



286

EAST AFR. PROT.  
23891

REC'D  
23891  
REC'D 24 MAY 15

Gov's Depy 320  
Forwarding

EUROPEAN HOSPITAL AT MOMBASA

1915

22nd April

Forwards plans and explanatory memos by P.M.O. Deputy P.M.O. Principal Sanitation Officer and Govt Architect. Requests early approval. Fears no immediate prospect of finding funds but it is desirable to be in position to start work as soon as they are available.

Last previous Paper.

for 16998/14

Mr. Fiddie  
See last letter being before the J.A.M.S. etc.

H. J. R.  
25/5/15

Circulated to TAM'S Committee 29 May 1915

Mr. Fiddie

Extract from minutes of 79th meeting of the TAM'S Committee, 1 June 1915:-

"Professor Simpson pointed out that the Sisters' dining and sitting room <sup>was</sup> ~~were~~ too small, and that it would be desirable to plan the Medical Officers' room somewhere else so as to allow of the expansion of

Nov. 426. 9 p.m. 15

Next subsequent Paper

for 59153

the Sisters' room. (Professor Simpson subsequently pointed out the absence from the plans of provision for a mortuary and a laundry.)"

4/16/15

Mr. Butt  
Mr. [unclear]

Sir G. Fisher.

(Comment accordingly)

affair

AT

4.6.15

S. J. R.  
4/6/15

at once [unclear] 5.6.15

3

Mr Fisher

I pointed out to Prof. Simpson that the medical officers' room was in all probability designed as a consulting room & not as a sitting room. After some discussion Prof. Simpson agreed to the modification indicated <sup>in pencil</sup> in the amended plan which shows the proposed conversion of existing Hospital into Administration block.

This will be on record when the Gen's ref. comes.

at once

8/2/15

AT 8/2/15 at once



287  
591  
24 MAY 15  
GOVERNMENT HOUSE  
NAIROBI,  
BRITISH EAST AFRICA.

AFRICA PROTECTORATE

(No. 320)

April 22nd 1915.

5066-40

Sir,

I have the honour to refer to your despatch No. 526 of May 29th relating to the preparation of plans for a new European Hospital at Mombasa and to report that owing to the great pressure on the medical authorities resulting from the outbreak of hostilities unavoidable delay has occurred in submitting the recommendations requested.

2. I am now however in a position to forward the plans with explanatory memoranda by the Principal Medical Officer, Deputy Principal Medical Officer, Principal Sanitation Officer and Government Architect. The proposals made appear to have been very carefully thought out and I should be grateful if I could be notified of your approval as soon as possible in order that the Public Works Department may be in a position to work out the details.

3. I fear

HONOURABLE  
LEWIS HARCOURT, P.C., M.P.,  
SECRETARY OF STATE FOR THE COLONIES,  
DOWNING STREET,  
LONDON, S.W.

4  
No 16998  
Plan  
P.M.O.  
4. 15  
Govt. Architect  
5. 15  
Dr. P.M.O.  
2. 15  
P.S.O.  
3. 15

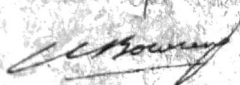
3. I fear that there are no immediate prospects of our being able to find the necessary funds, but it would be very desirable if we could be placed in a position to start work as soon as they can be made available.

*de*

I have the honour to be,

Sir,

Your humble, obedient servant,



GOVERNOR *Deputy*

INCLOSURE

In Despatch No. 22 of 22.4.1915

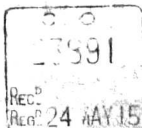
289

MEDICAL DEPARTMENT,

HEADQUARTER OFFICES,

Nairobi, 14th April, 1915.

No. 26/221.



Sir,

NEW EUROPEAN HOSPITAL - MOMBASA.  
NO. 7816, d/c NO. 23915.

I regret the delay in replying to the above mentioned despatch, but as there has been little opportunity of concentrating my attention on such matters, I accordingly requested Dr. Radford to prepare a scheme. Both Dr. Radford and Mr. Rand Uvery, the Government Architect, have taken an infinity of pains in preparing one, and I now have the honour to forward for your consideration a copy ~~each of five different drawings~~ of the plan - which in conference with Dr. Haran and Dr. Radford we selected as being the most appropriate for Mombasa - together with a Report in connection therewith by the Government Architect.

2. I also attach minutes by Dr. Haran and Dr. Radford which outline the principles which should govern the erection of such a hospital and a block plan of the locality showing site of present hospital.

3. Dr. Radford's minute is so clear that it is unnecessary for me to say anything more than endorse his opinion

Honourable,

The Chief Secretary,

Nairobi.

opinion of (a) site, (b) orientation and class of building required, (c) water and drainage, and (d) the retention and adaptation of the old hospital for administrative purposes and sisters residential quarters.

46  
I have the honour to be,

Sir,

Your obedient servant,

RD/- A. D. Milne.  
Principal Medical Officer

Reference, Proposed New Hospital, Mombasa,  
and Principal Sanitation Officer's letter  
No. 26/221 of February 26th.

291

1. I forward to you herewith the following drawings:-

- (1) Design No. 1, Five Copies, Sheet of Plans, to the scale of 16 feet to an inch.
- (2) Do. Do. Do. Elevations & Sections Do.
- (3) Design No. 1, Five copies showing the Central Block of the Hospital with its adjuncts, which it is proposed to erect to commence with.
- (4) Plan of Site, five copies with the buildings shown thereon, &c.
- (5) Plans of Existing Hospital, showing proposed alterations and additions.

2. The various suggestions, mentioned in the above letter have been complied with.

3. The general Specification for the completion of the Hospital, I suggest should contain the following:-

All the floors to be constructed of Reinforced concrete, and finished on top with "Ebonite" or "Ironite" Patent flooring, and carried up the face of walls 12", to form a flush skirting, the angle formed by the wall and floor to be rounded off to a 6" radius,

All internal and external angles throughout the buildings, including jambs and reveals to doors and windows, would be rounded, no radius being less than 3 inches.

The ~~walls~~ of the walling in the Wards to be covered from 12" above floor, (or from top of flush skirting,) up to 7'.0" from the floor level, with "Crystopal" tiling, with rounded angles, and this treatment to continue around all door and window jambs, heads, &c. Above this tiling, the walls and ceilings to be plaster, finished with "Keen's" Cement, the first floor ceilings being finished in a similar manner, on expanded metal lathing. The whole of the interior walling and ceilings being painted on completion with "Ripolin", Enamel surface,

The interior of Bathrooms, W.Cs &c to be treated in a manner similar to the above.

The whole of the exterior walling to be finished on the surface with coloured "Sirocote" plaster, with bands, and string courses of tiling for artistic effect.

The main roofs to be covered with Mangalore tiles, and the Balcony roofs with Asphalt laid on concrete.

The ventilation can most satisfactorily be obtained by means of French Casement doors, in pairs, 4' 0" wide, with the upper panels filled in with single sheets of plate glass; Ventilation openings are also to be provided in walls immediately beneath ceilings.

4. I estimate under the following items the Approximate Cost of the whole scheme to Design No. 1:-

Main Building	₹15,252. 0. 0
Verandahs & Covered ways	7,721. 0. 0
Electric Passenger Lift & Service Lift	686. 0. 0
Drainage	400. 0. 0
Unclimbable fencing to enclose the Site	93. 0. 0
Hot & Cold Water Supply & Electric Lightings	600. 0. 0
Incinerator	80. 0. 0
Boys & Menial Quarters	250. 0. 0
Laundry	100. 0. 0
Alterations & Additions to the Existing Hospital Block which is to become the Administration Block	1,170. 0. 0
<b>Total</b>	<b>₹26,352. 0. 0</b>

The approximate cost under the following items of the Central Block only with the necessary adjuncts thereto:-

Main Building	₹7,500. 0. 0
Verandahs & Covered Ways	4,133. 0. 0
Kits	226. 0. 0
Drainage	250. 0. 0
Unclimbable fencing to enclose Site	93. 0. 0
Hot & Cold water Supply & Electric Lighting	300. 0. 0
Boys Quarters	100. 0. 0
Alterations & Additions to Existing Hospital Block	1,170. 0. 0
<b>Total</b>	<b>₹14,372. 0. 0</b>



5. All door and window openings, in addition to the doors and windows proposed, will be fitted with gauze mosquito proof shutters on the outside, and every attention will be given in the endeavour to make the buildings as generally mosquito-proof as is possible.

*C. Rand. Overy*  
Government Architect.

Nairobi.

March 29th 1918.

Nairobi, 25th February, 1915.

To,

The Principal Medical Officer,  
East Africa Protectorate.

-----!+!-----

RE THE PROPOSED NEW EUROPEAN HOSPITAL  
AT MOMBASA.

The present opportunity should, in my opinion, be taken advantage of to bring to the notice of the authorities the necessity of erecting buildings of worthy design, capable of meeting all local demands. It is, therefore, I suggest, undesirable to include the present European Hospital in any plans which may be drawn up more especially as its rickety water tanks, repeatedly - porous floors, and ill-shaded verandahs can only be regarded as undesirable features.

I. I submit hereunder the outline of three alternative suggestions with reference to the question of the plan of a new hospital.

The first and second certainly, and the third probably, involve the removal of the meteorological hut, the house formerly occupied by Mr. Thomas, and the present hospital main and out-buildings. In addition the landing to the West of the pathway leading from the Provincial Commissioner's house where it crosses the proposed cleared site is ~~also~~ necessitated.

2. On the ground thus prepared a new hospital can be constructed either,

- a) of the villa type with a central administration block, nurses' residences, servants' quarters, kitchens, and latrines,

or b) made up of a central administration block, with two separate lateral one-storeyed, partitioned, air-channelled ward blocks provided with broad, sheltered verandahs and with flat roofs covered over with secondary roofs, a vertical space of ten or twelve feet intervening. A nurses' residence and the usual kitchens, servants' quarters, and latrines are also part of this alternative.

or c) made up of a central administration block, with two separate lateral one-storeyed, partitioned, air-channelled ward blocks provided with broad, sheltered verandahs and having as accessories the usual kitchens and out-houses. In this alternative the existing nurses' residence would continue to be used as such, though probably enlarged.

4. It should be possible to instal a water carriage system of sewage-disposal in connection with any of these three alternatives just outlined by using the power afforded by the prevailing winds to pump sea-water into raised reservoirs from which latter it could be distributed to the W.C. cisterns. The soil pipes could be led out to the main channel of the adjoining harbour.

5. The main buildings in all of the three alternatives should be erected on raised arches. The approach to the covered roof noted in connection with the second alternative should be from the lower verandah and the sides of the covered roof itself should be provided with broad-lathed Venetian screening so as to afford protection from weather to patients undergoing open-air treatment.

6. I should feel grateful if these suggestions were brought to the notice of the authorities.

*J. A. Hain*

Deputy Principal Medical Officer.

MEDICAL DEPARTMENT,

HEADQUARTER OFFICES,

297

BRITISH EAST AFRICA,

26th Feb.  
NAIROBI, March 1915.

NEW HIRSHMAN HOSPITAL, MOMBASA.

MEMORANDUM

The necessity for the establishment of a Hospital at Mombasa for the reception of European patients designed for the tropics, and equipped in accordance with modern requirements has been appreciated for many years.

The general development and expansion of the colony, and the consequent increase of the resident population in, and visitors to Mombasa, has accentuated the need for adequate hospital accommodation commensurate to meet the requirements for both officials and the general public.

Useful as the present building has proved itself to have been in the past, it is well to remember, that it was originally erected as a residential bungalow in 1895, and contained practically none of the requisites for the treatment of the sick, lacked such essentials as operating theatre, drainage scheme, water supply, lift, and sanitary arrangements that its extensive use

demanded

Principal Medical Officer,

NAIROBI.

demand; while its structural defects with absorbent floors and imperfect ventilation constituted a menace rather than an amenity to the patients. The difficulty of access to the upper floor, the carriage of patients there, and the general arrangement of rooms necessitated an unnecessary expenditure of physical energy on the part of the Nursing Staff when carrying out their onerous duties in the tropics.

I desire to express my most cordial appreciation of the courtesy and assistance I have received from the Public Works authorities, and especially Mr. Rand Overy, the Government Architect, both during the preliminary discussions, and in the formulation of the plan now submitted for consideration.

3. Five plans were prepared by the Government Architect:-

No. I. Showing a two storied building containing 32 beds.

Ground floor 3 wards of 8 beds each = 24

First floor 8 single bed wards = 8

This type of building is capable of extension on the same lines if necessary, and I recommend its adoption.

No. II. Two floors. 32 beds.

The arrangement shows a number of small wards of 4 beds each, and the difficulties attending supervision and administration are at once apparent.

No. III. Two floors. 34 beds.

Here some portions of the building are

screened

screened from the prevailing wind by other sections.

No. IV. Bungalow type. 32 beds.

All wards are here shown on the ground floor, the objection that through ventilation cannot be maintained is noticed, and the cost appears to be prohibitive, and the distances to be traversed by the Nursing Staff in carrying out their duties adds an additional objection.

No. V. Bungalow type. 31 beds.

In this instance some portions of the building will not benefit by the prevailing monsoon at all seasons of the year.

3. There were certain important considerations that influenced me in the selection of the type of building.

- a. Site.
- b. Tropical and climatic conditions.
- c. Use and purposes of the building.
- d. Financial considerations.
- e. Facilities for drainage and sanitation.

a. Site.

This has been considered in its relation to the means of access from the Railway Station, the Ports of Bombay and Kilindini, and the European residential area; it should also command an interrupted view of the Indian ocean, be capable of benefitting by both N.E. and S.W. monsoons, and be in close proximity to the

outfall

outfall of its drainage.

That selected, viz:- the ground on which the present building now stands, and the inclusion of that towards the South between it and the bungalow known as "the Cottage" marked 'A' on the ground plan P.W.D. No. 1825 admirably fulfills these requirements. As this area is restricted, the inclusion of the sites on which bungalows "A" and "B" now stand will probably be necessary to allow of expansion of the buildings, and construction of a short road to serve the bungalows beyond.

Buildings erected on this site would be within a few yards of the sea, and the natural outfall for their drainage, they would face the entrance of Mombasa harbour, be situated some 70-80 feet above the sea, command an interrupted view of the ocean, be within 500 yards of the Mombasa Railway Station, and be practically on the main roads of communication between Mombasa and Kilindini harbours, and placed in the centre of the European Community.

From intimate knowledge I unhesitatingly say that no other site on the Island possesses all these advantages, though others could be secured necessitating the acquisition by Government of land already alienated, at, I venture to think, an almost prohibitive price.

#### b. Tropical and Climatic Conditions.

Mombasa is 240 miles South of the Equator, the prevailing winds being the S.W. monsoon

(6 months)



(6 months) and the N.E. monsoon (4 months).

It is essential that the buildings be so arranged that through ventilation is possible at all times, and that each section of the building can reap the benefit of the prevailing wind, and not be screened by other portions; every ward shown on the selected plan is so placed as to be accessible to all variable currents of air during both seasons.

Hospital accommodation in the tropics demands a liberal allowance of floor, and cubic space per patient, and in the calculation the following minimum units have been defined:-

Height of wards 15 feet.

Floor space per patient 200 c<sup>2</sup>

Cubic space per patient 3000.

a. Uses and Purposes of the Building.

In accordance with the scale of fees laid down by the Colonial Office to be paid by all classes of patients admitted into hospital; single bed wards, 8 in number on the first floor, and three general wards containing 8 beds in each on the ground floor have been provided; and in their arrangement the easy and efficiency of their service has not been lost sight of, the Sisters' room being so placed that it commands a view of 16 beds.

The adoption of the new buildings to the existing hospital which is proposed as the "Administration Block" in the future, permits

of a covered way being made joining the two sets of buildings, of a sufficient width to allow wheeled stretchers and beds being easily manipulated along it, and from it through the ward doors.

In order to give patients the fullest benefits of an open air treatment, verandahs 12 feet in width have been supplied, and two balconies on the top floor sheltered by the building from the sun's rays after midday are suggested.

#### d. Financial Considerations.

The site is now Government property, and the existing buildings when re-arranged, structurally repaired and made sanitary can be utilized as an administrative block for the Nursing Sisters residence, out-patient department, X-ray Room, and stores; and the present Nursing Sisters' quarters have already been altered by the addition of three bath rooms etc., so as to be easily adaptable for use as a small segregation block for septic cases, Typhoid cases and the like.

#### e. Facilities for Drainage and Sanitation.

The proximity of the buildings to the sea, and facilities that exist for the disposal of all drainage is a material consideration affecting the selection of the site, and materially reduces the cost that would be entailed if another were selected.

It is proposed that water derived from the new Mombasa supply be laid on to all parts of buildings, and that the existing underground storage tanks be dispensed with; and that a water borne system of sewage disposal be

instituted

instituted. If it be found necessary to maintain a reserve water supply for flushing purposes, that can be obtained from the sea by pumping, though the height of the lift may present some difficulties.

The use of modern sanitary appliances, pipes, plumbing and connections of an approved quality should be a sine qua non in all buildings.

Electric light derived from the Mombasa Light Company could be installed.

#### 4. Proposed arrangement.

##### New Buildings.

Wards general	3	= 24 beds
Single bed wards	6	= 12 beds
Nurses Room	1	
Ward Pantry	3	
Stores	1	
Operating Theatre	1	
Anaesthetic Room	1	
Sterilising Room	2	
Kitchens	1	
Boys quarters, latrines and baths		

N.B. Provision is made in the plan for latrines, urinals, baths and sinks for use in all parts of the buildings.

##### Existing Buildings.

To be converted into	
Nurses quarters	3
Sitting room	1
Consulting room	1
Waiting room	1

Office

Office (Matron's ?)	1
X Ray Room	1
Stores	1
Office	1
Sisters Quarters (existing) to be converted into Isolation block containing	
Wards	5
Bathrooms	3
Sitting Room	1
Store	1

Detailed specifications concerning ventilation, sanitation arrangement of out quarters, are not discussed in the memorandum.

*William A. Jones*

PRINCIPAL SANITATION OFFICER.

C O  
~~30321~~  
REC'D  
SEP 16 SEP 11

*10/11/11*  
39594

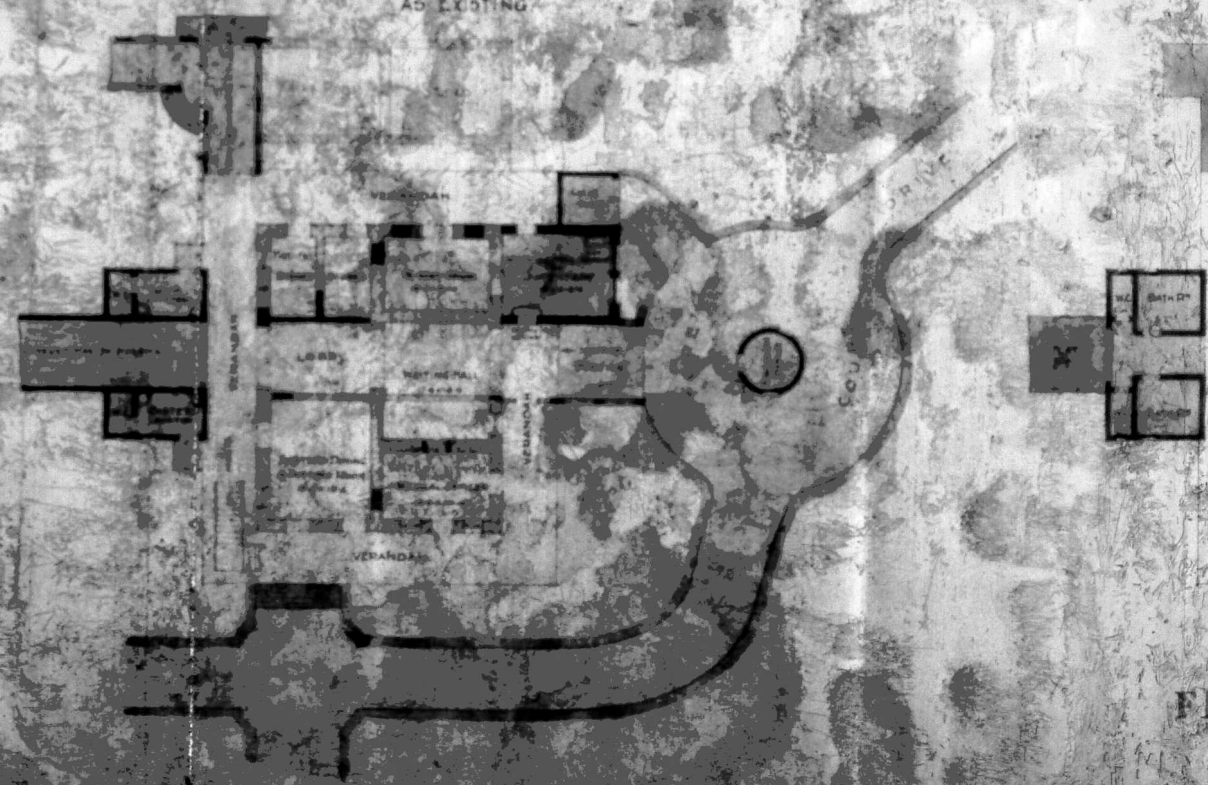
11

305

# PROPOSED CONVERSION OF EXISTING ADMINISTRATION BLOCK NEW EUROPEAN HOSPITAL MOMBASA



**GROUND FLOOR PLAN.**  
AS EXISTING



**GROUND FLOOR PLAN.**  
SHOWING ADDITIONS & ALTERATIONS

**MOMBASA ISLAND.**  
**ENLARGED PLAN FROM SHEET NO.**  
**SHOWING**  
**EUROPEAN HOSPITAL GROUNDS.**

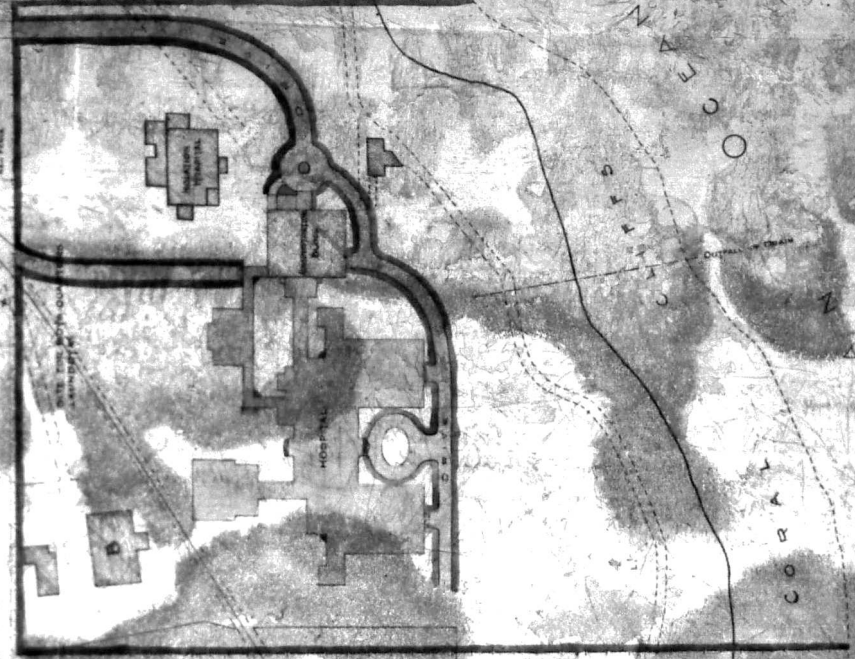
**P. W. D. N°1625**  
**FILE N°**

**SCALE 1:1000 APPROXIMATE.**





Railway Station



N  
A  
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C  
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N

*H. B. B.*

DIRECTOR OF PUBLIC WORKS

C. R. O'Connell  
GOVERNMENT ARCHITECT

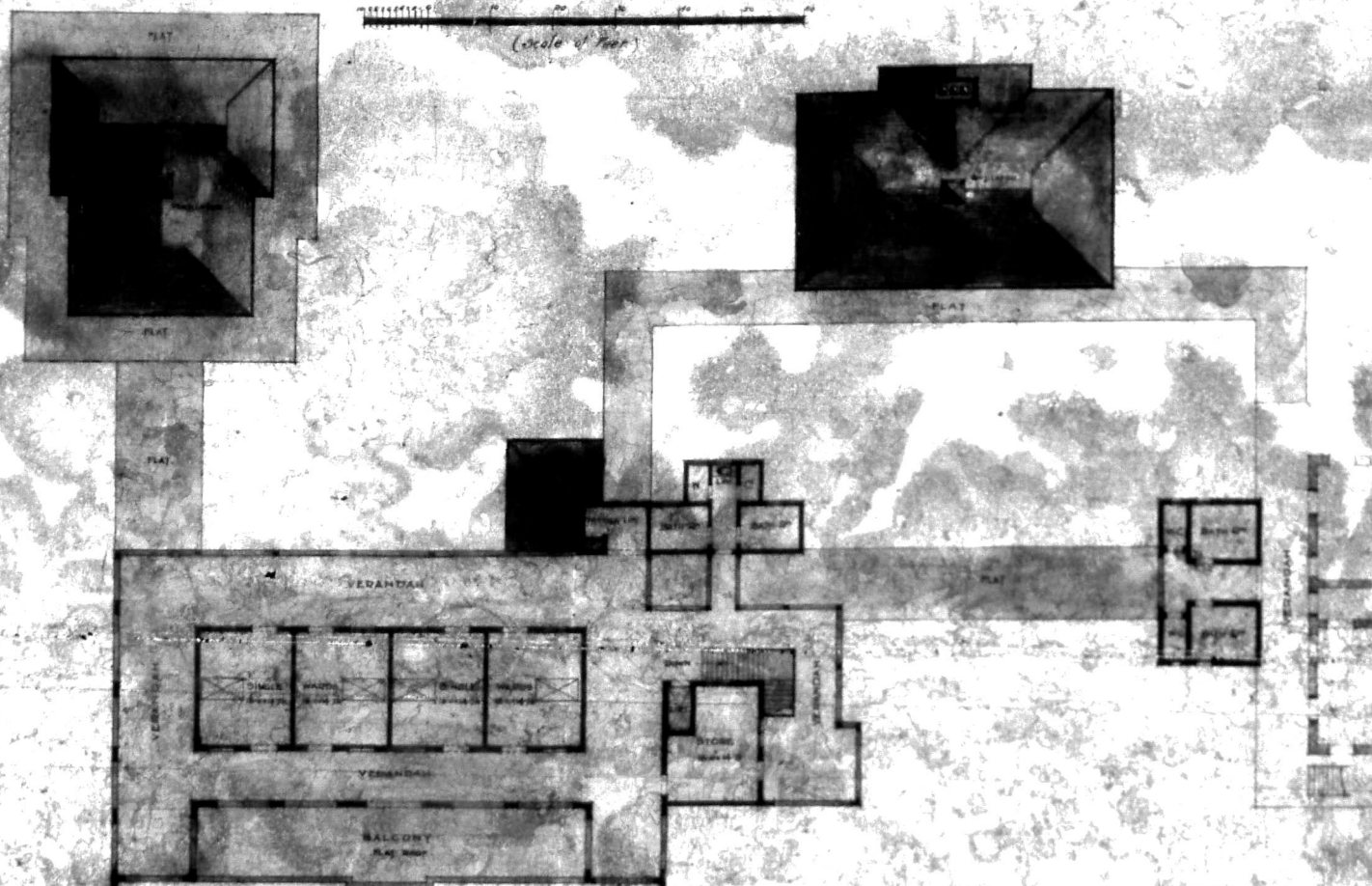
NAIROBI, E. A. P.

DATED April 6<sup>th</sup> 1925



P. W. D. No 1666  
FILE. No 6

**NEW EUROPEAN HOSPITAL MOMBASA, E.A.P.**  
**PLAN SHOWING THE CENTRAL BLOCK & ADJUNCTS THERETO.**  
**PROPOSED TO BE ERECTED TO COMMENCE WITH.**



**FIRST FLOOR PLAN.**

Direction of prevailing wind at certain seasons

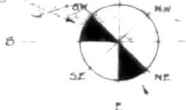
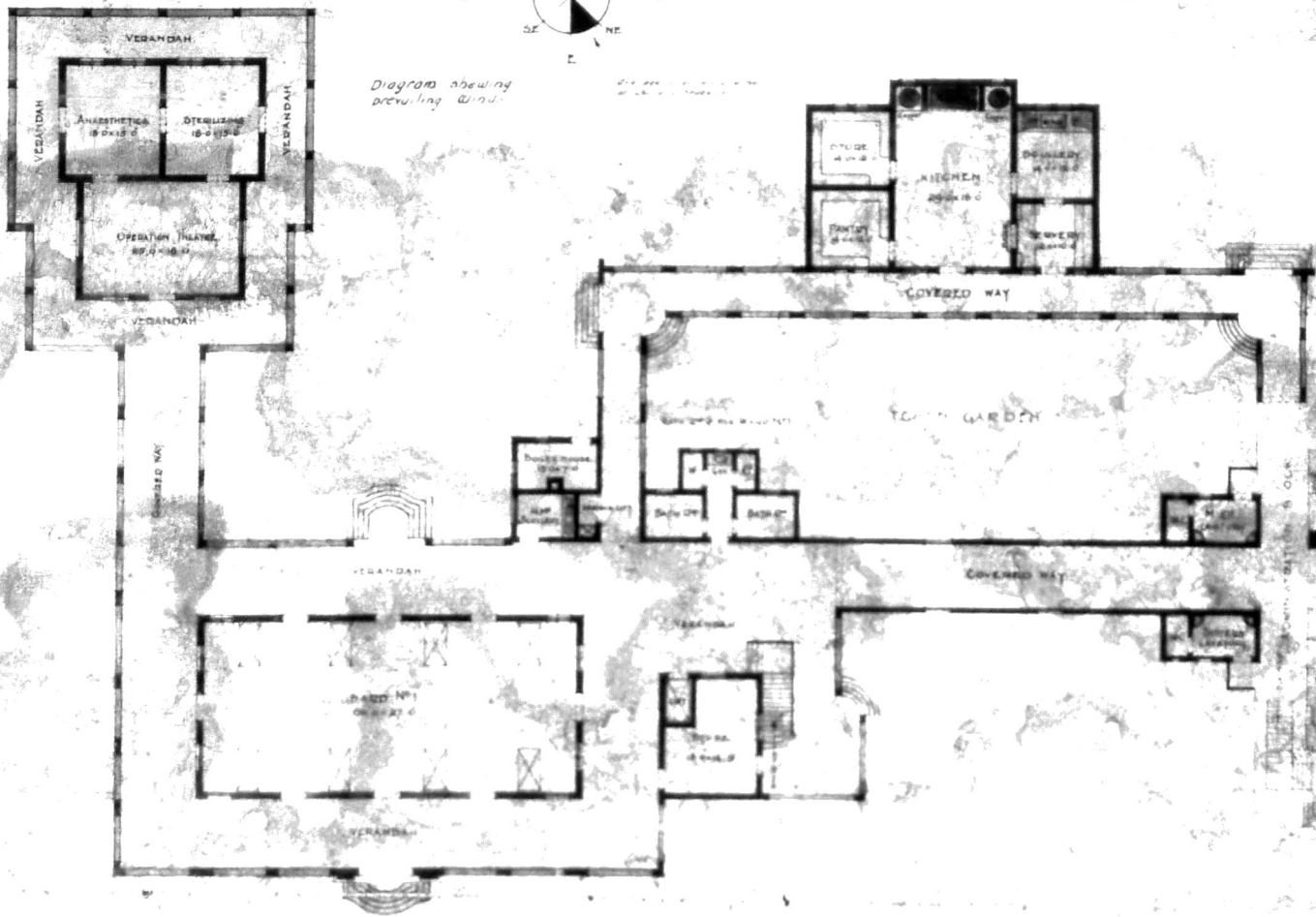


Diagram showing prevailing wind



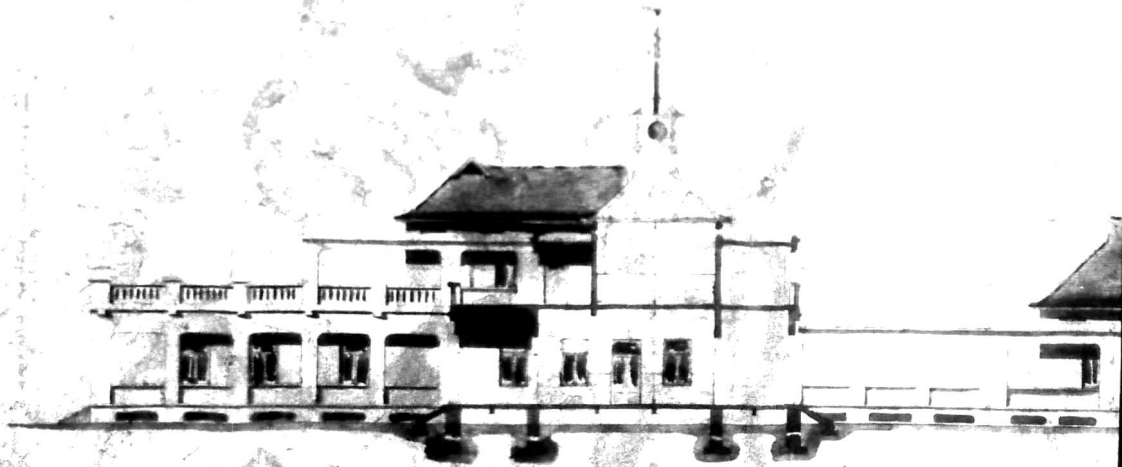
# GROUND FLOOR PLAN.

*Handwritten signature*  
DIRECTOR OF PUBLIC WORKS  
Hand Over  
GOVERNMENT ARCHITECT  
NAIROBI E.A.P.  
DATED April 6<sup>th</sup> 1905

PROPOSED EUROPEAN HOSPITAL  
MOMBASA, E. A. P.



FRONT ELEVATION



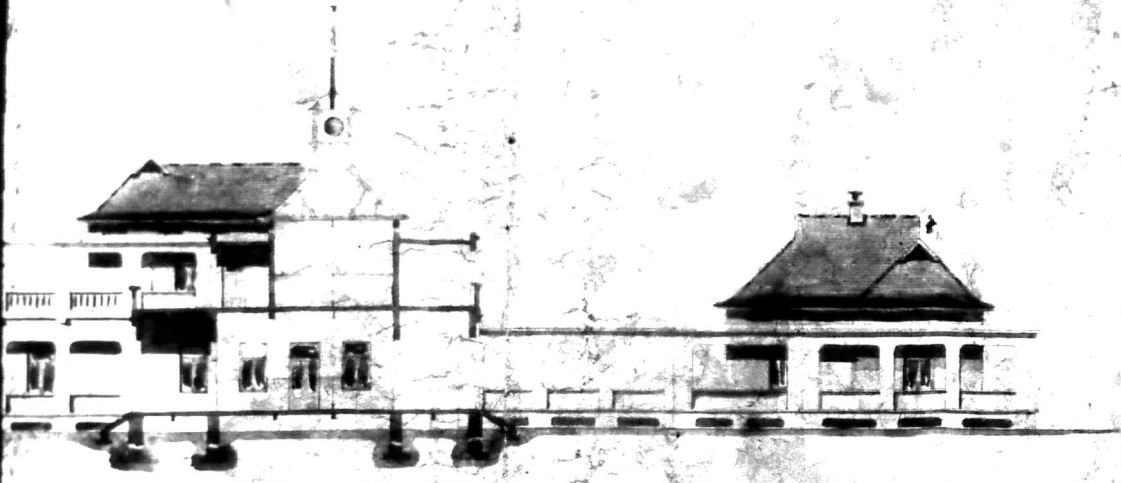
SECTION THRO CENTRE OF BLDG

R.W.D. No 1670  
FILE No 6

# EUROPEAN HOSPITAL NAIROBI, K. A. P.



FRONT ELEVATION.

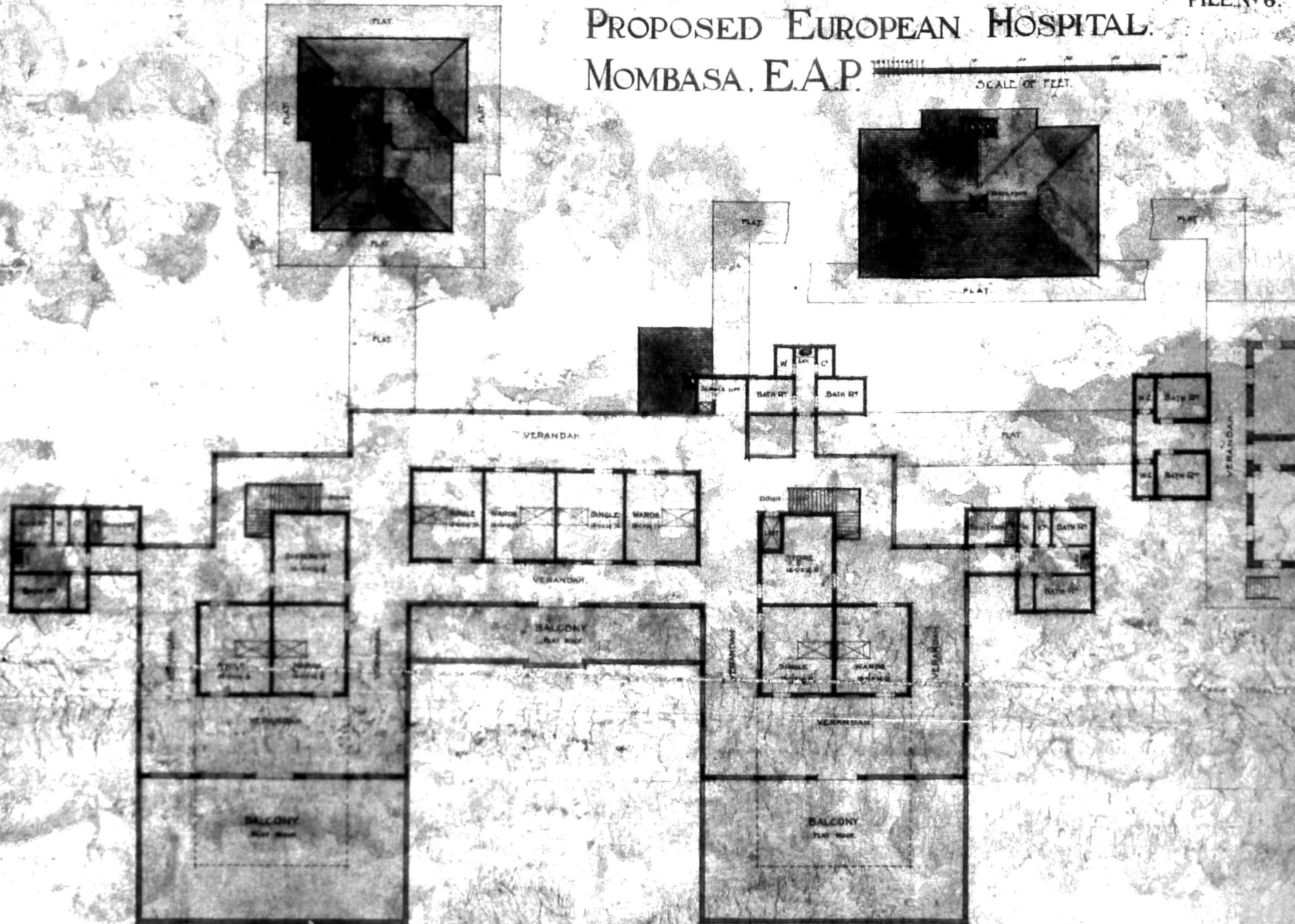


SECTION THRO CENTRE OF BLDG.

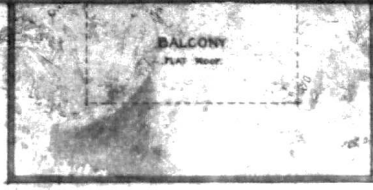
*Handwritten signature*  
 DIRECTOR OF PUBLIC WORKS  
*Handwritten signature*  
 GOVERNMENT ARCHITECT  
 NAIROBI, K. A. P.  
 DATED April 6, 1915

# PROPOSED EUROPEAN HOSPITAL. MOMBASA, E.A.P.

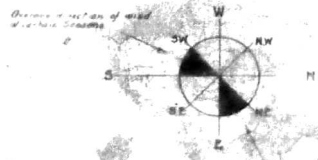
SCALE OF FEET.



FIRST FLOOR PLAN.



FIRST FLOOR PLAN.



Direction of flow of wind in various seasons

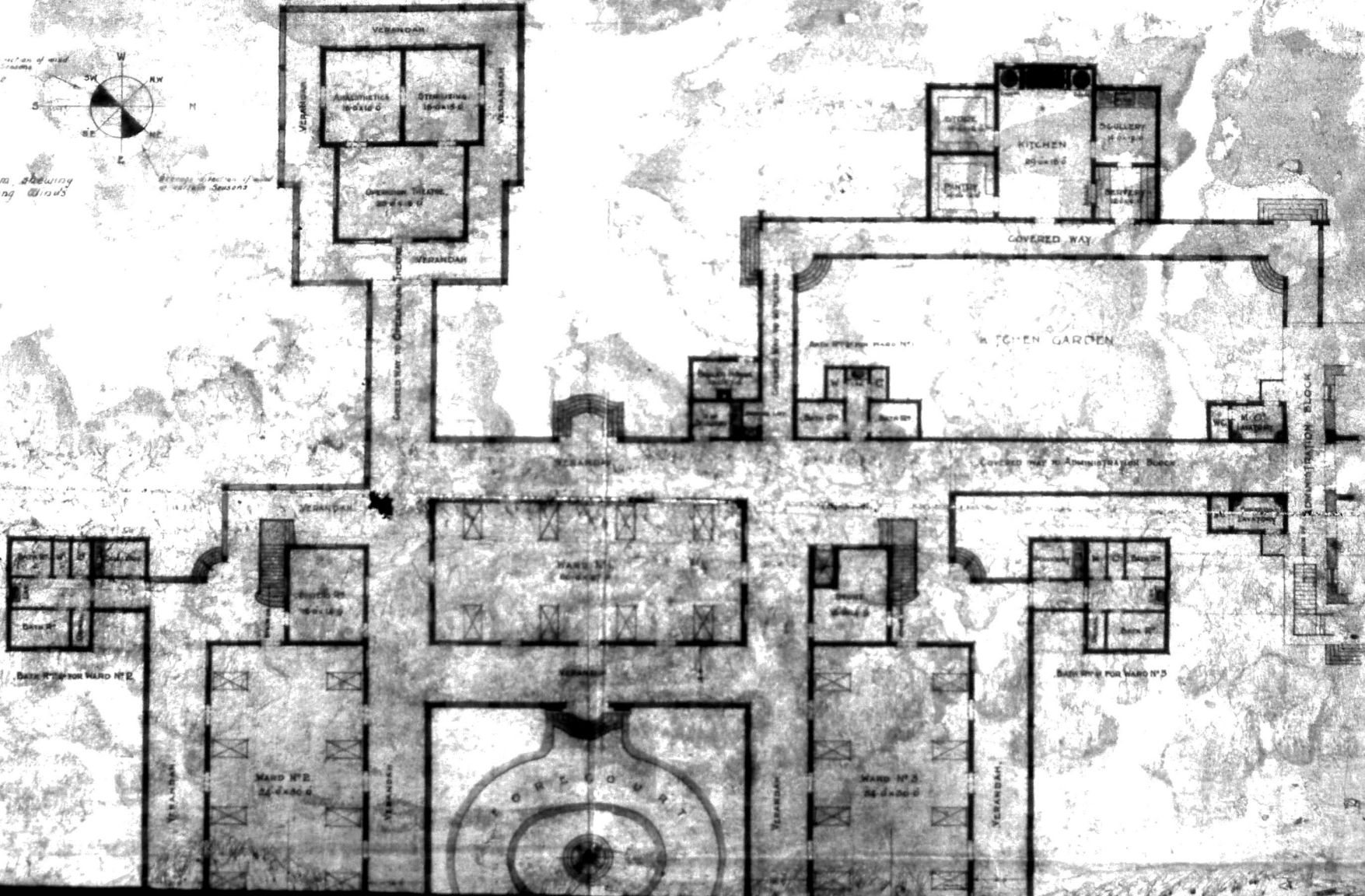
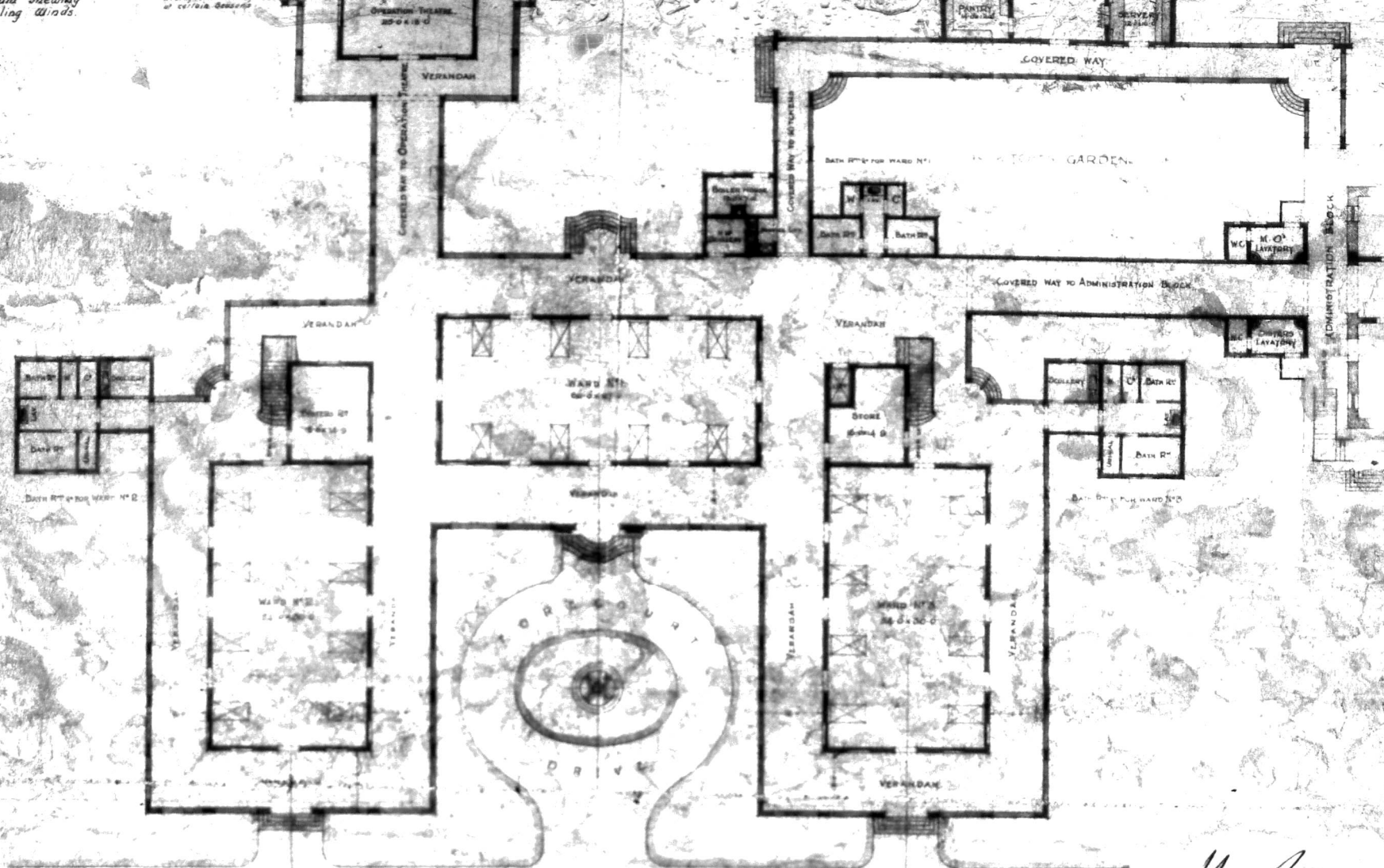


Diagram showing prevailing winds of certain seasons



.GROUND FLOOR PLAN.

*H. M. Smith*  
 DIRECTOR OF PUBLIC WORKS.  
*C. Paul Overy*  
 GOVERNMENT ARCHITECT.  
 NAIROBI, E.A.P. 6.4.15

The despatch of which a duplicate copy is enclosed is being printed and will be circulated to the members of the Advisory Committee on Saturday with a view to the plans etc. being considered at the meeting on Tuesday next.

The previous correspondence to which the Governor refers will be found on pages 240 and 278 of the bound volume "African 1013".

Professor Simpson is requested to pass on the enclosures as soon as possible to Dr. Balfour, and Dr. Balfour is asked to pass them on to Sir James Fowler, who is asked to pass them on to Sir Ronald Ross if there is time before the meeting; the member who has them last is asked to bring them to the meeting.

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Enclosures:-

Duplicate copy of despatch.

Five maps.

Envelopes for circulation.

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26th May, 1915.





Gov. E.A.P.

23891  
15

Full P.M.D. 1915

312

~~13~~ P.M.D.

9 June 1915

Sir,

I have the honor to acknowledge the receipt of your despatch No. 320 of the 22nd of April, transmitting plans for a proposed new European Hospital at Mombasa, together with memoranda by the P.M.D., the Deputy P.M.D., the Principal Sanitation Officer, and the Chief Architect.

2. These papers and plans were referred to the Advisory Medical

RAFT

No 426

H.C. Balfield

MINUTE

J. H. J. 7/11/15  
Fiddler 2/11/15

Recd. 5/7/15

Fiddler  
H. J. J.  
J. Anderson

Sanitary Committee for  
Tropical Africa at a recent  
meeting, when it was pointed  
out that the Sisters' dining and  
sitting room was too small, and  
that it would be desirable to place  
the Medical Officer's room somewhere  
else so as to allow of the expansion  
of the Sisters' room. It was also  
pointed out that there was no provision

in the plans for a matting and a laundry.

3. The <sup>expansion</sup> ~~plans~~ should  
be carefully considered before the  
final <sup>adoption</sup> of the plans,  
which in other respects I approve.

(Signed) A. BONAR LAW.