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Sends copy like addressed to by manager of Rendel & Robertson & letters from L. P. frommer & Mr. Comie.

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may see what propen is being made?

H.J.R. 12 tru

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ON MUNICATIONS FFERENCE AND THE HIS LETTER BEING QUOTED.

S."CROWN LONDON" ONE 1632 VICTORIA.



WHITEHALL CARDENS. LONDON, S.W.

9th July 1912

Sir,

With reference to your letter No.14246 of the 25th May respecting the proposed deep water pier at Kilindini, I have the honour to transmit a copy of a letter with enclosures which we have addressed to the Acting Manager of the Uganda Railway on this subject.

2. These papers show how the matter stands at present.

3. You will remember we told a member of your office that we had been asked by ar. Currie to take no immediate action on your letter.

I have the honour to be,

Sir.

Your obedient servant.

Under Secretary of State,

&c &c. Colonial Office for Crown Agents

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Encl. in No

203 c.o.

CROWN AGENTS TO ACTING MANAGER UGANDA RAILWAY

-09 10 JUL 12

Whitehall Gardens, S.W 5th July 1912

Sir,

I transmit for your information a copy of a report with 2 plans submitted by Messrs. Rendel & Robertson in connection with the proposed construction of a deep water pier at Kilindini.

2. We communicated copies of this report to Sir E.P.Girouard and to Mr. Currie and I enclose for your information and guidance a copy of the latter's recommendations, in which Sir E.P.Girouard concurs, as to the action to be taken in respect of it.

I am, etc., (Sec.) P. EZECHIEL for Crown Agents

\* Not received in Colomat Office

MESSRS. RENDEL & ROBERTSON TO CROWN AGENTS

21.577 21.577

13, Dartmouth Street,

S.W.

14th June 1912

## Kilindini Pier

Gentlemen,

After studying the report (without signature or date) on the Kilindini Deep Water Pier we beg to offer the following remarks.

The data supplied show that a screw pile pier is out of the question. There is not in many places enough sand to hold the piles, and the rock in parts is too steep for them to enter. Any open jetty would have to be built by drilling 18 in. holes about 10 feet into the rock and grouting piles into them, a costly and doubtful process. Loreover the cost of maintenance (and even complete renewal after a term of years) risk from fire and the smaller efficiency of a decked structure are all reasons against the adoption of an open jetty in cases where, as in this instance, a good foundation is obtainable and a solid indestructible structure is, therefore, possible.

- 2. The survey furnished is not complete as it leaves off in the most interesting part, the promontory, which would determine the general line or lines of the quay for which elso it may be remarked the re-entering angle, shown on the sketch sent home is not convenient.
- 3. Driving a rail into sand with a light tup and high fall is not a satisfactory way of proving rock,

as firm sand is extremely difficult to drive into, and boulders may exist which make the test unreliable. As recommended in our report of 26th October, 1911, the best way is to use a water jet through a 12" pipe with a lance point sent down inside a 22" pipe for depths which the small pipe alone cannot penetrate on account of the sand binding it.

4. As the delay and expense of cutting a level or stepped foundation for a wall into the rock in 30 to 43 ft. of water will be great, we have decided after careful consideration that the most favourable plan is to found a quay wall upon the average line of rock at or but little below the line of low water, and to dredge the sand and cut away the rock to the required depth as shown in the enclosed sketch, but before anything can be aettled we must know the exact nature and character of the Rock (which according to some accounts is Sandstone and to others Coral) and should have if possible, cores drawn by the diamond drill which is in Uganda. These can be taken at H.W.M. and a study of the rock can be made at the same time in any places which may be available.

5. We would construct first of all a berth, as short as may be, at the point marked A on enclosed plan. Here as the rock is steepest the construction would be cheapest and quickest and the berth stands by itself and needs no further survey, but this site should be first approved by the marine Authorities as the currents across it are rather strong. Next, the same plant could be employed to construct berths from the point B, making up a continuous line to any extent required, working

quietly

quietly as funds are obtainable.

The only serious item of plant for this method of construction would be a barge with a sand pump at one end and a Lobnitz ram at the other, which would cost about £5,000 delivered and erected in Kilindini. This might be ordered at once as it will, in our opinion, be necessary to whatever scheme might ultimately be decided on. Probably another £5,000 would have to be spent on miscellaneous plant, but the details cannot be settled until the plans for the work are developed.

So much depends upon how the rock turns out that we can give no estimate, but the figures show clearly the average amount of work to be done.

We are etc.,

(Sed) RENDEL & ROBERTSON.

MR. CURRIE TO CROWN AGENTS



24.6.12.

Please show this report to Sir Percy Girouard whose address is 42 Great Cumberland Place, and ask him whether he agrees with it. If he does, send it out to the Acting Manager and also send a copy to the Colonial Office.

When sending copy to the Acting Manager say that H.E. The Governor agrees with the Consulting Engineers proposals and wishes the Acting Manager to proceed with the borings to obtain the necessary information on which to base an estimate.

(Sed.) H.A.F.CURRIE

SIR P.GIROUARD TO CROWN AGENTS.



42, Gt. Cumberland Place,
Marble Arch, W.
28th June 1912

Gentlemen,

I am directed by Sir Percy Girouard to acknowledge the receipt of your letter No.E.283/23 of the 27th June and enclosures.

With regard to paragraph 2 of your letter I am directed to inform you that Sir Percy approves of Mr. Currie's proposals in the matter.

I am etc ..

- P Giround