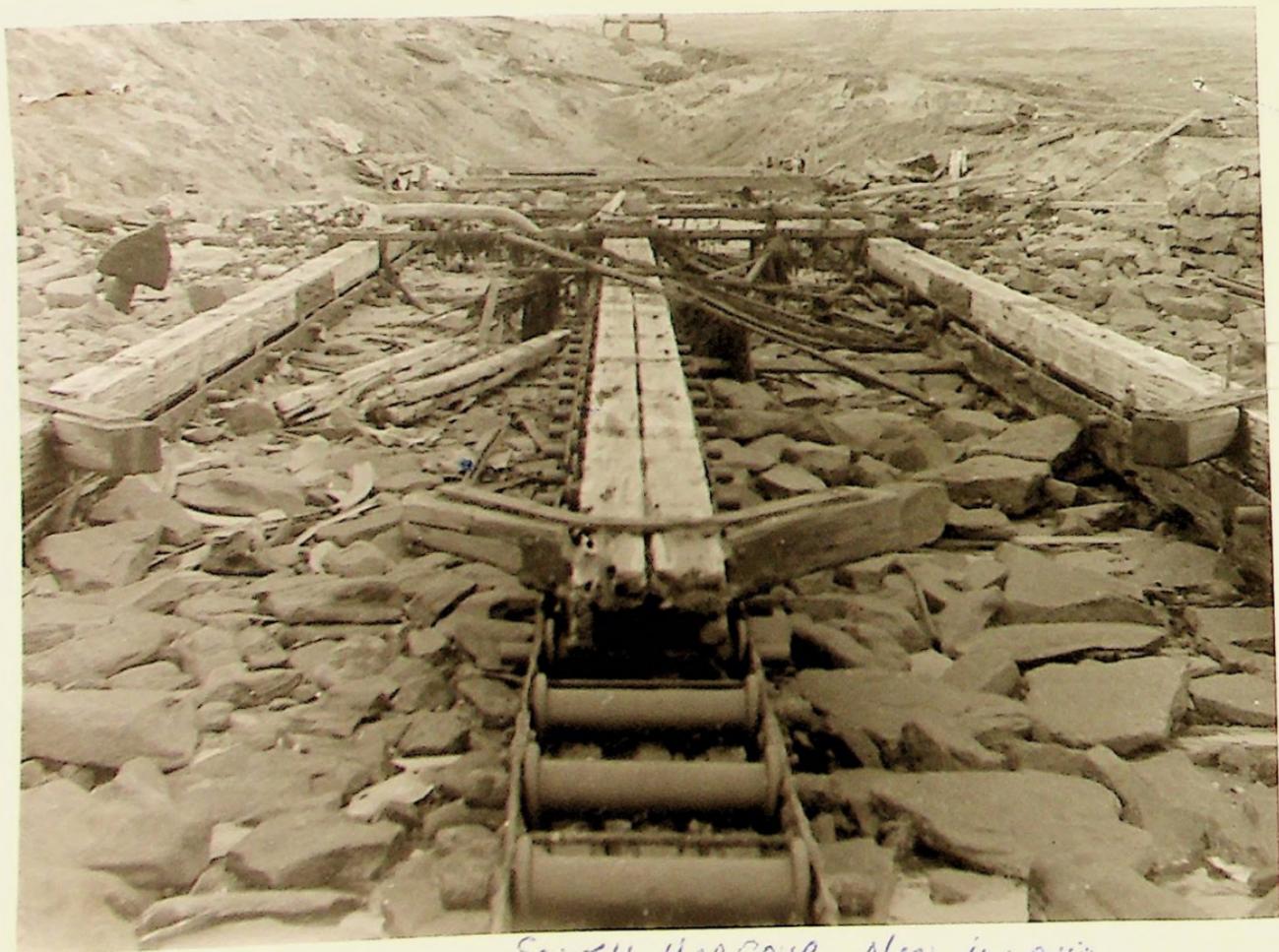
TYPE 2

TYPICAL TIMBER SKIDS

~ FALKLAND ISLANDS ~
 ~ PROPOSED SLIPWAY ~
 ~ AT ENTRANCE TO ~
 ~ THE CANACHE ~
 ~ PORT STANLEY ~

SKETCH NO 5

SHI-UES - 11 #2 - 01



SOUTH HARBOUR NEW ISLAND

SHI-UES - 11 # 2 - 02



SOUTH HARBOUR New Island.

SHI-UES - 11 # 2 - 03



SOUTH BEACH NEW ISLAND.