

Parliamentary Standing Committee on Public Works 7 MAR 1995

REPORT

relating to the

REFURBISHMENT OF SCARBOROUGH HOUSE AND CONSTRUCTION OF COMMONWEALTH OFFICES PHILLIP, ACT

(First Report of 1995)

The Parliament of the Commonwealth of Australia
Parliamentary Standing Committee on Public Works

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SCARBOROUGH HOUSE AND
CONSTRUCTION OF
COMMONWEALTH OFFICES
PHILLIP, ACT**

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**MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE
ON PUBLIC WORKS**

(Thirty-First Committee)

Mr Colin Hollis MP (Chair)
Senator Paul Henry Calvert (Vice-Chair)

Senate

Senator Bryant Robert Burns
Senator Shayne Michael Murphy*

House of Representatives

Mr John Neil Andrew MP
Mr Raymond Allen Braithwaite MP
Mr Russell Neville Gorman MP
Mr Robert George Halverson OBE MP
Hon. Benjamin Charles Humphreys MP

*replaced Senator John Devereux on 10 February 1995

Committee Secretary: Peter Roberts

Inquiry Secretary: Peter Roberts

Secretarial Support: Sue Whalen
Mahesh Wijeratne

**EXTRACT FROM THE VOTES AND PROCEEDINGS OF
THE HOUSE OF REPRESENTATIVES**

No. 102 dated Thursday, 20 October 1994

**7 PUBLIC WORKS—PARLIAMENTARY STANDING
COMMITTEE—REFERENCE OF
WORK—REFURBISHMENT OF SCARBOROUGH
HOUSE AND CONSTRUCTION OF
COMMONWEALTH OFFICES, PHILLIP, ACT**

Mr Walker (Minister for Administrative Services), pursuant to notice, moved—That, in accordance with the provisions of the *Public Works Committee Act 1969*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Refurbishment of Scarborough House and construction of Commonwealth offices, Phillip, ACT.

Mr Walker presented plans in connection with the proposed work.

Question—put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REFURBISHMENT OF SCARBOROUGH HOUSE AND CONSTRUCTION OF COMMONWEALTH OFFICES, PHILLIP, ACT.

By resolution on 20 October 1994, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report to Parliament the refurbishment of Scarborough House and construction of Commonwealth offices, Phillip, ACT.

THE REFERENCE

1. The proposal which is sponsored by Australian Estate Management (AEM) is for the refurbishment of Scarborough House together with the construction of an annex building to provide office accommodation for the Australian Industrial Property Organisation (AIPO) in the Woden town centre, Phillip, ACT.
2. AEM is proposing an extensive refurbishment and fitout of Scarborough House's fourteen office floors, ground floor, basement, roof and facade and minor works to the building surrounds. Scarborough House will be upgraded to a standard commensurate with current commercial office building standards. The proposed annex building will consist of a new two wing, five level commercial standard office building with central atrium and associated landscaping.
3. The estimated outturn cost for the total project including fitout costs for AIPO is \$50.38m at July 1994 prices.

THE COMMITTEE'S INVESTIGATION

4. The Committee received a joint written submission from AEM and AIPO and took evidence from representatives of both organisations at a public hearing in Canberra on 12 December 1994. Prior to the public hearing the Committee inspected Scarborough House and the site for the proposed annex building.

5. Written submissions regarding the project were also received from the following organisations and are incorporated in the Committee's proceedings:

- . Department of Human Services & Health
- . Environment Protection Agency
- . Intelligent Lighting Controls Pty Ltd
- . National Capital Planning Authority
- . Commonwealth Fire Board
- . Australian Heritage Commission
- . Commonwealth Department of Primary Industries and Energy
- . Construction Industry Development Agency
- . Australian Nature Conservation Agency
- . ACT Department of Urban Services - Emergency Management

6. A list of witnesses who gave evidence at the public hearing is at Appendix A. The Committee's proceedings will be printed as Minutes of Evidence.

FUNCTIONS AND OBJECTIVES OF AIPO

7. The Australian Constitution gives the Commonwealth Parliament the power to make laws in relation to patents, trade marks, designs and copyright. Responsibility within the Australian Public Service for the provision of policy advice to Government and for the administration of the Australian patents, trade marks and design systems, known collectively as industrial property, lies with AIPO. The principal legislation that AIPO is responsible for administering are the *Patents Act 1990*, the *Trade Marks Act 1955* and the *Designs Act 1906*, and associated regulations. New trade marks legislation is currently being drafted.

8. AIPO's objective is to provide, in a timely and efficient manner, effective industrial property rights in Australia and to encourage Australia's trading partners to provide similar rights, particularly to Australian inventors, innovators and traders. The primary role of AIPO is to examine patent, trade mark and design applications and, subject to the applications meeting the requirements of the relevant legislation, to grant industrial property rights to the applicant.

9. AIPO was formerly known as the Patent, Designs and Trade Marks Offices and was formed in 1904 and is a division of the Department of Industry, Science and Technology. AIPO now has a commercial ethos and recovers its full costs from charges for its services. It has an annual budget of approximately \$55m. AIPO's main operations are located in Canberra but there are small offices in each of the state capitals that provide a shop front service to clients.

10. Administratively, AIPO is structured into five business units: the Patent and Designs Offices, the Trade Marks Office, Information Technology Services, Corporate Services and Program Development Services.

THE NEED

Background

11. The objectives of AEM as the sponsoring agency are to:

- provide accommodation to meet the needs of AIPO
- protect the Commonwealth's investment in Scarborough House by maintaining its income capacity
- reduce the Commonwealth's overall property costs through a well managed portfolio of owned office buildings.

12. Scarborough House has not had a major upgrade of services, structure or finishes since it was constructed in 1970. The Committee was advised at the public hearing by AEM that a condition audit of Scarborough House indicated that it is now well below an acceptable modern commercial office standard particularly in the area of Occupational Health and Safety (OH&S) requirements and is considered to be at the end of its current commercial

life. In order to ensure the building retains its value as an asset of the Commonwealth, AEM believes that an extensive refurbishment is now required.

13. The 17 level building comprises a basement, ground floor, 14 levels of office accommodation and a roof top plant room. It has a unique structural system based on a prestressed/post tensioned slab to the first floor supported by ten columns. The first floor slab supports the upper floors via a system of perimeter blade columns which enable full column-free space on all floors.

14. The most recent survey to determine the condition of the building indicated that it was basically structurally sound and that it would be viable to bring it up to current Building Code of Australia (BCA) standards.

Present Condition

15. Scarborough House currently provides 9 998m² of office accommodation and 1 065m² of storage space. Some reduction in the storage space will occur due to the provision of additional plant rooms. Internal materials and finishes are dated and at the end of their economic life. The ground floor lobby, typical office floor lobbies and toilet areas require major refurbishment including replacement of all materials and finishes.

16. The general office areas are in a poor condition and are well below current minimum standards for modern office accommodation. New ceilings, carpet and a major upgrading of services are required throughout.

17. Externally the building is in reasonable condition. The proposed external refurbishment work will include stabilisation of the existing facade panel system and improvements to the building's entrance address and appearance.

18. The building services including fire, hydraulics, electrical and mechanical are well below current standards and regulatory requirements and the following major upgrading and refurbishment of services is necessary:

- typical floor core areas do not currently provide adequate space for air conditioning and other services risers to meet current

codes and services requirements for contemporary office accommodation

- . the majority of existing air handling equipment is unsuitable for upgrading to meet current requirements and standards of air quality
- . boiler plant pumps and heating reticulation are inadequate for current standards
- . the existing substation is undersized for contemporary tenancy power requirements and to meet the needs of the upgraded mechanical services
- . the existing sprinkler system does not comply with current code requirements
- . existing downpipes are currently located within mechanical shafts in contravention of Australian Standard 1668
- . existing tea rooms are undersized and are not located suitably for the hydraulic services in these areas to be reused
- . all toilets, basins, urinals and tapware are in poor condition or would be subject to damage during refurbishment
- . the building does not have a fire control room as required by current standards.

19. The Committee was advised that Scarborough House currently does not comply with relevant standards and regulations covering the following services:

- . automatic smoke exhaust
- . automatic fire sprinkler system
- . lighting
- . fire egress including pressurisation of fire stairs

- . air conditioning
- . main switchboard and electrical submains
- . toilet facilities
- . fire control room
- . penetrations through floor slabs.

AIPO Space Requirements

20. AIPO has occupied the entire building since 1971. Various options for the redevelopment of Scarborough House have been investigated over recent years with a view to satisfying AIPO's accommodation requirements.

21. The proposal was presented to Government as a New Policy Proposal in the context of the 1992-93 budget process. Approval was given to commence preliminary work on the project and a funding limit of \$50.52m was authorised.

22. AIPO's accommodation requirements had identified a need for a significant increase in space and a need to collocate in the Woden town centre office precinct. Due to overcrowding, the Trade Marks Office moved to leased accommodation in the Tuggeranong Square in 1991 and Information Technology Services moved to the Pedashenko Building in Woden in 1993. AIPO believes that this fragmentation results in inefficiencies and increased costs including time wasted in personnel movement, delivery costs and transport costs.

23. AIPO advised the Committee that there has been a steady increase in industrial property business over the years and this is expected to continue. The total number of patent applications in 1993 was approximately 31 600 compared to 25 000 applications in 1990. Trademark applications had increased to approximately 28 000 in 1993 from 23 000 in 1990. Although productivity is also expected to increase as a result of process improvements, the resulting total number of Canberra based staff required to meet the growth in demand for AIPO services by the year 2001 is expected to increase from 700 to 795. The existing accommodation falls well short of meeting the floor area requirements of that number of staff. The total office space in the three office buildings currently occupied by AIPO is

14 337m² whereas the office area required to meet the year 2001 projected staff numbers is approximately 16 900m². In addition, approximately 1 600m² of basement space is required, principally for the storage of documents needed on a regular basis.

24. As the opportunities for the electronic transfer of documents increase, the need for paper records to be held on office floors is expected to decrease. This will allow additional personnel to meet expected increases in demand to occupy the buildings beyond the year 2001.

Options Considered

25. The Committee was advised that a range of options were developed and investigated to satisfy both AIPO's accommodation requirements and to provide the Commonwealth with a satisfactory financial investment. These options included the following:

- Option 1 the extension and refurbishment of Scarborough House - this option proved not to be feasible due to the high cost of overcoming the structural problems associated with the use of a prestressed/post tensioned structural system in the construction of Scarborough House. This would have resulted in floors well over the commercially desirable limit of 1 000m².
- Option 2 the purchase of an existing building to supplement space available in a refurbished Scarborough House - this was eliminated after extensive inquiries. No suitable existing building was available for purchase in the Woden district.
- Option 3 the rental of accommodation from the private sector to supplement space available in a refurbished Scarborough House - this option proved to be less cost effective than building the additional accommodation
- Option 4 the refurbishment of Scarborough House and the construction of a separate office building on the site of an existing building on an adjacent site - this

option involved the construction of a building in close proximity to existing buildings with consequent design constraints and associated costs

Option 5 the refurbishment of Scarborough House and the construction of a separate office building on the car park bounded by Worgan, Furzer, Launceston and Bowes Streets in Woden - this option was found to be the most cost effective. It satisfied AIPO's need for additional space close to Scarborough House as well as AEM's investment parameters and commercial design imperatives

Option 6 provide for all of AIPO's accommodation needs in a single building of 18 000m² to be constructed on the car park site bounded by Worgan, Furzer, Launceston and Bowes Streets in Woden - this option was cost effective in the sense of meeting AIPO's accommodation requirements but would leave Scarborough House vacant and unrefurbished with no likelihood of selling it.

26. The Committee was advised by AEM at the public hearing that option 5 is able to meet AEM's investment parameters and commercial design imperatives while also satisfying AIPO's requirement that any additional space be in close proximity to Scarborough House. Option 5 is also consistent with Government approval for the proposal.

27. At the public hearing AEM advised the Committee that AIPO's first preference had been for a single building to accommodate its staff. AEM stressed that the construction of a single building for AIPO would leave Scarborough House vacant as AEM is not aware of any demand by a Commonwealth department for 10 000m² of office space in Woden.

28. AEM believes that the proposal being considered by the Committee represents an effective accommodation solution at an affordable cost for AIPO and also provides value for money for the Commonwealth as it extends the useful life of an existing asset and will provide an additional Commonwealth owned office building to meet a long term need.

29. The Committee notes that the Scarborough House/annex option will require an estimated 160 return staff movements between the two buildings each day with the main movement being between Patents staff in the annex to visit the Personnel staff in Scarborough House. AIPO estimates the cost of this movement at approximately \$100 000 per annum. This compares with the estimated cost of staff movements between the current accommodation of approximately \$300 000 per annum.

30. The Committee raised with AIPO the option of moving its central office from Canberra. AIPO believes the main disadvantage of a location other than Canberra would be the loss of highly trained staff in whom AIPO has invested significant resources in both initial and ongoing training. The Committee wishes to record its disagreement with AIPO's contention and points out that there have been a number of very successful recent relocations of Commonwealth organisations for example the movement of the both the Antarctic Division and the CSIRO Marine Science Laboratories to Hobart. While the Committee appreciates the concern expressed by AIPO at the prospect of losing trained and experienced staff if its central office were to be moved from Canberra the Committee does not believe that the wishes of staff should dictate Government policy. The Committee recognises that were the Government to decide that the AIPO central office should be relocated from Canberra there would inevitably be staff losses. However experience has shown that staff losses are never as great as predicated and there is also the opportunity to bring new blood into the organisation. The Committee notes that apart from the issue of staff retention no evidence was presented to it which would indicate that the AIPO central office could not operate successfully in a location other than Canberra should a decision have been made by the Government to relocate the AIPO central office.

Committee's Conclusions

31. The general office areas of Scarborough House are in a poor condition and are well below current minimum standards for modern office accommodation.

32. The Scarborough House building services including fire, hydraulics, electrical and mechanical are well below current standards, do not meet current regulations and require major upgrading and refurbishment.

33. The Committee agrees that there is a need to provide upgraded office accommodation for AIPO to enable it to concentrate in the Woden area so that administrative and operational efficiencies can be achieved.

34. The Committee agrees that the option of refurbishing Scarborough House and the construction of an annex building on an adjacent site is the most cost effective option for providing upgraded office accommodation to meet the needs of AIPO.

THE PROPOSAL

35. It is proposed to refurbish Scarborough House and construct an annex building to produce a total office net lettable area (NLA) of approximately 20 400m² of which AIPO has agreed to occupy approximately 16 900m². The sizing of the annex to fully house the Patents and Design unit results in the combined space in the two buildings exceeding AIPO's total requirement. AEM believes this is justified as the cost of increasing the size of the annex compares favourably with the cost of occupying leased staging space. AEM advised the Committee that expenditure on building construction rather than on leased staging space is considered a financially prudent and effective use of Commonwealth funds.

36. Based on the expected future demand for office accommodation in Woden, AEM considers that the balance of space in Scarborough House, not reoccupied by AIPO, of approximately 3 500m², will be easily marketed to another Commonwealth agency. The Commonwealth currently leases about 450 000m² from the private sector in the ACT and the current vacancy rate in the office market is only about 4%.

37. The annex will provide some 10 400m² of office space and will allow AIPO's largest business unit, the Patents and Design unit, to be fully accommodated in this building on completion instead of being split between the annex and leased staging space with a subsequent relocation back to Scarborough House on completion of the refurbishment.

38. Agreement has been reached between AEM and AIPO on the terms and conditions under which AIPO will occupy the refurbished Scarborough House and the annex.

39. AIPO has committed to a 15 year occupation of each of the buildings. This will ensure that AEM can achieve a satisfactory financial return for the

Commonwealth on the capital investment. A detailed analysis of the financial aspects of the project was provided to the Committee in a separate confidential statement.

40. The fitout of the buildings by AIPO will be designed to meet its current and future needs in a more consolidated arrangement. Paragraphs 86–88 provide details of the proposed fitout.

Scarborough House Refurbishment

Standards

41. The proposed refurbishment of Scarborough House is to be undertaken in accordance with the following standards and guidelines:

- . Building Code of Australia
- . relevant Australian Standards
- . Australian Property Group - 'Building Standards and Performance Requirements for Commonwealth Leased Premises' as appropriate.

42. All areas of non-conformity outlined in paragraphs 15–19 will be brought into compliance to the maximum extent possible.

Energy Management

43. As Scarborough House is an existing office building elements of the building fabric, orientation and setting are predetermined. However the following energy management measures will be undertaken. The ground floor is to be extended outwards towards the perimeter of the first floor undercroft. The western and northern elevations will have smaller windows and the perimeter walls will be constructed of masonry or insulated light weight construction materials. The existing windows are double glazed units having a shading co-efficient of equal to or less than 0.25. The new tenancy windows to the ground floor will be double glazed with a similar shading co-efficient. These measures will reduce the heat load on the ground floor.

44. AEM advised that its aim is to bring the energy efficiency of Scarborough House as close as possible to the annex. Additional insulation

is to be incorporated in a number of areas of the building where the existing provision is unsatisfactory as follows:

- . additional thermal insulation will be installed underneath the concrete roof of the building
- . the external perimeter of the return air plenum within the ceiling spaces to all typical floors will be thermally insulated to reduce the impact of external temperatures on the air returned to the air conditioning system.

45. Existing hydraulic services are to be retained where possible and the system upgraded where necessary. This will allow some scope for the introduction of water and energy conservation measures in hot and cold water systems throughout the building as follows:

- . it is proposed that gas fired mains pressure hot water heaters be installed with a circulating loop. Energy conservation will be achieved by setting the hot water temperature at a minimum temperature and installing a time clock on the circulation pump to switch it off out of hours
- . it is proposed to install a hot and cold water conservation system by the fitting of a flow control valve at each tap or shower to control the flow of water and pressure. The benefits of the system include a reduction in the amount of water used of up to 50%. Typical savings expected are in the order of 25% to 30% The system also reduces the amount of hot water used and therefore reduces energy consumption. Other benefits include a reduction in the amount of sewage put out by the system and elimination or a substantial reduction of water hammer noise in pipes. AEM advise that the system has been successfully installed in number of Commonwealth, state and private enterprise projects.

46. Outside air will be utilised for cooling whenever conditions are suitable.

47. Low loss ballast light fittings with internal power factor correction and high efficiency low glare fluorescent light fittings are proposed. Low wattage compact fluorescent down lights are proposed where applicable. Space has

been allowed in the main switch board for the future provision of power factor correction equipment if required.

48. Separate energy metering is proposed for mechanical and lift services. A digital control system will be provided in association with a building management unit for the control of mechanical services and building functions. The base building will be provided with a wiring arrangement to facilitate the introduction of an automatic lighting control system.

49. The mechanical and electrical services will be extensively replaced. This will enable incorporation of wider energy conservation measures. An energy target of 670 Megajoules per square metre per annum has been set for this building. This excludes tenants' power which will fluctuate in practice as a result of variables such as extended hours of operation. The air-conditioning will be arranged into zones and separate parts of the building can be air-conditioned independently.

Access and Amenities for People with Disabilities

50. It is anticipated that Scarborough House will house two tenants, AIPO on the top nine floors and part of the ground floor and another tenant on the lower five floors.

51. Two toilets for people with disabilities are to be provided within the office areas of the two tenancies, nominally levels 5 and 12 with a toilet and shower to be provided in the basement. The present level access to both entrances of the building will be maintained and the lifts will service all levels of the building. The existing designated surface car parking for people with disabilities will be retained in close proximity to the building. The Committee was advised by AEM at the public hearing that ACROD Access and Mobility has been consulted on the various provisions to be included in the refurbishment program and is satisfied with them. (see also paragraph 84)

Occupational Health & Safety

52. The presence of asbestos material has been identified in the following locations:

- the roof membrane

- . plant room louvres and sheeting
- . stairwell bulkhead to the lift motor room
- . electrical and telephone risers
- . external balcony soffit linings
- . indicator boxes within the lift shafts
- . sheeting around return air grilles and all fire doors.

53. At the public hearing AEM advised the Committee that additional asbestos has been detected in some partitions in Scarborough House. The asbestos is encapsulated and does not constitute a health hazard. Further investigation will be carried out prior to demolition.

54. Polychlorinated biphenyls (PCBs) are present in starters for fluorescent lights.

55. The Committee was advised at the public hearing that these materials will be removed during demolition in accordance with the regulations regarding the handling of these substances. No known hazardous materials will be installed as part of the works.

56. The existing chillers that are to be retained for use in the refurbished building currently operate on ozone depleting CFC-12 refrigerant. It is proposed to replace this during the refurbishment with HFC-134 a refrigerant which is not ozone depleting and is recommended by the Australian and New Zealand Environment and Conservation Council.

57. In a supplementary submission AEM advised the Committee that the AIPO staff associations had requested that options to assist in the movement of staff between the two buildings be considered by management. The options suggested were a pathway - either covered or uncovered together with traffic calming measures or a pedestrian bridge over Worgan Street. The Committee understands that the preference of the staff associations was for a covered walkway between the two buildings. While AEM will continue to investigate a solution to this issue it believes that a covered walkway is not viable because of cost and also the need to get permission for the walkway to be built through private property.

Proposed Annex Building

Planning Considerations

58. The Committee was advised that as part of the process of siting the annex building, it was necessary that the ultimate development potential of the site be determined, and that the siting allow for flexibility in the design of a possible second stage building. The ACT Planning Authority also required that the whole site development be considered at this time. The office area requirement for the annex building development is 10 400m². A maximum floor area of 1 200m² per floor was also nominated to reflect the normal functional requirements for office tenants and ensure that the building maintains flexibility for other possible tenants in the future.

59. Existing services which form a constraint on development are the major storm water pipes which run diagonally from west to east and north to south through the centre of the site. This problem has been alleviated by adopting a design which avoids the large west/east line.

60. The ACT Planning Authority has specified particular requirements for this site which is Commonwealth land and is zoned within the Territory Plan for future office development. The ACT Planning Authority prepared draft lease conditions which set out the main planning constraints for the site and the National Capital Planning Authority (NCPA) responded by preparing a Development Control Plan (DCP). This plan was reviewed in the context of the proposed development and its final approved form recognises the ultimate development potential for the site.

61. The DCP allows for buildings to be located on the perimeter of the site as a continuation of the existing Bowes Street facade around on to Launceston Street, and considers that a maximum of five storeys is appropriate for the site.

62. Site massing studies were undertaken to explore various options based upon the above constraints to determine the ultimate best use of the site. The results of these studies indicated a two stage development process involving similar size buildings each of approximately 10 000m² to be the most appropriate for the site.

63. Options of central roof top or on floor plant were investigated and resolved at an early stage of the design process in favour of the central roof top plant for engineering and maintenance reasons.

64. A traffic impact assessment considered the existing road system and capacity in relation to the anticipated traffic volumes to be created by the proposed development. Sight lines for vehicles entering the site were reviewed and appropriate provisions incorporated into the preliminary sketch design.

65. AEM believes that from the perspective of all external traffic aspects the proposed development will operate satisfactorily. The traffic assessment also found that the existing parking supply in the area was under-utilised and that the site is well located in close proximity to public transport routes.

66. Within the total site, the proposed new building has been located to the east. This eastern location positions the building closer to the existing buildings along Bowes Street and closer to Scarborough House which is an important consideration given the predicted pedestrian traffic between the two buildings. Furthermore, the eastern location also allows greater retention of existing car parking on the site.

67. Several alternative access scenarios were pursued, including a vehicular basement ramp accessed directly from Bowes or Worgan Streets combined with a full basement under both wings. The decision to provide access via a shared pedestrian and vehicle route through the centre of the site to a single basement under the north wing allowed the retention of the existing storm water main and will result in considerable cost savings. The proposed access arrangement with dual entrances from east and west allows for a clear definition of the main entrance from Bowes Street via Worgan Street while still retaining the potential for the building to relate to a possible future building on the west of the site across the internal pedestrian spine. Service access is also available from the east.

68. In a submission to the Committee the NCPA indicated its support for the overall project but indicated one matter of concern relating to the proposed location of the vehicular access ramp (on the western side of the building) to the basement carpark of the annex. The NCPA believes that the ramp as proposed divides the internal landscape zone and undermines the quality of the pedestrian space. The NCPA is prepared to support the location of the ramp at this stage as an interim solution on the understanding that a comprehensive design of the interim landscape zone will form part of any further development on the site. The aim would be to try to resolve the basement access arrangements and ramp locations and improve the quality of the landscape zone. In its response to the NCPA submission AEM stressed that it does not have any plans for development of the site beyond the current annex proposal but would consult with all planning authorities should this position change in the future.

69. The arrangement of the building into two wings with a shared lift core, together with the location of the main plant at the roof level has allowed the design of office floors with considerable flexibility for internal fitout. The central cores contain the toilet, tea room and service shaft provisions and the central zone to each end of these cores is available for high load storage and meeting room functions.

70. The perimeter zones are virtually free from visual obstruction, thus providing a very high level and extent of daylight penetration and visual interest to the occupied areas. The central lobby space has been designed as a five level atrium providing both an efficient means of linking the two wings and an open outlook from the office spaces which abut it. Included in the atrium design is an open stair which will allow for efficient vertical access between floors without the necessity of using the lifts. This element will be constructed so as to appear as 'light' as possible within the atrium space and the linking bridge will be similarly constructed.

71. At the public hearing the Committee asked AEM whether the provision of an atrium could be justified on practical grounds. AEM advised the Committee that the provision of an atrium was strongly debated amongst the project team and was ultimately included because it has a number of advantages:

- the centralising of the lifts in the atrium enables the number of lifts to be reduced from three to four

- . the floors can be planned with a minimum loss of space and an efficiency of 90% can be achieved
- . it enabled the AIPO target of maximum distance to natural light to be met
- . it enable town planning siting requirements to be achieved.

Committee's Conclusion

72. The Committee is satisfied that the proposed annex building satisfies the planning requirements of both the National Capital Planning Authority and the ACT Planning Authority.

Site

73. The proposed site for the construction of the annex building is block 1, section 4 Phillip, which is located at the northern end of the Woden town centre and is bounded by Launceston, Furzer, Worgan and Bowes Streets. The site is used predominantly as a carpark with substantial landscaped buffer zones to the north and east.

74. Potential directions for outlook from the site are to the north and north east. To the south of the site is the existing main pedestrian spine which connects with the main town centre plaza and passes Scarborough House.

75. There are no existing buildings on the site. Surrounding buildings are located on the west (Woden Tradesmen's Union Club and Smith Family), and the south (Sirius Building and Penryhn House). See location plan at Appendix B-1.

Committee's Conclusion

76. The site selected is suitable for the construction of the proposed annex building to provide office accommodation for AIPO.

Environmental Impact

77. As required by the *Environment Protection (Impact of Proposals) Act 1974* a Notice of Intention was lodged with the Environment Protection Agency (EPA). EPA advised the Committee that it had assessed the project and determined that neither an Environmental Impact Statement nor a Public Environment Report was required to satisfy the object of the Act.

Standards

78. The proposed annex has been designed in accordance with the following standards and guidelines:

- . Building Code of Australia
- . relevant Australian Standards
- . Australian Property Group - 'Building Standards and Performance Requirements for Commonwealth Leased Premises' as appropriate

Building Efficiency

79. The efficiency of the proposed building design for office areas above the ground floor is 90% which is equivalent to the best commercial standards.

Energy Management

80. The proposed building has been designed with consideration to achieving the best balance between capital and life cycle costs. Energy usage during the life of the building will be minimised through the inclusion of the following design elements:

- . the building wings are aligned close to the east-west axis to reduce the impact of solar gain on the office spaces
- . high performance double glazed windows are used in the perimeter of the office wings to achieve a low shading coefficient while also providing sound insulation from outside traffic noise

- . the arrangement of a roof top central energy and air handling plant allows the full perimeter of the office wings to be glazed with the resultant maximum availability of natural light to the floors
- . setbacks to ground and fourth floor glazing allows efficient access to outside air to these levels for meeting and conference rooms
- . the central atrium space has tempered air provided by the diversion of return air through it on its way back to the roof plant room
- . the proposed variable volume air conditioning system is an inherently low energy use system
- . separate zoning of perimeter areas from the interior will minimise the amount of reheat required
- . all air handling units are equipped with an economy cycle, utilising outside air for cooling whenever conditions are suitable
- . lighting circuits within tenant areas will be arranged into zones with programmable automatic control to reduce energy consumption and increase lamp life
- . low loss ballast light fittings with internal power factor correction and high efficiency low glare fluorescent light fittings are proposed
- . low wattage compact fluorescent down lights are proposed where applicable
- . space has been provided for the future provision of power factor stabilisation equipment if required
- . separate energy metering is proposed for mechanical and lift services
- . a digital control system will be provided for the control of mechanical services and building functions

- the base building will be provided with a wiring arrangement to facilitate the introduction of an automatic lighting control system
- the air-conditioning will be arranged into zones and separate parts of the building can be air-conditioned independently.

81. A design energy target of 660 Megajoules per square metre per annum has been set for this building. Tenants power use which will fluctuate in practice as a result of variables such as extended hours of operations is excluded from this target value.

Access and Amenities for People with Disabilities

82. Level access will be provided to the main entrances from the adjacent streets and car parking area. Designated car parking for visitors and AIPO staff with disabilities will be provided within the adjacent surface car park area.

83. Toilets for people with disabilities will be provided on all occupied levels of the building in alternate wings. The ground floor toilet will be located adjacent to the main reception area and will be accessible to the public. One combined toilet and shower will be provided in the basement adjacent to the main building showers.

84. ACROD Access and Mobility have been consulted on the various provisions to be included in the annex building (see also paragraph 51).

Occupational Health and Safety

85. The Committee was advised that occupational health and safety considerations relating to office accommodation will be addressed during the detailed documentation phase in accordance with the Building Code of Australia and Australian Standards. AEM believes that there are no particular occupational health and safety issues associated with the proposed annex.

SCOPE OF FITOUT

86. The fitout will be designed to cater for AIPO's current and future area requirements in a more consolidated arrangement. The fitout will include office accommodation which is generally open plan but with individual offices provided as necessary to meet AIPO's requirements. Specialist fitout will be installed in areas such as the computer centre, hearing rooms and storage and equipment areas. The project delivery method selected will allow the fitout work to be integrated with the base building work in the normal sequence of finishing trades. (see Appendix C paragraphs 50–52 for fitout details)

Fitout Standards

87. Materials and finishes will be selected to satisfy requirements for function, flexibility, economy, durability, ease of maintenance and aesthetics. The fitout will be of modern commercial standard and based on a modular layout. The layout will promote access to natural light for work points, with storage and support areas and most enclosed offices on the inner parts of the floors.

88. The fitout design will meet AIPO's responsibilities under the *Occupational Health and Safety (Commonwealth Employment) Act 1991* and fire safety requirements. The following codes and guidelines will be applied to the fitout design:

- . Australian Property Group *"Building Standards and Performance Requirements for Commonwealth Leased Premises"*
- . The Building Code of Australia
- . Provision of Amenities in Commonwealth Government *"Employment: Code of Practice 1982"*
- . the series of codes entitled *"Occupational Safety and Health Working Environment Series"*.

Staff Amenities

89. One staff amenities room with kitchen facilities will be provided in each building. Seven showers including one for disabled persons will be installed in the basement of each building. A union room will be included and there will be a sick room in each building.

TRANSITION ARRANGEMENTS

90. The work involved in the refurbishment of Scarborough House is very extensive and it will be necessary to completely vacate the building while the work is being undertaken. Therefore, the annex will be completed before work starts on Scarborough House to allow most of the staff currently located in Scarborough House to relocate to the annex. However, part of AIPO's Corporate Services sections will not fit in the annex and those sections will be relocated to staging space. The Trade Marks Office and Information Technology Services will remain in outposted accommodation in Tuggeranong and Woden until the refurbishment of Scarborough House is completed. When Scarborough House is complete, all the remaining elements will move back to the building.

91. The staging space has not yet been identified but up to 2 000m² of space will be required with a preference for the Woden precinct.

CHILD CARE

92. A survey of staff child care needs was conducted by AIPO in October 1992. The survey indicated that AIPO staff had 98 children under school age in child care. Of the staff with children in care, 30% indicated that they were not satisfied with their current child care arrangements. This equates to 29 children under school age in child care and of these three were children of parents who worked in the AIPO Tuggeranong office.

93. AIPO advised the Committee that it is difficult to predict future child care demands, but AIPO did attempt to get some estimates through its child care survey. At some time in the future, 172 staff expect to have under school age children and of these 38 are presently located in Tuggeranong. If the same proportions of staff who are not satisfied with their care arrangements apply to estimated future child care demand, then when staff currently located at Tuggeranong are relocated to Woden, it could be expected that the needs of some 16 children may need to be addressed.

94. Because of the very small number of staff needing improved child care arrangements, and the fairly extensive child care services in the area, AIPO considered that the inclusion of child care facilities in the new/refurbished buildings could not be justified. However, in the context of its Agency Bargaining Agreement, AIPO committed itself to exploring, in conjunction with other Federal agencies located in Woden, whether a joint approach to work related child care would be of assistance to staff in meeting their family responsibilities. The Agency Agreement, certified on 14 June 1994, also included a number of changes to conditions of employment which were targeted at providing greater flexibility in working patterns for workers with family responsibilities. To assist staff, AIPO is also developing an information kit for workers with families. Included in this kit will be information on child care facilities in the Woden area.

95. AIPO will continue to monitor its staff needs with respect to child care and will be receptive to the problems faced by workers in balancing family responsibilities with the demands of the workplace taking cognisance of the International Labour Organisation (ILO) Convention No. 156. AIPO's approach of positive assistance to staff with family responsibilities is reflected in the current Agency Agreement and will also be reflected in continuing sympathetic consideration of those needs in future Agency Agreements.

96. AIPO invests heavily in its staff (providing a minimum of six months full time training for new patent examiners and three months full time training for new trade marks examiners) and has a strong interest in ensuring that staff are well placed to be able to balance work and family responsibilities.

CONSULTATIONS

97. AIPO established a new accommodation consultative forum in September 1992 to facilitate consultation with staff regarding the project. The aim of the consultative forum is to promote open communication and provide an avenue for staff concerns to be addressed and for staff to have an input to the project. The forum includes representatives from each of the business units and nominees from the union.

98. Other measures to keep staff informed on the progress and design of the project have included:

- . regular articles in the Staff Gazette
- . presentations and briefings to staff
- . display of design drawings and a cardboard working model of the annex building
- . regular design review meetings with business unit representatives
- . involvement of business unit representatives at value management and partnering sessions
- . discussion of accommodation matters in AIPO's Consultative Committee.

99. During the development of the proposal the following authorities and organisations were also consulted:

- . National Capital Planning Authority
- . Department of Human Services and Health
- . Department of Primary Industries and Energy
- . Department of Finance
- . Environment Protection Agency
- . ACT Government Department of Environment, Land and Planning
- . ACT Government Department of Urban Services
- . ACROD Access and Mobility
- . Australian Heritage Commission
- . ACT Electricity and Water
- . ACT Fire Brigade

- . Commonwealth Fire Board
- . Telecom Australia
- . Natural Gas Company
- . Woden Tradesmen's Union Club
- . Tasman Properties Pty Ltd
- . Construction Forestry Mining Energy Union (CFMEU)

100. As appropriate consultations will continue during the detailed design and documentation phase.

CONSTRUCTION INDUSTRY REFORM

Partnering

101. Partnering was introduced into this project in February 1994 between AEM, the Project Manager and AIPO. This process subsequently gained high level commitment from both AEM and AIPO and has facilitated a high level of communications and co-operation.

102. Since this time both design teams have been introduced to and have participated in the partnering process. As the project proceeds further, other project participants such as the contractor and sub contractors will become involved.

103. Following a submission by the Construction Industry Development Agency (CIDA) seeking information regarding Best Practice methods to be applied in the project AEM advised that a number of project initiation practices consistent with CIDA guidelines are applied to the project. These include:

- . project option evaluation
- . value management
- . life cycle costing

partnering

104. The Committee notes that partnering has the potential to provide considerable benefits to the project and has recently been advised by the Department of Defence of a reduction of almost 12 months in the construction time of a major project through partnering.

Value Management

105. A full range of value management techniques have been employed to ensure that innovative, effective and cost efficient design solutions were achieved for both the refurbishment of Scarborough House and the proposed annex building. Value management workshops have been held at the strategic, functional and design stages.

Life Cycle Costing

106. Throughout the design development of this proposal, life cycle costing techniques have been employed to ensure that appropriate attention is given to operational as well as capital cost considerations.

PROJECT MANAGEMENT

107. AEM has appointed Asset Technologies Pty Ltd as Project Manager/Director for both the proposed annex building construction and the refurbishment of Scarborough House. This appointment will provide the necessary management for the project and help ensure it is delivered in the most effective and cost efficient manner possible.

108. Separate design teams have been appointed for each building. This will help ensure that each building is given the priority necessary to ensure innovative, effective and timely solutions.

109. Options for the project delivery of both the annex building and the refurbishment of Scarborough House are being investigated using value management techniques. A decision on the most suitable and preferred delivery method for each building will be made prior to finalisation of design and tender documentation.

110. It is AEM's intention that an independent building surveyor will review the design documentation to certify its compliance with the Building Code of Australia and other relevant Australian Standards and Codes of Practice.

111. During the construction stage quality assurance requirements place the responsibility for construction of the works in accordance with the Standards and the design documentation on the building contractor. The contractor will be required to certify that the constructed works comply. Audits of the contractor's Quality Plans will be undertaken throughout the project.

CONSTRUCTION PROGRAM

112. The program for this project provides for the construction of the annex first and, on its completion, the total vacating of Scarborough House prior to its refurbishment. This will facilitate the relocation of occupants of the new building directly from Scarborough House into their permanent location once the new building is completed. It will also minimise the disruption for AIPO staff who are to return to Scarborough House after it has been refurbished.

113. Construction of the new building is scheduled to commence by July 1995 and be completed and occupied by AIPO by November 1996. The refurbishment of Scarborough House is scheduled to commence in December 1996 and be completed and reoccupied by February 1998.

114. These are prudent worst case dates as AIPO's preference is for earlier occupation and AEM will use its best endeavours to better this program. Time will be a significant consideration in selecting a project delivery system.

COST ESTIMATE

115. The limit of cost estimate for this proposal is \$50.38m at July 1994 prices. The cost element includes AIPO fitout requirements and all transition requirements.

Committee's Recommendation

116. The Committee recommends the refurbishment of Scarborough House and the construction of an annex building on an adjacent site to provide upgraded office accommodation for AIPO at a limit of cost estimate of \$50.38m at July 1994 prices.

CONCLUSIONS AND RECOMMENDATION

117. The conclusions and recommendation of the Committee and the paragraph in the report to which each refers are set out below:

	Paragraph
1. The general office areas of Scarborough House are in a poor condition and are well below current minimum standards for modern office accommodation.	31
2. The Scarborough House building services including fire, hydraulics, electrical and mechanical are well below current standards, do not meet current regulations and require major upgrading and refurbishment.	32
3. The Committee agrees that there is a need to provide upgraded office accommodation for AIPO to enable it to concentrate in the Woden area so that administrative and operational efficiencies can be achieved.	33
4. The Committee agrees that the option of refurbishing Scarborough House and the construction of an annex building on an adjacent site is the most cost effective option for providing upgraded office accommodation to meet the needs of AIPO.	34
5. The Committee is satisfied that the proposed annex building satisfies the planning requirements of both the National Capital Planning Authority and the ACT Planning Authority.	72
6. The site selected is suitable for the construction of the proposed annex building to provide office accommodation for AIPO.	76

7. **The Committee recommends the refurbishment of Scarborough House and the construction of an annex building on an adjacent site to provide upgraded office accommodation for AIPO at a limit of cost estimate of \$50.38m at July 1994 prices.**

116



Colin Hollis MP

Chair

9 March 1995

APPENDIX A

WITNESSES

HARALAMBOUS, Mr Haralambos, Director, Rawlinsons Management Pty Ltd, 7th Floor, State Bank Building, 161 London Circuit, Canberra, Australian Capital Territory 2601

MILNE, Mr Michael Edward, Managing Director, Asset Technologies Pty Ltd, 22 Strangways Street, Curtin, Australian Capital Territory 2605

MOIR, Dr Hazel Veronica Jane, Deputy Director General—Corporate Services, Australian Industrial Property Organisation, Scarborough House, Atlantic Street, Woden, Australian Capital Territory 2606

NORTON, Mr Bruce Robert, Assistant General Manager, Australian Estate Management, 111 Alinga Street, Canberra, Australian Capital Territory 2000

PHILLIPS, Mr Richard Sidney, Assistant Director—New Accommodation Project, Australian Industrial Property Organisation, Scarborough House, Atlantic Street, Woden, Australian Capital Territory 2606

RANGER, Mr Gavan Wayne Franklin, Manager, Woods Bagot Pty Ltd, Floor 14, 20 Allara Street, Canberra City, Australian Capital Territory 2601

SUCHOVSKY, Mr Jan, Director, Norman Disney Young, 2nd Floor, Endeavour House, Franklin Street, Manuka, Australian Capital Territory 2600

SZYDLIK, Mr Bill, Director, Daryl Jackson Alastair Swayn Pty Ltd, 49 Jardine Street, Kingston, Australian Capital Territory 2604

APPENDIX B

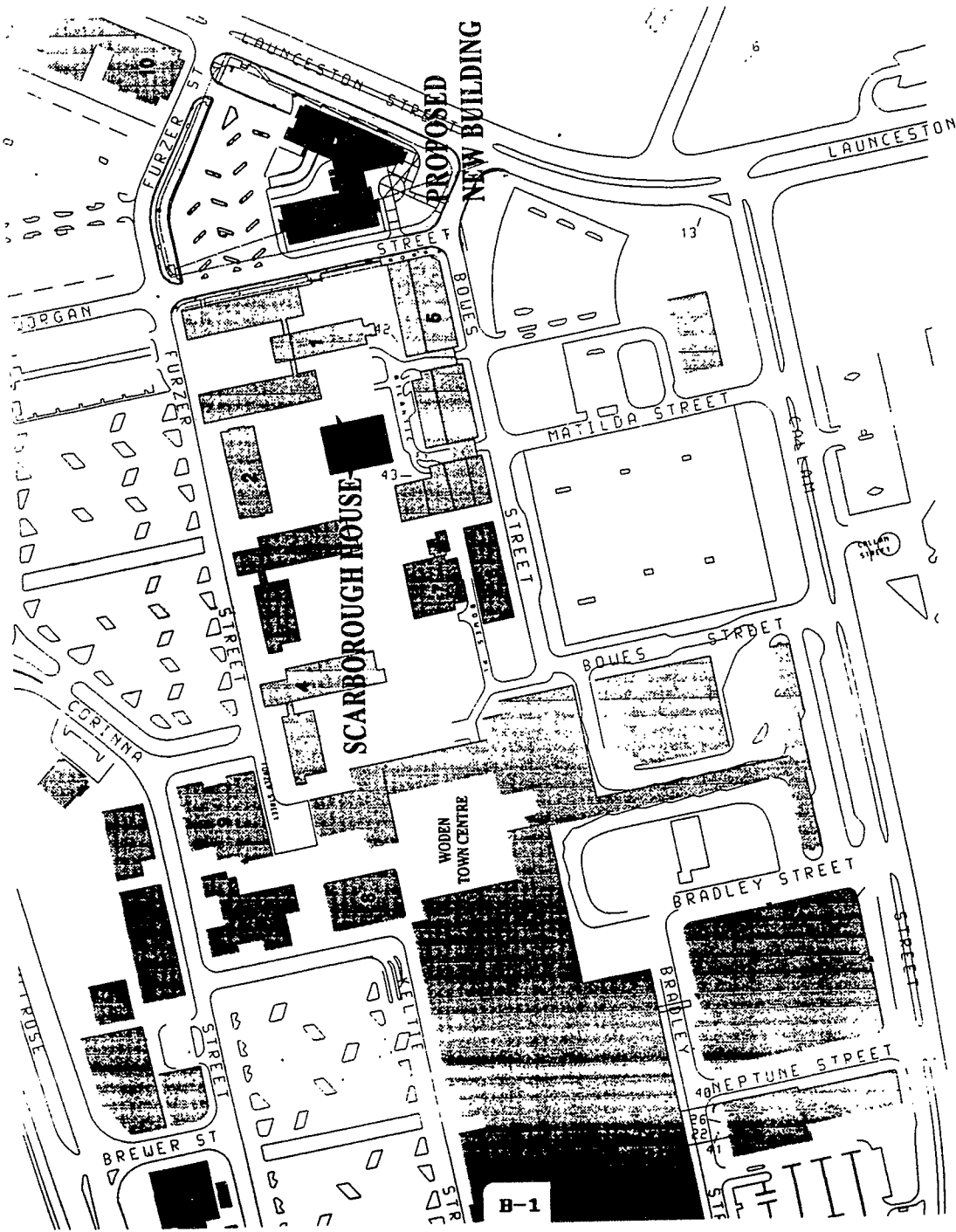
PROJECT DRAWINGS

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Location Plan	B-1
Scarborough House	
Ground Floor Plan	B-2
Basement Floor Plan	B-3
Typical Lower Level Floor Plan	B-4
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Annex Building (New Building)	
Site Plan	B-7
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Basement Floor Plan	B-9
Typical Floor Plan	B-10
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North Elevation	B-12
South Elevation	B-13
East Elevation	B-14
Master Plan	B-15

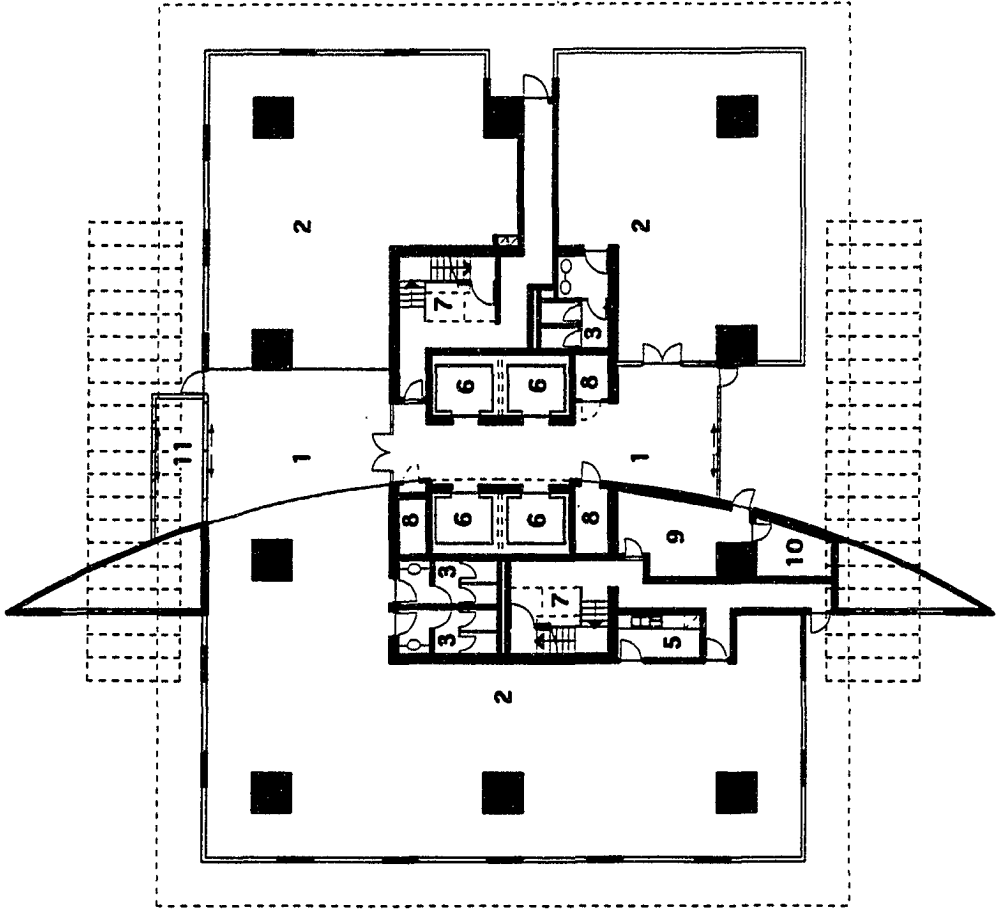


LEGEND

- 1 SRUS BUILDING
- 2 FISHBURN HOUSE
- 3 ALEXANDER BUILDING
- 4 ALBEMARLE BUILDING
- 5 PENRHYN HOUSE
- 6 JULIANA HOUSE
- 7 WODEN CAFETERIA
- 8 MLC TOWER
- 9 WODEN LIBRARY
- 10 TRADESMANS UNION CLUB



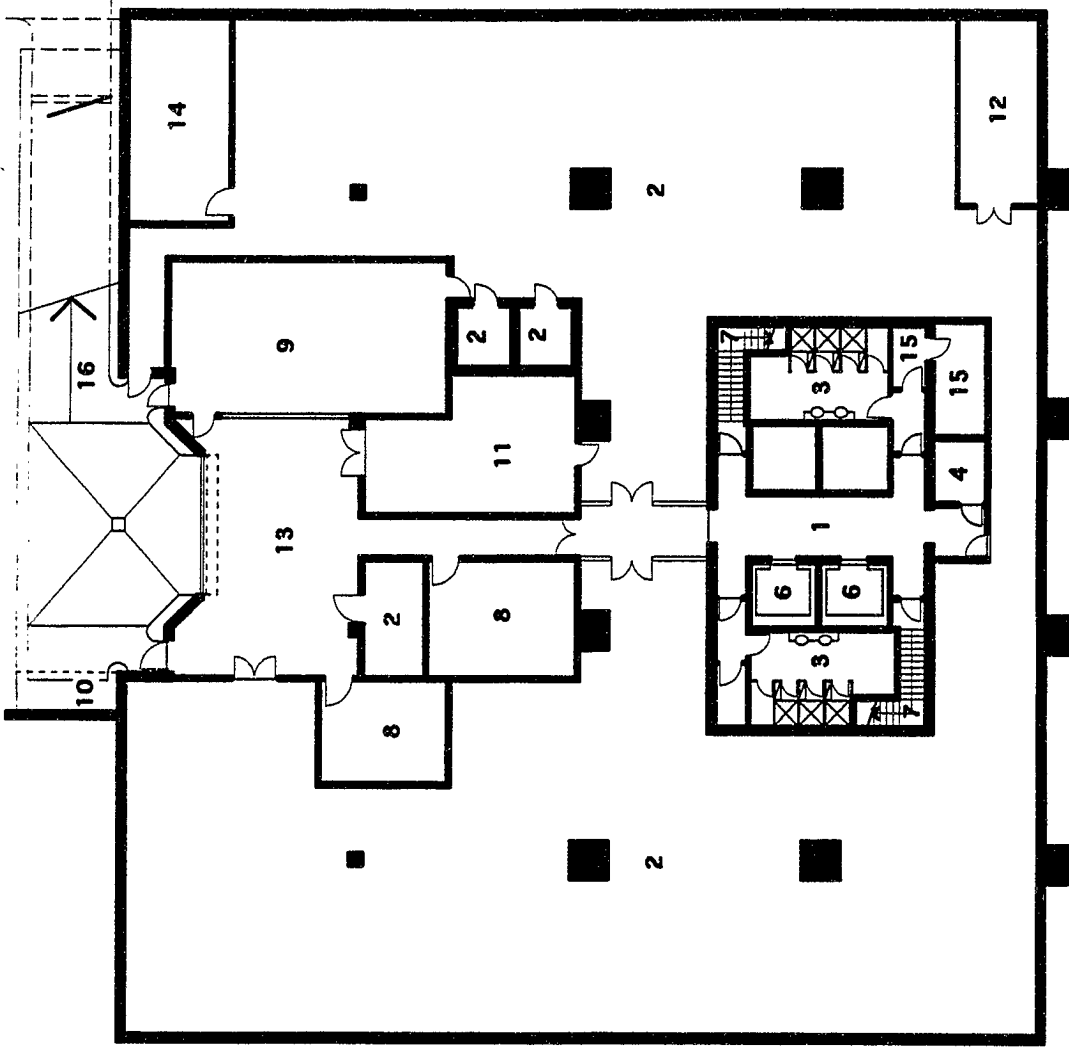
AIPD OFFICES - EXISTING AND PROPOSED



- LEGEND**
- 1 Lobby
 - 2 Tenancy area
 - 3 Toilets
 - 5 Tea room
 - 6 Lifts
 - 7 Fire stairs
 - 8 Plant/elec. risers
 - 9 Fire control room
 - 10 Sprinkler valve room
 - 11 Air lock

AIPD OFFICES - SCARBOROUGH HOUSE PROPOSED REFURBISHMENT
GROUND FLOOR PLAN

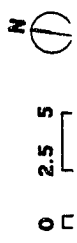


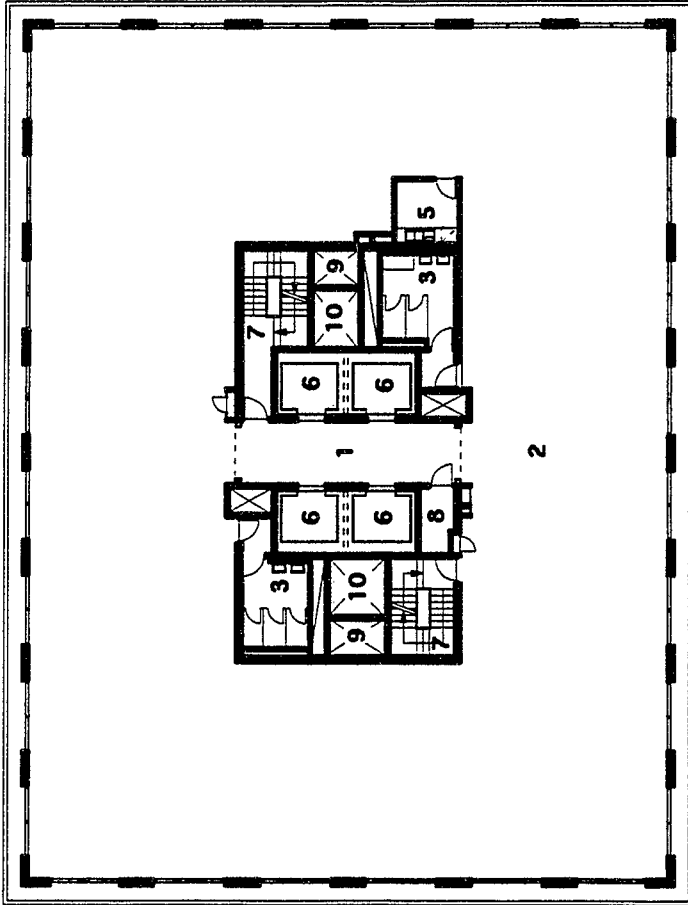


LEGEND

- 1 Lobby
- 2 Tenancy area - storage
- 3 Showers/toilets
- 4 Disabled shower/toilet
- 6 Lifts
- 7 Fire stairs
- 8 Plant
- 9 Substation
- 10 Refuse area (external)
- 11 Switch room
- 12 PABX
- 13 Loading dock
- 14 Pump room
- 15 Cleaners
- 16 External ramp

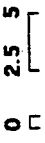
AIPD OFFICES - SCARBOROUGH HOUSE PROPOSED REFURBISHMENT
BASEMENT FLOOR PLAN

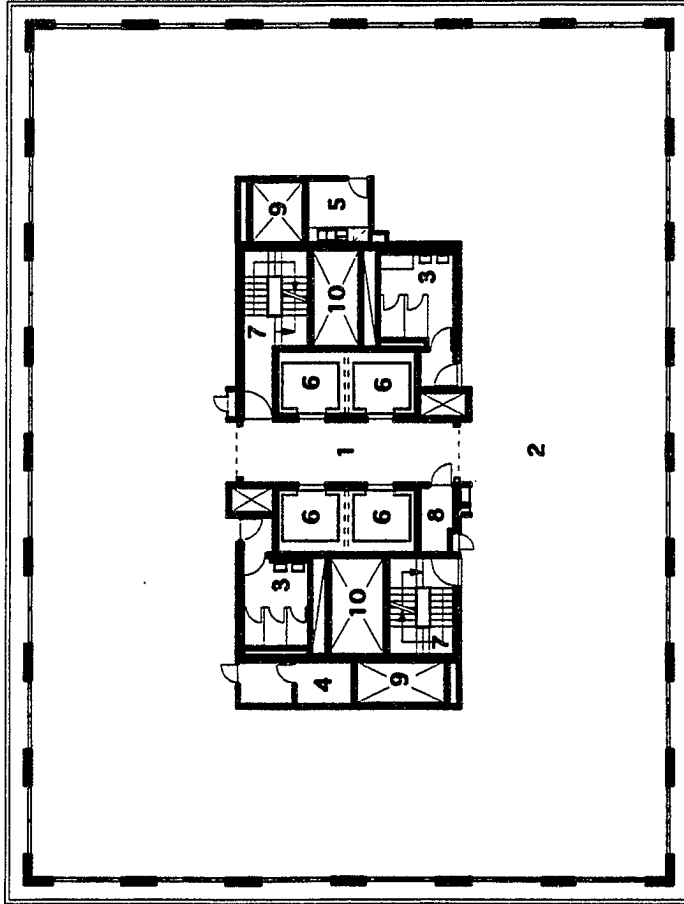




- LEGEND**
- 1 Lobby
 - 2 Tenancy area
 - 3 Toilets
 - 5 Tea room
 - 6 Lifts
 - 7 Fire stairs
 - 8 Plant/elec. risers
 - 9 Return air/smoke exhaust ducts to lower floor only
 - 10 Supply air ducts

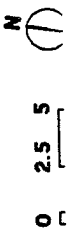
A IPO OFFICES - SCARBOROUGH HOUSE PROPOSED REFURBISHMENT
TYPICAL LOWER LEVEL FLOOR PLAN

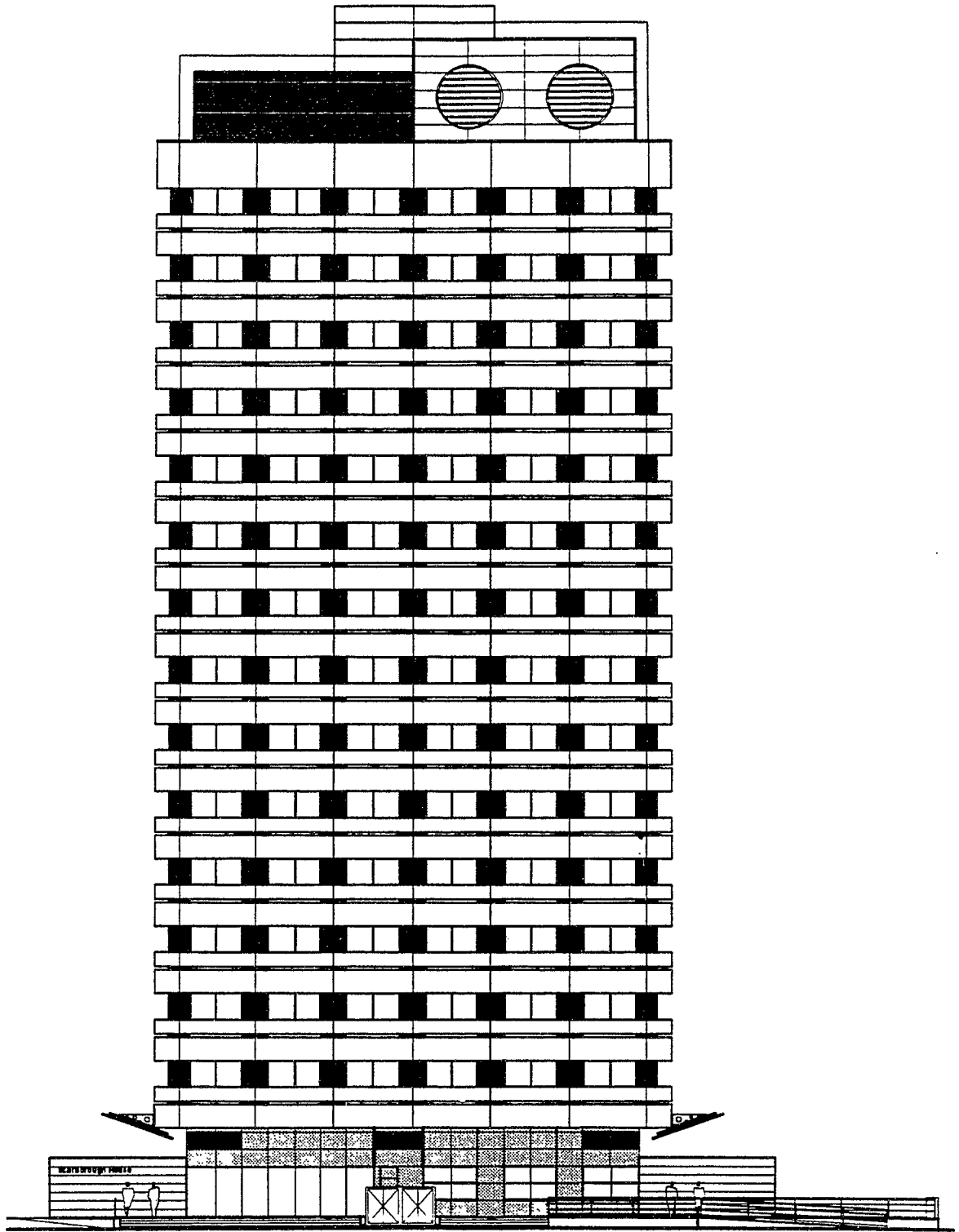




- LEGEND**
- 1 Lobby
 - 2 Tenancy area
 - 3 Toilets
 - 4 Disabled toilet (to 5th & 12th floors)
 - 5 Tea room
 - 6 Lifts
 - 7 Fire stairs
 - 8 Plant /elec. risers
 - 9 Return air/smoke exhaust ducts to upper floors only
 - 10 Supply air ducts

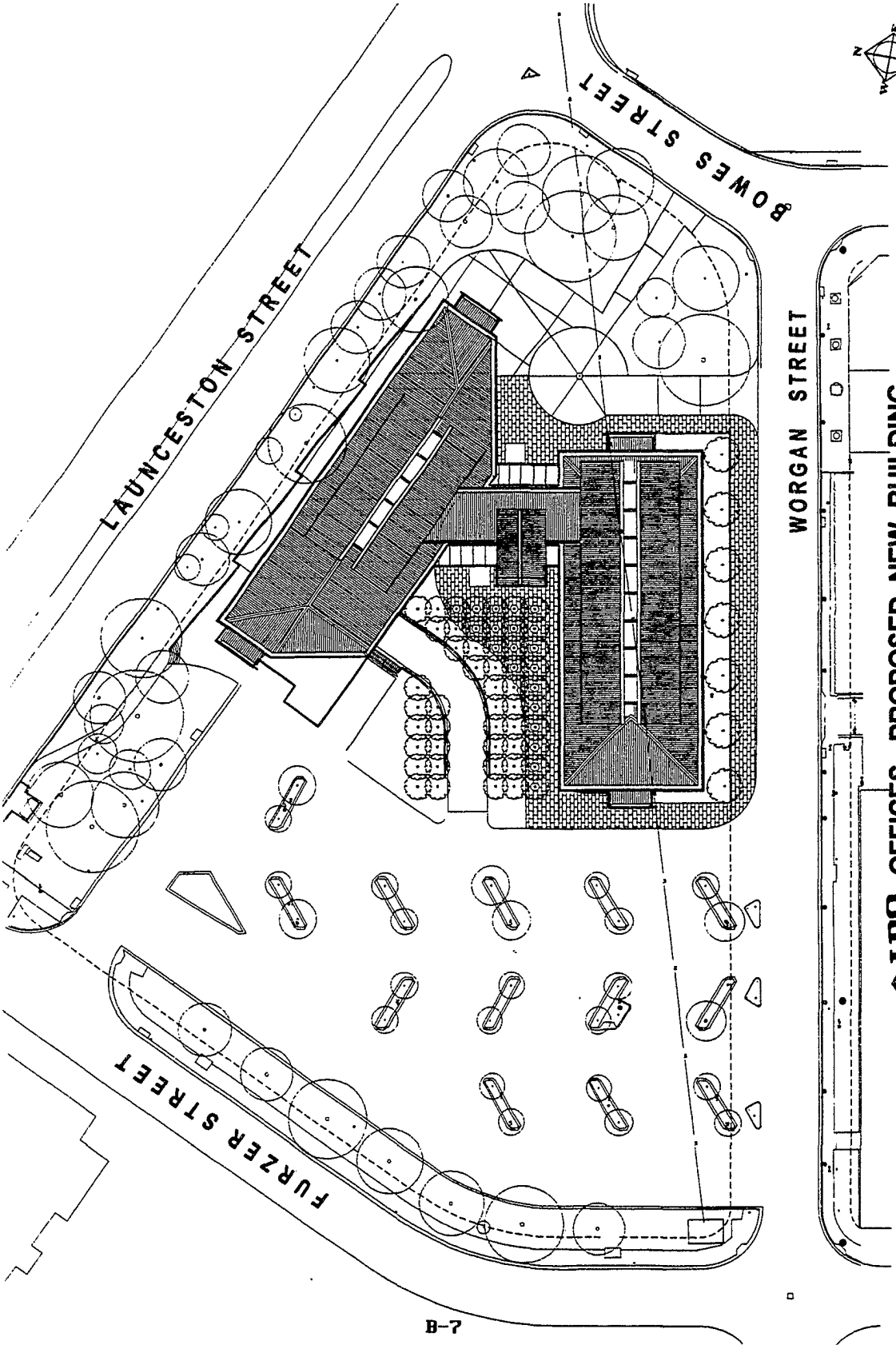
AIPD OFFICES - SCARBOROUGH HOUSE PROPOSED REFURBISHMENT
 TYPICAL UPPER LEVEL FLOOR PLAN





B-6

A IPO OFFICES - SCARBOROUGH HOUSE PROPOSED REFURBISHMENT
EAST ELEVATION



LAUNCESTON STREET

BOMES STREET

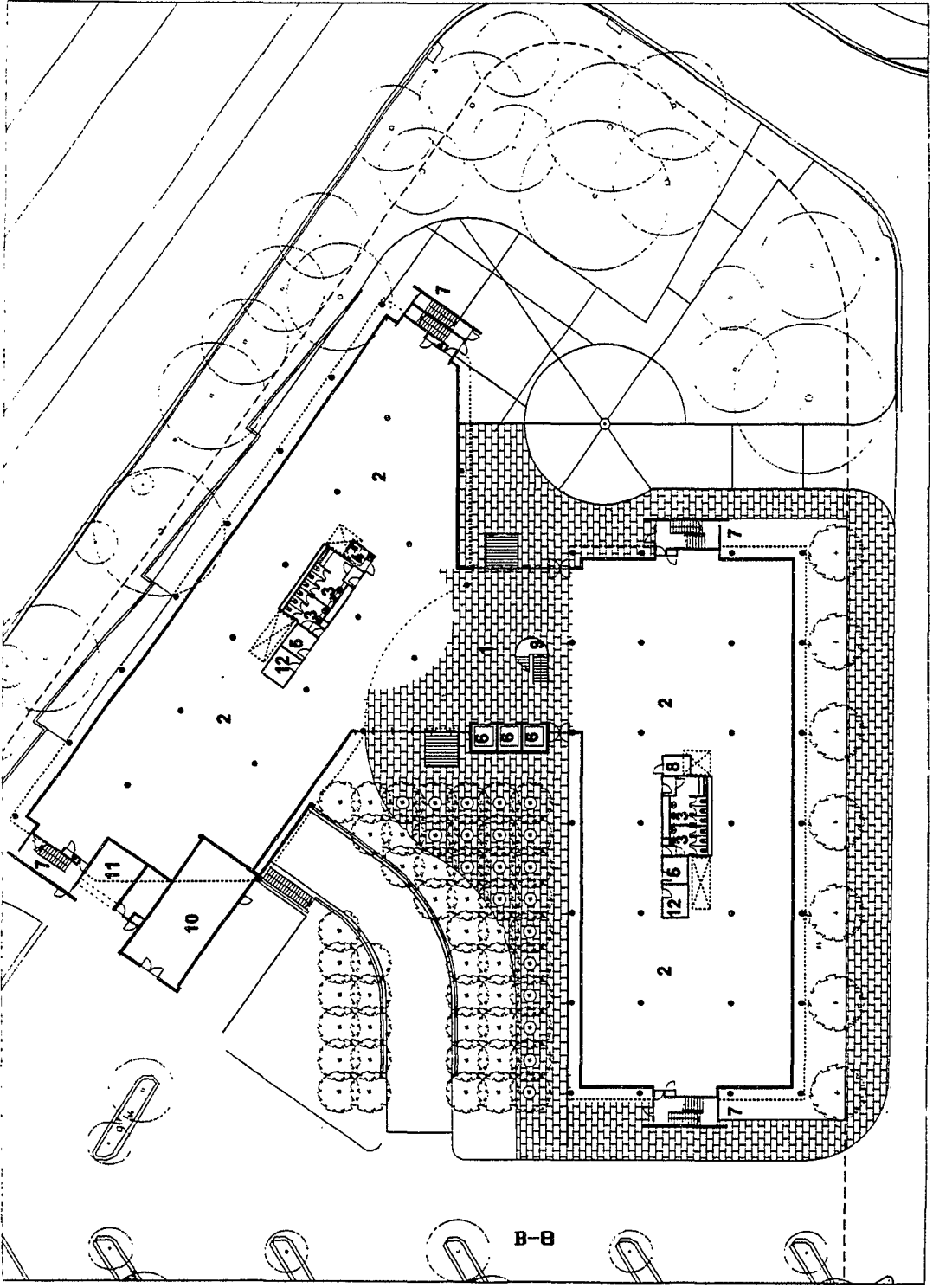
FURZER STREET

WORGAN STREET

AIPO OFFICES - PROPOSED NEW BUILDING
SITE PLAN

LEGEND

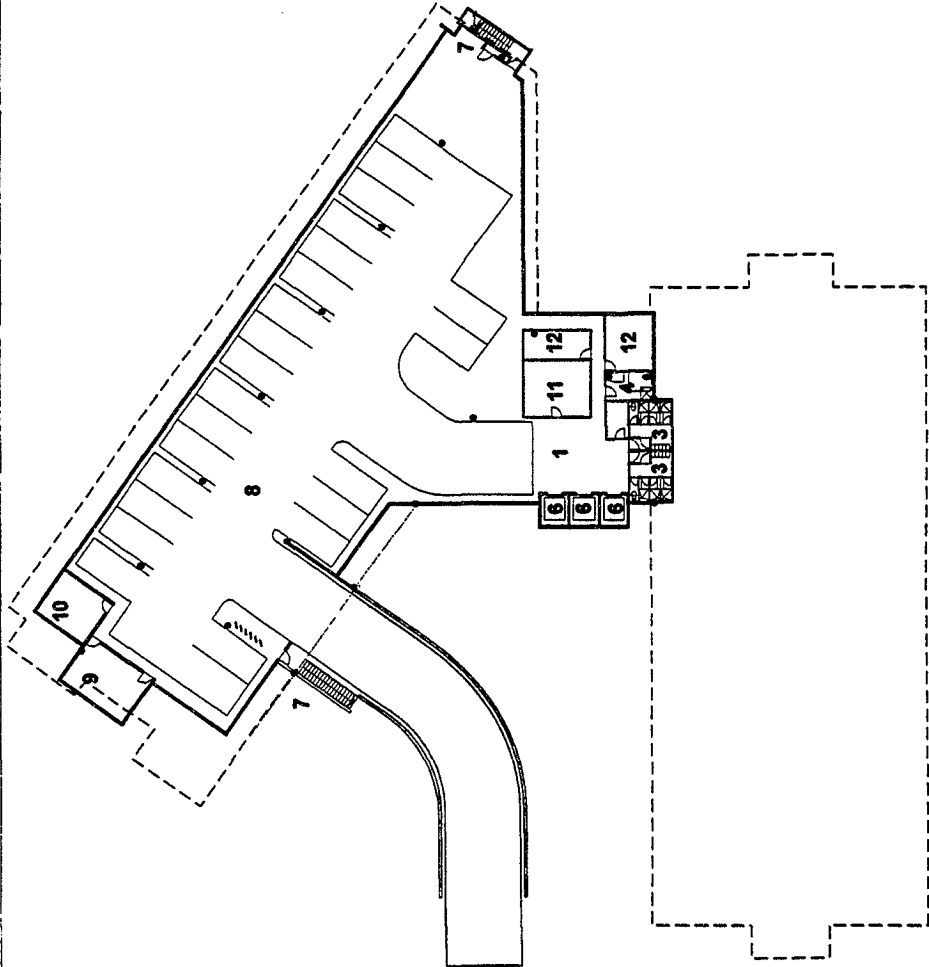
- 1 LOBBY
- 2 TENANCY AREAS
- 3 TOILETS
- 4 DISABLED TOILET
- 5 TEA ROOM
- 6 LIFTS
- 7 FIRE STAIRS
- 8 STORAGE
- 9 OPEN STAR
- 10 SUB STATION
- 11 REFUSE/GARBAGE
- 12 DATA ROOM



AIPD OFFICES - PROPOSED NEW BUILDING
GROUND FLOOR PLAN

LEGEND

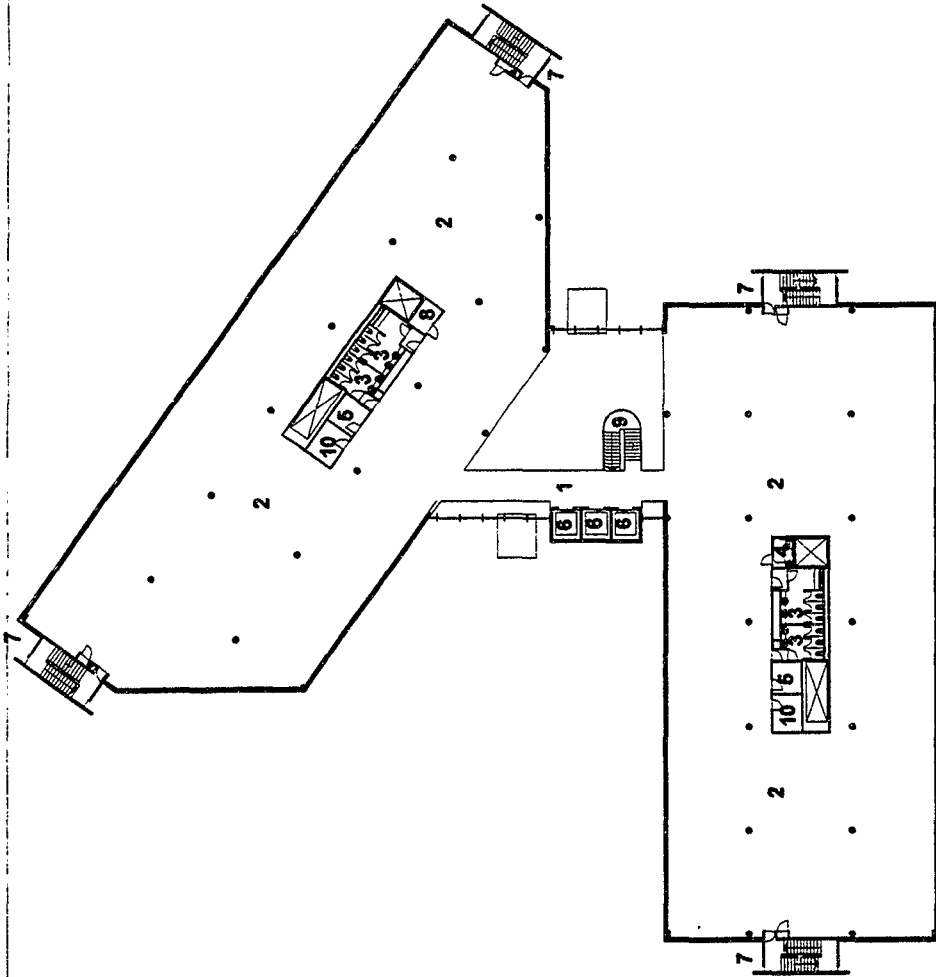
- 1 LOBBY
- 2 TENANCY AREAS
- 3 TOILETS & SHOWERS
- 4 DISABLED TOILET & SHOWER
- 6 TEA ROOM
- 6 LIFTS
- 7 FIRE STAIRS
- 8 CARPARK
- 9 SWITCHROOM
- 10 PLANTROOM
- 11 PABX
- 12 MDF



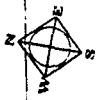
AIPD OFFICES - PROPOSED NEW BUILDING BASEMENT FLOOR PLAN

LEGEND

- 1 LOBBY
- 2 TENANCY AREAS
- 3 TOILETS
- 4 DISABLED TOILET
- 5 TEA ROOM
- 6 LIFTS
- 7 FIRE STAIRS
- 8 STORAGE
- 9 OPEN STAR
- 10 DATA ROOM



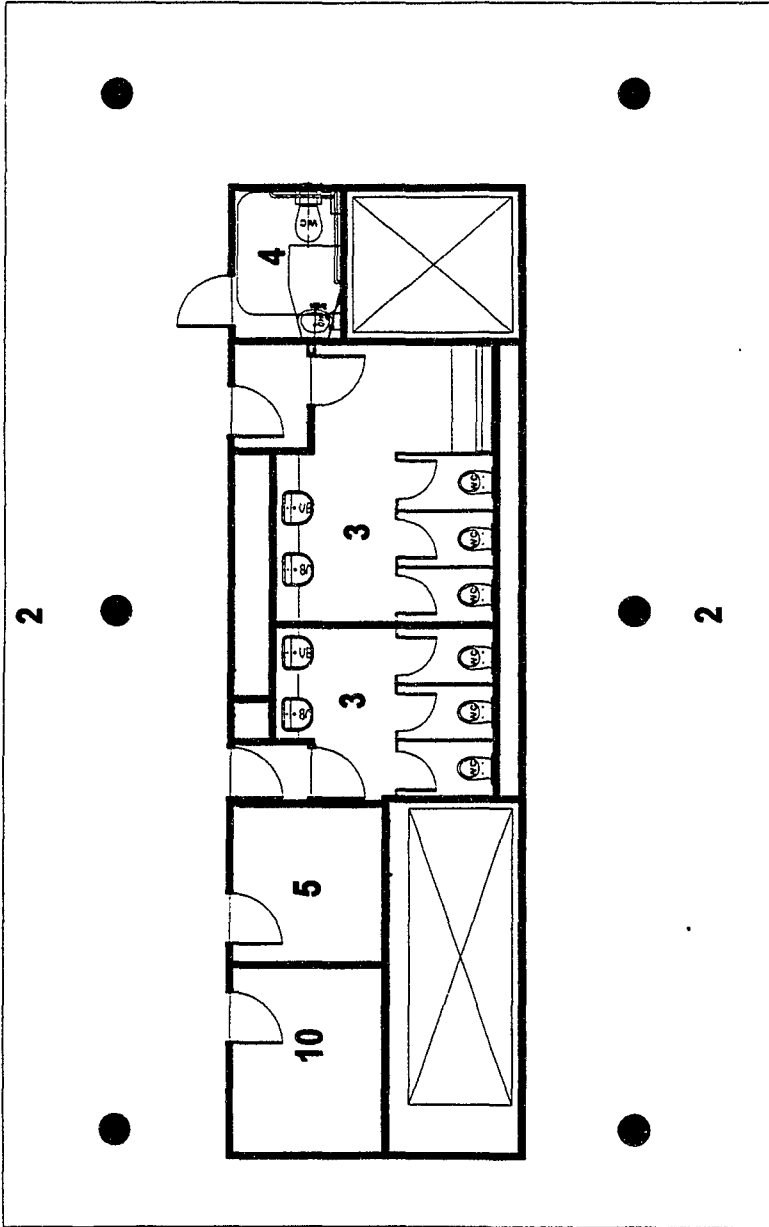
AIPO OFFICES - PROPOSED NEW BUILDING TYPICAL FLOOR PLAN





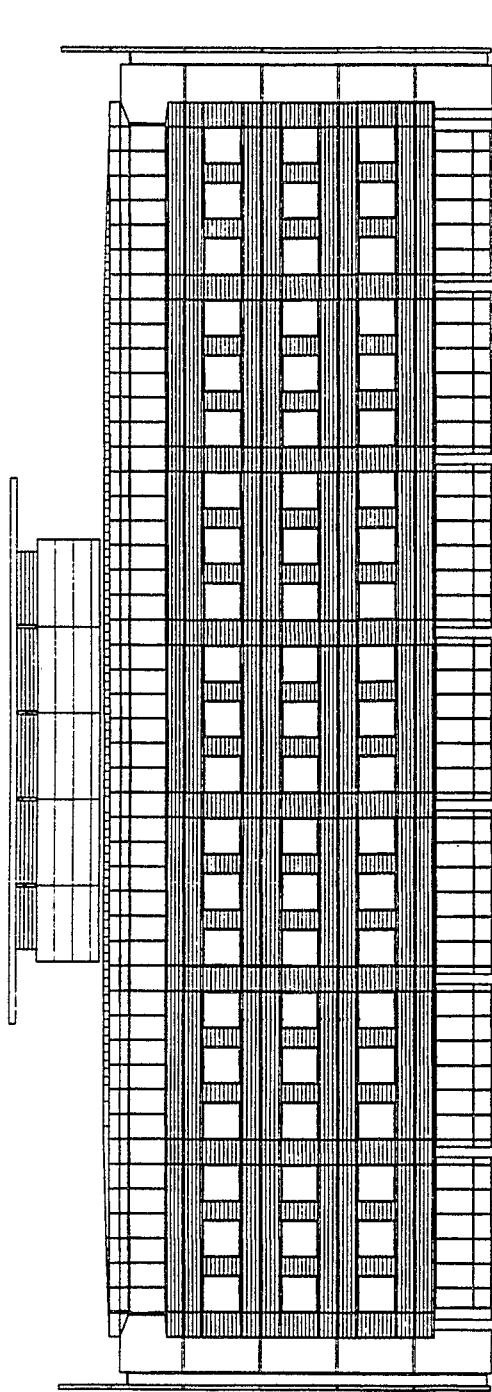
LEGEND

- 1 LOBBY
- 2 TENANCY AREAS
- 3 TOILETS
- 4 DISABLED TOILET
- 5 TEA ROOM
- 6 LIFTS
- 7 FIRE STAIRS
- 8 STORAGE
- 9 OPEN STAIR
- 10 DATA ROOM

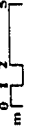


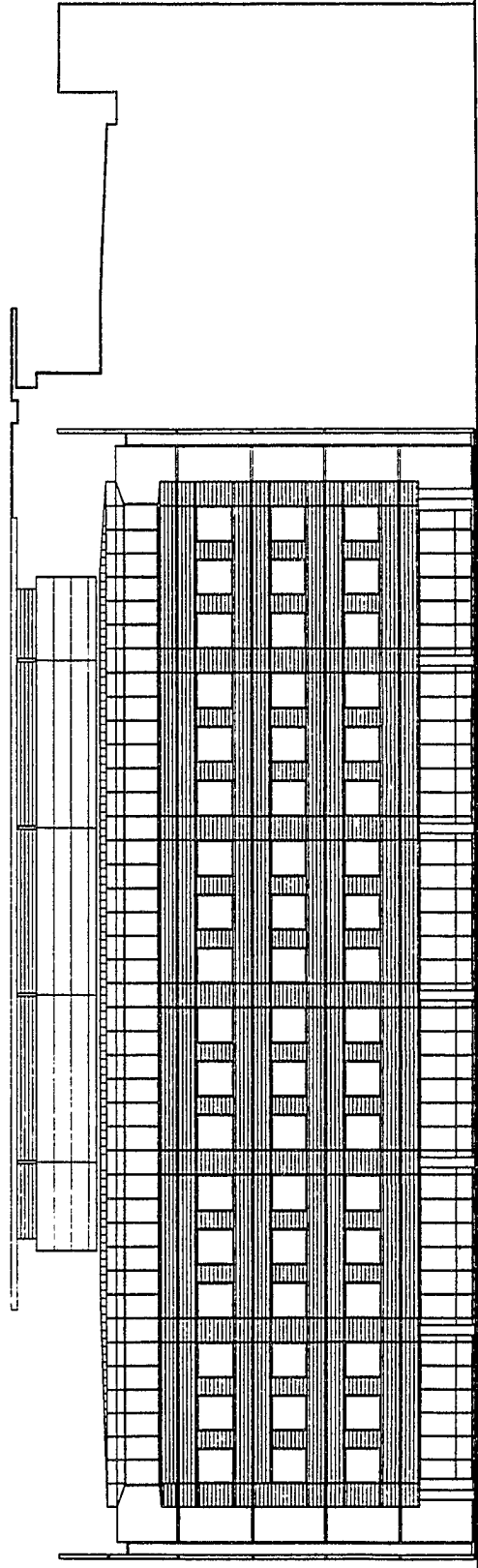
AIPO OFFICES - PROPOSED NEW BUILDING

TYPICAL SERVICE CORE PLAN

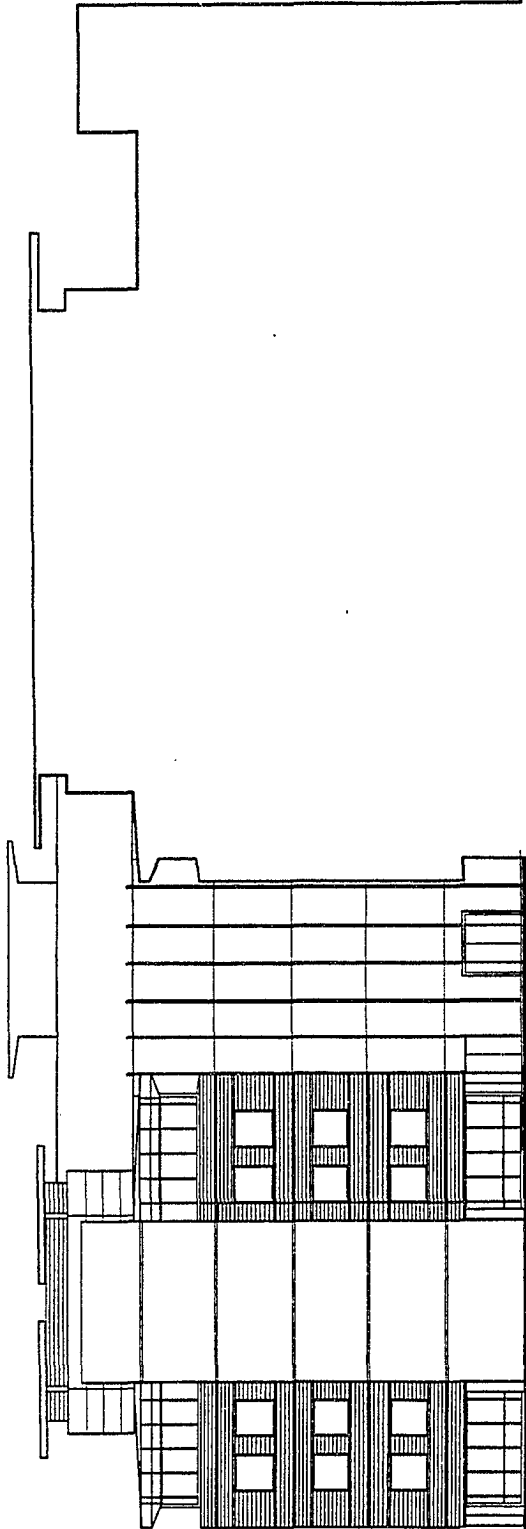


A IPO OFFICES - PROPOSED NEW BUILDING
NORTH ELEVATION

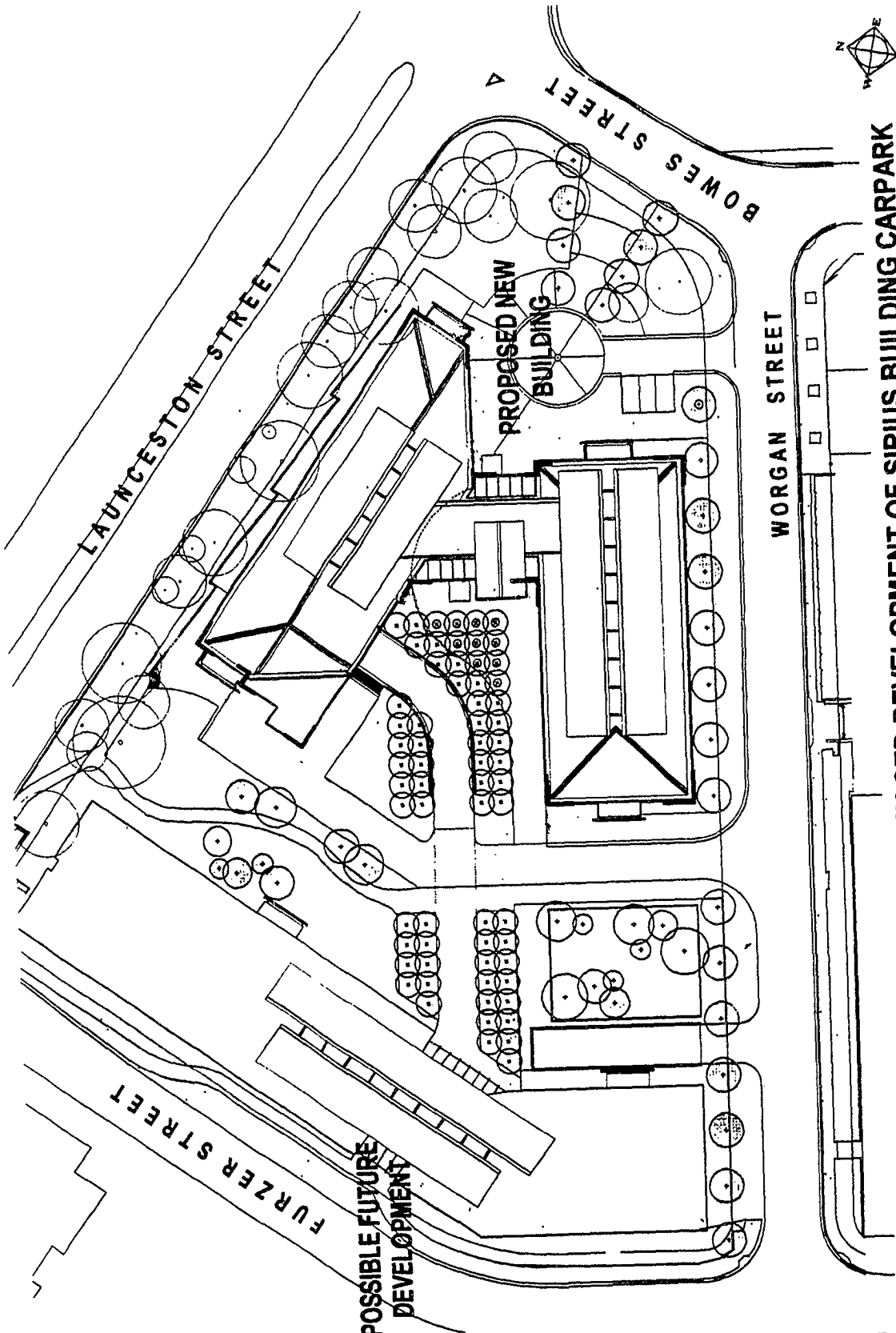




AIPO OFFICES - PROPOSED NEW BUILDING
SOUTH ELEVATION



A IPO OFFICES - PROPOSED NEW BUILDING
EAST ELEVATION



AIPD OFFICES - STAGED DEVELOPMENT OF SIRIUS BUILDING CARPARK
AMENDED MASTER PLAN

CONSTRUCTION DETAILS

Scarborough House

Ground Floor Entries and Plaza

1. The main southern entry to the building has been redesigned to improve its address and significance with respect to the Woden Town Centre. Similarly the address to the northern entry has been developed to reinforce the link with the annex building. Protection at the entries is afforded by a curved wall which has been positioned to screen the entries from the prevailing winds in the area, and glazed canopies above each entry are proposed to reduce the down draught which contributes to the current unsatisfactory conditions. Upgrading of the main plaza steps, which lead from Atlantic Street to the eastern side of the plaza ramps is proposed. This will open up the plaza area significantly and improve access to the building entry points and to the annex building.

Ground Floor

2. The current ground floor area is 195m². This is insufficient to be viable for use by AIPO as the major tenant of the building. It is therefore proposed to increase the area to approximately 400m². This will provide the space required at ground level by AIPO and provide potential shop front space for a second tenant.

Basement Plant, Facilities and Services

3. All plant and service areas currently in the basement require upgrading and an increase in size and capacity to accommodate the requirements of the refurbished building. It is proposed to locate the switch room in the existing substation area and move the substation to the east of the existing access corridor. Provision will also be made during the refurbishment for a pump room to be constructed in the north east corner of the basement adjacent to the basement entry ramp. However, the pumps will not be installed until a drop in the current mains pressure makes this necessary.

4. Relocation of the switch room and pump room within the basement will free an area on each side of the core that is well suited in area and proximity to services for the installation of toilet and shower facilities. Mechanical plant required for the ground floor will be located in the existing basement plant room and ventilation equipment for basement storage areas will be housed in a new plant room adjacent to the existing. The external refuse area is to be upgraded and there will be general upgrading of natural ventilation to basement and substation.

Typical Office Floors

5. The typical office floor core area does not currently provide adequate space for airconditioning and other service risers required to meet current codes and services requirements for contemporary office accommodation. Additional services space is required within the core area to accommodate mechanical return air ducts, larger submains and electrical distribution boards, data and security risers, mechanical pipe risers and additional fire hose reels and hydrants. Downpipes must also be relocated outside of the supply air ducts.

6. Toilet facilities for people with disabilities will be provided on two office floors and in the basement. Larger tea rooms will be provided throughout. Accordingly, the area of the typical office floor cores has increased on all floors to accommodate tea rooms and service risers beyond the confines of the existing cores with a consequential reduction in NLA.

7. Fixtures, fittings and finishes will be replaced throughout core areas to a standard consistent with modern office accommodation. New ceilings, floor finishes and light fittings will be provided throughout the tenancy areas and walls will be repaired as necessary and repainted.

Building Facade

8. The proposed work to be undertaken on the facade is intended to ensure its serviceability for another 15 to 20 years and includes the following:

- . removal and replacement of render on precast facade panels
- . repair of spalling on precast facade panels
- . repair surface cracks to rear face of facade panels
- . replacement of silicone sealant on window mullions
- . replacement of precast panel joint sealants
- . realign precast concrete panels as required.

Roof Plant Room Extension

9. The existing roof top plant room is too small to house the equipment needed to meet contemporary building services requirements and will be extended from an area of 392m² to 676m². The structure and linings will be replaced and the external facade will comprise a combination of louvres and fibre cement panelling.

Mechanical Services

10. The mechanical services are being fully upgraded with new air-conditioning systems utilising current design technology, energy conservation and management strategies. An air handling plant room on the roof will house four central air handling units vertically serving all floors with the exception of the ground floor which is served from a separate unit located in the basement. Each air handling unit will be variable volume type, complemented with on floor variable volume boxes with hot water reheat. A direct digital control system will provide an automatic sequencing of controls to maintain the comfort temperatures in an energy and cost efficient way.

11. Heating will be supplied by two new equal capacity boilers each rated at approximately 75% of total building requirement. Oversizing each boiler will provide sufficient capacity, on failure of one boiler, to maintain acceptable space temperatures in winter, other than during extremely cold conditions. Oversizing of the boilers will also mean that they can operate at reduced capacity which will prolong their operational life. Provision of gas reticulation to boilers is included.

12. All cooling and heating for Scarborough House will be generated in chilled water, hot water and condenser water plant on the roof and distributed via radial pipework to individual load centres. Existing chillers have previously been overhauled but are still functioning on ozone depleting refrigerant chlorofluorocarbon (CFC)12. The proposal for provision of chiller plant is as follows:

- . convert existing chillers to hydrofluorocarbon (HFC) 134a refrigerant and upgrade the chiller control and pumps
- . provide a new 270kW reciprocating chiller and pump to supplement the capacity of existing chiller plant and to function as a low load machine.

13. Separate sub-mains and mechanical services switchboards will be provided for:

- . essential services (ie fire, smoke air handling systems)
- . non-essential services (ie boilers, chillers, comfort air-conditioning systems).

Electrical Services

14. All electrical services are to be replaced. The new services will comply with the requirements of the BCA and contemporary office accommodation standards. In addition, the basement substation will be upgraded and relocated to meet the needs of the refurbished building and ACT Electricity and Water's (ACTEW) safety requirements. The lightning protection system will also be replaced.

15. The existing two 750kVa sub-stations are located at basement level. Preliminary maximum demand estimates for the existing building including allowance for fitout is approximately 2200kVa. For the anticipated maximum demand, ACTEW have advised that a three transformer sub-station is required. A new sub-station will therefore be provided in the basement. The existing sub-station will be utilised as the location for the site main switchboard.

16. Provision will be made in the main switchboard for bulk metering for all house light and power, air conditioning and lift services and

separate bulk metering will be provided for the building's tenants. Additional consumption meters on the main switchboard will be provided for airconditioning and lifts. Each floor distribution switchboard will provide for the future installation of meters to serve two separate tenancies per floor if required.

17. All areas in the building will be illuminated via fluorescent lights, providing illuminance levels in accordance with Australian Standard 1680. Lighting of foyer and lift lobbies will be achieved with down lights. The emergency and exit lighting system will incorporate lights connected to a battery supply with an automatic charger and will provide illumination for emergency evacuation of the building in the event of failure of the normal building electrical supply. Electronic security will be provided to all external doors on the ground floor and basement of the building. Provision for installation of electronic access control via card or proximity type readers will be included to the following areas:

- . an after hours access door
- . basement access door.

Fire Protection

18. All existing fire services will be replaced. The total building is to be protected with wet pipe sprinkler installation to Australian Standard 2118 - 1982. A smoke detection system will be provided in accordance with the Building Code of Australia, Australian Standard 1670 and Australian Standard 1668.1. A fire indicator panel will meet Australian Standard 1603.4 and will also contain all fire fan control panel functions in accordance with Australian Standard 1668.1. An emergency warning and intercom system is to be provided throughout the building.

19. The Committee was advised by the ACT Department of Urban Services that the ACT Fire Brigade has been consulted on the project and is satisfied that both Scarborough House and the annex comply with both the Building Code of Australia and the ACT Fire Brigade requirements. The Commonwealth Fire Board in a submission to the Committee indicated that the proposed works will provide adequate fire safety for people and fire protection for assets and function. However in relation to Scarborough House it suggested that the fire doors to the two fire escape staircases should be checked and refurbished or replaced as

appropriate. In reply AEM indicated that in fact it was intended to either replace or refurbish all fire doors in Scarborough House.

Hydraulic Services

20. The existing principal hydraulic services other than stormwater and fire hose reels and hydrants are to be retained. The basement hydraulic facilities are to be extensively upgraded and the majority of hydraulic services to this floor will be new.

Lifts

21. The four existing lifts in the building will be fully refurbished and this will include the installation of new control systems, drive sets, landing appointments and internal finishes. The work proposed has been designed to improve performance, reliability and quality of service and provide flexibility to accept future technology and interface with security and building management systems.

Finishes

22. Internal finishes will be upgraded throughout the building as follows:

- . office and lobby area floors will be recarpeted with heavy wear commercial quality 100% wool carpet
- . second floor public foyer will be finished with stone floor tiles
- . wall surfaces in tenancy areas will be repaired and painted throughout
- . ceilings in office areas will be replaced with acoustic tiles

Toilet areas on all floors will be fully renovated. Walls will be full height ceramic tiles, floors will be vitrified floor tiles, basement toilet and shower partitions will be paint finished fibre cement propriety partition system, typical office floor toilet partitions will be from a laminated panel system.

Annex Building

Mechanical Services

23. It is proposed to install a common central chilled and hot water plant in the roof top plant room to serve both wings of the building. An air handling plant room on the roof of each wing will house three central air handling units, vertically serving all floors. Each air handling unit shall be variable volume type, complemented with on floor variable volume boxes with hot water reheat. A direct digital control system will provide an automatic sequencing of controls to maintain the comfort temperatures in an energy and cost efficient way.
24. The atrium environment will be maintained by relieving a portion of the airconditioned air from adjacent offices into the atrium and drawing the air back to the air conditioning units on the roof. Heating of the atrium ground floor will be enhanced by cast in slab electric floor heating. This system will enable the temperature within the atrium to be maintained to within $\pm 3^{\circ}\text{C}$ of the office design temperatures.
25. All cooling and heating for the building will be generated in chilled water, hot water and condenser water plant on the roof of the atrium and distributed via radial pipework to individual load centres.
26. The chiller plant consists of two equal size reciprocating chillers, each sized for 50% of the total capacity, fitted with dual condensers and split coolers to provide improved stand by capabilities. The cooling tower will be located to minimise the likelihood of cross contamination by legionella.
27. Two equal capacity boilers are proposed, each rated at approximately 75% of total building heating requirement. The spare capacity of 50% is obtained at low cost by oversizing each boiler and provides sufficient capacity, on the failure of one boiler, to maintain acceptable space temperatures in winter other than during extremely cold conditions. Oversizing of the boilers will also mean that they can operate at reduced capacity which will prolong their operational life.

28. Separate sub-mains and mechanical services switchboards will be provided for:

- . essential services (ie fire and smoke air handling systems)
- . non-essential services (ie boilers, chillers, comfort air-conditioning systems).

Electrical Services

29. The preliminary maximum demand estimate for the building is approximately 1800kVa has indicated the following initial requirements for this level of demand:

- . substation enclosure with space for 3 x 1000kVa transformers
- . a minimum area of 13m x 6m fitted out to ACTEW requirements.

30. Provision will be made in the main switchboard for bulk metering for all house light and power, airconditioning and lift services and separate bulk metering will be provided for tenant use. Additional consumption meters on the main switchboard will be provided for air-conditioning and lifts. Each floor distribution switchboard will provide for the future installation of meters to serve two separate tenancies per floor if required.

31. All areas in the building will be illuminated primarily via fluorescent lights, providing illuminance levels in accordance with Australian Standard 1680. Lighting the atrium will be achieved with a combination of down lights, direct and indirect lighting. External lighting comprising recessed down lights and landscape lighting will be provided to the building. The emergency and exit lighting system will incorporate lights connected to a battery supply with an automatic charger and will provide illumination for emergency evacuation of the building in the event of failure of the normal building electrical supply.

32. Electronic security will be provided to all external doors to the ground floor and basement of the building. Provision for installation of electronic access control via card or proximity type readers will be included to the following areas:

- . an after hours access door
- . basement roller shutter door.

Fire Services

33. The total building is to be protected with wet pipe sprinkler installation to Australian Standard 2118 - 1982 and a wall wetting sprinkler system on both sides of the atrium and office dividing wall as required by the Building Code of Australia. All other floor areas and ceiling spaces will be protected to Australian Standard 2118 - 1982.

34. A smoke detection system in accordance with Building Code of Australia, Australian Standard 1670 and Australian Standard 1668.1 will be provided. The fire indicator panel will meet Australian Standard 1603.4 and will also contain all fire fan control panel functions in accordance with AS1668.1. An emergency warning and intercom system is to be provided throughout the building.

35. The Committee was advised by the ACT Department of Urban Services that the ACT Fire Brigade has been consulted on the project and is satisfied that both Scarborough House and the annex comply with both the Building Code of Australia and the ACT Fire Brigade requirements. The Commonwealth Fire Board in a submission to the Committee indicated that the proposed works will provide adequate fire safety for people and fire protection for assets and function.

Hydraulic Services

36. Sanitary stacks will be located inside pipe ducts at the toilet blocks. These stacks will be routed to outside the building and connected to external sanitary drains by gravity discharge. A sump and pump station will be constructed under the basement floor to lift drainage from the basement toilets to the external sanitary drain. Water risers will be installed inside pipe ducts at the toilet blocks. Electric mains pressure hot water storage units will be installed inside toilet blocks on each floor. Internal fire hydrants and hose reels will be provided for fire protection and a 100mm booster connection for the ACT Fire Brigade will be provided to supply internal fire hydrants. Downpipes will be located at external walls of the building and collected into underground stormwater

drains. Intercepting channels with gratings will be provided at the ramp to the basement carpark. Storm water collected from the ramp will be lifted by sump pump to the external storm water drain.

Lifts

37. Computer modelled traffic analysis indicates that an interconnected three car group of geared, overhead traction lifts will provide a good quality commercial service to the proposed building. The installation will be designed and installed such as to meet current mandatory requirements including Australian Lift Code (AS1735), Building Code of Australia and OH&S Standards.

Structural

38. The building is to be constructed as a concrete framed structure with drop panels at columns and perimeter edge beams and a steel framed roof structure. Footings will be reinforced concrete pads to north wing and atrium, with bored piers to south wing. Floors will generally be designed for 500Kg/m² loading with high load areas at 1000Kg/m².

Finishes

39. The building facade proposed is predominantly split face concrete masonry with bands of polished blocks and with double glazed separate windows at a sill height of 900mm. Walls to ground and fourth floors will be continuous double glazing set back to provide shading. The atrium external walls will be single high performance glazing in curtain wall glazing bars fixed to steel framing. East and west entrances into the atrium will be double pairs of automatic toughened glass doors, forming an airlock with stainless steel clad canopies above. Fire stair construction will be in-situ concrete walls with painted finish and the stairwells will have natural lighting from vertical windows.

40. Roof plant enclosures will be finished with compressed fibre cement panels with painted finish externally and with waterproof louvres to air-handling plant room. Roofs will be colourbond steel decking with aluminium clad panels to fascias and sloping soffits.

41. Finishes to the typical office floors are proposed as follows:

- . walls will be generally painted plasterboard with painted timber sills
- . two channel skirting duct in pre-finished extruded aluminium will be provided to the perimeter of all floors and service cores
- . ceilings will be two-way 1200mm x 600mm steel ceiling grid with acoustic tiles at 2700mm above floor level and a suspended flush plasterboard ceiling border to the perimeter
- . floors are to be covered with heavy wear commercial quality 100 % wool carpet
- . fully glazed double pivot doors will be provided from North and South wings to atrium bridge.

42. Finishes to the ground floor entry and the atrium generally are proposed as follows:

- . concrete walls, columns and bridges will be painted and wall spandrel panels will be finished with baked polyurethane
- . granite floor tiles or similar are proposed for the major circulation and open area with heavy wear commercial quality 100% wool carpet to the reception area near the northern wing
- . ceilings will be flush formed plasterboard
- . access bridges will be carpeted and will have toughened glass balustrades with timber handrails.

43. Finishes to service areas such as tea rooms, toilets, showers and cleaners room are proposed as follows:

- . internal wall finishes to all toilet areas are proposed as full height ceramic tiles

- airlock areas will be rendered masonry/plasterboard with paint finish and tiled skirting
- floors will be ceramic tiles throughout
- ceilings will be two-way 1200mm x 600mm exposed grid with vinyl coated plasterboard tiles at 2400mm above floor level within flush plasterboard margins
- toilet partitions will be compressed fibre cement or laminated finishes
- all fixtures and fittings will be ceramic or stainless steel.

44. Finishes to lift interiors are proposed as follows:

- walls will be patterned stainless steel and mirrored glass with provision for protective curtaining to all cars
- floors will be finished with heavy wear commercial quality 100% wool carpet
- ceilings will be laminate removable panels with recessed down lights.

45. Finishes to basement storage and car parking are proposed as follows:

- walls will be painted concrete and painted concrete masonry
- floors will be finished with granolithic topping
- ceilings will be concrete structure with painted finish.

External Works and Landscaping

46. The area surrounding the annex is proposed to be surfaced with pre-cast concrete paving in various sizes within brick border and feature areas. The ramp down to the basement and retaining wall to the perimeter landscaping buffer zone will be concrete or concrete masonry.

External base building identification signage will be provided at main points of access to the building.

47. The proposed siting and layout of the building allows for a substantial amount of the existing mature landscaping on the north edges of the site to be retained, together with the existing western parking area. Formal street trees are proposed in front of the formal southern facade along Worgan Street. Dense formal planting is proposed to the west along the staff and service entry route which provides both shade and visual link from the adjacent carpark and the anticipated future central pedestrian spine.

Car Parking

48. A traffic assessment has been undertaken which found that the existing parking supply in the surrounding area was under utilised and that the site is well located in close proximity to public transport routes. The traffic impact assessment concluded that the parking demands of the proposed first stage development will be easily met.

49. The siting of the proposed development also permits retention of large areas of the existing adjacent car parking. This will enable the level of car parking associated with this project to comply with the Development Control Plan. The parking requirements for any future possible development on the site will be subject to future negotiation at that time with the planning authorities.

Scope of Fitout

50. The fitout will include office accommodation which is generally open plan but with individual offices provided as necessary to meet AIPO's requirements. Specialist fitout will be installed in areas such as the computer centre, hearing rooms and storage and equipment areas. The project delivery method selected will allow the fitout work to be integrated with the base building work in the normal sequence of finishing trades.

51. The fitout work will consist of the following:

- . partitions and high screens for offices, conference rooms, project team rooms, training rooms, hearing rooms, office equipment rooms, rest rooms, a union room and other enclosed spaces
- . low screens to define individual work points in open office areas
- . new loose furniture will be provided where the existing furniture is not suitable
- . appropriate higher standard finishes including selected use of Australian native timbers, glass panels and plasterboard ceilings in the executive areas and public areas
- . provision of compactus units, shelving and storage areas in designated high floor loading areas
- . provision of staff amenities in each building including kitchen facilities
- . raised access flooring in the computer centre
- . modifications to the base building air conditioning, fire services and lighting to meet the needs of various specialist areas and partitioned rooms including meeting and hearing rooms, amenities rooms, a computer centre, equipment rooms and individual offices
- . supplementary air conditioning to areas with high load such as hearing rooms, amenities rooms and conference rooms
- . supplementary exhaust to equipment rooms to meet relevant Australian Standard requirements
- . an uninterruptable power supply (UPS) to provide no-break power to critical computer and communication equipment
- . additional electronic security

- . lighting control including supplementary light switching to allow control of local work space areas
- . additional fire detection to certain areas including the computer centre may be provided using very early smoke detection apparatus (VESDA)
- . PABX equipment, communications and data cabling
- . blinds and curtains to windows and internal glazed partitions
- . tenant signage
- . electrical services to work points, offices, conference rooms and other areas
- . heating and airconditioning to basement areas as necessary to provide a suitable working environment and storage conditions for documents.

52. In general, the internal planning of the buildings is based on the following:

- . the ground floors of both buildings are publicly accessible to allow access to the ACT State Office, library, hearing rooms, receipt and dispatch and reception/display areas
- . the annex building will be occupied by the Executive, Program Development Services and the Patent and Designs Offices
- . Scarborough House will be occupied by the Trade Marks Office, Corporate Services and Information Technology Services
- . access for deliveries and waste removal is provided on the ground floor and basement of the new building. There is no direct access for vehicles to the ground floor of Scarborough House and there is insufficient space for fork lifts to be used to off-load goods from trucks at the basement of Scarborough House.