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CLERK OF THE SENATE

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

R E P O R T

relating to the proposed

EXTENSIONS TO THE

SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE,

S Y D N E Y.

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LIST OF CONTENTS.

	Paragraph in Report.
SECTION I. INTRODUCTION.	
The original building.	1
Proposal for extensions.	3
SECTION II. THE PRESENT PROPOSAL.	
General.	7
The Buildings -	
Main Building.	9
Animal House.	12
Estimated Cost.	13
SECTION III. THE COMMITTEE'S INVESTIGATIONS.	
General.	14
Reasons for the Extensions.	16
Altered requirements.	24
Committee's Previous Recommendations.	26
Form of Construction.	29
Internal re-arrangement.	30
Buildings -	
Main extensions.	32
The animal house.	34
Stages of construction.	35
Stage 1.	36
Stage 2.	37
Stage 2A.	38
Stage 3.	39
Method of construction.	40
The housing programme.	42
Estimates of cost.	46
The Agreement.	49
SECTION IV. SUMMARY OF CONCLUSIONS.	
List of recommendations.	50

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THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

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EXTENSIONS TO THE SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE,

S Y D N E Y.

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R E P O R T.

The Parliamentary Standing Committee on Public Works, to which the House of Representatives referred for investigation and report the question of Extensions to the School of Public Health and Tropical Medicine, Sydney, has the honour to report as follows :-

SECTION I. - INTRODUCTORY.

THE ORIGINAL BUILDING.

1. The building which is at present being used for the work of the School of Public Health and Tropical Medicine was erected following the recommendations of the Parliamentary Standing Committee on Public Works in 1928, and the structure was built on land set apart by the Sydney University in accordance with the terms of an Agreement between the Commonwealth of Australia and the Sydney University.

2. Reasons advanced in 1928 to explain the urgent necessity for the building at that time included -

- (a) the rapid development in the field of public health;
- (b) the fact that it was necessary for graduates to proceed abroad to obtain proper training in public health; and
- (c) the very great importance of a proper scientific centre in Australia for tropical medicine, and the growing importance of this in association with Australia's tropical possessions.

The estimated cost of the original building was £30,000, and maintenance was expected to cost approximately £9,000 per annum.

PROPOSAL FOR EXTENSIONS.

3. In 1944 the House of Representatives referred to the Committee a proposal for extensions to the original building, and the Committee's report to Parliament finally recommended the extensions at an estimated figure of £77,881.

4. The structure proposed envisaged extensions to the present building in continuation of the original architectural design, and were arranged so that, when completed, the new wings would be formed round a central quadrangle. The height of all four sides to the building would conform to the present building which is comprised of Lower Ground Floor, Upper Ground Floor, and First Floor. The extensions, providing 36,000 square feet of space, would represent one and a half times the accommodation originally provided in the present building.

5. In addition to extra accommodation in the main building it was also proposed to add a complete floor to the Animal House in which space was urgently required.

6. After taking exhaustive evidence on all phases of the requirements of the School, the suitability of the proposed structure for the purpose, and other considerations, including availability of materials and labour at the time, the Committee recommended that the building was necessary, and that the proposal, with certain slight modifications should be proceeded with as soon as materials and labour could be allocated to the project.

## SECTION II. - THE PRESENT PROPOSAL.

### GENERAL.

7. Owing to the great shortage of materials and labour, and the urgent necessity to press on with housing projects in the period following the Committee's recommendations in 1945, building of the proposed extensions was not commenced. With a view to pushing ahead with the work the matter has now been further considered, and fresh estimates, based on later cost figures were prepared.

8. When it was found that the new estimates presented a total figure which was twice that of the previous estimate for practically the same building it was decided to refer the matter again to the Parliamentary Standing Committee on Public Works, especially as a new Director had been appointed to the School and certain alterations were desired in the internal planning. Development of the work

requiring to be carried out at the School had also provided urgent grounds for some variation to the School curriculum and the research work planned some years ago. Alteration of the method proposed to be used in constructing the building, so that a saving of bricks could be made, added a further factor towards the decision to investigate the scheme again. The proposal was therefore referred to the Committee on 27th April, 1950.

#### THE BUILDINGS.

##### Main Building.

9. The extensions to the main building are to comprise the erection of three-storied wings to the East, West and North of the present building, forming an enclosed quadrangle, and an additional floor on the two-storey rear portion of the present building. The completed final scheme will then present a uniform three-storied structure, giving an additional space of 36,000 square feet.

10. In addition to the construction of the new wings and the extra floor over the rear of the present building there are some alterations to the arrangement of rooms in the present building, including the lecture room and museum, dependent upon the recent developments in the type of problems being dealt with at the School.

11. Provision is also to be made for additional lavatory accommodation and a lift, as recommended by the Committee in its former report.

##### Animal House.

12. Adjacent to the Main Building on the Southern side is the Animal House, where various types of animals are kept for experimental purposes in connection with the research being conducted at the institution. The present proposal plans to place a complete new floor over the existing one to give much needed accommodation for the work.

#### ESTIMATED COST.

13. The estimated cost submitted by the Minister in explanation of the project referred to the Committee was £145,810, of which £51,000 would be required for the first stage planned to proceed immediately.

SECTION III. - THE COMMITTEE'S INVESTIGATIONS.

GENERAL.

14. The Committee studied the plans and all the evidence taken in the previous inquiry, together with the details of the present proposal, and it was realised that, apart from internal alterations to suit the changes which had been rendered necessary through developments in the main objects of the institution, this investigation resolved itself principally into consideration of the reasons for the great increase in cost, and study of essentials for the present and future work of the School. In consideration of the wealth of evidence already taken on the matter the Committee limited its inquiries accordingly.

15. With the above principal objects in mind the Committee visited Sydney to inspect the present building and site for the extensions; took evidence from the Director of the School of Public Health and Tropical Medicine, officials of the Department of Works and Housing concerned with the planning of the project, and independent specialists interested in work of the type dealt with at the School, and carefully considered the whole of the evidence, with a view to reporting to Parliament on the advisability of proceeding with the work.

REASONS FOR THE EXTENSIONS.

16. The necessity for major extensions to the building was established by the evidence taken in the former investigation, and it was explained to the Committee that the School had long outgrown the existing accommodation, lack of space and overcrowded conditions being especially acute in the library, the museum, and the Animal House. It was pointed out in that inquiry, that, as a result of concentrated efforts towards assistance in the war effort, increasing use had been made of the facilities of the institution in training and diploma courses, while the field of research was constantly growing wider and the need for accommodation to carry out the work more pressing. At that time, though the main emphasis was focussed upon the tropical side of the work, a considerable amount of attention

was paid to tuition and research work connected with local health and industrial health problems, and this side of the work was expected to grow.

17. In the present investigation the Committee sought evidence to support the views expressed five years ago, when the proposal for the extensions was first considered by the Committee. A wealth of very important and interesting information was submitted by the Director of the School and other professional witnesses, and the Committee was impressed with the value of the work being carried out at the institution, and with its significance in connection with the health of the community and the nation at large.

18. Details of the evidence adduced indicated a trend in the development of problems affecting the School's work, though the direction of it was somewhat different from that previously anticipated. It has been found that, whereas major developments were to be expected in the field of tropical medicine, it has now become apparent that problems of industrial hygiene and public health have become increasingly pressing, and special attention has to be concentrated in this direction to meet immediate demands in this field.

19. As a consequence of the growth demanded in the public health side of the work some alteration and re-arrangement has become necessary in the original plans for the additions. The appointment of a new Director has also resulted in a desire for certain internal changes in the plans, and these have now been incorporated in the scheme under consideration.

20. From its inspection of the present School and the evidence obtained the Committee is convinced that there is an urgent necessity for the extensions, and that the work on problems of immediate importance to the public will be hampered and delayed unless additional accommodation is made available at an early date.

21. On the tropical medicine side of the institution's work a large variety of problems is being dealt with, and the School is a recognised authority for tuition and instruction in all phases of tropical medicine and hygiene. Research is also carried out in this

sphere by staff at the School, as well as by officers visiting various localities where the problems have to be investigated, and a very valuable work is proceeding.

22. At the present time special importance is being given to problems of public health and industrial hygiene, and the evidence shows that a great deal of research is being conducted into questions connected with industrial diseases, design of industrial buildings, and local and general public health problems, while a special section has recently been established to investigate urgent problems of child health at present affecting the community.

23. The Committee was impressed with the importance and urgency of the work, and recognises that the development of the institute along lines emphasizing industrial hygiene and child health problems is most satisfactory and essential at the present time. It also appreciates the value of the wider, national questions on the tropical medicine side, already producing results of importance to Australia, and it is of opinion that this aspect of the work should not be allowed to recede, while ample accommodation for such activities should be preserved in the building activities now envisaged.

#### ALTERED REQUIREMENTS.

24. One of the main factors affecting the Committee's comparison of the present proposal with the original one was the extent to which the original plans differed from those under scrutiny, and evidence was sought on this aspect of the matter.

25. The alterations to the original plan comprised three main groups - the provision of the items suggested in the Committee's last report, alteration of the form of construction to conserve bricks; and re-arrangement of part of the present Upper Ground Floor to conform to the new demands on the work of the School.

#### Committee's Previous Recommendations.

26. As a result of the suggestions contained in the Committee's report in 1943 provision is made in the present plans for a passenger and goods lift to be installed to serve the three floors. It is to be located near the stairs at the main entrance and will be included in the



third stage of the proposed schedule of construction. There was a certain amount of doubt expressed in some quarters as to the necessity for the lift, but, after further consideration, the Committee is of opinion that the lift should be installed, and its inclusion in the third stage should ensure that it will not be provided at a time when all efforts are required for the more urgent works on hand.

27. Additional lavatory accommodation is to be built in a block attached to the Western end of the existing building, and sufficient toilet facilities should then be available for the use of all those likely to require them.

28. It was suggested to the Committee that the break in the Eastern facade, recommended in the previous Report, should not be effected, and, after considering the opinions submitted, the Committee is prepared to accept the Departmental viewpoint in this regard, leaving this part of the plan as originally submitted.

#### Form of Construction.

29. The building was originally planned to be of brick construction, but, in order to save as many bricks as possible and to interfere as little as possible with the housing programme for the State, it is now proposed that the extensions be a steel frame structure, with only a  $4\frac{1}{2}$  inch common brick external skin wall, and 6 inch terra cotta or concrete block internal skin wall, as well as terra cotta blocks for internal partition walls. It was shown that this change in construction would save approximately 350,000 bricks, and the number of bricks still required under the new plans would only be sufficient to build about  $4\frac{1}{2}$  average cottages.

#### Internal Re-arrangement.

30. The amendments rendered necessary by the recent developments in the School's activities consist mainly of the retention and extension of the present lecture room, instead of locating it in the new wing as previously intended; alteration of the position and size of the museum; and provision of a number of individual rooms in the space saved by the re-arrangement, thus making it possible to give accommodation to staff required for the special work being undertaken.

31. These alterations in plans as compared with the original ones will suit the requirements of the present work and appear most desirable.

#### BUILDINGS.

##### Main Extensions.

32. The plans of the exterior of the building remain practically the same as those previously referred to the Committee, the dimensions of the additions being 75 feet 9 inches facing East, 154 feet North frontage and 93 feet facing West, leaving a courtyard in the centre 69 feet by 50 feet. The architecture of the new wings will be a continuation of that adopted for the present building, and the external finish will be of cement render to match the existing structure.

33. The present building has become grimy and neglected in appearance, but it is understood that the exterior will be renovated to conform in appearance with the new extensions. A certain amount of treatment to the bank in front of the building, at present needing attention, should present no difficulty to improvement, by means of rockeries, gardens, or some other method.

##### The Animal House.

34. The Animal House is a separate, small single-storey building at the Southern side of the present School building, and extensions to it are proposed, exactly similar to the former plans. It is 98 feet in length by 35 feet on the Eastern end and 22 feet on the Western end. The additions comprise a complete extra floor over the present one, and they will allow the work to be carried on much more satisfactorily than is possible at present. Inquiries reveal that already some important work has to be refused owing to lack of space preventing the necessary isolation of animals concerned in the tests to be carried out on them. The materials in the present roof of this building will be used again when the new floor is added.

#### STAGES OF CONSTRUCTION.

35. The original plans submitted to the Committee in the previous reference did not provide for construction of the building in stages, but envisaged a complete contract for the whole of the extensions.

Subsequently in view of the increasing difficulty in getting buildings of this character erected without interference with building works of higher priority, the possibility of erecting the addition in three stages was considered, and the present drawings prepared on this basis.

Stage 1.

36. The first stage consists of extension to the East of the existing three-storey building, and a section of the Northern wing of the same height; additional floor to the Animal House; and provision of X-Ray room in the existing building; alterations to rooms to provide new laboratories, minor alterations to Lecture Room and toilets, offices, etc. This stage will give much needed additional laboratory accommodation, library and book stacks.

Stage 2.

37. This stage comprises the remainder of the three-storey Northern wing together with the Western three-storey wing. These extensions include storage space, additional laboratories, including air-conditioning Test Room etc., Museum, Offices, subsidiary Lecture Room, the new main stair and the parking area.

Stage 2A.

38. This stage comprises erection of two floors of lavatory block on the Western end of the existing building, extension of the existing Lecture Room to provide additional seating accommodation, transfer of the old Museum to the new area, and subdivision of the old museum for offices.

Stage 3.

39. Stage three includes the construction of an additional floor above the rear, two-storey portion of the existing building, raising this section to the height of the remainder of the building. It also includes an additional floor to the lavatory block, extension of the existing rear fire stair, and installation of the lift.

Method of Construction.

40. Although the plans were drawn with the intention of submitting only the first stage for immediate construction, further consideration and discussion with the Director, in the light of the

problems to be dealt with, forced the conclusion that it would be advisable that Stages 1, 2 and 2A should be carried out under the one contract. The reasons given for this conclusion were that such a procedure would reduce the cost of erection as against individual stages and separate contracts; it would assist in securing of materials, particularly from overseas, as the contractor would be enabled to place advance orders; and it would simplify drawing required, supervision and co-ordination of services.

41. The Committee gave a good deal of consideration to this aspect of the inquiry, realising that the advisability of constructing the building must be balanced against the necessity for housing and other urgent works. As a result of its study of the whole of the evidence the Committee recommends that Stages 1, 2 and 2A should be constructed, with only Stage 3 of the schedule delayed for further contract. The estimated cost of these Stages totals £141,312.

#### THE HOUSING PROGRAMME.

42. Special attention was given to the possibility of competition for materials and labour causing serious interference with home building within the State, and evidence was sought concerning the materials to be used and the type of labour which would be absorbed during construction of these extensions. The Departmental evidence showed that every effort had been made to use materials which are not in normal demand for house construction. A very considerable saving has been effected in the use of bricks by changing the type of construction to a steel frame building, and the amount of bricks now required for the work is stated to be only equal to the number required to build  $4\frac{1}{2}$  normal cottages.

43. Most of the other materials to be used have been selected from items which are not in particularly short supply, and generally of a type not usually required in housing construction.

44. It was admitted that a certain amount of labour would inevitably be drawn from that available for general use, but it was pointed out that most of the labour was of a skilled type, used in the construction of large structures and not available for house

building. In addition, it is confidently expected that tenders will be obtained for the erection of the building from contractors for this type of building, whose staff would not normally be used on anything but major works in any case.

45. With these facts in mind, and in view of the important and urgent nature of the work, the Committee is of the opinion that it is desirable to proceed with the work, using the labour and materials suggested to reduce competition with housing to the minimum.

#### ESTIMATES OF COST.

46. Probably the most important requirement in the Committee's investigation was the necessity to obtain reasons for the very great increase in the estimated cost of the proposal as compared with the figures given for the same work when the Committee dealt with the matter five years ago.

47. The evidence obtained by the Committee indicated a consistent and rapid increase in costs during the period concerned, and, indeed, it was pointed out that costs are still rising and the figures calculated for this purpose are already low. The Committee made searching inquiries into the various estimates made during the period and the methods used for the purpose, and it is satisfied that separate and independent checks give confirmation of the results shown, as accurately as is possible in the present circumstances. It is emphasized that, even after most careful and accurate calculation, based on actual ruling costs, tender prices have been received on occasions up to 50 per cent greater than the estimate, and in extreme cases even higher. The difficulty in estimating what the building will actually cost is therefore serious, but the Committee was assured that the proposed work had been costed in detail, and the present estimate was as close as it is humanly possible to get it.

48. The following statement gives detail of the estimated cost for the various stages of the proposal :-

Stage 1.

<u>Main Building</u> :	Building ..	£51,727
	Electrical ..	4,136
	Plumber & Drainage	3,100
	Mechanical Engineer	1,100
	Civil Engineer	1,394
	Furniture ..	<u>6,858</u>
	Total ..	<u>£68,345</u>

<u>Animal House</u> :	Building ..	£7,130
	Electrical	482
	Plumber & Drainage	500
	Mechanical Engineer	<u>1,490</u>
	Total ..	<u>£9,602</u>

Total Stage 1. £77,947

Stage 2.

Building ..	£45,936
Electrical ..	1,365
Plumber & Drainage	1,550
Mechanical Engineer	2,440
Civil Engineer	306
Furniture ..	<u>2,286</u>
Total ..	<u>£54,383</u>

Total Stage 2. 54,383

Stage 2A.

Building ..	£6,721
Electrical ..	538
Plumber & Drainage	200
Mechanical Engineer	360
Furniture ..	<u>1,143</u>
Total ..	<u>£8,982</u>

Total Stage 2A. 8,982

Stage 3.

Building ..	£20,463
Electrical ..	1,124
Plumber & Drainage	2,000
Mechanical Engineer	3,800
Furniture ..	<u>1,143</u>
Total ..	<u>£28,529</u>

Total Stage 3. 28,529

GRAND TOTAL .. £169,841.  
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THE AGREEMENT.

49. In its previous inquiry the Committee found that the Agreement regarding the lease of the land from the University of Sydney would expire in 1952, and it was recommended that steps should be taken to renew the lease before substantial additions were made to the building. In its present inquiry the Committee was informed that no finality had been reached regarding an extension of the lease of the land up to the present time. Although amicable relations have existed for many years between the parties concerned in the ownership of the building and the land, the Committee still considers renewal of the present lease as important to safeguard Commonwealth interests in the future, and the matter should be finalised at an early date.

SECTION IV. - SUMMARY OF CONCLUSIONS.

50. The following is a list of the recommendations made by the Committee after study of the plans and evidence :-

	Paragraph in Report.
(1) There is an urgent necessity for the extensions.	20
(2) Development of the institute along lines emphasizing work concerned with industrial hygiene and child health problems is most satisfactory and urgently necessary at the present time, but the importance of work on the national questions of tropical medicine, already being undertaken, should not be allowed to recede.	23
(3) Materials used will not seriously affect the housing problem.	43
(4) Most of the labour required is of a special skilled type not used extensively in housing, and the urgent nature of this work makes it desirable to proceed with the building.	45
(5) Stages 1, 2 and 2A are recommended to be constructed, with only Stage 3 of the schedule delayed for a further contract.	41
(6) The provision of the lift in the Third Stage as suggested is satisfactory for the purpose.	26
(7) The Committee still regards the renewal of the present lease of the land as important.	49.

G. J. RANKIN,  
Chairman.

The Office of the  
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Parliament House,

1 JUN 1950 C A M B E R R A .