

1972

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the proposed construction of a

# CENTRAL HOSPITAL SERVICES COMPLEX-STAGE 1

at

## Canberra, A.C.T.

(FIRST REPORT OF 1972)

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CENTRAL HOSPITAL SERVICES COMPLEX -  
STAGE 1  
CANBERRA, A.C.T.

R E P O R T

By resolution on 7 October 1971, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament, the proposal for the construction of Stage 1 of a central hospital services complex at Canberra, A.C.T.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal referred to the Committee is the first stage of a centralised complex designed to provide hospitals in Canberra with common services. The work referred to the Committee involves construction of facilities for central linen and central sterilising services for 1,500 hospital beds as well as supporting engineering and other services and staff accommodation.
2. In later stages, it is planned to extend the complex to service 3,000 beds and to provide centralised stores, purchasing, archives, food, computer, workshop and transport facilities.
3. The Stage 1 proposals referred to the Committee are estimated to cost \$4.865 million.

THE COMMITTEE'S INVESTIGATION

4. The Committee received written submissions and drawings from the Departments of Health and Works. Public hearings were held in Canberra at which evidence was taken from representatives of these departments, the A.C.T. Medical Association, John P. Young and Associates (N.S.W.) Pty. Ltd., the National Capital Development Commission and Canberra Hospital.

5. An inspection was carried out of the existing laundry and sterilising services at Canberra Hospital and of the site for the new complex in the northern Canberra suburb of Grace.

A.C.T. HOSPITALS

6. Hospitals in Canberra affected by the first stage of the proposed complex are the Canberra, Woden and Calvary hospitals.

7. Canberra Hospital This is the only public hospital in use in the Australian Capital Territory at present. It has a capacity of 600 permanent and 150 temporary beds. The temporary beds are located in weatherboard buildings formerly used as offices and which are now located in the hospital grounds. They are to be demolished after the Woden Hospital is occupied and the capacity of the hospital will then revert to 600 beds.

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containing 220 beds. The present target is to complete the first stage early in 1973 and to take the first patients later that year after a commissioning period. The second stage is now expected to take its first patients late in 1974.

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11. Other Future Hospitals Long term planning of future hospitals includes a second hospital in the Belconnen district and subsequently a fifth hospital will need to be built in the Tuggeranong district, south of Woden.

#### HOSPITAL REQUIREMENTS

12. The need for hospital services increases in direct proportion to population growth. It was noted that to meet the projected population growth of Canberra, the build-up of hospital beds is now planned to occur on the following lines:

Year	Population	BEDS AVAILABLE				Total
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13. Beyond 1980, the population is expected to grow to 417,000 by 1985 and to 561,000 by 1990. To meet this growth, long term plans are that the Belconnen Hospital will reach its ultimate size of 800 beds in 1986 and the Tuggeranong Hospital will open with 300 beds in 1984 and grow to its ultimate size of 600 beds about 1989.

INTEGRATED HOSPITAL SERVICES

14. Woden Hospital When reporting on the Woden Hospital, the Committee noted the plan to co-ordinate and integrate basic hospital services in the Australian Capital Territory involving the Canberra, Woden, Calvary and later hospitals. It was observed then that planning was in hand to enlarge facilities in the laundry area and in the central sterile supply department in the Canberra Hospital to enable these services to supply all three hospitals initially. The matter was relevant to the Committee's consideration of the Woden proposal as laundry or central sterilising services other than back up sterilising facilities were not planned for in that hospital.

15. 1969 Reference In July 1969, a proposal then estimated to cost \$1.6 million was submitted to the Committee providing for the augmentation of facilities at Canberra Hospital including

- increasing the boiler capacity;
- enlarging the laundry building and installing new equipment;
- extending and altering the sterilising department;
- and
- extending the ground floor stores area.

The proposal was part of an overall plan to integrate hospital services by augmenting the facilities at Canberra Hospital to provide central laundry and sterilising services capable of meeting the needs of 1,400 hospital beds viz. 600 beds at Canberra Hospital, 600 beds at Woden Hospital and 200 beds at Calvary Hospital.

16. It was the intention that these services would operate until the fourth hospital was completed and occupied. At that point, it was planned to have built and ready for use a new central laundry and sterilising complex, probably as an element of a hospital's services facility on a separate industrial site, to cater for the needs of all hospitals. The facilities at Canberra Hospital would then be phased out. The plan also provided that the new facility, besides providing laundry and sterilising services, would in the future include such functions as a central food services, purchasing services, warehouse and storage areas.

17. Committee's Findings The Committee's report on the 1969 reference stated:

" From the evidence submitted on this and the Woden Hospital references, the Committee believe that the proposal to integrate hospital services in the Australian Capital Territory is sound and practical from the economic and functional viewpoints. In particular, we found it appropriate for laundry and central sterilising services to be integrated and for facilities to be provided elsewhere than at a hospital.

Having decided on this policy, and particularly as the Calvary and Woden Hospitals are to be in use in 1973, we



consider that the implementation of the scheme should occur without delay, so that the full benefits of integration may be enjoyed as soon as possible. "

18. The Committee's recommendations on the 1969 reference were summarised as follows:

- " (i) It is not expedient to proceed with the proposals as submitted.
- (ii) The Government should reconsider the proposed arrangements for providing laundry and central sterilising services to Australian Capital Territory hospitals with a view to:
  - (a) Proceeding immediately with the design and construction of permanent laundry and sterilising facilities on a site other than Canberra Hospital; and
  - (b) Constructing such additional facilities at Canberra Hospital as are required to provide an interim service, pending completion of the permanent facility. "

19. Subsequent Action The Parliament endorsed these findings in 1970 and action was then taken to implement the Committee's recommendations. Planning for the interim service at Canberra Hospital was put in hand and the construction work involved which is now in progress, is expected to be completed about August 1972. The present reference is the culmination of the preliminary planning and design of the centralised hospital services facility to be provided on a site other than at Canberra Hospital.

CENTRAL HOSPITAL SERVICES COMPLEX

20. Outline The Committee were told that when completed, the total complex will provide the following services and facilities for government controlled hospitals, nursing homes, health services, hostels and community health centres in the Australian Capital Territory:

- central linen service for 3,000 hospital beds;
- central sterilising service for 3,000 hospital beds;
- an administration building;
- central stores (warehouse facilities);
- central purchasing;
- archival storage of hospital and medical records;
- central food services (preparation and distribution);
- computer facilities;
- central workshop for hospital maintenance facilities;
- transport facilities;
- a child minding centre.

This concept is in line with the planning outlined to the Committee at the previous enquiries mentioned earlier.

21. Stage 1 Development The first stage of the development, which is the work in this reference, comprises

- a central linen service for 1,500 hospital beds;
- a central sterilising service for 1,500 hospital beds;

together with associated transport facilities, services and staff accommodation.

22. Specifically, the central linen service will provide and be responsible for

- the standardisation and purchase of all linen and uniforms;
- the laundering on a five day week basis of dirty linen and uniforms;
- the mending and repair of linen and uniforms; and
- the collection on a daily basis of dirty linen and uniforms from client units and the delivery on a daily basis to them of clean material.

23. The central sterilising service is to provide for

- the standardisation and purchase of all instruments and sterile supplies;
- the cleaning and the sterilising on a five full day and two half-day basis of all instruments and medical equipment;
- the repair and maintenance of instruments and equipment;
- preparation of standard sterile packages of instruments, equipment, linen and uniforms; and
- the collection on a daily basis of dirty instruments and equipment from client units and the delivery on a daily basis to them of standard sterile packages of instruments and equipment.

24. The transport service will deliver clean linen, uniforms and sterile supplies and packs to client units and collect dirty material for return to the central services complex for processing.

25.           Utilisation of the Facility       The Committee were informed that acting on advice from the Department of Labour and National Service, it is proposed to commence operation of the facilities at the centralised location on a one shift basis because although no difficulty is seen in providing labour on this basis, serious doubts are held whether two shifts could be manned. This view was supported in evidence by the Secretary of the Canberra Hospital from his experience in similar areas at that hospital.

26.           We noted, however, that the possibility of making more intensive use of the facilities in the future is being studied with a view to ultimately introducing a second full shift or an overlapping shift. The practicability of either of these steps is to be kept under review particularly in relation to the need for additional capacity at the complex as the demand for service grows.

#### THE NEED

27.           The need for the work in this reference flows from the decision to integrate hospital services in the Australian Capital Territory. As mentioned, this overall approach to hospital services planning has been endorsed in principle by the Committee on two previous occasions.

28.           Arising from this decision, the planning of the Woden and Galvary Hospitals has recognised that common hospital services will be provided from a single centralised facility and existing linen and central sterilising facilities at Canberra Hospital are being augmented to meet the requirements of all hospitals until the service to be provided from the facilities in the present reference are available. The extension work at Canberra Hospital is designed to cater for the needs of only 950 hospital beds.

29. There is thus a need for the facilities and services which are proposed to be provided by means of the work in the present reference. Ideally, the facilities should be in use at about the time when more than 950 hospital beds are occupied, that is, by about 1975.

30. Whilst there was no questioning of the principles supporting the need for the proposed facilities and services, the Committee received a submission from the A.C.T. Branch of the Australian Medical Association suggesting that sterilising of instruments used in operating theatres should remain a function of individual hospitals. The Association put forward as an alternative to the proposal in this reference for the sterilising of instruments, that sterilising services remain at Canberra Hospital and in due course for Woden Hospital to be supplied from Canberra Hospital.

31. We examined the Association's submission closely including the capital cost implications of the alternative means of sterilising instruments. Our conclusion on this matter which is reflected in the extract from the minutes of the meeting held on 2 December 1971 quoted at paragraph 61 below is that the facilities and service should be provided as proposed by the Department of Health.

#### THE SITE

32. The site for the proposed complex, 20 acres in area, is located in the Grace industrial area, four miles due north of Canberra's Civic Centre. It abuts Flemington Road and is north of Northbourne Avenue and the Racecourse. This area will be sufficient for initial development and future expansion can take place on reserves of 12 acres and 14 acres respectively, the first to the east and the other to the west.

33. The site is adjacent to highway connections to Sydney and Melbourne and is reasonably close to established and prospective residential areas and their potential labour supply. Eventually a freeway will form the southern boundary of the site, the development being separated from the freeway by landscaping.

34. Although at the present stage of development of Canberra the site is not ideally placed, as the general planning pattern for the city emerges, it will be located close to the centre of the metropolitan area. It will then have ready access to the arterial road system and thus be convenient to the health institutions it is being established to service.

35. The Committee concluded that the site selected is suitable.

#### THE PROPOSAL

36. Planning and Design Outline The first stage proposals referred to the Committee are to provide a central linen and central sterilising service for the equivalent of 1,500 hospital beds. However, the plan allows for the buildings for the linen and sterilising service each to be designed with capacity to service the needs of 3,000 beds but equipped to process the requirements of 1,500 beds only. Areas in each building not required initially for equipment will be used temporarily for offices, amenities and change rooms.

37. Against this background, the designs outlined to the Committee highlighted efficient space utilisation and maximum flexibility for operation and service and the future introduction of technological innovations. The two principal buildings therefore comprise large column

free areas with roof systems capable of supporting a variety of services in locations best suited to their particular functions and with easy access for maintenance.

38. Externally, the buildings will appear to be set in the ground because of the use of excavated earth around them. This device will minimise the wind load and give the effect of an undulating landscape. Windows to be provided above the earth banks will provide natural lighting and visual relief for the occupants. Windows will be protected from the sun by roof overhangs.

39. The buildings for the linen and sterilising services will require common services. A tunnel to contain steam pipes, condensate and other services from the boiler house and to allow for the movement of staff and materials will connect the three buildings.

40. Guard House This building is to be sited near the northern boundary adjacent to the entrance near the main access road. It will contain a bus shelter and waiting area for staff, an office, toilets as well as the master electrical switchboard.

41. Central Linen Service Building This building will be centrally located on the site with easy access from the internal service road. It will measure about 260 ft by 200 ft, the internal layout being designed to receive used uniforms and linen at one end of the building and after processing to pass the material out at the other for storage or despatch to client units.

42. In the first stage, temporary lunch and change rooms for staff will be located in the building.

43. Central Sterilising Service Building This building will be located west of the central linen service building. It will cover an area of about 180 ft by 140 ft and the flow of material through it will be similar to the linen building. Besides the accommodation required for processing and sterilising goods, it will have a workshop, laboratory, office accommodation and change rooms and toilets.

44. Boiler House The boiler house is to be sited near the eastern boundary. It will house boiler and associated plant areas, an incinerator, chiller plant, the electrical substation, an office, workshop, an oil store and amenities.

45. Garage The single storey transport building will accommodate six vehicles, an office, stores, a gardeners' store and staff amenities. It will be located near the southern boundary.

#### CONSTRUCTION

46. Structural All buildings will have reinforced concrete walls, columns and floors. The metal deck roofs will be supported on triangulated space frame roof structures, with a minimum of columns.

47. Preliminary site investigations suggest that foundations can be simple strip and spread footings at shallow depth.

48. Materials and Finishes External walls will generally be stripped concrete as will the columns. Window frames are to be of metal construction, the roof will have a metal deck with a metal fascia.

49. Internal walls will either be stripped concrete walls or demountable partitions. Tiles will be used on walls in selected locations.

50. The floor finishes will vary according to the use of particular areas. They will include vinyl tiles, quarry tiles, ceramic tiles and granolithic.



51.           Mechanical Services     A major part of the cost of the work is for the supply and installation of mechanical equipment for the processes to be carried out in the two main buildings. In the central linen service building, this machinery will include washing, conditioning, drying, ironing and folding equipment. Air handling plant will be accommodated in the deep roof space and will provide heating, cooling and exhaust services to the process area. The office space will be air conditioned by a unit conditioner.

52.           The principal items in the central sterilizing service building will be automatic instrument washing machines with dryers, instrument sterilisers, dressing sterilisers, gas-type sterilisers for material which cannot be heat sterilised and instrument repair and maintenance equipment. The building is to be air conditioned not only for efficient working conditions but for a high level of contamination control.

53.           The boiler house equipment will include steam boilers and associated equipment, chilled water units, compressed air plant, domestic hot water storage, and incinerators.

54.           Equipment for the servicing of transport vehicles will be provided in the garage.

55.           Electrical Services     Electrical power is to be taken at high voltage from the A.C.T. Electricity Supply Authority. Internal distribution within the complex will be at high or low voltage as necessary, with provision for future expansion to a high voltage ring main system.

56. Lighting will be generally from fluorescent units to approved standards of illumination. Power connections and general purpose outlets will be provided as required.

57. Fire Protection An automatic thermal fire protection system is to be installed in all buildings. In selected areas, smoke detectors and sprinklers will be provided and fire hydrants, small bore hose reels and hand extinguishers will be located at appropriate points.

58. Other Engineering Services Access within the site is to be by a two-way road layout designed for a direct traffic flow around a continuous circuit serving all buildings. Control over access to the complex will be exercised from the guard house.

59. Roads are to be bitumen surfaced and will have concrete kerbs and gutters. Parking facilities are to be provided for about 200 cars.

60. An open concrete water tank of 175,000 gallons capacity is to be provided as an emergency supply. Water will be supplied from mains in adjacent streets and is to be reticulated in a ring main to all buildings and external service points.

61. Committee's Recommendation The Committee's recommendation on the construction of the work is reflected in the following extract from the minutes of the meeting held on 2 December 1971 when the final consideration of the evidence took place.

" The Committee resumed the debate on the evidence and it was moved Mr. Fulton, seconded Mr. Whittorn

That the Committee recommend the construction of the complex as proposed.

Debate ensued. During the debate, Senator Cant indicated that he was not convinced that the practicability or economic viability of locating central sterile supply facilities at the complex had been demonstrated.

The Committee divided.

<u>Ayes</u>	<u>Noes</u>
Mr. Kelly	Senator Cant
Mr. Fulton	
Mr. Whittorn	
Mr. Johnson	
Mr. James	
Senator Jessop	
Senator Webster	

and so it was resolved in the affirmative. "

62. The Committee therefore recommend the construction of the work in this reference.

ESTIMATE OF COST

63. The estimated cost of the work when referred to the Committee was \$4.865 million made up as follows:

	\$
Central linen services building	2,618,500
Central sterilising services building	962,000
Boiler house	683,600
Garage and guard house	62,000
Services tunnel, water storage and site works	538,900
	<u>4,865,000</u>

PROGRAMME

64. The Committee were told that the preparation of contract documents and the invitation and analysis of tenders is expected to occupy a period of 16 months. It was also noted that construction is expected to take 24 months after a contract is let.

65. The expectation then is that the services to be provided from the new complex cannot be available before the latter part of 1975. It follows that in the period between when the number of occupied hospital beds in Canberra exceeds 950 in 1973 and the completion of the services complex, the central linen and sterilising services at Canberra Hospital will be used beyond their capacity on a one shift basis.

66. It is therefore the Committee's view that the Department of Works should take any steps possible which will accelerate completion of the work in this reference. At the same time, the Department of Health should examine the means of maintaining a satisfactory service with the existing resources in the period prior to completion time.

RECOMMENDATIONS AND CONCLUSIONS

67. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

- |    |   |    |
|----|---|----|
| 1. | THERE IS A NEED FOR THE FACILITIES AND SERVICES TO BE PROVIDED BY MEANS OF THE WORK IN THE PRESENT REFERENCE. | 29 |
| 2. | IDEALLY, THE FACILITIES SHOULD BE IN USE BY ABOUT 1973.   | 29 |

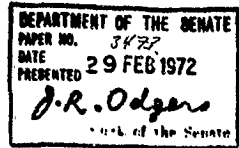
Paragraph

- |    |  |    |
|----|--|----|
| 3. | THE SITE SELECTED IS SUITABLE.   | 35 |
| 4. | THE COMMITTEE RECOMMEND THE CONSTRUCTION<br>OF THE WORK IN THIS REFERENCE.   | 62 |
| 5. | THE ESTIMATED COST OF THE WORK WHEN REFERRED<br>TO THE COMMITTEE WAS \$4.865 MILLION.  | 63 |
| 6. | THE DEPARTMENT OF WORKS SHOULD TAKE ANY<br>STEPS POSSIBLE WHICH WILL ACCELERATE<br>COMPLETION OF THE WORK IN THIS REFERENCE.   | 66 |
| 7. | THE DEPARTMENT OF HEALTH SHOULD EXAMINE<br>THE MEANS OF MAINTAINING A SATISFACTORY<br>LINEN AND STERILISING SERVICE WITH THE<br>EXISTING RESOURCES IN THE PERIOD PRIOR TO<br>COMPLETION. | 66 |

(C.R. KELLY)  
Chairman

Parliamentary Standing Committee on Public Works,  
Parliament House,  
CANBERRA, A.C.T.

24 February 1972.



1972

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18. The Committee's recommendations on the 1969 reference were summarized as follows:

- " (i) It is not expedient to proceed with the proposals as submitted.
- (ii) The Government should reconsider the proposed arrangements for providing laundry and central sterilising services to Australian Capital Territory hospitals with a view to:
  - (a) Proceeding immediately with the design and construction of permanent laundry and sterilising facilities on a site other than Canberra Hospital; and
  - (b) Constructing such additional facilities at Canberra Hospital as are required to provide an interim service, pending completion of the permanent facility. "

19. Subsequent Action The Parliament endorsed these findings in 1970 and action was then taken to implement the Committee's recommendations. Planning for the interim service at Canberra Hospital was put in hand and the construction work involved which is now in progress, is expected to be completed about August 1972. The present reference is the culmination of the preliminary planning and design of the centralised hospital services facility to be provided on a site other than at Canberra Hospital.

CENTRAL HOSPITAL SERVICES COMPLEX

20. Outline The Committee were told that when completed, the total complex will provide the following services and facilities for government controlled hospitals, nursing homes, health services, hostels and community health centres in the Australian Capital Territory:

- central linen service for 3,000 hospital beds;
- central sterilising service for 3,000 hospital beds;
- an administration building;
- central stores (warehouse facilities);
- central purchasing;
- archival storage of hospital and medical records;
- central food services (preparation and distribution);
- computer facilities;
- central workshop for hospital maintenance facilities;
- transport facilities;
- a child minding centre.

This concept is in line with the planning outlined to the Committee at the previous enquiries mentioned earlier.

21. Stage 1 Development The first stage of the development, which is the work in this reference, comprises

- a central linen service for 1,500 hospital beds;
- a central sterilising service for 1,500 hospital beds;

together with associated transport facilities, services and staff accommodation.

22. Specifically, the central linen service will provide and be responsible for

- the standardisation and purchase of all linen and uniforms;
- the laundering on a five day week basis of dirty linen and uniforms;
- the mending and repair of linen and uniforms; and
- the collection on a daily basis of dirty linen and uniforms from client units and the delivery on a daily basis to them of clean material.

23. The central sterilising service is to provide for

- the standardisation and purchase of all instruments and sterile supplies;
- the cleaning and the sterilising on a five full day and two half-day basis of all instruments and medical equipment;
- the repair and maintenance of instruments and equipment;
- preparation of standard sterile packages of instruments, equipment, linen and uniforms; and
- the collection on a daily basis of dirty instruments and equipment from client units and the delivery on a daily basis to them of standard sterile packages of instruments, and equipment.

24. The transport service will deliver clean linen, uniforms and sterile supplies and packs to client units and collect dirty material for return to the central services complex for processing.



25.           Utilisation of the Facility       The Committee were informed that acting on advice from the Department of Labour and National Service, it is proposed to commence operation of the facilities at the centralised location on a one shift basis because although no difficulty is seen in providing labour on this basis, serious doubts are held whether two shifts could be manned. This view was supported in evidence by the Secretary of the Canberra Hospital from his experience in similar areas at that hospital.

26.           We noted, however, that the possibility of making more intensive use of the facilities in the future is being studied with a view to ultimately introducing a second full shift or an overlapping shift. The practicability of either of these steps is to be kept under review particularly in relation to the need for additional capacity at the complex as the demand for service grows.

#### THE NEED

27.           The need for the work in this reference flows from the decision to integrate hospital services in the Australian Capital Territory. As mentioned, this overall approach to hospital services planning has been endorsed in principle by the Committee on two previous occasions.

28.           Arising from this decision, the planning of the Woden and Calvary Hospitals has recognised that common hospital services will be provided from a single centralised facility and existing linen and central sterilising facilities at Canberra Hospital are being augmented to meet the requirements of all hospitals until the service to be provided from the facilities in the present reference are available. The extension work at Canberra Hospital is designed to cater for the needs of only 950 hospital beds.

29. There is thus a need for the facilities and services which are proposed to be provided by means of the work in the present reference. Ideally, the facilities should be in use at about the time when more than 950 hospital beds are occupied, that is, by about 1973.

30. Whilst there was no questioning of the principles supporting the need for the proposed facilities and services, the Committee received a submission from the A.C.T. Branch of the Australian Medical Association suggesting that sterilising of instruments used in operating theatres should remain a function of individual hospitals. The Association put forward as an alternative to the proposal in this reference for the sterilising of instruments, that sterilising services remain at Canberra Hospital and in due course for Woden Hospital to be supplied from Canberra Hospital.

31. We examined the Association's submission closely including the capital cost implications of the alternative means of sterilising instruments. Our conclusion on this matter which is reflected in the extract from the minutes of the meeting held on 2 December 1971 quoted at paragraph 61 below is that the facilities and service should be provided as proposed by the Department of Health.

#### THE SITE

32. The site for the proposed complex, 20 acres in area, is located in the Grace industrial area, four miles due north of Canberra's Civic Centre. It abuts Flemington Road and is north of Northbourne Avenue and the Racecourse. This area will be sufficient for initial development and future expansion can take place on reserves of 12 acres and 14 acres respectively, the first to the east and the other to the west.

33. The site is adjacent to highway connections to Sydney and Melbourne and is reasonably close to established and prospective residential areas and their potential labour supply. Eventually a freeway will form the southern boundary of the site, the development being separated from the freeway by landscaping.

34. Although at the present stage of development of Canberra the site is not ideally placed, as the general planning pattern for the city emerges, it will be located close to the centre of the metropolitan area. It will then have ready access to the arterial road system and thus be convenient to the health institutions it is being established to service.

35. The Committee concluded that the site selected is suitable.

#### THE PROPOSAL

36. Planning and Design Outline The first stage proposals referred to the Committee are to provide a central linen and central sterilising service for the equivalent of 1,500 hospital beds. However, the plan allows for the buildings for the linen and sterilising service each to be designed with capacity to service the needs of 3,000 beds but equipped to process the requirements of 1,500 beds only. Areas in each building not required initially for equipment will be used temporarily for offices, amenities and change rooms.

37. Against this background, the designs outlined to the Committee highlighted efficient space utilisation and maximum flexibility for operation and service and the future introduction of technological innovations. The two principal buildings therefore comprise large column

free areas with roof systems capable of supporting a variety of services in locations best suited to their particular functions and with easy access for maintenance.

38. Externally, the buildings will appear to be set in the ground because of the use of excavated earth around them. This device will minimise the wind load and give the effect of an undulating landscape. Windows to be provided above the earth banks will provide natural lighting and visual relief for the occupants. Windows will be protected from the sun by roof overhangs.

39. The buildings for the linen and sterilising services will require common services. A tunnel to contain steam pipes, condensate and other services from the boiler house and to allow for the movement of staff and materials will connect the three buildings.

40. Guard House This building is to be sited near the northern boundary adjacent to the entrance near the main access road. It will contain a bus shelter and waiting area for staff, an office, toilets as well as the master electrical switchboard.

41. Central Linen Service Building This building will be centrally located on the site with easy access from the internal service road. It will measure about 260 ft by 200 ft, the internal layout being designed to receive used uniforms and linen at one end of the building and after processing to pass the material out at the other for storage or despatch to client units.

42. In the first stage, temporary lunch and change rooms for staff will be located in the building.

43. Central Sterilising Service Building This building will be located west of the central linen service building. It will cover an area of about 180 ft by 140 ft and the flow of material through it will be similar to the linen building. Besides the accommodation required for processing and sterilising goods, it will have a workshop, laboratory, office accommodation and change rooms and toilets.

44. Boiler House The boiler house is to be sited near the eastern boundary. It will house boiler and associated plant areas, an incinerator, chiller plant, the electrical substation, an office, workshop, an oil store and amenities.

45. Garage The single storey transport building will accommodate six vehicles, an office, stores, a gardeners' store and staff amenities. It will be located near the southern boundary.

#### CONSTRUCTION

46. Structural All buildings will have reinforced concrete walls, columns and floors. The metal deck roofs will be supported on triangulated space frame roof structures, with a minimum of columns.

47. Preliminary site investigations suggest that foundations can be simple strip and spread footings at shallow depth.

48. Materials and Finishes External walls will generally be stripped concrete as will the columns. Window frames are to be of metal construction, the roof will have a metal deck with a metal fascia.

49. Internal walls will either be stripped concrete walls or demountable partitions. Tiles will be used on walls in selected locations.

50. The floor finishes will vary according to the use of particular areas. They will include vinyl tiles, quarry tiles, ceramic tiles and granolithic.

51.        Mechanical Services        A major part of the cost of the work is for the supply and installation of mechanical equipment for the processes to be carried out in the two main buildings. In the central linen service building, this machinery will include washing, conditioning, drying, ironing and folding equipment. Air handling plant will be accommodated in the deep roof space and will provide heating, cooling and exhaust services to the process area. The office space will be air conditioned by a unit conditioner.

52.        The principal items in the central sterilizing service building will be automatic instrument washing machines with dryers, instrument sterilisers, dressing sterilisers, gas-type sterilisers for material which cannot be heat sterilised and instrument repair and maintenance equipment. The building is to be air conditioned not only for efficient working conditions but for a high level of contamination control.

53.        The boiler house equipment will include steam boilers and associated equipment, chilled water units, compressed air plant, domestic hot water storage, and incinerators.

54.        Equipment for the servicing of transport vehicles will be provided in the garage.

55.        Electrical Services        Electrical power is to be taken at high voltage from the A.C.T. Electricity Supply Authority. Internal distribution within the complex will be at high or low voltage as necessary, with provision for future expansion to a high voltage ring main system.

56. Lighting will be generally from fluorescent units to approved standards of illumination. Power connections and general purpose outlets will be provided as required.

57. Fire Protection An automatic thermal fire protection system is to be installed in all buildings. In selected areas, smoke detectors and sprinklers will be provided and fire hydrants, small bore hose reels and hand extinguishers will be located at appropriate points.

58. Other Engineering Services Access within the site is to be by a two-way road layout designed for a direct traffic flow around a continuous circuit serving all buildings. Control over access to the complex will be exercised from the guard house.

59. Roads are to be bitumen surfaced and will have concrete kerbs and gutters. Parking facilities are to be provided for about 200 cars.

60. An open concrete water tank of 175,000 gallons capacity is to be provided as an emergency supply. Water will be supplied from mains in adjacent streets and is to be reticulated in a ring main to all buildings and external service points.

61. Committee's Recommendation The Committee's recommendation on the construction of the work is reflected in the following extract from the minutes of the meeting held on 2 December 1971 when the final consideration of the evidence took place.

" The Committee resumed the debate on the evidence and it was moved Mr. Fulton, seconded Mr. Whittorn

That the Committee recommend the construction of the complex as proposed.

Debate ensued. During the debate, Senator Cant indicated that he was not convinced that the practicability or economic viability of locating central sterile supply facilities at the complex had been demonstrated.

The Committee divided.

<u>Ayes</u>	<u>Noes</u>
Mr. Kelly	Senator Cant
Mr. Fulton	
Mr. Whittorn	
Mr. Johnson	
Mr. James	
Senator Jessop	
Senator Webster	

and so it was resolved in the affirmative. "

62. The Committee therefore recommend the construction of the work in this reference.

ESTIMATE OF COST

63. The estimated cost of the work when referred to the Committee was \$4,865 million made up as follows:

	\$
Central linen services building	2,618,500
Central sterilising services building	962,000
Boiler house	683,600
Garage and guard house	62,000
Services tunnel, water storage and site works	538,900
	<u>4,865,000</u>



PROGRAMME

64. The Committee were told that the preparation of contract documents and the invitation and analysis of tenders is expected to occupy a period of 16 months. It was also noted that construction is expected to take 24 months after a contract is let.

65. The expectation then is that the services to be provided from the new complex cannot be available before the latter part of 1975. It follows that in the period between when the number of occupied hospital beds in Canberra exceeds 950 in 1973 and the completion of the services complex, the central linen and sterilising services at Canberra Hospital will be used beyond their capacity on a one shift basis.

66. It is therefore the Committee's view that the Department of Works should take any steps possible which will accelerate completion of the work in this reference. At the same time, the Department of Health should examine the means of maintaining a satisfactory service with the existing resources in the period prior to completion time.

RECOMMENDATIONS AND CONCLUSIONS


67. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

- |    |   |    |
|----|---|----|
| 1. | THERE IS A NEED FOR THE FACILITIES AND SERVICES TO BE PROVIDED BY MEANS OF THE WORK IN THE PRESENT REFERENCE. | 29 |
| 2. | IDEALLY, THE FACILITIES SHOULD BE IN USE BY ABOUT 1973.   | 29 |

Paragraph

- |    |  |    |
|----|--|----|
| 3. | THE SITE SELECTED IS SUITABLE.   | 35 |
| 4. | THE COMMITTEE RECOMMEND THE CONSTRUCTION<br>OF THE WORK IN THIS REFERENCE.   | 62 |
| 5. | THE ESTIMATED COST OF THE WORK WHEN REFERRED<br>TO THE COMMITTEE WAS \$4.865 MILLION.  | 63 |
| 6. | THE DEPARTMENT OF WORKS SHOULD TAKE ANY<br>STEPS POSSIBLE WHICH WILL ACCELERATE<br>COMPLETION OF THE WORK IN THIS REFERENCE.   | 66 |
| 7. | THE DEPARTMENT OF HEALTH SHOULD EXAMINE<br>THE MEANS OF MAINTAINING A SATISFACTORY<br>LINEN AND STERILISING SERVICE WITH THE<br>EXISTING RESOURCES IN THE PERIOD PRIOR TO<br>COMPLETION. | 66 |

  
 (C.R. KELLY)  
Chairman

Parliamentary Standing Committee on Public Works,  
 Parliament House,  
CANBERRA, A.C.T.

24 February 1972.