

1964-65

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the proposed erection of

## COMMONWEALTH OFFICES

at

Perth, Western Australia

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*Presented pursuant to Statute; ordered to be printed, 8th December, 1965*

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EXTRACT FROM THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES, No. 103,  
DATED 15TH SEPTEMBER, 1965

6. PUBLIC WORKS COMMITTEE—REFERENCE OF WORK—ERECTION OF COMMONWEALTH OFFICES, PERTH.—  
Mr. Freeth (Minister representing the Minister for Works) moved, pursuant to notice, That, in accordance with the provisions of the *Public Works Committee Act 1913–1960*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for investigation and report:—Erection of Commonwealth Offices, Perth, Western Australia.

Mr. Freeth presented plans in connexion with the proposed work.

Debate ensued.

Question—put and passed.

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# PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

## COMMONWEALTH OFFICES, PERTH

### REPORT

By resolution of 15th September, 1965 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report, the proposal to erect Commonwealth Offices in Perth, Western Australia.

The Committee have the honour to report as follows:

#### THE COMMITTEE'S INVESTIGATION

1. The Committee inspected the site of the proposed building and observed working conditions in the main Perth office of the Taxation Branch located in Barrack Street. Evidence was taken in Canberra and Perth from representatives of the Departments of the Interior, and Works, the Bureau of Census and Statistics, Taxation Branch, the Western Australian Chapter of the Royal Australian Institute of Architects and the Administrative and Clerical Officers Association.

#### NEED FOR ADDITIONAL OFFICE SPACE IN PERTH

2. The Department of the Interior has carried out a number of surveys of office accommodation occupied by Commonwealth Departments in Perth in recent times. The latest of these showed that at 31st December 1964 the nett area occupied was 443,983 sq. ft. (128,554 sq. ft. leased and 315,429 sq. ft. Commonwealth owned), the staff occupancy being 3,359. The cost of leased space at that date was £134,320. Concurrently with this survey estimates were made of Commonwealth office space requirements and likely staff occupancy in 1969 and 1979, as follows:

	Estimated Space Requirements (Nett Area)	Staff Occupancy
1969	560,000 sq. ft.	4,177
1979	753,000 sq. ft.	5,567

3. Apart from the high annual cost to the Commonwealth, serious consequences of the use of leased space in Perth have been the degree to which departments have become dispersed and the resulting inefficiency and inconvenience. These problems seriously affect, for example, the Postmaster-General's Department which is established in 12 different locations in the city area.

4. Another factor which influences the accommodation situation of Commonwealth Departments in Perth is the unsuitability of some of the space for office purposes. An outstanding example of this is the main office of the Taxation Branch at 96-102 Barrack Street. Because the building was originally erected as a warehouse, it has not been possible to convert it to satisfactory office accommodation. The deficiencies of the building were fully recognised prior to its acquisition in 1940 but there was no satisfactory alternative at that time. Taking account of the large volume of files necessarily maintained by the Taxation Branch, the space of 59,500 sq. ft. was, in 1940 only sufficient to house records and the staff of 311. The records are now housed elsewhere but the building has to accommodate a staff of 510 plus a seasonal staff of about 60 at peak periods.

5. The third major factor which points up the need for additional office space in Perth is the overcrowding of existing space which has resulted from the progressive expansion of Commonwealth activities in Western Aus-

tralia. Again the position in the Taxation Branch amply demonstrates the difficulties under which some groups in Perth are working. The space occupied by the Taxation Branch is—

	Gross Space (sq. ft.)	Present Staff Occupancy
Main Office—		
96-102 Barrack Street ..	59,500	510*
Harvey Building—		
104 Barrack Street ..	3,500	33
187 Wellington Street ..	13,500	4
	(Storage only)	
T. & G. Building ..	12,600	183

\* Plus seasonal staff of 60.

6. Excluding the accommodation at Wellington Street where non-current records are housed, the Taxation Branch has an effective nett office space of 45,574 sq. ft. which averages 65 sq. feet per officer. In some of the larger sections space allotment per officer is below 60 sq. ft.

7. Unions have complained at the serious overcrowding of staff and of the failure to provide amenities and facilities in accordance with accepted standards. Shortage of space has precluded adequate provision being made and toilet and ablution facilities are provided on a minimum basis only. Retiring rooms for female staff are small and inadequate and they have to serve also for tea making, lunching and ablutions. The space available for first aid treatment for all staff—both male and female—is also inadequate.

8. *Computer Installation.* The Bureau of Census and Statistics and the Commonwealth Sub-Treasury, Perth, which are both elements of the Department of the Treasury, at present occupy 18,174 sq. ft. of leased office space. Of this, the Bureau occupies 15,784 sq. ft. in the T & G Building and the Sub-Treasury 2,390 sq. ft. in the Commonwealth Savings Bank Building.

9. To meet the space and installation requirements of the Control Data 3200 Computer for the Bureau of Census and Statistics, and to provide for the expanded activities of the Sub-Treasury and Bureau on the introduction of automatic data processing, the Taxation Branch is to vacate the 12,600 sq. ft. it occupies in the T & G building and is to move to 15,000 sq. ft. of office space to be leased in the C. P. Bird Building now approaching completion. This will allow the Bureau of Census and Statistics and the Sub-Treasury to be accommodated as a unit in a single building.

10. The T & G Building is not an ideal location for the computer installation. However, because of the production line nature of the work of the Bureau of Census and Statistics, and the application of Sub-Treasury accounting and payroll procedures to computer processing, a physical separation of the computer from the main body of the Bureau and from Sub-Treasury has to be avoided. The area proposed for the installation will be barely sufficient for the equipment and the associated elements for the next three to four years. Furthermore, there are physical limitations to the space available and columns intrude into the area. The T & G Building can thus only be regarded as a temporary location for the computer. However, there is no more suitable space available in a Commonwealth owned building or in leased space and neither is any

expected to become available in the future to which the computer could be moved when the present area is outgrown. Accommodation which provides the special layout, air conditioning and the other requirements of the computer, and which is adequate to meet the expanding space needs of both the Bureau and the Sub-Treasury, is therefore an urgent requirement.

11. Ideally the computer should be located where expansion of the installation can take place without major building alterations and in an area that will not be affected by later stages of the building's development. Stand down of the computer for lengthy periods could not be tolerated when processing work is being handled to full and precise timetables.

12. The computer requires dust free space which is air conditioned continuously within fine tolerances of temperature and humidity control. Other requirements include a column-free area, a thermal or smoke detector fire alarm system, freedom from electrical interference from nearby equipment, a high level of electric power supply and nearby storage for magnetic tapes.

13. The Committee concluded that because of the high proportion of leased office space, the unsuitability of some accommodation and the instances of overcrowding, there is a requirement for additional Commonwealth owned office space in Perth. There is, furthermore, an urgent need to provide appropriate space for the permanent installation of the Control Data 3200 Computer.

#### THE PROPOSAL

14. The proposal before the Committee is for the construction of a building to ultimately accommodate the various branches of the Department of the Treasury including the Taxation Branch, Sub-Treasury and Bureau of Census and Statistics.

15. In the initial stage the building proposed would contain space in excess of the requirements of these branches and it is proposed that this would be used by other departments whose accommodation needs are small. These departments would be moved to other accommodation when the expansion requirements of the Treasury Branches forces them out.

16. The proposed building represents Stage I of the ultimate development of a Commonwealth Centre in Perth. It comprises a ground floor plus 13 upper office floors, two floors of plant rooms at 14th and 15th floor levels together with a lower ground floor and two levels of basement.

#### THE SITE

17. *Historical.* The Department of the Interior has been seeking for some time a site in the city area for a Commonwealth office building and in 1962 succeeded in acquiring a property known as the Y.W.C.A. site. This site, although the best available at the time, was not ideal, for although it fronted St. George's Terrace, it had blind boundaries on the sides and a difficult access via a narrow laneway from Hay Street at the rear. During the development of sketch plans for the building it was suggested by the Department of Works that the overall proposal would be enhanced by the acquisition of two adjoining properties. At the time the acquisition of these properties was being investigated, the Department of the Interior secured the offer of a second site known as the Christian Brothers College site which was owned by the Perth City Council.

18. The Christian Brothers College site had a number of advantages over the Y.W.C.A. site, including—

- (a) the cost of acquisition was about the same as the Y.W.C.A. site plus the two adjoining properties, and it was larger;
- (b) it lends itself readily to development in stages;

- (c) it is bounded by three major streets, namely St. George's Terrace, Victoria Avenue and Terrace Road, and has excellent views of the Swan River;
- (d) it is readily accessible;
- (e) an extensive public car park is located adjacent to the site.

19. Furthermore, the site shares the same city block as Government House and the newly erected Council House. Future development on the block is likely to be government or civic buildings.

20. The Government approved the acquisition of the Christian Brothers College site in 1964 to provide—

- (a) office accommodation for various branches of the Department of the Treasury;
- (b) a future stage of development to accommodate non-technical Commonwealth Departments at present inadequately housed;
- (c) a final stage to be the ultimate development of the site.

21. *Description.* The site is south-west of the junction of St. George's Terrace and Victoria Avenue. It has a frontage of 200 ft. to the former and a depth of 483 ft. 7 in. to Terrace Road on the southern boundary. The land falls steeply for about 200 ft. from St. George's Terrace and thence gradually to Terrace Road, the overall difference in levels being about 25 ft. Prior to acquisition by the Commonwealth, portion of the site was excavated at the upper level and this has resulted in the existing two level formation supported by retaining walls on the Victoria Avenue boundary and at the break in levels.

22. The Perth City Council has proposals to widen all roads bounding the site. St. George's Terrace will ultimately be widened to 178 ft. and this, together with the required alignment with the present Council House, has dictated the position of the Stage I building. Victoria Avenue is to be widened to a two-lane two-way street with a central median designed to contain and preserve existing trees. Secondary access to the building will be possible from this street at the lower ground floor level. Access to the basement and surface car parking areas will be from Terrace Road which is proposed to be widened by 33 ft.

23. As part of its road development plans for the area, the City Council, to improve visibility for motorists, truncated both the Victoria Avenue-St. George's Terrace and Victoria Avenue-Terrace road corners of the site. The Committee consider that this will have an unfortunate effect on the external appearance of the buildings on these corners. It has already inhibited planning of the lower ground and first basement floors of the present proposal.

24. We doubt whether the truncation will have any beneficial result from a traffic viewpoint as both St. George's Terrace and Terrace Road are to be widened and also in the light of the proposed construction of the service road parallel to St. George's Terrace. We therefore recommend that the Commonwealth negotiate with the Perth City Council with a view to a realignment of the north-east and south-east corners of the site.

25. *Landscaped Setting.* A number of trees are located on the site and it is intended to preserve and enhance these by suitable landscaping.

26. The western boundary adjoins State owned land comprising an extension of the Government House grounds. It is understood that the State proposes to reserve portion of this land for the future construction of a Supreme Court or for further development of the Government House grounds. The Commonwealth has undertaken that the existing landscape on the State's site will be extended into its site. This will produce continuous civic development without dividing barriers, from Barrack Street to Victoria Avenue, and so provide a garden setting for all buildings on the block.



## PLANNING CONSIDERATIONS

27. In the early stages of the development of the project, Cabinet approved the establishment of an inter-departmental steering committee comprising representatives of the Departments of the Interior, Treasury, Works and the Public Service Board. The Committee collected and co-ordinated the requirements of the proposed occupying branches and defined the principles to be adopted for office layouts and the special requirements for such areas as the computer installation, cafeteria and amenities.

28. *Stage 1 Development.* It is proposed that the first stage of the Commonwealth Centre will occupy one third of the available site. The design developed conforms to the plot ratio of five established by the Town Planning Commissioner, indicating that the selected portion of the site will be fully developed.

29. The main tower structure is rectangular in form with windows facing St. George's Terrace to the north-east and the Swan River to the south-west. There are no windows on the north-west and south-east walls as these act as bracing structures. The main building is mounted on a wide paved plat which on the St. George's Terrace frontage will contain a wide short flight of steps from the street to ground floor level. The plat will give a dignified approach to the entrance and will be the setting for three flagpoles. At the rear of the main tower structure the plat will have wide paved areas and ornamental shrubs set in low planters surrounded with seating, providing a pleasant recreation space accessible from the terrace and from the ground floor. It is proposed that a sculptured group will be located on the plat, sited axially on the main entrance foyer.

30. As a result of the fall in the land from St. George's Terrace, it will be possible to provide natural light to portion of the three sides of the lower ground floor and the first basement. These levels will be extended out under the plat to take full advantage of the available site area. The second basement will be restricted in area to that immediately under the tower section of the building. These areas will provide space for concentrated storage of records (second basement), miscellaneous storage, services, and undercover car parking (first basement), and for the computer installation and associated space, cafeteria, amenities and services (lower ground floor).

31. The building will provide first class office space at ground floor level and on the 13 floors above. As a result of the compact service core containing six passenger lifts, stores, toilet accommodation and service ducts and the ancillary service area incorporating a goods lift, an efficiency ratio of 73.6 per cent has been achieved. This gives a nett usable area of 9684 sq. ft. on office floors above the ground floor. The three foot module will permit flexible sub-division of all areas, and floor ducting systems for electrical, telephone and public address installations will provide these facilities over the whole floor on a close grid.

32. Office partitions are to be of demountable type, those enclosing areas requiring acoustic isolation being of special construction. Permanent partition walls on the lower ground floor and basement areas will be of masonry.

33. *Occupancy.* The Taxation Branch will use the ground floor adjacent to the main entrance as its public reception and enquiries area. Other Taxation Branch offices will be located on floors 6 to 13 inclusive. Other space to be used by the Branch will include the first basement (plan printing and storage), and the second basement (semi-current records in concentrated storage).

34. The Bureau of Census and Statistics, besides having storage at the first basement level and the computer installation and ancillary space in the column-free area on the lower ground floor, is to occupy office space on the first and second floors.

35. The Sub-Treasury will also share space on the lower ground floor and occupy about 4,000 sq. ft. of office space on the third floor.

36. The remaining area on the 3rd floor and the 4th and 5th floors will be occupied initially by other Commonwealth departments whose removal can be effected progressively without major disruption, when they are forced out by the expansion of the Treasury Branches.

37. The proposal includes 10,000 sq. ft. of space of the lower ground floor set aside for the cafeteria and associated uses, amenities and recreational purposes and services.

38. The total building area is 282,000 sq. ft. gross and this produces 165,500 sq. ft. of usable space plus 16,500 sq. ft. of undercover car park. Assuming an overall occupancy of 1,500 persons, the nett area per person will be in excess of 100 sq. ft.

39. *Cafeteria and Staff Amenities.* As with other major Commonwealth offices where large numbers of employees are accommodated, it is proposed to provide a simple hot meal and light refreshment service. The building will be some distance from the main shopping centre in Perth and as there are few facilities in the vicinity for the purchase of food, the cafeteria is expected to be well patronised. In addition to simple hot meals, a full range of light refreshments, cordials, confectionery and cigarettes, etc. will also be available.

40. The cafeteria and kitchen are located on the lower ground floor. Seating accommodation is proposed for up to 300 persons at one sitting and providing meal breaks are staggered it is expected that up to 250 hot meals can be served between 12 noon and 1.30 p.m. The dining room accommodation will provide seating for staff who bring cut lunches to work. An area can be set aside for private dining if required.

41. It is planned to provide a mobile tea-to-desk service from a central preparation area in the cafeteria kitchen. Tea trolleys will be transported in the goods lift to all floors.

42. Adjoining the cafeteria foyer and opening off this area, 2,500 sq. ft. has been reserved for staff amenities and recreation. The area may be sub-divided by folding screen walls into smaller units for social club activities or may be opened into one space for large functions.

43. The representative of the Administrative and Clerical Officers Association who appeared before the Committee, assuming that all of this area would be used for indoor physical recreation, requested that a further 1600 sq. ft. be set aside for sedentary recreational activities. As it was difficult to judge at this stage whether this was a reasonable suggestion, the Committee recommend that the provision of amenities and recreational space be kept under review to ensure that satisfactory standards are maintained.

44. The location of the cafeteria, kitchen and amenities areas on the lower ground floor will permit horizontal extension of these facilities should this be required when future stages of development are contemplated.

45. *Car Parking.* The proposals presented to the Committee include—

- (a) under-cover parking at the first basement level for 39 official vehicles or the private vehicles of departmental heads;
- (b) short term visitor parking for 19 vehicles with access from the service road parallel to St. George's Terrace;
- (c) a surface car park for 84 vehicles on the undeveloped portion of the site between the proposed building and Terrace Road. This area is to be suitably landscaped with access from Terrace Road.

46. Although there was no objection to the proposed car parking provision when the plans were cleared with the Western Australian authorities in the sketch plan stage, the Town Planning Commissioner suggested in evidence to the Committee that the State Government would like the Commonwealth in the ultimate development of the site, to provide on site parking for up to 400 cars. At that stage the expected working population of the Centre would be of the order of 4,000 attracting 800 cars daily to the area of which, it is claimed, half should be parked on the site.

47. In response to this suggestion it was submitted to the Committee that if the landscaping proposed for the surface car park was entirely eliminated, the proposed provision of 84 spaces could be increased to 200. The Committee would not like to see the landscaping eliminated entirely but recognising that the surface car park is lower than the adjacent area, and will therefore be overlooked, and because large trees in the landscaping proposals will not have matured by the time the next stage of the building is commenced, we are of the opinion that the design of the surface parking area should be modified to provide a larger number of parking spaces initially.

48. However, a somewhat greater problem will need to be faced when future stages of development are planned, because at that stage the surface car parking will be lost and the working population of the Centre will be proportionately greater.

49. Our comments on car parking are made recognising that it is established policy to provide Commonwealth buildings with only sufficient on site car parking spaces for official vehicles plus a small margin for private vehicles. We believe that this policy will need review in the near future in the light of car parking problems being experienced in inner city areas.

50. *Development of the Site.* The building now proposed represents only the first stage of the development of the Commonwealth Centre. A second, and possibly a third, stage of similar dimensions as the first, can be developed on the balance of the site as the need for accommodation becomes evident and funds are available. An outline proposal submitted to the Committee was that future development would be linked with the first building by an extension of the plat, with the second and third stages rising from this basic level.

51. Subject to the other recommendations and conclusions, the Committee recommend the construction of the building proposed.

### THE BUILDING

52. *Structural.* The study of alternative construction materials showed that reinforced concrete is the most economical for this project. Columns at 24 feet centres and load bearing walls at either end of the building will support reinforced concrete flat slab floors. Internally the building will be substantially without beams but on the long perimeter walls the floor slabs will be supported by spandrel beams. Small areas of the 15th floor and the roof will be framed by beams to suit mechanical equipment.

53. The building will depend for its lateral stability on reinforced concrete service cores at either end housing stairs, elevators and duct shafts. The location and size of the service core walls are therefore planned to meet architectural and engineering service requirements as well as to perform a major structural function.

54. To provide the floor loads required by the increasing use of business machines, the building will be generally designed for floor loads of 100 lbs. per square foot. Four floors will be designed for a heavier loading of 150 lbs. per square foot to suit storage requirements of the occupying departments. Heavy compactus type storage will generally be restricted to the basement floors. However, as the four central bays of the lower ground floor may be subjected to heavy loads from the mobile storage units of the computer, it will be necessary to frame

these bays with beams. As floor space unimpeded by columns is required for the computer areas on the lower ground floor, the spans of 34 feet outside the tower structure will be framed in beam and slab construction.

55. *Foundations.* Site investigations have revealed 40 to 60 feet of medium dense sands underlaid by 30 to 40 feet of stiff clays. Dense sands are again found below the clay.

56. It had been thought that due to the height and weight of the building, a raft foundation would have been unsuitable because of the excessive settlement it would induce. It was therefore proposed to construct the building on a piled foundation. The possibility of including a second basement level restricted to the area immediately beneath the tower block was subsequently investigated and the conclusion reached was that because the removal of 12 feet of overburden would minimise settlement, it would allow the adoption of a raft foundation for this section of the building. Spread footings are to be provided for the areas of the lower ground floor and the first basement beneath the plat.

57. *Finishes.* Generally pre-cast elements are to be applied to all external elevations of the building above the first floor level. Finishes to the ground, lower ground and first basement floors will be natural materials such as marble and granite selected for richness of colour or texture.

58. The building will be faced externally at ground floor level on the north-east and south-west elevations with natural selected stone cladding to the columns and spandrels below first floor window sill level. Above the first floor and for the full height of the building on these facades it is proposed to use pre-cast splayed box-form surrounds of reconstructed stone to all window openings. Besides providing sun protection, the overall pattern of projection and recess will give a textured appearance to these elevations.

59. The north-west and south-east elevations which do not contain windows will be faced with pre-cast units of reconstructed stone in a pattern which will repeat the textured motif of the main facades. It had been intended originally to use this treatment at all levels, including the ground floor. However, when it was pointed out that the pattern on the main elevations where the ground floor is treated differently would thus be broken, amended sketches were drawn. These will overcome the problem by carrying the treatment of the ground floor on the main elevations around the ends of the building.

60. Windows, which are to be reversible to facilitate cleaning, will be of anodised aluminium. The entrance doors at the ground and lower ground levels, will have a similar finish. The cantilevered hoods over the entrance at ground level will be faced with bronze extrusions.

61. The wide plat at ground floor level and the steps to this area from the pavement will be surfaced with selected stone paving slabs. The surrounding handrail and supports will be of bronze.

62. Internally the public areas on the ground floor will be treated as an extension of the plat by finishing the floor with stone and the walls with selected marble panels. The ceiling will be specially detailed plaster units.

63. The office areas, including those at the ground floor level, will have vinyl tiled floors, laminated plastic faced wall panels and demountable plaster acoustic tiled ceilings. Modular demountable partition panels faced with laminated plastic will sub-divide office areas.

64. The cafeteria and amenities areas on the lower ground floor will be finished in materials selected for appearance, durability and ease of maintenance. The floor will be timber parquet and the wall surfaces will be finished with mosaic ceramic tiles. The ceiling will be faced with acoustic plaster tiles.



65. Service areas generally will have off-form concrete or brick faces with a sprayed plastic finish to reduce dust and facilitate cleaning. Areas subject to oil spillage will have an epoxy finish.

66. *Mechanical Engineering Services.* Office areas, computer rooms, the plan printing room, P.A.B.X., cafeteria and amenities areas will be air conditioned from centrifugal chillers and boiler plants supplying cold and hot water to a number of air handling plants. Air distribution to the offices will be suitably zoned, medium velocity, double duct systems for flexibility and economy of operation. The chiller plant will have similar design features to ensure economy of operation where plant is used after normal office hours.

67. Chiller and boiler plants and the major air handling plants will be located on the 14th and 15th floors. Some minor air handling plant will be located on the lower ground floor and in the basement.

68. The large stores and record areas in the basement, toilets, kitchen, garage, lift machinery rooms and the stair wells will be mechanically ventilated. A domestic hot water supply will be provided at basins, sinks, showers and similar points.

69. *Electrical Engineering Services.* Electricity will be supplied by the State Electricity Commission of Western Australia through underground high voltage cables to a transformer sub-station in the basement. From this point power will be reticulated by low voltage cabling. The State Electricity Commission will provide the sub-station equipment.

70. A flexible system of general purpose power outlets will be provided by the floor duct system which will be interconnected with skirting ducts. The floor duct system will also provide wiring access for telephones and inter-office communication.

71. Artificial lighting will generally be fluorescent. Facilities will be provided so that all facades of the building can be floodlit. Provision will also be made for the lighting of the external car park.

72. *Vertical Transportation.* The lift installation will include a group of six fully automatic passenger lifts located in the main entrance at the northern end of the building. Each of these lifts will be designed to carry a load of 3,500 lbs. (23 persons) at a speed of 500 feet per minute. The lifts will operate under a group supervisory system which will automatically adjust the movement of the various cars to traffic requirements. One goods/passenger lift and four small service lifts will be located at the southern end of the building. The former will be designed to carry a load of 3,500 lbs. at a speed of 300 feet per minute and will operate on collective automatic control. It will be available for all goods traffic including the transport of demountable wall partitions, furniture, stationery, tea trolleys, kitchen supplies, etc. When not in use for goods service, the lift will be available for interfloor passenger service.

73. The small service lifts will be—

(a) two lifts for the bulk handling of Taxation Branch files. They will be manually loaded and unloaded and will be designed to carry one fully laden file trolley with an all-up weight of 500 lbs.;

(b) two lifts incorporating automatic load discharging devices. One will move urgent Taxation Branch files and the other will transport computer tapes and data between the computer on the lower ground floor and the floors occupied by the Bureau of Census and Statistics.

74. *Hydraulic Services.* Water supply will be available from the street mains but as is usual with major city buildings, some storage and pumping will be provided within the building as a supplement for both domestic and

fire fighting purposes. This will ensure that all floors receive water at suitable pressures and that fire services will be able to operate for a limited period if a breakdown of the external supply occurs.

75. A new sewer will need to be brought to the site along St. George's Terrace. Gravity collection to this line will be possible except from the lower ground and basement floors. Wastes from these areas will probably require pumping to the new sewer.

76. The discharge of stormwater from the site will be through an existing underground drain in Victoria Avenue.

77. *Fire Protection.* The building will be protected throughout by thermal alarms or, where appropriate, by smoke detectors. Fire hydrants and hoses and hand extinguishers will be installed on all floors. Sprinklers will be provided to the undercover car park, mechanical plant rooms and the sub-station at basement level. These areas will be fire isolated from adjoining spaces.

78. Fire booster pumps and water storage will be provided for fire fighting purposes to ensure an adequate supply.

79. Both escape stairs will be fire isolated and smoke doors are to be provided between the Taxation Branch area and the main entrance foyer at ground floor level.

80. *Special Features.* Three bronze clad tapered flagpoles are to be erected on the plat at the main entrance to the building from St. George's Terrace. In addition a single pole will be provided at roof level.

81. The Committee were told that in accordance with the Government's policy for support of the Arts, it is proposed to invite designs for a sculptured group in bronze which will be placed on the terrace on the south-west side of the building. In addition, the Commonwealth Coat of Arms will be affixed to the building in a prominent position.

#### PROGRAMME

82. It has been estimated that after the approval to proceed is given, 17 months will be required to complete the working drawings and tender documents, call tenders and let a contract. The construction period is expected to occupy 27 months.

#### ESTIMATES OF COST

83. The total estimated cost of the building work, services, landscaping, car park and site works, is £2,980,000 as follows—

	£	£
Building work .. ..		1,754,000
Engineering Services—		
(a) <b>Mechanical</b>		
Air conditioning .. ..	540,000	
Mechanical ventilation .. ..	23,500	
Boilers .. ..	15,500	
Domestic hot water .. ..	6,500	
Sprinklers and hand extinguishers .. ..	6,500	
Kitchen and sundry equipment .. ..	40,000	
		632,000
(b) <b>Electrical</b>		
External power supply .. ..	1,500	
General light and power .. ..	201,000	
Flood lighting .. ..	3,500	
Lighting protection .. ..	2,000	
P.M.G. block wiring .. ..	10,000	
Thermal alarms .. ..	13,000	
		231,000
(c) <b>Vertical Transportation</b>		
Passenger lifts .. ..	165,000	
Goods/passenger lift .. ..	25,500	
Service lifts .. ..	38,500	
		229,000

			Paragraph
(d) Hydraulic	£	£	
Fire service ..	12,000		
Sewerage and fittings ..	39,000		
Site drainage ..	30,000		
		81,000	
Site Development—			
Site work ..	10,000		
Roads and paving ..	6,000		
Landscaping ..	4,500		
Demolition, etc. ..	5,500		
		26,000	
Miscellaneous ..		27,000	
Total estimate ..		2,980,000	
3. The Commonwealth should negotiate with Perth City Council with a view to a realignment of the north-east and south-east corners of the site ..			24
4. The provision of amenities and recreation space should be kept under review to ensure that satisfactory standards are maintained ..			43
5. The design of the surface parking area should be modified to provide a larger number of parking spaces initially ..			47
6. Subject to the other recommendations and conclusions, the Committee recommend the construction of the building proposed ..			51
7. The estimated cost of the proposals referred to the Committee is £2,980,000 ..			83

RECOMMENDATIONS AND CONCLUSIONS

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

	Paragraph	
1. There is a requirement for additional Commonwealth owned office space in Perth ..	13	Parliamentary Standing Committee on Public Works, Parliament House, Canberra, A.C.T.
2. There is an urgent need to provide appropriate space for the permanent installation of the Control Data 3200 Computer ..	13	7th December, 1965.