



PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

relating to the proposed

construction of a

NEW MAIN HOSPITAL BLOCK AT THE CANBERRA COMMUNITY HOSPITAL,

AUSTRALIAN CAPITAL TERRITORY.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CANBERRA COMMUNITY HOSPITAL - NEW MAIN HOSPITAL BLOCK

R E P O R T

By resolution on the 25th November, 1959, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for further investigation and report the proposal to erect a new main hospital block at the Canberra Community Hospital in the Australian Capital Territory. The Committee have the honour to report as follows:-

S E C T I O N I. - I N T R O D U C T I O N

1. The Existing Building.- The existing building was designed in 1943 and originally provided room for 184 beds and 6 sick babies. Growing demands called for additions to the hospital and the bed strength has been increased to the present total of 253. Ancillary services have not, however, been extended in proportion.

General

2. Present trends.- Apart from natural increase, the impetus given to Canberra development by expanded Government building activity has resulted in a rapidly increasing population, completely invalidating the 1956 estimates upon which the Committee, at that time, based their conclusions. The Committee have, therefore, found it necessary to revise the recommendations made in the earlier report to Parliament on 17th May, 1956.

3. The 1956 Reference.- On 13th March, 1956, the House of Representatives referred to the Committee a proposal for additions to the existing hospital. At that time little planning had been carried out and the terms of reference confined the Committee's inquiries to an investigation of the need, suitability of the site, and proposed method of implementation.

4. The Committee accepted a figure of 8 beds per 1,000 of population as a sound basis for their consideration. On the 1956 estimates

of population growth the number of beds required by 1970 would be 472. The Committee noted, however, that provision had been made for the construction schedule to be completed by 1967 if the then evident trend to more rapid population growth continued.

5. Looking further ahead, the Committee gave some thought to hospital requirements by the time the population reached 100,000. On the evidence presented, the Committee concluded that a hospital of approximately 600 beds was the optimum size for efficient management. This, together with consideration of the present site, led the Committee to the recommendation that the new hospital building should be planned to accommodate 600 beds, the increase beyond 472 to be provided by later additions. This planning was expected to take care of a population of 75,000, then expected to be reached by 1985. Beyond that point the Committee felt that hospital facilities would have to be provided on some other site or sites.

6. The Committee also reached the conclusion that the ultimate development of the hospital as planned would provide a suitable base hospital to be associated with smaller units in Canberra suburbs.

7. Thorough inquiries were made into the suitability of the site and, after taking into consideration possible flood levels and the implementation of the Lakes Scheme, the Committee decided that it was adequate, and that access and location were convenient for the needs of the people of Canberra.

8. The Committee considered whether a horizontal building of 5 floors would be preferable to a vertical one of 10 floors. After hearing evidence on these alternatives they preferred to recommend a compromise suggestion of a seven floor building.

9. In general, the Committee concluded that plans should be prepared for a 600 bed hospital, but that construction be staged so that the bed strength would only be increased to 472 initially.

10. The Committee expressed the view that proposals for the construction of the boiler house, steam plant and laundry need not be referred to the Committee again. In November, 1959, the House of Representatives resolved that it was expedient to carry out the work, and the construction of these ancillaries is about to commence.

S E C T I O N I I . T H E P R O P O S A L

11. Terms of reference.- The new building is planned ultimately to accommodate 368 beds with supporting specialist departments, and will, together with the modernisation of the existing building, provide a modern hospital, complete with all the specialist departments and facilities, and having a total capacity of 618 beds. The new and old buildings will be connected at ground floor level.

12. The reference now before the Committee and the material submitted by the Department of Works and the Department of Health and the evidence taken from various witnesses have enabled the Committee to review the earlier conclusions and to study the proposal in greater detail in the light of current estimates of population growth and possible changes in hospital administration.

S E C T I O N I I I . T H E C O M M I T T E E ' S I N Q U I R I E S

General.

13. The Committee took most of its evidence in Canberra. A visit was made to Newcastle where the Royal Newcastle Hospital was inspected and evidence taken.

14. Those who gave evidence before the Committee were the Acting Director-General of Health, the Chairman, Canberra Community Hospital Board, the Associate Commissioner, National Capital Development Commission, the Director of Architecture, Department of Works, the Consulting Architect, (Leighton Irwin), the Medical Superintendent, Canberra Community Hospital, the Matron, Canberra Community Hospital, the Chairman of the Canberra Medical Advisory Council, the Secretary, Canberra Branch of the Hospital Employees Federation of Australia, the President, Hospital Employees Federation No.3 Branch, Canberra, the President, Canberra Area Committee of the Royal Australian Institute of Architects, the Chairman, Queanbeyan District Hospital Board and the Medical Superintendent, Royal Newcastle Hospital.

Need for a new building

15. Number of Beds.— To assist in determining whether 8 beds per 1,000 of population, as recommended by the previous Committee, should still be accepted as the number that should be provided to meet Canberra's needs over the next ten years, information was sought about the number of beds available in the Australian States and elsewhere. National Health statistics reveal that at 31st December, 1959, the number ranged from 6.2 per 1,000 of population in Victoria to 9.6 in Queensland, the Australian average being 8.1. These figures do not include repatriation, tuberculosis and mental institution beds.
16. Evidence was given that the number of beds available in New Zealand the the United States of America compare favourably with the Australian average. In quoting from the results of studies made in the United Kingdom, witnesses were able to show that the provision of 8 beds per 1,000 is regarded in that country as a reasonable basis for planning.
17. Evidence given by the Superintendent of the Royal Newcastle Hospital was that a smaller number of beds per 1,000 than 8 should be sufficient. He explained that the number can be reduced by improved administrative techniques and the introduction of facilities such as the domiciliary service provided at the Royal Newcastle Hospital.
18. The Committee were concerned to note that at present the number of beds available in Canberra is approximately 5.5 per 1,000 of population. They, therefore, sought explanations why 8 beds per 1,000 were advocated by those concerned with planning for Canberra's hospital needs.
19. The Committee were told that the hospital has been able to manage so far with the smaller number of beds, due partly to the fact that the population in Canberra is considerably younger in composition than the average for Australia, partly to recent advances in medical practice and partly to the administration of the hospital which aims to reduce the average stay of patients in the hospital to as short a period as is consistent with good hospital practice.
20. It was stated, however, that these factors are not expected to exert an influence on the existing situation any longer and evidence was given that temporary difficulties have been experienced in some wards already.

21. Evidence was given that the extent of these difficulties would, if the average number of beds remained at a low figure, increase markedly over the next few years when the age structure of the Canberra population is expected to change and when more specialist services are likely to be attracted to this expanding centre with the result that people will seek treatment locally in preference to journeying to Sydney or Melbourne. Not only local residents will be attracted by such specialist services, but also people in towns in the district.

22. Although there have been suggestions that the near future might bring some construction of private hospitals, the Committee could not find sufficient evidence to qualify its conclusions. Reference was made to the Goodwin Homes for aged persons, but we were told that it is not the policy of those administering the institution to provide hospital facilities.

23. Population trends.- The National Capital Development Commission has estimated the annual growth of the Canberra City district over the next ten years as follows:-

<u>Date</u>	<u>Estimated Population</u>	<u>Date</u>	<u>Estimated Population</u>
30.6.60	49,000	30.6.66	82,000
30.6.61	55,000	30.6.67	88,000
30.6.62	60,000	30.6.68	93,000
30.6.63	65,000	30.6.69	98,000
30.6.64	70,000	30.6.70	104,000
30.6.65	76,000		

24. On the basis of these estimates a hospital with a capacity of 600 beds would need to be available by 1965, if Canberra is to have 8 beds per 1,000 of population.

25. The immediate need.- During their deliberations on the extent of the additional provision that should be made at this stage, the Committee considered the evidence on the number of beds per 1,000 that should be provided and on the estimated population increase. The majority of the Committee favoured the development of the new hospital block to its ultimate capacity, in one construction stage. It was stated that the estimated population growth of Canberra, which forecast a population of 100,000 by 1970, should be accepted. The assumptions on which the estimates were made were explained to the Committee and they seemed to the majority to be logical. The view was expressed that as the planning of other

facilities in Canberra is based on this forecast, hospital facilities should be planned on the same basis.

26. Discussion then turned to the number of beds per 1,000 that should be provided to meet the needs of the population. Because of the remoteness of Canberra from centres where specialist services are available, and the lack of other hospitals to which patients could be directed in an emergency, it was felt that it would be unwise to provide less beds per 1,000 of population than the Australian average of 8.

27. The majority of the Committee accepted the views expressed in evidence that population trends and the growth of Canberra will lead to greater demand on hospital facilities than have existed up to the present.

28. They felt that if economies in bed use are effected, and if the trends which are expected to increase the demand do not develop, Canberra's rate of growth will be such that surplus beds will not be out of use for very long.

29. Any small over provision which may result from the completion of the new main hospital block in one stage would be well justified by economies in cost and the avoidance of noise, dust and disturbance to hospital administration and patients which would be inevitable if the project were developed in two stages.

30. In contrast to these views, the opinion was expressed that the spectacular rate of the development of Canberra could not be sustained. Because the geographers seemed to be forecasting on the basis that this rapid rate of development would continue, their estimate of the population in 1970 could not be accepted. Apart from the belief that the rate of development would slacken, it was felt that the lack of employment opportunities would induce young people to leave Canberra.

31. With the lack of industry in Canberra, the risk of accidents is less than in other centres. Having a young population, general health should be better than in most other places. For these reasons and because hospitals in surrounding districts are not used to capacity, it was believed that the need does not exist to provide as many beds in Canberra as elsewhere.

32. It was stated that in Newcastle, a large industrial centre, good hospital facilities are provided with less beds per 1,000 than the Australian average. The methods of hospital administration in existence at the Royal Newcastle Hospital were referred to. It was suggested that as time goes by these methods, which seem to lead to economies in the use of hospital beds will probably be adopted elsewhere.

33. It was therefore considered that there are good reasons for providing in Canberra less beds than the Australian average and that only the first stage of the new main hospital block should be erected.

34. The result of the discussion was as follows:-
 Moved by Senator Anderson - That the Committee recommend that the construction of both stages of the new main hospital block be carried out as one project.

The motion was seconded by Mr. Dean.

An amendment was moved by Senator Maher - That only the first stage, to increase the capacity of the hospital to 472 beds, be proceeded with and that the need to construct the second stage be reviewed in 1970.

The amendment was seconded by Mr. Griffiths.

The Committee divided on the amendment -

Ayes (2)

Senator Maher
 Mr. Griffiths

Noes (7)

Senator Anderson
 Senator O'Byrne
 Mr. Brimblecombe
 Mr. Dean
 Mr. Fairhall
 Mr. McIvor
 Mr. O'Connor

And so it passed in the negative.

The Committee divided on the motion -

Ayes (7)

Senator Anderson
 Senator O'Byrne
 Mr. Brimblecombe
 Mr. Dean
 Mr. Fairhall
 Mr. McIvor
 Mr. O'Connor

Noes (2)

Senator Maher
 Mr. Griffiths

And so it was resolved in the affirmative.

35. Future need.- It was suggested in evidence that when the population of Canberra reaches a figure which will call for more than 600 hospital beds, the increased need should be met by the erection of small hospitals in the suburbs of Canberra. Evidence was given that sites at Lynham and Red Hill could be regarded as reserved for future possible use as suburban hospitals. It was pointed out that with the implementation of the Lakes Scheme access to the hospital at Lennox Crossing will not be available and thus the journey from the Southern suburbs will become more circuitous. It was suggested, therefore, that the first of these suburban hospitals might be established south of the Molonglo River.

36. The Committee recommend that some preliminary planning should be undertaken now to determine the type of suburban hospitals to be erected and the relationship they should have with the Canberra Community Hospital.

37. Domiciliary Care.- The Committee were impressed with the domiciliary service provided by the Royal Newcastle Hospital. It embraces housekeeper and nursing service, medical attention and may include the provision of beds, linen and equipment. In some cases alterations are made to homes to make the work there easier. This home care of convalescent and chronic cases helps to relieve the pressure on hospital beds. ^{it was stated that} Also/ elderly people are best cared for in their own homes.

38. With a view to economy in the use of hospital beds, the Committee recommend that the Department of Health and the hospital authorities in Canberra make a study of the service being provided in Newcastle to determine whether a domiciliary service should be introduced in Canberra.

Site and Building Details

39. The Site.- With plans for the development of the whole area before them, the Committee gave further consideration to the hospital site. It is centrally situated in relation to the whole of Canberra, access to it will be reasonable, it will have a commanding view of the lake and will

be removed from major traffic routes. For these reasons it is considered to be ideal for hospital purposes.

40. The Committee sought details of site development. They believe that due regard is being given to the need to develop the hospital surroundings properly and are confident that when completed the project will blend with and add interest to the Canberra landscape.

41. Flood level.- Evidence was given that the 1835' contour level has been established as being the level to which, according to statistical information a long term cycle major flood could rise. It was suggested that this may occur only once in every 200 years.

42. The Committee agree with the contention that any use that can be made of the area affected by such a very occasional flood would be efficient, economical and quite proper. At the same time, the Committee support the caution displayed by the planners in not locating any activities with any vital relationship to the hospital in a position where they would be affected by a flood reaching the 1835' level.

43. The Committee have noted that care has been taken to see that extravagant use is not made of land above this flood level. Rooms will therefore remain to house activities in the field of investigation, research and allied medical practices which can be expected to expand with the development of medical science, but which cannot be envisaged at this stage.

44. The lower ground floor of the new building was originally planned to be at 1835' level. It was stated in evidence that this level was chosen only for the reason that it corresponds with the conjectural flood level. If this level is maintained it will be necessary to have a ramp between the old building and the new. It was stated that if the lower ground floor is dropped by three or four feet, access will be easier, the need for a ramp will be eliminated and more ceiling space will be available to house the various pipes and ducts.

45. In order to achieve these preferable design features, a means has been devised to protect a floor at 1831' from the 200 year flood. It is proposed to erect a levee bank along the south-western side

of the new main block. The road approaching from the west will run along the top of the bank, fall to the 1831' level as it approaches and goes past the hospital and rise to the top of the bank again.

46. The top of the levee bank is planned to be at the 1836' level and would thus protect the building from a peak flood. The sloping walls of the levee bank would be suitably landscaped, and the treatment would provide a suitable break between the hospital building and the parking area to the south.

47. Evidence was given that no problem would be involved in ensuring that water will not accumulate between the hospital and the levee bank.

48. The Committee were told that flood water rising towards the main hospital block from the south west would be in virtually a still condition, and therefore there would be no danger from massive flood currents.

49. Evidence was sought whether the installation of the lake wall and flood gates would influence the height to which floods might rise in the lake area. The Committee were told that the design of the gates would be such that when open, they would allow sufficient water to pass to ensure that there would be no influence on flood levels.

50. The measures proposed to guard against the effect of flood seem to be effective and the Committee recommend that with the bank treatment proposed, the lower ground floor of the main hospital block could safely be at the 1831' level. They believe, however, that as an added precaution the top of the levee bank should be at 1837' . . .

51. The Building.— The new hospital building has been designed to provide six floors for wards and two floors (the lower ground and ground floors) for ancillary accommodation.

52. The lower ground and ground floors will form a "base" from which will rise the six upper floors, in two wings faced at right angles to each other. Evidence has been given that the aesthetic

appearance will be good. After studying the proposal in some detail the Committee agree that the completed structure will be appealing and will provide a prominent and attractive feature on the lake shore.

53. The Wards.- Plans provide for five floors of public and intermediate wards. It is proposed to have 64 beds per floor with 32 in each wing, the wings being divided into two 16 bed nursing units with nursing stations for each unit conveniently located.

54. There is a day room for each 32 bed ward, and evidence was given that because of the trend towards early ambulation, patients need such a room in which to sit and be rehabilitated rather than stay at their own bedside.

On each floor it is proposed to have a room for distressed relatives, and provision has been made for a room for the supervising sister on each floor of 64 beds.

56. The sixth floor will provide private ward accommodation of 46 beds.

57. Evidence before the Committee has been that the 16 bed nursing unit is accepted hospital practice and that the design of the hospital block, as far as the wards are concerned suits requirements in Canberra.

58. Ancillary Services.- On the lower ground floor it is proposed to house the operating suite and associated recovery ward, pathology department blood bank, central sterilization section, kitchen and staff amenities area.

59. The ground floor will house the out-patients, casualty, pharmacy, physical therapy and radiology departments, the admission and discharge section, the isotope clinic, medical administration, general administration and the cafeteria and dining area.

60. The Committee were told that all the parties concerned had not reached complete agreement on the siting of these ancillary services within these two floors.

61. Evidence was given that ^{the} layout of the lower ground and ground floors has great advantages in that all medical departments are contiguous to each other, thus avoiding much walking and use of lifts. More adequate space has been provided than previously when the departments had to be fitted into areas which are more suitable to use as wards. Patients and service activities, two totally dissimilar groups, are completely separated and this is expected to lead to smoother operation of the hospital.

62. The kitchen, stores and staff amenities areas are conveniently located in the angle formed by the two ward wings. The laundry, boiler house and workshops are separated from this area only by a road and there is advantage in this grouping of plumbing, hotwater and heating services, which should make servicing easier and help to reduce maintenance costs.

63. Other facilities.- The Committee heard evidence that provision had been made in the planning for a chapel, cancer clinic, dental service facilities and an ambulance station. In response to a request from the Australian National University, space has been set aside for two research laboratories for the John Curtin Medical School.

64. Accommodation and Amenities for Lay Staff.- Whilst a large number of the domestic staff is expected to live out, it was stated in evidence that residential provision would need to be made for 80 people. It is intended to accommodate these in the existing nurses home in space vacated when a new nurses' home is erected. The Committee were told that adequate amenities would be provided for staff. It is intended to provide these in the existing building when it is remodelled. Because the remodelling plans have not been prepared, the Committee were not able to study this aspect in detail.

65. Air Conditioning.- The Committee were told that at one stage of the planning, the Hospital Board was anxious to have the whole of the new main hospital block air-conditioned. It was stated, however, that on

only 26 days in a year did the temperature in Canberra exceed 80 degrees. For this reason, on the grounds of economy and because it is not accepted as a standard of construction by other hospital authorities in Australia, it is proposed to provide air-conditioning only for the operating theatres, the radiology department and the labour wards and nurseries in the existing building when it is remodelled.

66. The Committee were told that the radiology department would need air-conditioning because certain temperatures are necessary for development work. For the operating theatres it was stated that air-conditioning could be justified because the temperature of the patient must be kept constant and the operators must have congenial conditions in which to work. Although air-conditioning was stated to be desirable for the casualty, out-patients and physiotherapy departments, the Committee consider that mechanical ventilation as proposed by the Department of Works will be adequate.

67. Evidence was given that air-conditioning reduces cross-infection and that for this reason it was installed in the existing operating theatres two or three years ago. It was stated that it was not known positively whether cross-infection by aerial contamination would be prevented by air-conditioning but it was believed that it would be.

68. The Committee heard that before air-conditioning was installed, conditions in the operating theatres were almost intolerable in summer, and that since the facility has been installed, conditions have been satisfactory. Although conflicting evidence on the value of air conditioning in the operating theatres was presented, the Committee is of the opinion that it is necessary in the operating theatre, radiology department and labour wards and nurseries.

69. Existing Buildings.- No plans have been prepared to show the proposed alterations to the existing building but evidence was given that it would be used for obstetrics and gynaecology, children's wards and psychiatric wards. The intention is to retain the existing theatres for surgery associated with patients who will be accommodated in the building.

£300,000 has been estimated as the cost of remodelling.

70. It was stated that the effect of remodelling would be that 25 beds would be out of action at any one time during the two years the work is likely to take.

71. Set apart from the main building is a 50 bed pre-fabricated ward erected some years ago. It is at present used for physiotherapy and tutorial activities. When nearby space becomes available in the buildings now occupied by the Department of the Interior it will be possible to use the building for a ward if the need arises.

72. We have been told that the architecture of the new block will harmonise with the existing building.

73. Department of the Interior Offices.-- Alternative office accommodation is being erected in Canberra for those sections of the Department of the Interior at present housed at Acton in buildings which will need to be demolished as the hospital site is developed. The Hospital authorities propose to make use of these buildings during the transition period.

74. Building Materials and Finish.-- The structure will be of steel frame construction with fire-resisting reinforced concrete floors. There will be narrow concrete sun awnings around the building which will be used as platforms when windows are being cleaned. On the western side there will be concrete balconies. External walls will be a combination of brick, pre-cast concrete with non-corrodable metal window frames. The roof will be of low pitched metal, suitably insulated.

75. Internal walls will be of concrete bricks or pre-cast plaster. Floor finishes will be terrazo, granolithic and screeded for rubber, linoleum or vinyl covering. Walls will be finished with plaster and painted or coated with vinyl.

76. Method of construction.-- Planning has been based on the recommendation made in ^{the} 1956 report that construction should be in two stages. The first stage will provide 214 more beds to bring the total to

472, together with supporting specialist departments and the kitchen. This is to be achieved by fully developing the two lower floors which will house the specialist departments and by erecting the six upper floors of the eastern wing. Because of the accelerated development of Canberra since evidence was given at the previous inquiry, the proposal put before the Committee is to complete the first stage by 1964.

77. The second stage involves the erection of the upper six floors of the western wing to give 152 more beds and, with a slight adjustment to the number of beds in the existing building, bring the hospital capacity to 618.

78. This stage also involves alterations and modifications to the existing hospital building to bring it to a standard comparable with the new.

79. Car Parking.— Evidence has been given that parking areas to accommodate 600 cars will be provided on the site. The areas are to be conveniently located and it is intended to avoid the appearance of mass car parking by the use of landscape screening. Due attention has been paid to efficient space treatment and evidence was given that the reservations proposed are considered adequate.

80. Estimates of cost.— The following estimates of cost were given to the Committee. They are at costs ruling at the time the proposal was submitted to the House of Representatives for reference to the Committee and do not include any forecasts for rises due to recent marginal increases.

<u>Stage 1.</u> Main hospital block, kitchen and supporting specialist departments -			
	£	£	
Building works	1,504,445		
Mechanical	158,556		
Electrical	82,418		
Lifts	73,260		
Fire alarm system	12,821	1,831,500	
Associated site works, internal roads, car parking, landscaping etc.			
		74,000	1,905,500

16.

<u>Stage 2.</u> Extension to new hospital block and completion of supporting specialist departments			
Building works	523,980		
Mechanical	47,925		
Electrical	30,033		
Lifts	31,950		
Fire alarm system	<u>5,112</u>	639,000	
Associated site works, landscaping etc.		10,000	
Alterations and modifications to the existing hospital to bring up to a comparable standard with the new		<u>300,000</u>	<u>949,000</u>
			<u>£2,854,500</u>

81. Target date for Tenders.- Documents should be ready for calling tenders during ^{the} 1960-61 financial year, and if erected in stages, Stage 1 of the project should, at normal building tempo, be completed in 1964.

S E C T I O N IV. THE COMMITTEE'S CONCLUSIONS

82. Summary of conclusions and recommendations.- Set out below is a summary of the Committee's conclusions. The references in brackets are to paragraphs in the report.

1. The erection of the new main hospital block should be proceeded with and completed in one construction stage. (Paragraph 34)
2. Preliminary planning should be undertaken now to determine the type of suburban hospitals to be erected in the future and the relationship they would have with the Canberra Community Hospital. (Paragraph 36)
3. A study of domiciliary service should be made to determine whether it should be introduced in Canberra. (Paragraph 38)
4. The site is ideal for hospital purposes. (Paragraph 39)
5. The project when completed will blend with and add interest to the Canberra landscape. (Paragraph 40)

6. Provided a levee bank is erected, the lower ground floor of the main hospital block can safely be at the 1831' level. (Paragraph 50)
7. The top of the levee bank should be at the 1837' level. (Paragraph 50)
8. The building will provide a prominent and attractive feature on the lake shore. (Paragraph 52)
9. The proposed layout of the wards and the location of the areas for ancillary services are satisfactory. (Paragraphs 57,61,62)
10. Air-conditioning should be provided in the operating theatres, radiology department and labour wards and nurseries. (Paragraph 68)
11. Car parks will be adequate and conveniently located. (Paragraph 79)



Allen Fairhall, Chairman.

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2 JUL 1960