

*Parliamentary Standing Committee on Public Works*

## REPORT

relating to the

# DEDICATED COMPUTER CENTRE FOR THE AUSTRALIAN TAXATION OFFICE, BRUCE, ACT

(Sixth Report of 1990)

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



**Report**

relating to the

**Construction of Dedicated Computer Centre for the  
Australian Taxation Office,  
Bruce, ACT**

(Sixth Report of 1990)

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Canberra

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MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS

(Thirtieth Committee)

Mr Colin Hollis MP (Chairman)  
Mr William Leonard Taylor MP (Vice Chairman)

| Senate                                  | House of Representatives     |
|---|------------------------------|
| Senator Bryant Robert Burns             | Mr Ewen Colin Cameron MP     |
| Senator John Robert Devereux            | Mr Lloyd Reginald O'Neil MP  |
| Senator Dr Glenister Sheil <sup>1</sup> | Mr Russell Neville Gorman MP |
|   | Mr Bruce Craig Scott MP      |

<sup>1</sup>Term expired 30 June 1990

|                |  |
|----------------|--|
| Secretary:     | Mr Peter Roberts                           |
| Inquiry Staff: | Mr Michael Fetter (Secretary)              |
|                | Mrs Jackie McConnell (Secretarial Support) |
|                | Mrs Di Singleton (Secretarial Support)     |

EXTRACT FROM  
THE VOTES AND PROCEEDINGS OF  
THE HOUSE OF REPRESENTATIVES

No. 9 dated Friday, 1 June 1990

- 7 PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - DEDICATED COMPUTER CENTRE FOR AUSTRALIAN TAXATION OFFICE, BRUCE, ACT; Mr Beddall (Minister representing the 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: Dedicated computer centre for the Australian Taxation Office, Bruce, ACT.

Mr Beddall presented plans in connection with the proposed work.

Debate ensued.  
Question - put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

DEDICATED COMPUTER CENTRE FOR THE AUSTRALIAN TAXATION OFFICE,  
BRUCE, ACT

By resolution on 22 December 1989 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposal for the construction of a dedicated computer centre for the Australian Taxation Office in the Canberra suburb of Bruce. With the dissolution of the House of Representatives on 19 February 1990, the reference lapsed although the Committee had commenced its inquiry.

Following the re-appointment of the Parliamentary Standing Committee on Public Works by the 36th Parliament, the project was re-referred to it by the House of Representatives on 1 June 1990. The present Committee, empowered by section 24 of the Public Works Committee Act 1969, resolved to accept submissions to the previous Committee as evidence for the inquiry.

THE REFERENCE

1. The proposal is to construct a purpose-built computer centre on Commonwealth land at Bruce in the Australian Capital Territory to accommodate new computer equipment for the Australian Taxation Office (ATO).
2. The proposed building, of 6 300m<sup>2</sup>, will consist of two levels; the mainframe computer will be on the upper level. Plant, despatch, loading dock, staff amenities and office accommodation will be on the ground floor level.

3. The estimated cost of the proposed work when referred to the Committee was \$21.85 million (December 1989 prices). When re-referred to the present Committee the estimated cost remained the same, with an out-turn cost of \$29.64 at the estimated completion date of June 1992.

#### THE COMMITTEE'S INVESTIGATION

4. The Committee accepted as evidence for the inquiry the written submissions and plans from the the Australian Taxation Office, the Department of Administrative Services - the Australian Property Group (APG) and the Australian Construction Services (ACS) and took evidence from representatives at a public hearing held in Canberra on 17 July 1990.

5. The Committee also received a submission from the Public Sector Union (Taxation Office Branch) and took evidence from a representative of the union at the public hearing. Mr John Langmore, MP, Member for Fraser, made a written submission.

6. A list of witnesses who appeared at the hearing is at APPENDIX A.

7. Prior to the public hearing the Committee inspected the proposed site in Bruce and existing computer facilities operated by the ATO at Deakin and Parkes.

8. The Committee's proceedings will be printed as Minutes of Evidence.

#### BACKGROUND

##### ATO Modernisation

9. The ATO's function is to deliver the Government's revenue programs in a cost-effective manner, to implement new taxation measures and to advise the Government on matters of tax administration. The ATO collects 80% of Commonwealth revenue. In 1988/89 this revenue amounted to \$69.3 billion, or \$4.0 million per head of staff. During the same year the ATO processed 11.5 million tax returns.

10. In recent years the ATO has undergone substantial changes caused by legislative and administrative initiatives. The structure of the ATO was re-organised at national and branch office level in 1984 and a program of decentralisation, from traditional business district locations, was commenced in 1985. In 1987 the Government approved the replacement of the ATO computer systems, used for revenue collection and taxation accounting, with modern state-of-the-art equipment. Decentralisation and re-equipment are key components of the ATO's modernisation program. The modernisation program proposes to completely modernise and enhance ATO's existing business operations using new computer equipment and software. The re-equipment program is designed to improve the level of service to the Government and the taxpayer.

##### ATO Organisational Structure

11. The ATO has a national office in Canberra and regional offices in all other capital cities and major centres throughout Australia. The function of the national office is to direct the general operations and administration of the ATO and to co-ordinate the activities of offices located in State branches.

12. Branch offices are located in the various capital cities and major centres throughout Australia. These branches administer the taxation laws in their area, examining returns, raising assessments and collecting tax. In addition, they carry out investigations, initiate action to obtain outstanding returns, check the validity of certain deductions, and provide receipting services for payments made by mail or at the counter for all taxes. Additional regional offices providing limited facilities have been established in some States.

#### Present and Future ADP Environment

13. At present the ATO has over 1 400 terminals connected by a data communications network to central computer sites at Deakin and Parkes in Canberra. The terminals handle more than 30 million on-line enquiries and 270 million batch transactions annually. There is a limited capability for on-line inquiries.

14. Under the modernisation program the number of terminals throughout Australia is expected to exceed 15 000, all of which will have the capability to make on-line inquiries. The ATO believes this increase in terminals and improved capability of accessing data will greatly improve the level of service provided to clients and its efficiency in collecting revenue.

#### Deakin Centre

15. The Deakin centre is the primary processing facility for the ATO's production computer systems. The mainframe CYBER computers hold master files for:

- . national taxpayer system
- . pay as you earn system
- . fringe benefit tax system
- . tax file number
- . higher education contribution scheme

16. A Fujitsu mainframe, also at Deakin, is responsible for the allocation of the upgraded tax file numbers system.

17. As a result of the ATO modernisation program a decision was made in 1989 to replace existing CYBER and Fujitsu mainframes with state-of-the-art equipment. This equipment consists of new mainframes, on-line disk storage, tape drives and automatic tape cartridge systems. The first component of the re-equipment was installed at Deakin in late 1989. It is currently being used for conversion and the development of new applications. Due to lack of space at the Deakin site, a second mainframe will be located temporarily in leased premises at Woden pending completion of a new dedicated computer centre at Bruce - the subject of this reference.

#### Parkes Centre

18. The computer facility at Parkes is located in the basement of the Treasury building. It is used to support production processing for the Prescribed Payments Scheme and on-going development activities.

#### Staffing

19. The Deakin site is staffed by a total of 60 operations personnel. The CYBER mainframes are operated continuously on a three shift, seven day per week basis. The Parkes site is attended by three personnel during day shift and is run remotely from Deakin outside of normal working hours.



## THE NEED

20. The need for the provision of a new dedicated computer centre at Bruce, ACT, stems from four factors which are discussed below:

- . two-site environment
- . existing facilities
- . ATO modernisation program
- . non-availability of alternative accommodation

### Two-site Environment

21. A two-site environment is essential to enable the ATO to continue operating in the event of a major failure at either site. At present, in the event of a major failure of the CYBER equipment at Deakin, the Parkes site becomes the backup site. ATO advised the Committee that essential work involving the ATO's business operations could continue at Parkes at the expense of less critical activities. If necessary, the Deakin site can also be used for partial backup of the Parkes site. Nevertheless, both backup sites have only partial backup capabilities at present.

### Existing Facilities

22. The Parkes site is not equipped to meet the longer-term requirements for ATO computer systems. In 1988 the Parkes site was upgraded as an interim measure to extend its capability. It still lacks security, media storage facilities, expansion capability and adequate staff accommodation. A report prepared in January 1989 for the ATO by consultants Peat Marwick Hungerfords raised serious concerns related to the security and operational risks associated with its continued use.

23. The Deakin site is housed in a building originally designed and built for Telecom to be used as a telephone exchange. Apart from the ATO a number of other agencies including Telecom, Social Security and Defence, occupy the building. Space within the building made available to the ATO is fully utilised. As a result temporary accommodation at Woden has been leased to house the second mainframe being acquired for the ATO modernisation.

### Impact of Modernisation

24. Re-equipment will be completed with the installation of new mainframes and associated hardware and data switches, networks and terminals. Of necessity it will be an incremental process contingent upon the ATO being able to continue operating its existing systems concurrently with new systems coming on-line. Again, space limitations preclude the implementation of this at existing sites.

### Alternative Permanent Accommodation

25. Another factor substantiating a need for a dedicated computer centre concerns the specialised nature of large mainframe computers. Traditional office buildings are not able to provide the specialised climate control and power requirements for modern mainframes. The need also exists for high security and emergency backup facilities, given the sensitive nature of the information processed and stored at mainframe computer sites. Consequently there has been a trend among large-scale users of information systems in Australia and overseas towards the provision of specialised purpose built facilities.

26. It was put to the Committee that only a purpose built centre would be able to meet all requirements outlined above.

#### Committee's Conclusion

27. There is a need for the provision of a dedicated computer centre to accommodate new mainframe computer systems being acquired by the Australian Taxation Office.

#### THE PROPOSAL

28. The proposal is for the construction of a purpose built computer centre at Battye Street, Bruce, ACT. Associated with this strategy is vacating the premises at Parkes with the Deakin site assuming the role of the backup site.

#### Location

29. The Committee questioned the need to locate the facility in Canberra. ATO advised that Canberra has been the centre of its computer operations since computers were first introduced and consequently ATO computer staff are based in Canberra.

#### Building Description

30. The proposed facility will be of two storeys with approximately 6 300m<sup>2</sup> of gross floor area providing 2 800m<sup>2</sup> of computer floor, 450m<sup>2</sup> of despatch area, associated office space, staff amenities, loading dock, storage and plant rooms.

31. Parking spaces for 75 cars will be provided within a secure perimeter surrounding the site. The provision of 75 car parking spaces was based on the number of staff expected to work in the building, provision for support personnel such as computing engineers and vendors and for the change-over of shiftwork personnel.

32. An automatic document despatch centre will be included in the complex. At present mailing to taxpayers is carried out from the 16 branch offices. Under the modernisation program the ATO proposes to carry out this operation from two sites, one of which will be located in the proposed facility.

33. The adoption of a two storey building form resulted from an analysis of the proposed site for the facility which is adjacent to the Fern Hill Technology Park and ATO's functional and long term planning requirements.

34. Internally the building will be zoned to provide a progression of activities, occupancy security and natural light. A circulation zone, comprising an internal courtyard, will separate occupied areas from equipment areas. The courtyard will be landscaped to provide visual relief and some natural lighting to an otherwise windowless space.

35. The computer mainframe and operations area will be on the upper floor level. Plant, despatch, loading dock, storage, staff amenities and office accommodation will be on the ground floor level.

36. A significant feature of the proposed facility will be the provision of specialised electrical and mechanical services to ensure uninterrupted power and climate control. The uninterruptible power supply (UPS) will be provided for the computer loads to prevent computing errors and memory loss during short term power fluctuations and longer term loss of external supply. Standby electric generators will be provided to serve the entire complex.

37. Special purpose air conditioners will be provided for the main computer room, the UPS room and other selected areas where precise control of the environment is required.

38. ACS advised that the design is based on the brief provided by ATO, the ATO Accommodation Standards Manual, relevant Commonwealth and industry construction standards, codes of practice and Australian Standards.

39. The building design will satisfy Commonwealth guidelines and Australian Standards for access for disabled persons. There will be ramp access, toilets and a lift to enable access to all parts of the building.

40. Plans illustrating various elevations, sections and floor layouts are at APPENDIX B.

#### Matters raised by the Committee

41. The Committee questioned a number of facets of the proposed building which are discussed in the following paragraphs.

#### Despatch Area

42. The proposed inclusion of a despatch area within the facility has been the subject of discussions between the ATO and the Public Sector Union (PSU). The ATO advised the Committee that an understanding had been reached on this. The ATO plans to reduce the number of outward despatch areas from 16 locations to two. One of the two locations will be in a state branch office. The other despatch area will be located in the first instance in the proposed facility, but ultimately it will be located within a branch office. What remains to be resolved between the PSU and the ATO is whether the second outward despatch area will be moved from the purpose built facility to be co-located with the ACT Branch Office. This cannot be resolved until the ATO develops a final position on accommodation for the ACT Branch Office.

#### Capacity of the Building for Expansion

43. As mentioned above, the building will have 2 800m<sup>2</sup> allocated for the mainframe computers. ATO advised that this is sufficient capacity for at least five years, if not eight to ten years. The submission from ACS stated that in the short term 50% of additional computer space could be provided. In the longer term, expansion of the proposed centre could be handled in a variety of ways ranging from incremental extensions to the addition of a complete new facility. The ATO stated that the proposed facility will have the capability for future expansion both within the building and on the site, meeting computer accommodation requirements for a projected 15-20 years.

44. The Committee suggested to ATO that an assessment of its requirement for land beyond a 15-20 year time horizon should be carried out and sufficient land be acquired. The ATO advised that the proposed building and the additional land available at the proposed site should be capable of meeting its requirements. Future technology involving the distribution of data bases around the country could reduce demand for building space at centres such as Canberra.

#### Child Care

45. The ATO advised that working within current Government guidelines for the provision of child care centres it would not be cost-effective to include a child care centre within the facility. In addition to capital and recurrent cost implications, the ATO advanced the following reasons for the non-inclusion of a child care centre within the building:

- . current Government guidelines provide that Commonwealth agencies are not to provide any recurrent subsidy towards the operation of child care services, thus placing a heavy cost burden on the users of the facility

- . in order to extend the facility to operators on afternoon and night shifts, the facility would need to be operated 24 hours a day, 7 days a week, thus increasing its operating costs significantly
- . the provision of a child care centre within the secure perimeter of the site would increase security risks and undermine the security requirements of the computer centre
- . the close proximity at Bruce and Belconnen of several child care and pre-school facilities already operating and available to the public, provide opportunities for those staff members requiring child care facilities

46. At the public hearing the ATO advised that discussions have been held with the Bruce TAFE and the University of Canberra, located near the site. These institutions have indicated a willingness for personnel from the ATO computer centre to use their child care facilities provided the ATO makes a financial contribution in some instances.

47. Based on the foregoing, the Committee believes available avenues for the provision of child care facilities have been explored, alternative arrangements have been identified, and that the provision of a child care centre within the building is not warranted in this particular instance.

#### Electrical Services

48. The electrical supply to the site will be via two independent underground high voltage supplies provided by two separate routes from ACT Electricity and Water's Belconnen zone substation to two substations on the site. One supply will be direct from the Belconnen zone substation; the second will tap into a feeder through the Fern Hill Technology Park.

49. Normal electricity supply will be via the substations with automatic change-over to the standby supply in the event of power failure or excessive voltage generation. The main switchboard and sub-main reticulation will be designed to ensure reliability of supply.

50. Standby generation will be provided for the whole complex. The initial installation will be two diesel driven generators with provision for a third unit to handle future expansion.

51. An uninterruptible power supply (UPS), comprising two units with provision for a third, will be provided for the computer loads to prevent computing errors and memory loss during short term power fluctuations and longer term loss of external supply.

52. At the public hearing the Committee questioned the need for the two independent high voltage supplies. ACS and ATO reiterated that the dual system will provide security against a failure in one. The Committee notes that neither the Parkes or Deakin sites have dual power feeds. The proposed UPS, specifically the backup generators, will be of sufficient capacity to provide all electricity requirements. The Committee therefore does not believe an adequate case has been made for the provision of the second feeder system from Technology Park. The Committee understands the cost of this extension is in the order of \$70 000.

#### Committee's Recommendation

53. The Australian Taxation Office and Australian Construction Services should review the requirement for dual independent electricity supplies to the building in view of the provision of other substantial backup facilities.

#### RFI and TEMPEST Screening

54. ATO advised that the ACS Scientific Services Laboratory had carried out a survey of Radio Frequency Interference (RFI) at the site. RFI in the context of this proposal would consist of externally-generated radio or electro-magnetic interference affecting computing equipment. The survey revealed the site is clear of radio interference. Authorities were also consulted about the appropriate TEMPEST rating. TEMPEST describes the process whereby electro-magnetic signals originating from computers are able to be picked up by specialised receiving equipment located away from the building. Receipt of such signals by unauthorised individuals could compromise security. Accordingly appropriate screening for the computer and communications rooms will be provided.

#### Tolerance to Earthquakes

55. The Committee questioned the tolerance of the structure against the effects of earthquakes. The Committee was assured that the proposed design will be able to withstand an earthquake of greater severity than that which severely damaged Newcastle early in 1990.

#### Physical Security

56. A two-metre high, steel picket-type fence is proposed to surround the site. ATO advised the fence will delineate the site boundary and to provide the first level of security. The Committee questioned the need for the fence, estimated to cost \$100 000.

57. Following the public hearing ATO provided the Committee with additional information concerning the need for the fence. Computer operations staff, who will operate the centre, consider the fence to be an important feature for the following reasons:

- . overnight protection of their vehicles; the Deakin centre does not have a security fence and staff working there have had items stolen from their vehicles
- . protection of female staff on shift work whilst walking to or from their cars at night
- . proximity of the building to major sporting events which could cause parking congestion in the area

58. In addition to providing a measure of security for staff and their property, the security fence will provide the first line of defence. The proposed centre will have an asset value of \$150 million. The continuity of ATO operations would be dramatically impaired if the site were rendered inoperative for an extended period by an aggrieved individual or group. The provision of features to provide a high level of security was therefore considered necessary. The ATO considers the security fence to be an integral component of protective security measures.

59. In addition to the security fence, other protective security measures and features will be provided. These include closed circuit TV surveillance cameras.

#### Energy Management and Efficiency

60. The submission from ACS stated that in such a highly serviced building, energy management and efficiency will be a prime consideration in both the building (envelope materials) and the fitout (lighting and air conditioning).

61. The Committee questioned ACS about their general strategies to improve energy efficiency in new buildings and the way these strategies are reflected in the design and ultimately the operation of the building.

62. Following the public hearing ACS provided the Committee with additional information on general approaches adopted to conserve energy in existing and new buildings. The concept of energy targets which aim to provide an environment of low energy usage, is central to any discussion of energy efficiency. Recent experience from similar projects and ACS (unspecified) guidelines for energy management will be reflected in the design solution. ACS advised that detailed energy targets will be established using computer modelling techniques as the design is further developed and when more specific details of actual computer equipment to be installed are known.

63. The Committee has difficulty in reconciling statements purporting to demonstrate that energy management and efficiency will be a prime consideration without an indication of energy targets in circumstances where:

- . there appears to be a plethora of empirical data available from projects of a similar nature
- . computer modelling techniques capable of manipulating this data to establish orders of magnitude based on a range of assumptions are available

64. The Committee therefore notes that whilst it is claimed that measures will be included to produce an energy efficient building, there is no evidence of the magnitude of the costs savings which these measures could produce. Details of savings, based on a variety of assumptions, could therefore have been made available to the Committee at the public hearing or afterwards.

65. Accordingly, the Committee gives notice that the inclusion of design and engineering principles designed to improve the energy efficiency, and thereby generate cost savings, of proposed new buildings will continue to be kept under careful scrutiny. Design and construction authorities should include this type of information in their submissions to the Committee.

#### Committee's Recommendation

66. Special attention should be given to the inclusion of energy conservation measures during detailed design development of the facility.

#### Construction Details

67. Other construction details are at APPENDIX C.

#### Committee's Conclusion

68. The design of the proposed dedicated computer facility is satisfactory and provides adequate expansion capacity.

#### THE SITE

69. The location of the proposed site is shown in APPENDIX B.

70. The proposed site comprises 3.8 hectares of the south-western part of the Commonwealth owned and managed Block 7, Section 5 at Bruce, ACT. The site generally slopes to the north, with drainage to the Fern Hill area, and is not subjected to flooding. The site is well drained.

71. The Committee questioned ACS about the possibility of proposed paved areas causing increased run-off to the Fern Hill area. The Committee was assured that there are no risks of run-off causing flooding of the Fern Hill area.

72. The Committee was also advised that a topographical survey of the site has been undertaken. The survey revealed there are no impediments to the design of an efficient facility for the ATO.

#### Local Support

73. The previous Committee received a written submission, dated 31 January 1990, from Mr John Langmore, the Member for Fraser, and Chairman of the Joint Parliamentary Committee on the ACT supporting the location of the proposed facility at Bruce rather than in Civic Centre.

74. The submission from Mr Langmore made the following points:

- . Civic Centre is relatively congested compared with other parts of Canberra;
- . The National Capital Development Commission and its successor organisation, the National Capital Planning Authority, have reiterated a commitment to dispersed planning for Canberra - this is a commitment which the Joint Parliamentary Committee on the ACT endorsed in its report on Metropolitan Canberra and which the present Committee also endorses in principle;
- . location of the proposed facility at Bruce will contribute to the dispersal of employment opportunities in the ACT, it will link the ATO computer facility with other public and private sector hi-tech offices in Fern Hill Technology Park, and it will increase employment opportunities in Belconnen;
- . the Bruce site will involve lower costs for the Government than would operation of a similar centre in Civic Centre;

- . the Bruce site would not deprive ATO officers of access to convenient shopping and service areas because these are available at Belconnen; conversely, there will be a significant reduction in the congestion and pressure for office space at Civic Centre.

#### Planning Considerations

75. The National Capital Planning Authority advised the Committee that the location of the facility at Bruce is consistent with existing land use policy and with other uses already established in the adjacent Fern Hill Technology Park. The Technology Park was planned as a high quality, landscaped industrial park for technological and science-based industries.

76. In addition, the Authority advised that the proposed location of the facility is consistent with metropolitan employment policies for Canberra. These policies are set out in the former National Capital Development Commission's "Metropolitan Canberra Policy Development Plan" (July 1984). The proposed location is also consistent with policies which will be included in the Final Draft of the National Capital Plan.

77. The Authority pointed to previous proposals to locate a complex for the Bureau of Mineral Resources, Geology and Geophysics in the same area. The Bureau advised the Committee that it is no longer interested in the Bruce site.

#### Committee's Conclusion

78. The site selected for the proposed dedicated computer centre for the Australian Taxation Office at Bruce, ACT, is suitable.

## ENVIRONMENTAL CONSIDERATIONS

79. ACS advised the Committee that the environmental implications of the proposal have been assessed. It is considered that the project is not a "matter affecting the environment to a significant extent" (sub-section 5(1) of the Environment Protection (Impact of Proposals) Act 1974).

## CONSULTATIONS

80. The Committee was advised that computer operations and other ATO staff were closely involved in the site selection and building design processes. A steering committee, with representation from relevant unions on it, was established to oversight the development of the proposal.

### Public Sector Union

81. At the public hearing a representative of the Public Sector Union stated that the key aspects of the proposal which should be addressed, in terms of personnel working in the proposed facility, are:

- . access to natural lighting
- . provision of exterior lighting for security and safety reasons
- . staff facilities
- . work stations and work surfaces
- . child care

82. The Committee was advised that the PSU considered that these aspects appear to have been handled satisfactorily by ATO and they are not likely to impede the commitment of the PSU to the project.

## Other Organisations

83. The following organisations were also consulted in the development of the proposal:

- . National Capital Planning Authority
- . Interim Territory Planning Authority
- . ACT Electricity and Water
- . ACT Fire Brigade
- . Australian Heritage Commission
- . Australian Council for the Rehabilitation of the Disabled Limited (ACROD)
- . Telecom

### Australia Post

84. The Committee provided copies of departmental submissions to Australia Post for comment. Australia Post advised that contact had been made with ATO about the functionality of pick-up and delivery facilities within the despatch area and that consideration has been given to this.

## CONSTRUCTION PROGRAM

85. When referred to the previous Committee ACS advised that subject to a favourable report by the Committee and Parliamentary approval for the work to proceed, contract documents could be completed to enable construction of the first part of the works to commence in June 1990, with the whole of the works to be completed by December 1991.

86. Due to the 1990 election and the subsequent need for the proposal to be re-referred to the Committee the revised commencement date is now October 1990 with completion by June 1992.



COST

87. The limit of cost estimate for the proposed work is \$21.85 million at December 1989 prices; the out-turn cost is \$29.64 million.

Committee's Recommendation

88. The Committee recommends the construction of the work in this reference.


CONCLUSIONS AND RECOMMENDATIONS

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

Paragraph

1. THERE IS A NEED FOR THE PROVISION OF A DEDICATED COMPUTER CENTRE TO ACCOMMODATE NEW MAINFRAME COMPUTER SYSTEMS BEING ACQUIRED BY THE AUSTRALIAN TAXATION OFFICE. 27
2. THE AUSTRALIAN TAXATION OFFICE AND AUSTRALIAN CONSTRUCTION SERVICES SHOULD REVIEW THE REQUIREMENT FOR DUAL INDEPENDENT ELECTRICITY SUPPLIES TO THE BUILDING IN VIEW OF THE PROVISION OF OTHER SUBSTANTIAL BACKUP FACILITIES. 53
3. SPECIAL ATTENTION SHOULD BE GIVEN TO THE INCLUSION OF ENERGY CONSERVATION MEASURES DURING DETAILED DESIGN DEVELOPMENT OF THE FACILITY. 66

4. THE DESIGN OF THE PROPOSED DEDICATED COMPUTER FACILITY IS SATISFACTORY AND PROVIDES ADEQUATE EXPANSION CAPACITY. 68
5. THE SITE SELECTED FOR THE PROPOSED DEDICATED COMPUTER CENTRE FOR THE AUSTRALIAN TAXATION OFFICE AT BRUCE, ACT, IS SUITABLE. 78
6. THE LIMIT OF COST ESTIMATE FOR THE PROPOSED WORK IS \$21.85 MILLION AT DECEMBER 1989 PRICES. 87
7. THE COMMITTEE RECOMMENDS THE CONSTRUCTION OF THE WORK IN THIS REFERENCE. 88

  
Colin Hollis  
Chairman  
23 August 1990.

APPENDIX A

LIST OF WITNESSES

GROWDER, Mr John Robert, Assistant Commissioner, Development and Production Support Branch, Australian Taxation Office, 2 Constitution Avenue, Canberra City, ACT

NEWMAN, Mr Robert John, Project Manager, Australian Construction Services, Department of Administrative Services, Sirius Building, Furzer Street, Phillip, ACT

O'CONNELL, Mr Shane Patrick, Assistant Branch Secretary, Public Sector Union, Taxation Office Branch, 2nd Floor, ACTU House, 393-397 Swanston Street, Melbourne, Vic

SEYMOUR, Mr Geoffrey Robert, First Assistant Commissioner, Systems Group, Australian Taxation Office, 2 Constitution Avenue, Canberra City, ACT

ROUGHTON, Mr Fraser John, Acting Assistant General Manager, Accommodation Services, Australian Property Group, 4th Floor West, 111 Alinga Street, Canberra City, ACT

URBANI, Mr John Silvio, Assistant Director, Distributed Computer Services, Australian Taxation Office, 2 Constitution Avenue, Canberra City, ACT

WILKINSON, Mr Francis Lyon, National Director, Civil Engineering, Australian Construction Services, Department of Administrative Services, Sirius Building, Furzer Street, Phillip, ACT

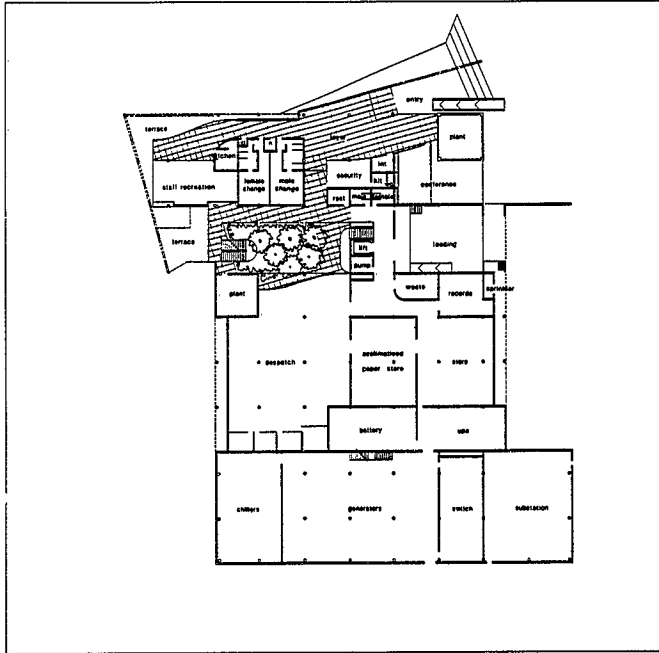
APPENDIX B

PLANS AND DRAWINGS

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| Location Plan     | B - 2 |
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| Ground Floor Plan | B - 4 |
| First Floor Plan  | B - 5 |
| Elevations        | B - 6 |
| Elevation/Section | B - 7 |
| Perspectives      | B - 8 |



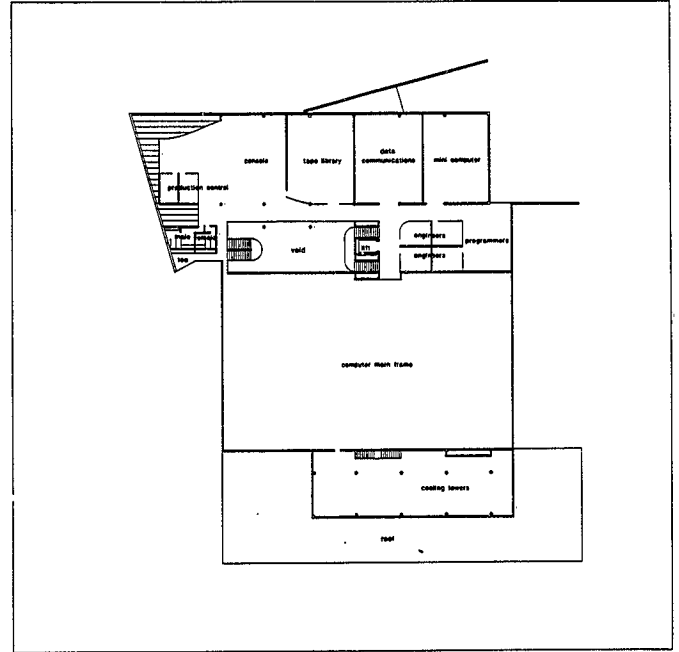
  
 AUSTRALIAN  
 CONSTRUCTION SERVICES  
 ACT OFFICE



  
 GROUND FLOOR PLAN

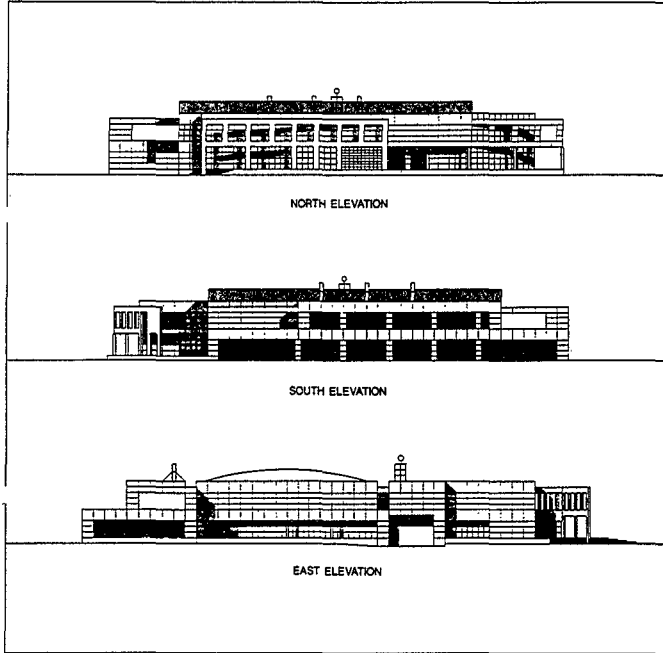
AUSTRALIAN TAXATION OFFICE  
PURPOSE BUILT COMPUTER CENTRE

  
 AUSTRALIAN  
 CONSTRUCTION SERVICES  
 ACT OFFICE



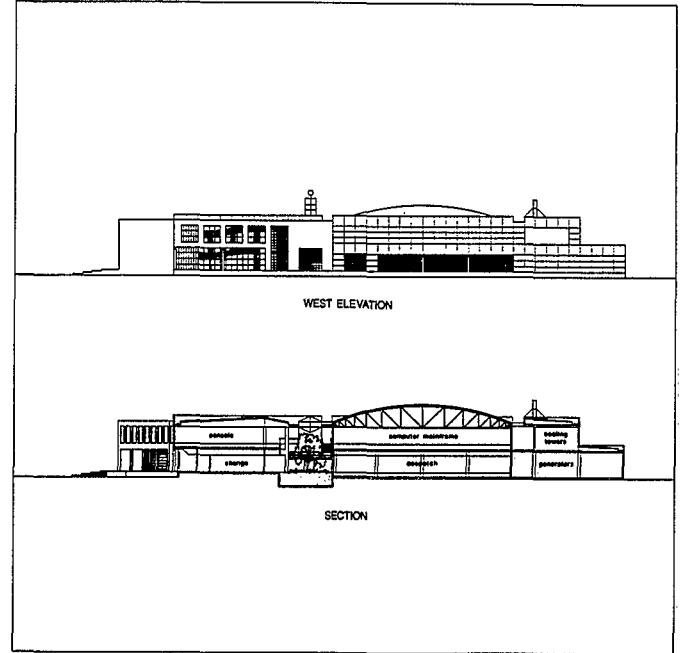
  
 FIRST FLOOR PLAN

AUSTRALIAN TAXATION OFFICE  
PURPOSE BUILT COMPUTER CENTRE



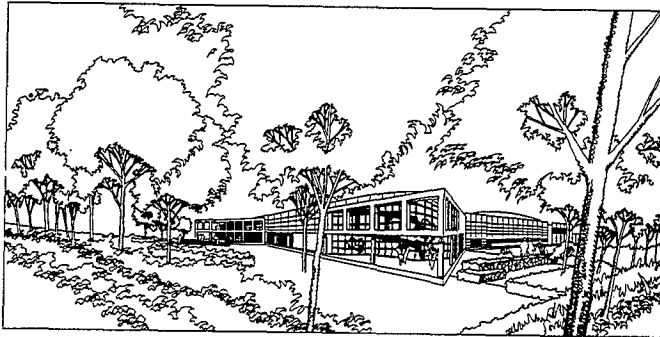
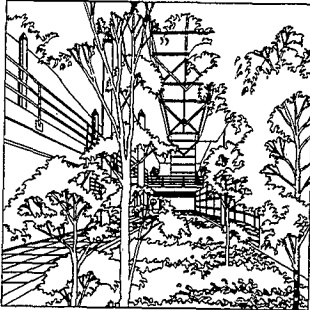
— — —  
ELEVATIONS

AUSTRALIAN TAXATION OFFICE  
PURPOSE BUILT COMPUTER CENTRE



— — —  
ELEVATION / SECTION

AUSTRALIAN TAXATION OFFICE  
PURPOSE BUILT COMPUTER CENTRE



PERSPECTIVES

AUSTRALIAN TAXATION OFFICE  
PURPOSE BUILT COMPUTER CENTRE

## CONSTRUCTION DETAILS

### Construction Method

1. The construction method will use prefabricated materials manufactured off site to enable early completion of the building structure and envelope.

### Structure and Finishes

2. The building will have reinforced concrete flat slab and frame construction.

3. Roof framing will be steel beams and purlins with clear span roof trusses over the computer areas.

4. External walls will consist of brickwork with insulated lightweight panelised construction of selected colour and finish on upper floors. Windows will be aluminium framed with laminated glass to all areas. Impact resistant materials will be used in high security areas. The roof will be pre-coloured insulated metal deck.

5. Internal walls will be painted render on masonry, tiling and painted plasterboard to wet areas. Ceilings will be metal pan acoustic tiles in a suspension system with suspended painted plasterboard to foyer and core spaces.

6. Raised access computer floors with vinyl tiles will be used in computer areas and carpet tiles to offices. Non-slip tiles will be provided to foyers and wet areas.

11. Lighting within the building will generally be fluorescent with emergency lighting.

12. Lightning protection will be provided.

#### Mechanical Services

13. Air conditioning will be provided to all occupied areas of the building. Special purpose are conditioners will be provided to the main computer room, the UPS rooms and other selected areas where precise control of the environment is required.

14. Water cooled chillers will provide cooling for the computer type air conditioners. Other areas will be served by water source heat pumps which will make use of the rejected heat from the main computer room.

15. For reliability, all major plant such as chillers, cooling towers and pumps will be installed with 100 per cent redundancy. Computer air conditioners will be installed with 50 per cent redundancy.

16. Space will be provided for a chilled water dump tank to service a future water cooled mainframe.

17. Ventilation systems will be provided for all plant areas, toilet and locker areas and for smoke exhaust.

18. Provision will be made for the addition of a microwave dish on the roof of the building in line of sight of the Black Mountain Telecom tower.

19. A goods lift of 2 500 kilogram capacity will be provided to service the two levels.

#### Fire Protection

20. The fire protection measures will include:

- . automatic sprinkler wet pipe system including under floor and ceiling spaces
- . very early smoke detection apparatus (VESDA) installed in most areas
- . a water detection system in under floor areas
- . smoke detectors

#### External Works and Landscaping

21. Water will be provided from two different community reservoirs. This arrangement will eliminate the need for water storage tanks for backup supply.

22. Landscaping will be an extension of the adjacent Fern Hill Technology Park development. Perimeter landscaping will include species endemic to the local region. High trunked groups of trees will be planted in the grassed perimeter around the building to provide a parkland setting.

14:09:40

# THE SENATE ROLL

SENATORS -

~~ALSTON~~  
~~ARCHER~~  
~~AUGH~~  
~~BAUME, MICHAEL~~  
~~BAUME, PETER~~  
~~BEAMAN~~  
~~BELL~~  
~~BISHOP~~  
~~BJELKE-PETERSEN~~  
~~BOLKUS~~  
~~BOEWELL~~  
~~BOURNE~~  
~~BROWNHILL~~  
~~BURNS~~  
~~BUTTON~~  
~~CALVERT~~  
~~CAMPBELL~~  
~~CHAPMAN~~  
~~CHILDS~~  
~~COATES~~  
~~COLLINS~~  
~~COLSTON~~  
~~COOK~~  
~~COONEY~~  
~~COULTER~~  
~~CRANE~~  
~~CRICHTON-BROWNE~~  
~~CROWLEY~~  
~~DEVEREUX~~  
~~DURACK~~  
~~EWENS~~  
~~FAULKNER~~  
~~FOREMAN~~  
~~GIBBS~~  
~~HARRADINE~~  
~~HERRON~~  
~~HILL~~  
~~JONES~~

~~KEMP~~  
~~KERNOT~~  
~~KNOWLES~~  
~~LEES~~  
~~LEWIS~~  
~~LOOVELL~~  
~~MACDONALD~~  
~~MacGIBBON~~  
~~McKERNAN~~  
~~McLEAN~~  
~~McMULLAN~~  
~~MACURE~~  
~~NEWMAN~~  
~~O'CHEE~~  
~~OLSEN~~  
~~PANIZZA~~  
~~PAPER~~  
~~PATTERSON~~  
~~POWELL~~  
~~RAE~~  
~~REID~~  
~~REYNOLDS~~  
~~RICHARDSON~~  
~~SCHACHT~~  
~~SHERRY~~  
~~SHORT~~  
~~SIBRAA~~  
~~SPINDLER~~  
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~~TATE~~  
~~TEAGUE~~  
~~VALLENTINE~~  
~~VANSTONE~~  
~~WALSH~~  
~~WALTERS~~  
~~WATSON~~  
~~WEST~~  
~~ZAKHAROV~~



14:09:90

## THE SENATE ROLL

### SENATORS -

~~ALSTON~~  
~~ARCHER~~  
~~AULICH~~  
~~BAUME, MICHAEL~~  
~~BAUME, PETER~~  
~~BEAHAN~~  
~~BELL~~  
~~BISHOP~~  
~~BJELKE-PETERSEN~~  
~~BOLKUS~~  
~~BOSWELL~~  
~~BOURNE~~  
~~BROWNHILL~~  
~~BURNS~~  
~~BUTTON~~  
~~CALVERT~~  
~~CAMPBELL~~  
~~CHAPMAN~~  
~~CHILDS~~  
~~COATES~~  
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~~COLSTON~~  
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~~CRANE~~  
~~CRICHTON-BROWNE~~  
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~~DURACK~~  
~~EVANS~~  
~~FAULKNER~~  
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~~HERRON~~  
~~HILL~~  
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~~MAGUIRE~~  
~~NEWMAN~~  
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~~PARER~~  
~~PATTERSON~~  
~~POWELL~~  
~~RAY~~  
~~REID~~  
~~REYNOLDS~~  
~~RICHARDSON~~  
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~~WALSH~~  
~~WALTERS~~  
~~WATSON~~  
~~WEST~~  
~~ZAKHAROV~~

14.09.90  
MJC

# THE SENATE ROLL

SENATORS -

|                           |                       |
|---------------------------|-----------------------|
| <del>ALSTON</del>         | <del>KEMP</del>       |
| <del>ARCHER</del>         | <del>KERNOT</del>     |
| <del>AULICH</del>         | <del>KNOWLES</del>    |
| <del>BAUME, MICHAEL</del> | <del>LEES</del>       |
| <del>BAUME, PETER</del>   | <del>LEWIS</del>      |
| <del>BEAHAN</del>         | <del>LOOSLEY</del>    |
| <del>BELL</del>           | <del>MACDONALD</del>  |
| <del>BISHOP</del>         | MacGIBBON             |
| * BJELKE-PETERSEN         | McKIERNAN             |
| BOLKUS                    | <del>McLEAN</del>     |
| <del>BOSWELL</del>        | <del>McMULLAN</del>   |
| <del>BOURNE</del>         | <del>MAGUIRE</del>    |
| BROWNHILL                 | <del>NEWMAN</del>     |
| <del>BURNS</del>          | <del>O'CHEE</del>     |
| <del>BUTTON</del>         | OLSEN                 |
| * CALVERT                 | <del>PANIZZA</del>    |
| <del>CAMPBELL</del>       | <del>PARER</del>      |
| CHAPMAN                   | <del>PATTERSON</del>  |
| <del>CHILDS</del>         | <del>POWELL</del>     |
| <del>COATES</del>         | <del>RAY</del>        |
| <del>COLLINS</del>        | <del>REID</del>       |
| <del>COLSTON</del>        | <del>REYNOLDS</del>   |
| <del>COOK</del>           | <del>RICHARDSON</del> |
| <del>COONEY</del>         | <del>SCHACHT</del>    |
| <del>COULTER</del>        | SHERRY                |
| <del>CRANE</del>          | <del>SHORT</del>      |
| CRICHTON-BROWNE *         | * SIBRAA *            |
| CROWLEY                   | <del>SPINDLER</del>   |
| DEVEREUX                  | <del>TAMBLING</del>   |
| <del>DURACK</del>         | TATE                  |
| <del>FAULKNER</del>       | <del>TEAGUE</del>     |
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| <del>HERRON</del>         | <del>WALTERS</del>    |
| <del>HILL</del>           | <del>WATSON</del>     |
| * JONES *                 | <del>WEST</del>       |
|                           | <del>ZAKHAROV</del>   |

\* on leave).