



**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE, AUSTRALIAN CAPITAL TERRITORY**

**STATEMENT OF EVIDENCE  
TO THE  
PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS**

**AUSTRALIAN SPORTS COMMISSION**

**CANBERRA, ACT**

**March 2003**

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**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT, BRUCE  
EXECUTIVE SUMMARY**

**The Proposal**

This proposal addresses the redevelopment needs of the Australian Sports Commission's Australian Institute of Sport campus at Bruce and its Rowing Centre at Yarralumla. It encompasses the upgrade of facilities for the Australia Institute of Sport, Sports Performance and Development Group and the Business Operations Group.

**Estimated Costs**

The estimated out-turn cost of management, design, capital works and contingency associated with the proposal is \$65.4m excluding GST.

**Preliminary Program**

Subject to Government approval, the proposed works will start in 2004 and be completed in mid 2007.

**Attachments**

The Attachments to this Submission are:

Attachment 1	AIS Campus Location Plan
Attachment 2	Current AIS Bruce Campus Layout
Attachment 3	Proposed Facilities Plan
Attachment 4	Detail of Proposed Works
Attachment 5	Concept Design Sketches for Proposed Works

## IDENTIFICATION OF THE NEED

### Introduction

1. The Australian Sports Commission's Australian Institute of Sport (AIS) campus is located at Bruce about 5 km north of Canberra. A Location Plan is at Attachment 1. The current AIS Campus Layout is at Attachment 2.
2. The AIS campus at Bruce is the primary Centre of Excellence for the development of sport in Australia. It accommodates the following organisations:
  - a. Australian Sports Commission (ASC) is a Commonwealth Statutory Body charged with development of Australian sport. The ASC comprises two primary business groups (the AIS and the Sports Performance and Development Group) and a central policy and support group (Business Operations). The ASC provides leadership in the development of Australia's performance in sport and encourages increased participation by Australians in sport. The ASC administers and funds sport in Australia on behalf of the Federal Government developing elite sporting excellence and increasing community participation.
  - b. AIS is responsible for developing elite sport on a national basis with a particular focus on success at the Olympic Games and World Championships. For the purposes of elite sports development, it integrates sport science and medical services, sports management activities and funding as well as athlete welfare and implementation of the technical requirements for sporting success.
  - c. Sport Performance and Development Group provides a full range of advisory and support services to assist National Sporting Organisations and their affiliated organisations and clubs to conduct their business in an effective, efficient and inclusive way.
  - d. Business Operations Group provides for corporate integration of the Australian Sports Commission's complex operations as well as providing general services to sports, enhancing a national sports information network, and managing marketing, public relations and the growing commercial operations of the Australian Sports Commission.

## **The Proposal**

3. The proposal addresses the redevelopment of the Australian Sports Commission's AIS campus at Bruce ACT. It includes the following components:
  - a. New athlete residential, dining and education facilities;
  - b. AIS Service Hub incorporating:
    - (1) Strength and Conditioning Gymnasium;
    - (2) New indoor testing facility;
    - (3) New indoor training facility;
    - (4) Hydrotherapy Recovery Centre; and
    - (5) Coaches Services Centre;
  - c. Upgrading of technology and air conditioning of training halls and the AIS Arena;
  - d. An extension of the Gymnastics Hall;
  - e. Combat Sports Facility;
  - f. Aquatic Testing and Training Facility;
  - g. Existing Pool Complex Improvements;
  - h. Sports Development and Education Centre;
  - i. Modernisation of Existing Australian Sports Commission Building;
  - j. Improvements to the AIS Rowing Centre;
  - k. Upgrading of campus trunk engineering and support infrastructure as necessary; and
  - l. Demolition as necessary.
4. Attachment 3 contains the Proposed Facilities Plan.

## **BACKGROUND**

### **AIS at Bruce Development History**

5. The National Athletics Stadium, now the Bruce Stadium was opened in 1977 as the first component of a National Sports Centre at Bruce. In 1979, planning for the area was

reviewed to encompass the possible establishment of an AIS at Bruce. In January 1980 the intention to establish an institute for the pursuit of sporting excellence was announced. The National Indoor Sports Centre was opened in January 1981 as a training venue for the Australian Institute of Sport, an international standard competition venue and as a recreational facility. This venue accommodated the original AIS programs of gymnastics, netball, basketball, tennis, weightlifting and soccer while swimming and athletics used other venues.

6. The use of the National Indoor Sports Centre by a number of different sporting programs was not satisfactory and the need for additional specialist facilities for uninterrupted training programs was recognised. Between March 1983 and October 1985, a new gymnastic hall, indoor tennis venue, swimming pool complex, sports training facility, basketball/netball training hall, sports science and sports medicine facility, residences and administration facilities were constructed.

7. Since the 1980's, there has been alteration and expansion of existing facilities including: extra administration and coaching facilities accommodated in temporary structures, extra support facilities such as the Services Buildings and Ground Maintenance facilities, the sports visitors centre and extra accommodation for junior athletes. This year, a new archery training facility was completed.

### **Australian Sport - An International Benchmark**

8. The Australian Sports Commission was formally established by the Australian Sports Commission Act 1989, which brought together the existing AIS (which commenced operation in 1981) and other Government sport-related functions. This amalgamated the delivery agencies for the Government's twin objectives in sport, namely excellence in sports performances by Australians and improved participation in quality sports activities by Australians.

9. The programs and initiatives of the Australian Sports Commission are widely recognised as being at the forefront of world sport. Over the last four years, Australian sport has demonstrated the success of the Australian sports delivery system on the international stage. Our results in elite competition, including the Sydney 2000 Olympic and Paralympics Games, the 2002 Manchester Commonwealth Games, and numerous world championships in individual sports, have demonstrated the success of Australia's holistic sport system.



Comprehensive community sport initiatives and world leading support services underpin this elite sporting success.

10. The Government and the Australian public have high expectations of Australia remaining at the fore of international sport. Our competitors, supported in many cases with enviable levels of government funding, are bridging the gap. The Australian sports system is being copied in a number of countries, and funding is being directed to both sports development programs and facilities. For example, Japan has signalled its intention to focus on international sporting success, demonstrated by its recent expenditure of \$US220 million on a new institute of sport, while performances by athletes from the United Kingdom are noticeably improving following recent substantial increases in funding for sport. To remain competitive, Australia must adopt new technology and innovation to achieve improvements in our performance levels.

### **A Centre for Excellence**

11. The Australian Sports Commission operates from the Bruce campus and other locations around Australia and overseas. Since its establishment in the 1980s, the Commission has developed the role of the Bruce campus into Australia's national centre of sports excellence. With Australia's relatively small population, a national centre of excellence is critical to success on the international sports stage and to the development and operation of the national sports system.

12. At the core of this centre of excellence are the 230-250 AIS athletes based at the Bruce campus. The AIS athletes, their elite coaches, the sport scientists and sports medicine specialists, the wide variety of specialist staff in areas as diverse as information services and financial planning, and the athlete training facilities and support facilities provide the 'critical mass' required for world leading programs.

### **National Leadership Role**

13. The critical mass of sports professionals located at Bruce also provides the foundation for the Commission's activities in all aspects of sport in Australia and enables the Commission to provide the leadership needed for a successful sport system. The Commission has led elite sports development in Australia for nearly two decades by developing and maintaining world class elite training programs, setting performance standards for others to

follow and providing an effective quality assurance service to all national elite programs, including the expert guidance and assistance needed to meet these standards. The Commission leads national sports development through designing and delivering co-ordinated programs and systems for sporting organisations including grassroots development activities.

### **The National Centre for Sports Training, Development and Education**

14. Australia's sporting success relies on the effective delivery of a suite of complementary services which include elite athlete training, coach education, officials' education, information services, sports sciences and advisory services. These services are delivered through a combination of programs managed directly by the Commission and in partnership with national and other sporting organisations.

15. With regard to elite athlete development, services are provided through a combination of AIS programs in Canberra and interstate, together with state-based training programs. The Bruce campus plays a central role in these arrangements. In addition to the 230-250 Canberra-based AIS athletes, the Bruce campus hosted 10,800 athlete visits from over sixty national sporting organisations in the four years to June 2000. These athletes were accommodated on-site for short-term intensive training programs. Many coaches and officials from sporting organisations at all levels visit the Bruce campus to participate in seminars and workshops. These visiting athletes, coaches and officials utilise the integrated services and facilities available at the Commission's unique 'one stop shop', avoiding the high costs of duplicating specialised sport facilities, particularly in areas such as sports science.

16. Complementing the high performance training activities are the development and education services delivered by the Commission's Sport Performance and Development Group, which are vital to maintaining a healthy sports industry in Australia. The co-location of the management and provision of these development and education services produces cost efficiencies and coordination benefits for the Commission.

17. The key purchasers of these AIS and Sport Performance and Development Group services are the national sporting organisations, which the Government funds to access sport services. National sporting organisations purchase packages of services to meet their specific

needs. The management and availability of Commission services from a central location at the Bruce Campus presents efficiencies for the sports.

18. The diverse nature of the Australian Sports Commission 's programs calls for an innovative approach to corporate service delivery. The Business Operations Group has decentralised its financial and human resources management services, co-locating resources with clients. In other areas, such as information services, an integrated approach has proven to be a more effective solution for servicing athletes, coaches and other clients.

19. The physical and administrative integration of Government sport functions at the Bruce campus has brought with it synergies that have enhanced the return to the Government on its investment in sport. Internally, the development and delivery of Commission programs benefit from the cross-fertilisation of ideas and practices in an environment of excellence. Externally, this 'one-stop shop' model provides Australian sport with integrated service delivery, quality control in the development and implementation of elite sport and community sport programs, while making the optimum use of limited resources in a cost-effective manner.

### **Alternatives to Bruce**

20. Notwithstanding their age, the Bruce campus facilities still constitute the only campus in Australia designed specifically for a wide range of elite sports training activities. Universities do not provide the range of facilities needed for elite sports, catering instead for the wider recreational needs of their student bodies. While some elite programs could operate from existing major regional facilities, these centres would need large scale capital investment to provide specialised sports medicine and sports science facilities, residences and other athlete welfare services. The Homebush complex is also unsuitable. The Olympic venues were designed for large scale competition and would not be operated cost effectively as training facilities. As for the regional centres, additional capital investment would be needed for sports science and sports medicine facilities, residences and athlete support facilities.

## **STRATEGIC CONSIDERATIONS**

21. On 24 April 2001 the Prime Minister and the Minister for Sport and Tourism announced the government's new ten-year plan for Australian sport Backing Australia's

Sporting Ability – A More Active Australia. The plan demonstrated the Government's commitment to maintain our level of sporting success and is backed by funding totalling close to \$550 million over the four years to 2004/05 to be delivered by the Australian Sports Commission.

22. This investment plan addresses the immediate capital works needed by the Commission to deliver Backing Australia's Sporting Ability - a More Active Australia.

23. The Commission's current service delivery model has been highly successful and needs to be maintained. In March 2000, the Expenditure Review Committee noted the Commission's Property Review recommendation that the Commonwealth should maintain its significant investment in the Commission's property at Bruce. The Committee also noted the Commission's intention to develop and implement a capital investment strategy that would ensure the Australian Sports Commission property portfolio continued to enhance sporting outcomes.

24. In response, the Commission has evaluated its capital investment needs for the next twenty years, distilling the most important and pressing of those needs into a four year investment plan. This plan considers the impact of Backing Australia's Sporting Ability – A More Active Australia, the nature of the existing facilities, their ability to meet current and future needs, the impact of new training programs and new technology and the impact of depreciation funding on the Commission's ability to fund any required investment. The plan requires a major investment in improved facilities to redress the significant facilities shortcomings now evident at Bruce. The longer term investment strategy and four-year plan will re-establish the Bruce campus as the national centre of excellence in sport. The four-year investment plan comprises a mix of facility replacements and new facility capabilities.

### **THE NEED**

25. The utilisation of the AIS facilities has increased since its establishment and a series of planned and ad hoc solutions have been implemented to meet these changing requirements. Many of the Bruce facilities are now outdated and do not provide Australian athletes with the competitive advantage in international competition and require upgrading. Changes in technology, personnel numbers, accommodation standards, and occupational health and safety standards mean that many of the present facilities fail to meet minimum requirements.

26. Residential accommodation, dining and kitchen facilities essential for athlete support require rationalisation. Many Australian Sports Commission staff at Bruce are accommodated in substandard accommodation that hampers efficiency and effectiveness. Existing accommodation is not suited to current working practices or technology.

27. Attachment 4 addresses the specific requirements of each element of the AIS Redevelopment project.

### **OPTIONS CONSIDERED AND COMPARATIVE COSTS**

28. The primary aim of the proposal is the provision of facilities capable of supporting elite athlete training. There is only one viable option to achieve this aim, that is, the refurbishment and reuse of suitable facilities, and the construction of new facilities as necessary. Options to rebuild elsewhere, or to demolish the majority of existing facilities and start again are not economically viable.

29. The Australian Sports Commission's AIS campus Gross Replacement Value is approximately \$175m and its Depreciated Value is \$100m. An investment of \$65.4m (out-turn cost) as proposed represents a half life reinvestment of approximately 40% of its Gross Replacement Value. To rebuild elsewhere would incur the proposed \$64.9m cost, and attract considerable additional costs to replace existing, suitable infrastructure. Associated personnel removal costs would be significant and relocation of the current personnel as a coherent integrated organisation is uncertain.

30. As illustrated in Attachment 4, there is considerable scope for refurbishment or adaptive reuse. To undertake extensive demolition to construct new facilities, rather than refurbish, cannot be justified.

31. A 'do nothing' solution will not overcome functional, operational, operating cost or OH&S issues. It will not address the Governments requirements for Backing Australia's Sporting Ability – A More Active Australia.

32. Within the context of a mix of refurbishment and new construction, some siting options exist, as do some options relating to refurbishment and degree of refurbishment. Subject to Parliamentary approval of the project, these options will be subjected to detailed examination and the most cost effective solution will be adopted.

33. Planning carried out to date indicates the following course of action should be adopted:

<b>Project Element</b>	<b>Scope of Works</b>
Athlete Residences and Associated Facilities	Refurbishment and new construction
AIS Service Hub	Adaptive Reuse and new construction
Gymnastics Hall Extension	New construction
Aquatic Testing and Training Centre	New construction
Improvements to the Existing Pool Complex	Refurbishment
Training Facility for Combat Sports	Refurbishment
Upgrade Technology and Aircondition Training Halls	Additions to existing buildings
Sports Development and Education Centre	New construction
Modernise Australian Sports Commission Building	Refurbishment
Upgrade Campus Engineering Infrastructure	Refurbishment and new construction
Rowing Improvements	Refurbishment and new construction

### **REASONS FOR ADOPTING THE PROPOSED COURSE OF ACTION**

34. The Bruce facilities while uniquely suited to for elite training purposes are now about twenty years old and comparable to the standard of facilities found in regional sports centres. Substantial infrastructure and facility limitations are hindering the innovation and continuous improvement needed to maintain the campus status as the national centre of excellence. Key facilities problems directly impact on the Commission's ability to train elite athletes, safeguard their welfare, and to operate effectively as the national centre for excellence in sports development and education.

35. Redevelopment of the AIS site at Bruce would be in accordance with Australian Sports Commission's responsibility to ensure facilities meet the required levels of habitability, functionality and maintenance liability.

36. A decision in favour of redeveloping the AIS facilities at Bruce, signifying recognition of the long-term requirement for the campus, would enable rationalisation of facilities assets. Demountable buildings would be removed, sub-standard buildings would be demolished and functions would be collocated in a smaller number of larger, more efficient facilities.

37. No substantial personnel or operating cost savings can be quantified, although facilities would be more efficient. Facilities operating costs could increase due to the increase in building area and the higher level of servicing (eg. air conditioning and information technology), however energy efficient design will minimise any increase.

38. To meet current and future requirements of user groups, significant reinvestment in AIS at Bruce is justified and essential. The recommended approach, based on new construction, refurbishment and adaptive reuse, would cost-effectively satisfy Australian Sports Commission's requirements, and create an attractive and OH&S friendly campus.

### **ENVIRONMENTAL IMPACT ASSESSMENTS**

39. No significant environmental issues exist under the Environmental Protection and Biodiversity Conservation Act 1999. Environment Australia has confirmed that the project does not require approval under the Act. The Australian Sports Commission is committed to responsible environmental management of its activities. The AIS campus at Bruce is managed in accordance with an established Environmental Management Plan that will encompass the redevelopment project.

40. Contractors will be required to produce Environmental Management Procedures for Construction Activities as a contractual obligation, and these procedures will be audited as an element of project management.

### **HERITAGE CONSIDERATIONS**

41. A Conservation Analysis was undertaken on the Bruce site from November 2002 until February 2003. Based on this study, there are no heritage issues associated with any element of the project.

## **ORGANISATIONS CONSULTED**

42. Discussions have been held, or are planned to be held with the following organisations
- a. National Capital Planning Authority;
  - b. Environment Australia;
  - c. Australian Heritage Commission;
  - d. Australian Greenhouse Office;
  - e. ACT Department of Planning and Land Management;
  - f. ACT Electricity and Water Corporation Ltd.

## **REVENUE DERIVED FROM THE PROJECT**

43. There will be no revenue derived from the proposal.

## **TECHNICAL INFORMATION**

### **Scope of Work**

44. The proposed scope of work is at Attachment 4. Concept Design Sketches are at Attachment 5.

### **Site Selection and Site Description**

45. The site of the proposed works is ACT Territory land, leased by the Australian Sports Commission. It is commonly described as the Australian Institute of Sport, Bruce.

### **Zoning and Approvals**

46. All of the proposed works are within the designated boundaries of the AIS campus, which is designated "Community Facility". The proposed works conform with the current August 1997 National Capital Authority approved Development Control Plan for the AIS and current Master Plans for the development of facilities, noting that the current Master Plan,



effective 1992, will be updated during the course of the project. The decision to align the Gungahlin Drive Extension east of the AIS Campus will allow for more permanent uses and development of the current "Uncommitted Use" area on Australian Sports Commission leases west of Leverrier Crescent to be explored with the National Capital Planning Authority and the ACT Government.

47. A complementary Development Control Plan will also be prepared for National Capital Authority approval. Design, siting and building approvals from the ACT Department of Planning and Land Management will be sought following the design and documentation of the individual project elements.

### **Land Acquisition**

48. There is no requirement for the acquisition of additional land.

### **Codes and Standards**

49. The design and construction of the proposed works and services will conform to the relevant sections of the following:

- a. Current Australian Standards and codes, including the Building Code of Australia;
- b. Commonwealth and Territory legislation; and
- c. Occupational health, safety and welfare legislation.

50. Successful tenderers will be required to produce a Quality Plan to clearly show how building codes, Australian standards and any additional Australian Sports Commission requirements will be met, and how the required standards for construction and installation are to be maintained.

### **Planning and Design Concepts**

51. Designs must provide a safe, efficient and pleasant workplace, represent value for money and be able to pass the test of public scrutiny. The designs must offer good economy in relation to floor area, construction techniques, buildability and finishes while achieving the

necessary functional requirements, work flow patterns and work environment required to fulfil the function of the space so designed.

52. Designers will be required to consider, during the preliminary design stage, the implications and estimates of costs for designs, materials, construction techniques, finishes, equipment and energy systems which will develop economies on a life cycle costing basis.

53. In selection of services and associated equipment, the capital cost is to be balanced against operational and maintenance costs. Operating costs and comparisons are to be included in a life cycle costing analysis prior to selection. Particular consideration is to be given to energy efficient design solutions employing passive solar energy principles.

54. The design, structure, servicing and siting of buildings is to ensure that future expansion is possible. Each sub-element of the facility should have the capacity for future expansion. This is of particular importance in sizing and terminating in-ground services. New mechanical plant should have spare capacity, be modular and have a multiple control approach, to ensure flexibility.

55. Maximum flexibility is required for most internal office accommodation facilities. Except where the need for security or noise reduction dictates otherwise, minimum use is to be made of structural internal walls or columns. In general terms, internal walls in office areas are to be of demountable partition or workstation type to facilitate economical rearrangement. Building services are to be compatible with this requirement.

56. This project will require:

- a. the maximum use of existing infrastructure to minimise capital facilities costs;
- b. the adoption of conventional construction techniques and materials, commonly used by the construction industry, with due regard given to climatic conditions;
- c. the utilisation of readily available and durable materials that combine long life with minimum maintenance;
- d. designs which are sympathetic with the existing buildings and precinct; and
- e. landscaping and the preservation of the visual environment.

57. The building works and services will be fully fitted out, with all communications, light fittings, partitions, floor treatments and furniture. Facilities will incorporate building management systems, metering and other provisions to measure and monitor energy use and to allow regular energy audits.

### **Acoustics**

58. Sound attenuation is especially important in residential accommodation, and specific levels, as specified within relevant standards, will be met. Vibration isolation of mechanical plant and equipment is an associated and essential design consideration and the designers and construction contractors will be required to limit vibration levels to comply with the recommended vibration levels as set out in Australian Standards.

### **Energy Conservation Measures**

59. The Commission is committed to improved energy management to ensure ecologically sustainable development and the reduction of greenhouse gas emissions. In compliance with this commitment, energy efficiency is to be a key objective in the design, development and delivery of this project.

60. All facilities projects are to include an analysis of energy delivery and consumption systems, incorporating an estimate of any additional energy consumption and costs that are expected to result from the implementation of the proposal. The energy efficiency of new and refurbished buildings is to be audited within twelve months of occupancy, and the Commission must report annually to the Minister and Parliament on its energy management performance, and on its progress towards meeting the Government's energy efficiency targets.

61. In terms of this project, design and construction will take cognisance of the following factors:

- a. siting buildings to make maximum use of prevailing winds and the sun for temperature control and lighting;
- b. using insulation materials and weatherproof seals;

- c. using solar energy and solar hot water systems where considered cost effective;
- d. using gas fuelled heating systems;
- e. using energy efficient plant, equipment and airconditioning systems if feasible and cost effective;
- f. using energy efficient lighting and lighting control systems appropriate to the purpose;
- g. using design energy targets negotiated with the Australian Greenhouse Office;
- h. providing capability to control energy use by zones within the facilities; and
- i. using building energy management systems as part of an area energy management strategy.

#### **Provisions for People with Disabilities**

62. Access and facilities for the disabled are to be provided in accordance with the Building Code of Australia and Australian Standards.

#### **Fire Protection and Security**

63. The following philosophy has been adopted with respect to the design of the fire protection systems:

- a. all construction and fire protection requirements will, as a minimum, be in accordance with the provisions of all applicable Codes and Standards; and
- b. Australian Sports Commission will require certification, from a suitably qualified certifier, that the design and construction meet the requirements of the Building Code of Australia, relevant Codes and Standards and any additional State, Territory and Australian Sports Commission requirements.

#### **Precautions against Legionella**

64. The new air conditioning systems will be air cooled, so no special precautions against the Legionella Bacillus are considered necessary.

### **Occupational Health and Safety**

65. The health and safety of all workers employed on the construction of the proposed facilities will be protected by strict compliance with the Commonwealth Employment Act 1991 (Occupational Health and Safety). Construction of the facilities will be in accordance with an approved Occupational Health and Safety Plan. There are no identified public safety issues.

### **Landscaping**

66. The redevelopment project will not give rise to any substantial alteration in the essential character of the existing facilities or landscaping, and thus landscaping works will be directed to the rectification of any areas disturbed during construction, as well as enhancing the general visual environment. Care will be taken to avoid compromising existing environmental sensitivities by adopting landscaping practices in keeping with local environmental conditions.

### **Local Employment Impact**

67. The redevelopment project will generate a significant amount of short time employment, mostly in the sub-contractor and unskilled worker areas. It is estimated that there will be approximately 100 personnel associated with the project on-site once construction ramps up.

### **Project Cost**

68. The project out-turn cost of \$65.4m includes management, design, construction, information technology and communications equipment, and fit out. The proposed contingency allowance takes account of the risk associated with latent conditions expected with the refurbishment element within the project.

### **Project Delivery System**

69. The proposed delivery system is by a series of head contracts and design and construct contracts that are particularly well suited to projects where there will be a significant number of individual works being executed over an extended period of time. This project comprises a

number of independent elements that will enable a broad range of contractors to competitively bid for the work packages.

70. A Project Manager will be engaged to represent the Australian Sports Commission and to act as Superintendent for the project.

**Associated Sketch Design Drawings**

71. Attachment 5 contains concept design sketches for the proposed works.



**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

**AIS BRUCE CAMPUS LOCATION PLAN**

**ATTACHMENT 1**

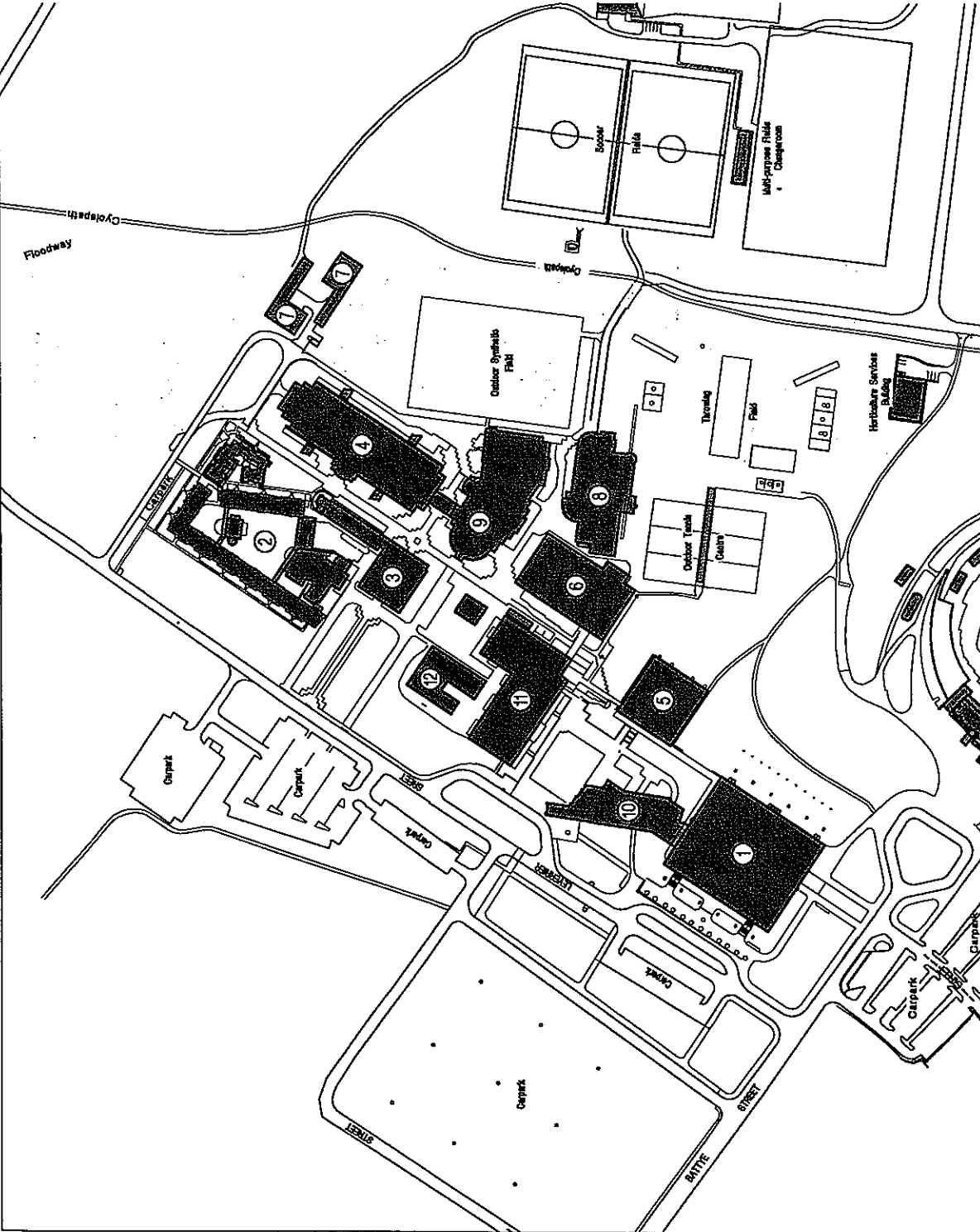
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**LEGEND**

1. AIS Arena
2. Athletes Residences
3. Australian Sports Commission Building
4. Basketball - Netball Hall
5. Gymnastics Hall
6. Multi Sports Hall
7. Services Building
8. Sports Science Sports Medicine Centre
9. Sports Training Facility
10. Sports Visitors Centre
11. Swimming Pool Centre
12. Temporary Offices



**ATTACHMENT 2**



**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

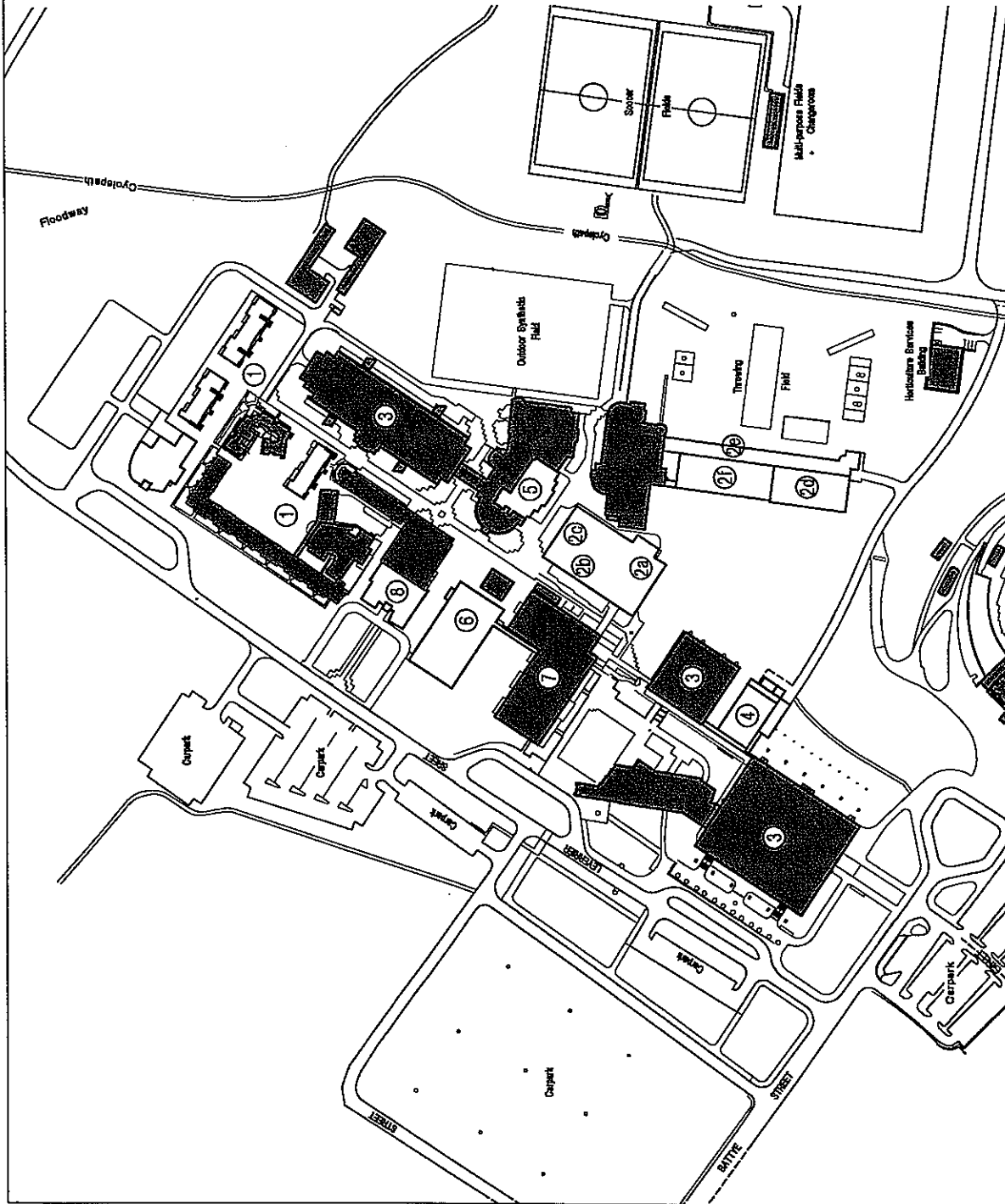
**CURRENT AIS BRUCE CAMPUS LAYOUT**

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**LEGEND**

1. Athlete Residences and Associated Facilities
2. AIS Service Hub
  - 2a. Strength and Conditioning Gymnasium
  - 2b. Hydrotherapy Recovery Centre
  - 2c. Coaches Services Centre
  - 2d. Indoor Testing
  - 2e. Indoor Training
  - 2f. Sports Science Sports Medicine Extension
3. Upgrading Technology and Airconditioning
4. Gymnastics Extension
5. Combat Sports Training Facility
6. Aquatic Testing and Training Centre
7. Improvements to Existing Pool Complex
8. Sports Development And Education Centre

Existing Building



**ATTACHMENT 3**



**PROPOSED FACILITIES PLAN**

**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

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## DETAIL OF PROPOSED WORKS

4.01 The AIS redevelopment comprises facilities for a number of functional, sporting and support elements. These works are necessary to extend the infrastructure necessary to maintain the competitive advantage the Commission's facilities provide Australian athletes. In addition, various engineering and communications facilities require upgrading. These elements are summarised below.

### **Element 1- Athlete Residences and Associated Facilities**

4.02 The provision of suitable residences and welfare support services plays an important part in producing successful elite programs. There are serious facilities deficiencies in the existing facilities. The AIS residences were designed in the early 1980s. They do not meet current building-related codes and fail to meet the contemporary needs of adolescent and adult athletes.

4.03 The study facilities necessary for resident student athletes were overlooked in the original design of the residences. The current study areas are makeshift spaces, poorly located and provide little encouragement to student athletes. The athletes' community spaces are also small and do little to facilitate community activities. The athletes' dining room reflects the needs of the 1980s, in layout and features, and is not big enough for peak demand or flexible enough to accommodate visiting groups. The kitchen facility is inefficiently configured, in need of significant major maintenance and the service entrance is poorly located.

4.04 New athletes' residences for 160 live-in scholarship holders, live in supervisors/mentors and houseparents are proposed, together with new dining room and kitchen facilities. The existing dining facilities will be refurbished for study and recreation. These facilities will redress the significant shortcomings in facilities for athlete welfare and education. Some of the existing residences will be retained to accommodate the large number of national sport teams and athletes visiting the campus. The new and retained residences and associated facilities will be airconditioned. See Figures 5.01, 5.02 and 5.03 for indicative sketches of this element.

### **Element 2 – AIS Service Hub**

4.05 The ability of the AIS to deliver a full range of innovative and integrated services is limited by current building layouts and locations. The AIS is the national centre of excellence in coaching, elite program development and delivery and in the sport science and sports medicine disciplines.

The AIS Service Hub will become the service centre for all AIS programs promoting innovation, continuous improvement and cross-fertilisation of ideas among coaches, program staff, and scientists and medical staff. The hub will comprise the following elements:

- Sports Science Sports Medicine Centre including new Physiology facilities
- Athlete Physical Development and Recovery Centre
- Coaches Services Centre

4.06 Previous investment in building extensions to the AIS Sport Science Sports Medicine Centre have failed to keep pace with changing technology and research needs. The most important of these emerging needs is the science of performance analysis, which is already proving to be a key tool in ensuring the future success of high performance programs.

4.07 A new building, essentially designed as an extension of the existing Sport Science Sports Medicine Centre, when combined with the adjacent refurbished Multi-sport Hall linked by enclosed corridors, will facilitate the formation of a single service centre for all AIS programs. The Sports Science Sports Medicine extension is primarily proposed to alleviate overcrowding within the Physiology Department by providing new laboratories with associated staff areas and enhanced physiology testing facilities as well as some athlete indoor training areas.

4.08 The other major element planned to complete the AIS Service Hub is the refurbishment of the Multi-sport Hall for an Athlete Physical Development and Recovery Centre and a Coaches Services Centre. Strength and conditioning is now a key component of all AIS training programs. The current gymnasium is not big enough, or appropriately configured, to accommodate the current training demand. There are also significant shortcomings in the facilities available for indoor athletics training and testing, particularly during Canberra's winter.

4.09 To address these problems, a multi-purpose Athletes' Physical Development Centre is proposed. This centre will provide a significantly larger, airconditioned space for a strength and conditioning gymnasium in a refurbished Multi-sport Hall. A large, indoor area suitable for training in various athletics disciplines and for testing athletes in a wide variety of activities is planned in an extension to the Sports Science Sports Medicine building adjacent to the proposed Physiology facilities.

4.10 Hydrotherapy recovery is a relatively new and important tool in athlete training programs. Recovery techniques have successfully been used to reduce injuries and improve athlete

performance. The existing spa and plunge pool facilities are grossly undersized and potentially unsafe for the number athletes now using the facilities.

4.11 A modern hydrotherapy recovery centre is proposed. This centre will be located in the Multi-sport Hall adjacent to the Strength and Conditioning facility and the AIS Physical Therapies Department in the existing Sports Science Sports Medicine building. The centre will include a new spa and plunge pool specifically designed for large groups of athletes and an active recovery pool.

4.12 AIS coaches and key support staff are dispersed over many buildings. For continuous improvement to proceed an integrated service centre is required. The Coaches Services Centre includes the new Performance Analysis Unit, AIS group sports managers and support staff such as residence managers and athlete career and education staff. The Coaches Services Centre is planned for the refurbished Multi-sport Hall on a mezzanine level above the hydrotherapy recovery centre. See Figures 5.04, 5.05 and 5.06 for indicative sketches of this element.

### **Element 3 - Gymnastics Hall Extension**

4.13 The use of the AIS Gymnastics Hall as a national training centre in recent years has paid significant dividends in terms of international success. The existing hall cannot accommodate the AIS programs and national training camps. Recently, makeshift arrangements have been made for AIS gymnasts off-site, during national camps. Additional training space is needed on a permanent basis.

4.14 A new building is proposed, purpose-designed for gymnastics training. The building would be adjacent to the present gymnasium building linked by common storerooms and support facilities. This new space would accommodate the men's program training and would be airconditioned (19-25°C), with low level supply and high level return air. The gymnastics extension would be designed and located to optimise the use of existing services and facilities. See Figure 5.07 for an indicative sketch of this element.

### **Element 4 – Aquatic Testing and Training Centre**

4.15 The current pool facilities provide a limited capability for analysis of athlete performance and additional performance analysis equipment cannot be readily fitted to the facility. Provision of a new pool will enable incorporation of biomechanical requirements including a transparent wall on one side and one end to allow filming of swimmers. Additional camera rails embedded in the pool floor and above the pool together with instrumented starting blocks will deliver a world leading testing and training facility. Australian Swimming Incorporated has agreed in principle that the

concept of a national training and testing centre should be realised at the AIS Bruce campus when the new pool is completed and that such a facility is vital to Australia remaining a world leader in swimming performance and at the fore front of world's best practice.

4.16 The re-introduction of a Men's Water Polo program to the Bruce campus in January 2002 has also placed considerable strain on the AIS pool facilities. In addition, the Women's and Senior Men's programs also hold regular camps at Bruce. The water polo and swimming programs have been required to make significant compromises in their training schedules, impacting upon the quality and flexibility of their training regime. A new pool will not only address the performance testing analysis requirements but also provide a second pool to meet the needs of national water polo and high performance swimming training camps. In addition, the Australian Women's Swimming program currently holds regular camps at Bruce and the ASC will be endeavouring to promote the venue as a base for the Senior Men's program.

4.17 The design will need to be architecturally sympathetic to the existing pool complex, as co-location is proposed to optimise the use of existing facilities such as change rooms, reception and other services. See Figure 5.08 for an indicative sketch of this element.

#### **Element 5 - Improvements to the Existing Pool Complex**

4.18 The 50m pool services are reaching the end of their service life. While contemporary standards for water quality in public pools are being met, the pool equipment and services are becoming increasingly difficult and costly to maintain. Installation of new filtration equipment is proposed.

#### **Element 6 - Training Facility for Combat Sports**

4.19 Boxing was introduced to the AIS in 1996. The program was allocated existing facility space, as a provisional solution to its needs. The program is now an on-going AIS program and needs an indoor training area where the programs' athletes can train safely and effectively. This training space could also be used for cross training by other sports programs.

4.20 A permanent training area for Boxing and other combat sports is proposed in the Sports Training Facility, in the area currently used by Strength and Conditioning. This space would be suitable for Boxing training, other combat sports such as Taekwondo, for cross training and for visiting camps. The existing area would require a new air conditioning system and minor building refit works to satisfy Boxing's requirements. See Figure 5.09 for an indicative sketch of this element.



## **Element 7 - Upgrading Technology and Air Conditioning**

4.21 The existing AIS training halls do not provide the controlled temperature environments needed for intensive elite athlete training. While the halls are heated in winter, they cannot be effectively cooled in the summer months. Athletes are required to complete several hours of training each day in temperatures that often exceed 30°C. An equally important shortcoming in the training halls is the technical infrastructure and equipment for performance monitoring and analysis.

4.22 The installation of modern performance monitoring and analysis technology is proposed in the basketball-netball hall, multi-sports hall and the gymnastics hall. The systems will be linked to the recently established Performance Analysis Unit. This technology will significantly enhance the information available to coaches and sports science/sports medicine staff to assist athlete performance.

4.23 The AIS Arena was designed as a multi-purpose indoor competition and training venue in the late 1970s. Now used as a venue for sports training, competition and entertainment, the facility's lack of air conditioning is a significant operational handicap in Canberra's summer.

4.24 The proposed air conditioning systems will be 'low energy' solutions providing temperatures between 19-25°C all year in each training hall. The spaces to be airconditioned are the Multi-sport Hall, Basketball/Netball Hall, Gymnastics Hall and AIS Arena.

## **Element 8 – Sports Development and Education Centre**

4.25 Sports performance, development and education programs and the National Sport Information Centre are key aspects of the Commission's integrated service delivery approach to the wider sports industry. The Commission's sports performance and development programs are largely accommodated in transportable buildings along with several other key services. The transportable buildings are now over six years old and have significant Occupational Health and Safety related shortcomings. In addition, the space occupied by the National Sport Information Centre was designed for pre-computer age service delivery.

4.26 A new building would allow sports performance development and the education centre to be relocated from the transportable buildings. A new Sports Development and Education Centre would also allow delivery of improved services to National Sport Information Centre clients. The new facility will include individual and open plan offices and conference facilities. See Figure 10 for an indicative sketch of this element.

**Element 9 – Modernise Australian Sports Commission Building**

4.27 The existing Australian Sports Commission building is long overdue for a major re-fit. Built approximately 20 years ago, the building pre-dates modern open plan design and computer technology. The building design and layout significantly limits the organisation's ability to adapt to change and the building services are reaching the end of their life. A refit of the building following completion of the new Sports Development and Education Centre will accommodate the balance of Australian Sports Commission staff now working in temporary buildings and allow removal of these buildings from campus. Fit out of the new and modernised buildings will address energy management considerations, access for people with disabilities, OH&S concerns and will provide flexibility to respond to changing functional requirements. See Figure 5.10 for an indicative sketch of this element.

**Element 10 – Upgrading the Campus Engineering Infrastructure**

4.28 General campus infrastructure, including water supply, sewerage, storm water drainage, electricity and gas supplies, irrigation systems, communications, signage, roads, paths and a car parks are all at capacity or near capacity.

4.29 A general upgrading of these site services is proposed to complement the new building developments. The general services infrastructure to be improved will include flood mitigation/site preparation, electricity/communications reticulation, irrigation and domestic water supply, stormwater, and roads, car parks, and paths.

**Element 11 – Rowing Improvements**

4.31 The AIS Rowing Centre at Yarralumla was designed in the early 1990s to accommodate the AIS Rowing Program. The facility is now the national training centre for rowing and hosts Rowing Australia's national training camps. Improvements to existing facilities for athlete video analysis, first aid, recovery, ergometer testing and strength and conditioning as well as the existing toilets and change rooms are needed. Modest extensions to present facilities will solve these problems. See Figures 5.11 and 5.12 for indicative sketches of this element.

**CONCEPT DESIGN SKETCHES FOR PROPOSED WORKS**

**Indicative Building Layouts**

Simple indicative block plans of the buildings planned or changed by the AIS Redevelopment Project are listed below.

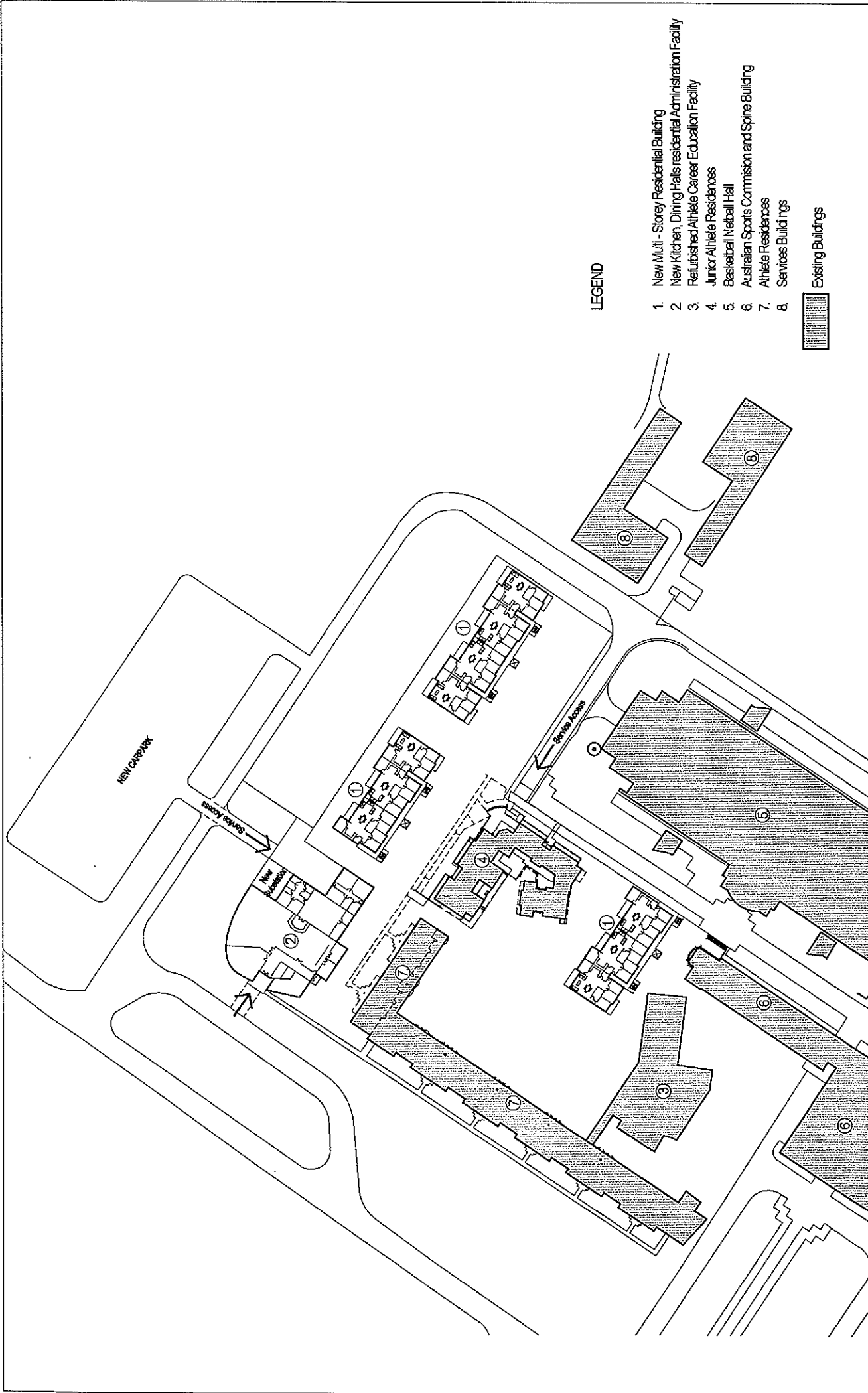
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Contents

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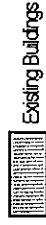
- 5.01 Athlete Residential Redevelopment Site Plan
- 5.02 Typical Residential Unit Floor Plan
- 5.03 Dining Hall and Residence Management Building
- 5.04 AIS Services Hub Site Plan
- 5.05 AIS Services Hub – Ground Floor
- 5.06 AIS Services Hub – First Floor
- 5.07 Gymnastics Extension
- 5.08 Aquatic Testing and Training Centre
- 5.09 Combat Sports Training Facility
- 5.10 Sports Development and Education Centre
- 5.11 AIS Rowing Centre Yarralumla Site Plan
- 5.12 AIS Rowing Centre Yarralumla Improvements

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**LEGEND**

1. New Multi - Storey Residential Building
2. New Kitchen, Dining Halls residential Administration Facility
3. Refurbished Athlete Career Education Facility
4. Junior Athlete Residences
5. Basketball Netball Hall
6. Australian Sports Commission and Spine Building
7. Athlete Residences
8. Services Buildings



Existing Buildings

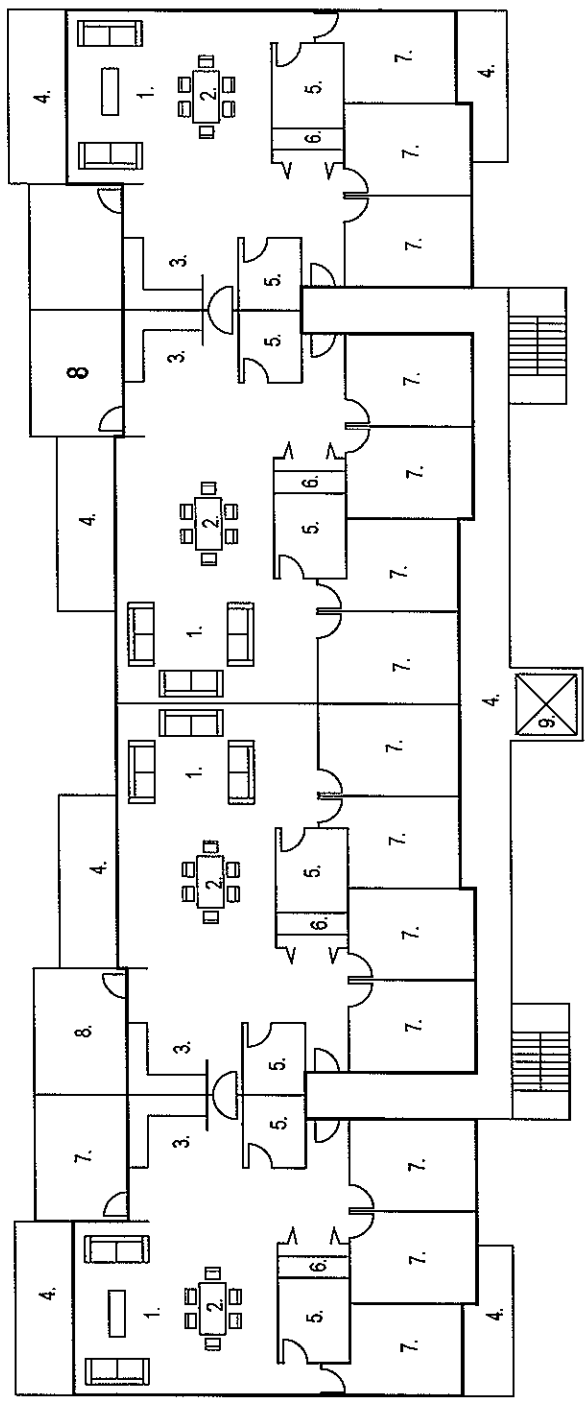


**ATHLETE RESIDENTIAL REDEVELOPMENT  
SITE PLAN**

**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

**FIGURE 5.01**





**LEGEND**

**RESIDENTIAL APARTMENTS**

- 1. Living Room
- 2. Dining Room
- 3. Kitchen
- 4. Bathroom
- 5. Laundry Cupboard
- 6. Bedroom
- 7. Supervisors Bedroom
- 8. Lift



**FIGURE 5.02**





FIGURE 5.03



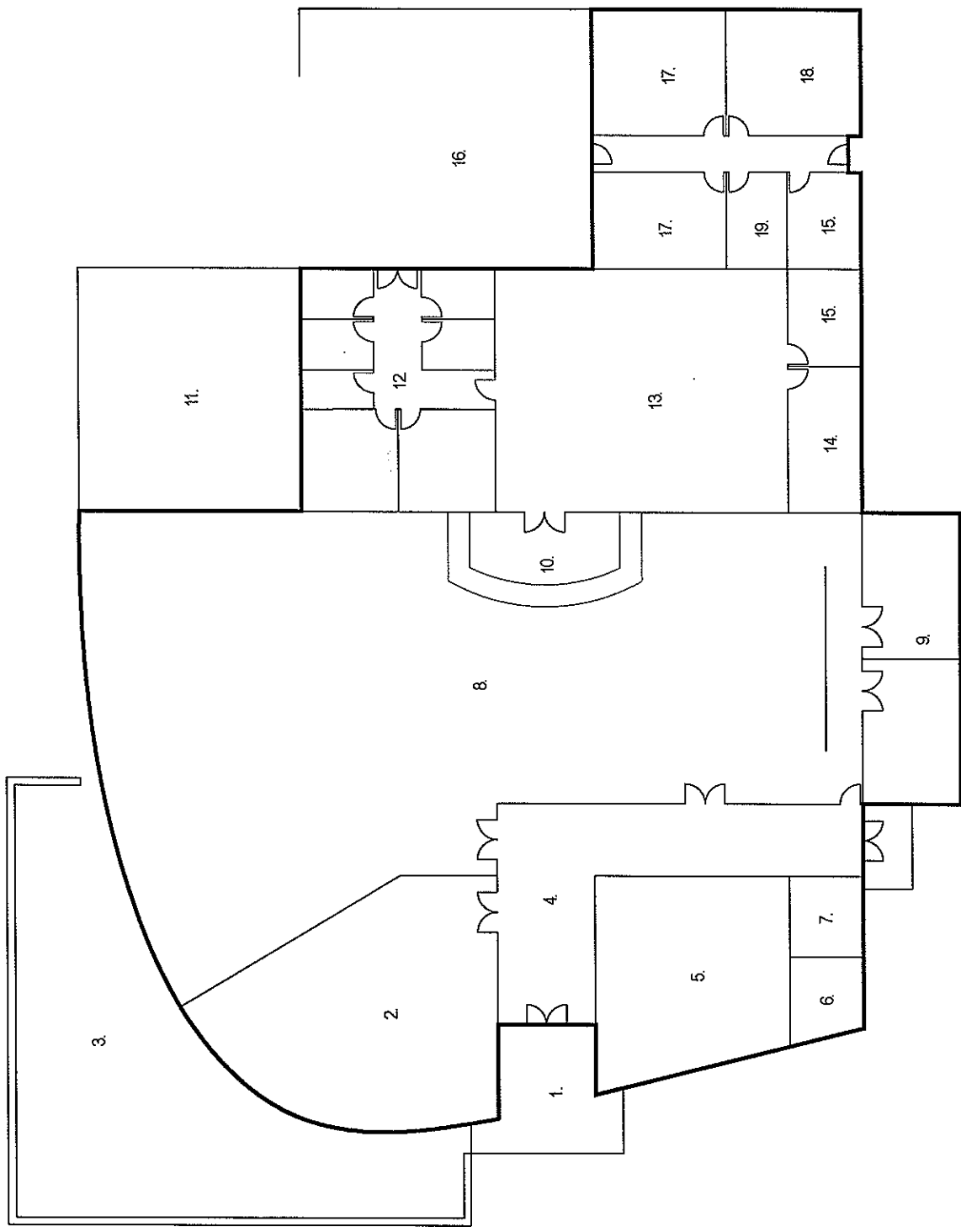
DINING HALL AND RESIDENCE  
MANAGEMENT BUILDING

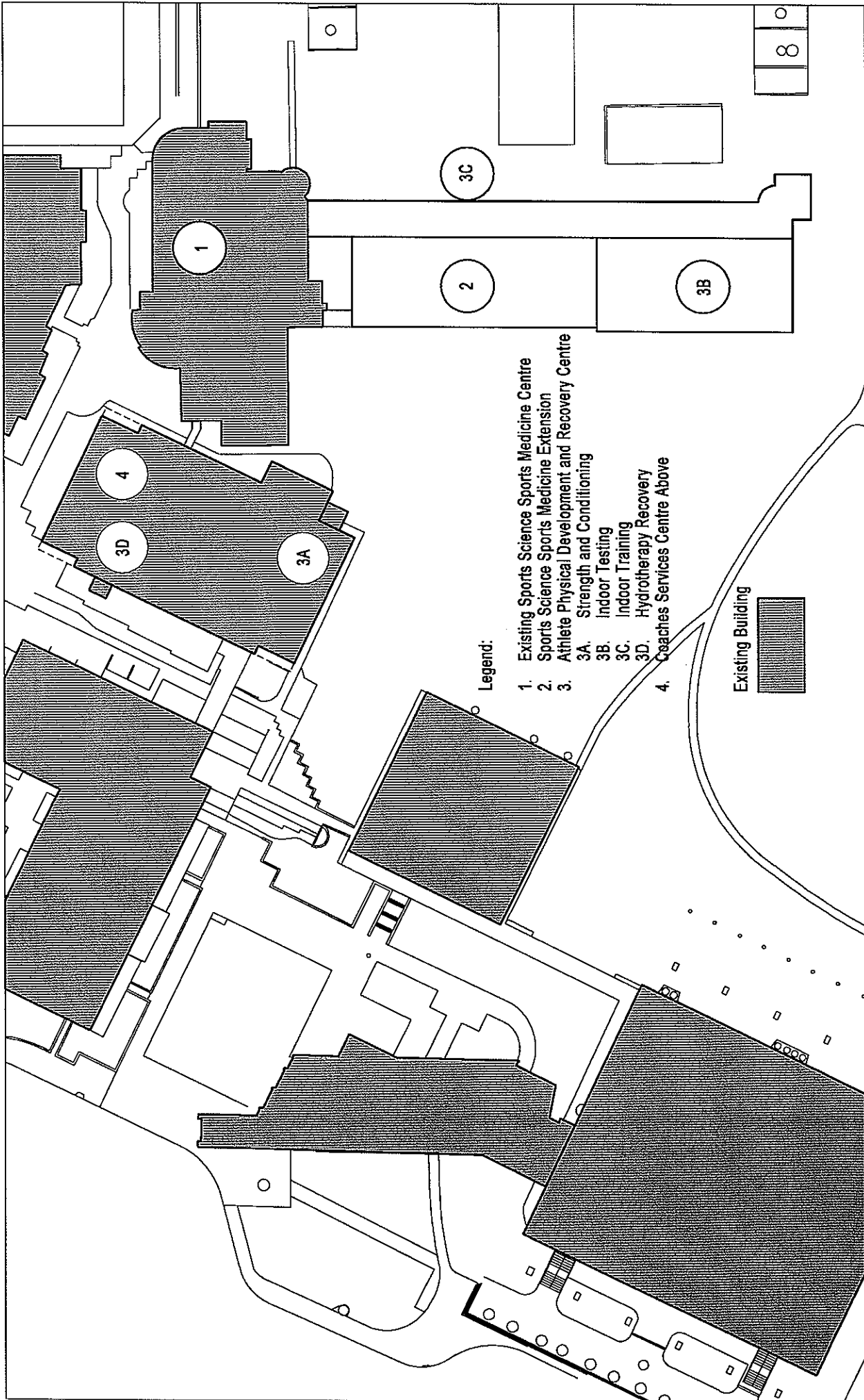
REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY

LEGEND

DINING HALL AND RESIDENCE  
MANAGEMENT BUILDING

- 1. Main Entry
- 2. Cafeteria
- 3. Courtyard
- 4. Foyer
- 5. Residential Management
- 6. Male Toilets
- 7. Female Toilets
- 8. Dining Hall
- 9. Dining Room
- 10. Seavey
- 11. Proposed New Substation
- 12. Store Room
- 13. Kitchen
- 14. Staff Amenities
- 15. Office
- 16. Loading Dock
- 17. Residential Management Store
- 18. Recovery Store Room
- 19. Cleaner





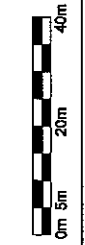
Legend:

- 1. Existing Sports Science Sports Medicine Centre
- 2. Sports Science Sports Medicine Extension
- 3. Athlete Physical Development and Recovery Centre
  - 3A. Strength and Conditioning
  - 3B. Indoor Testing
  - 3C. Indoor Training
  - 3D. Hydrotherapy Recovery
- 4. Coaches Services Centre Above

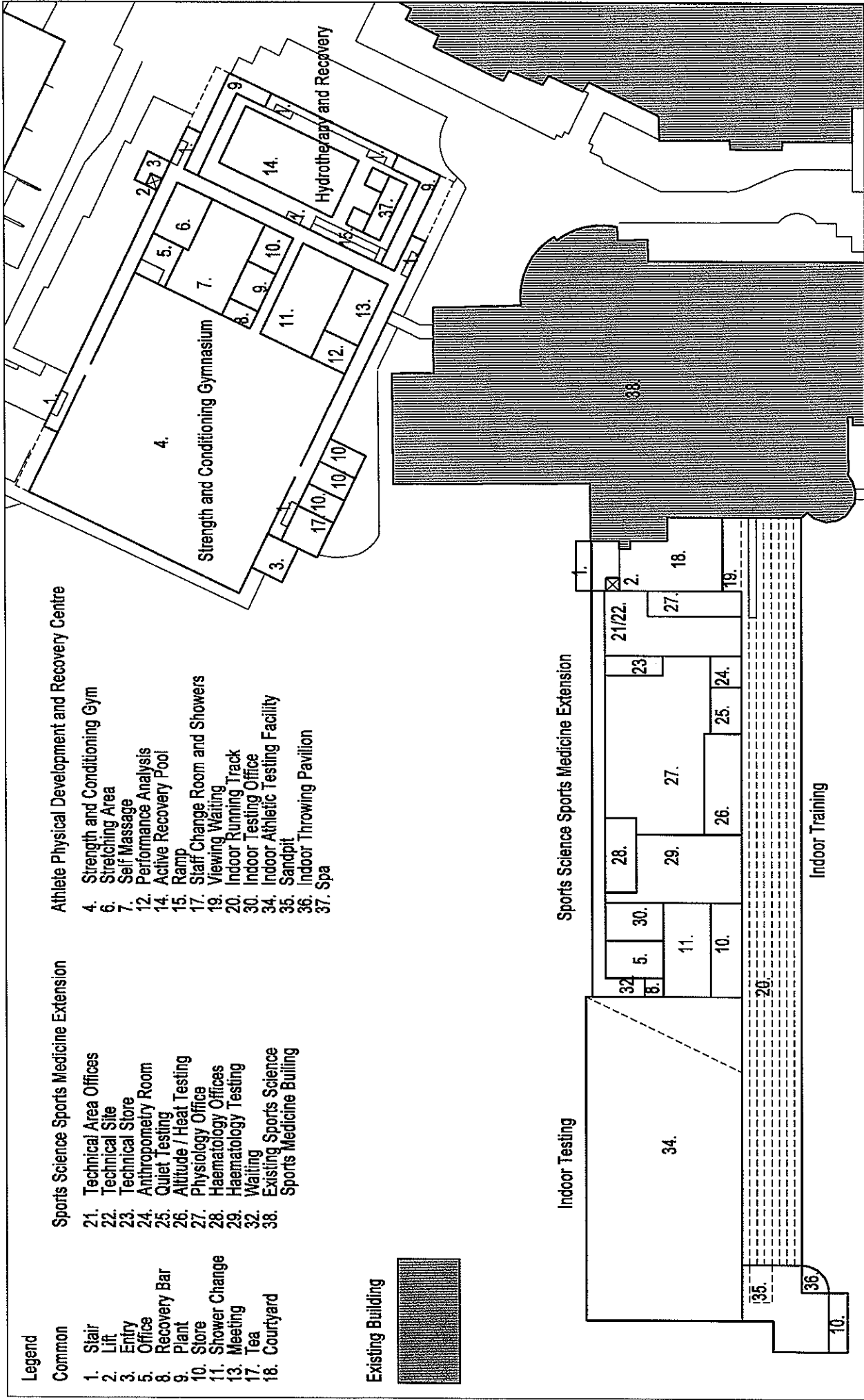
Existing Building



**FIGURE 5.04**







**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

**AIS SERVICES HUB - GROUND FLOOR**



**FIGURE 5.05**



**Legend**

**Common**

- 1. Stair
- 2. Lift
- 7. Meeting
- 10. Store
- 16. Toilets
- 18. Plant
- 20. Void
- 21. Tea
- 22. Office
- 28. Viewing

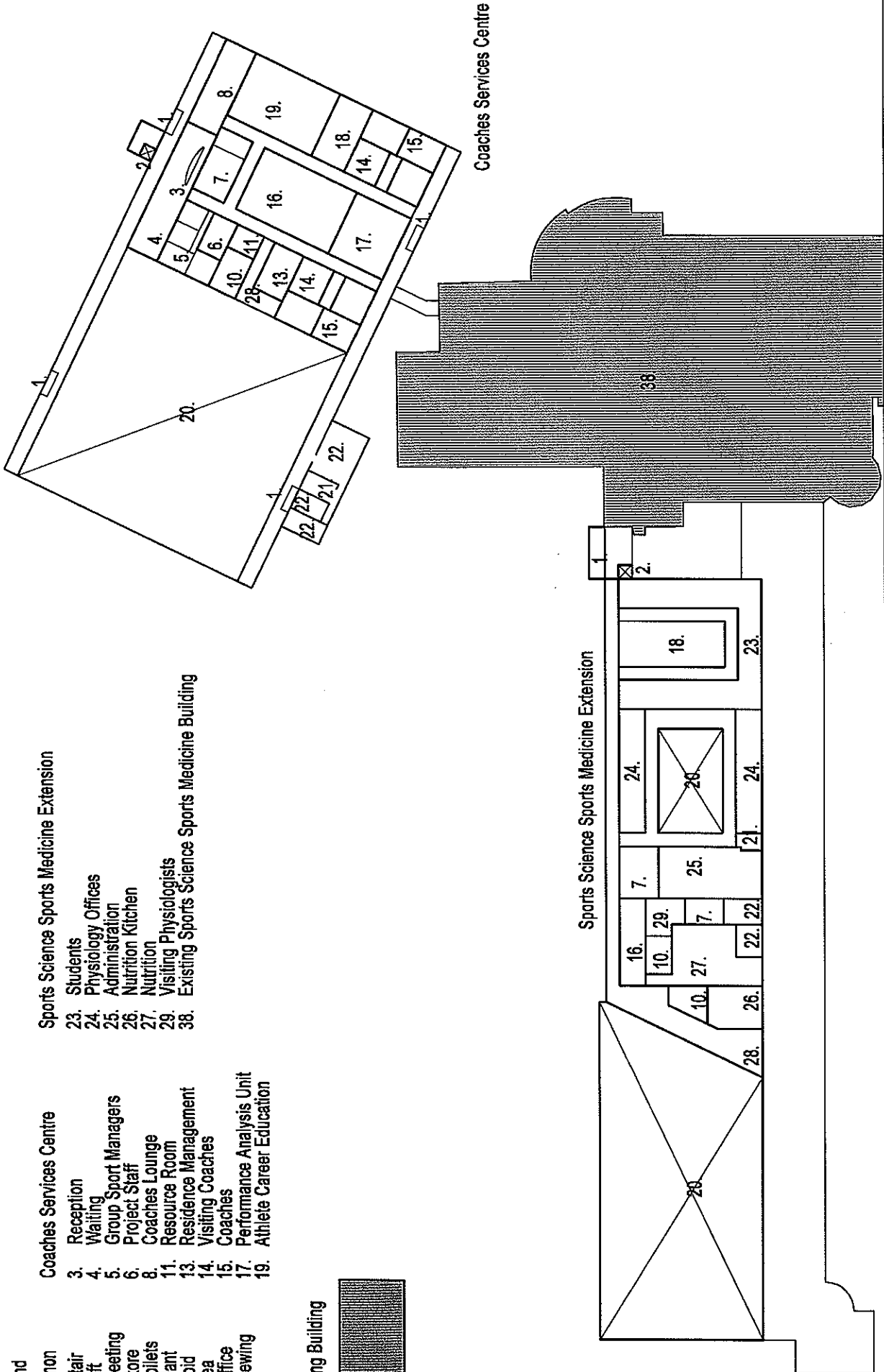
**Coaches Services Centre**

- 3. Reception
- 4. Waiting
- 5. Group Sport Managers
- 6. Project Staff
- 8. Coaches Lounge
- 11. Resource Room
- 13. Residence Management
- 14. Visiting Coaches
- 15. Coaches
- 17. Performance Analysis Unit
- 19. Athlete Career Education

**Sports Science Sports Medicine Extension**

- 23. Students
- 24. Physiology Offices
- 25. Administration
- 26. Nutrition Kitchen
- 27. Nutrition
- 29. Visiting Physiologists
- 38. Existing Sports Science Sports Medicine Building

**Existing Building**



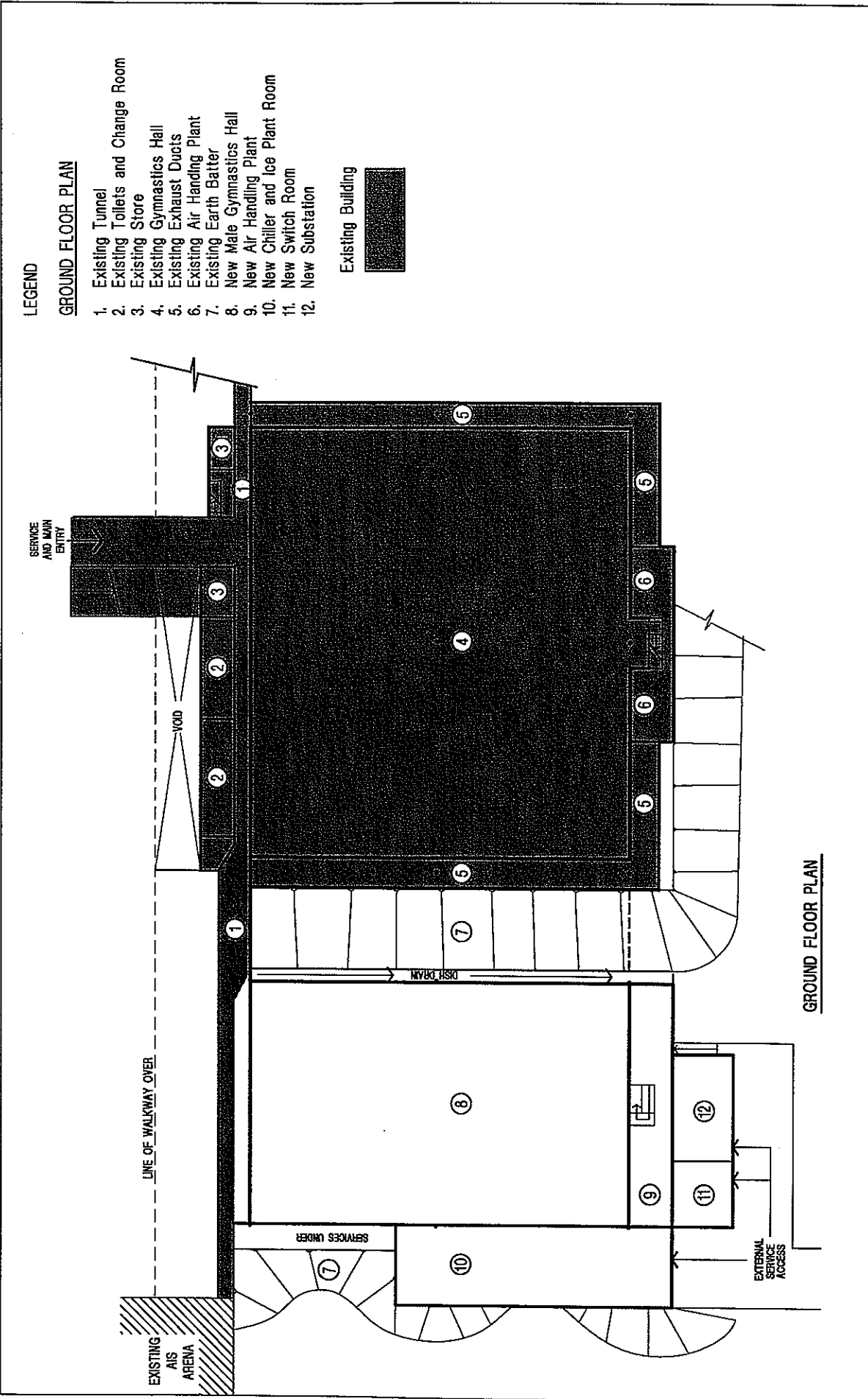
**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

**AIS SERVICES HUB - FIRST FLOOR**



**FIGURE 5.06**





**LEGEND**

**GROUND FLOOR PLAN**

- 1. Existing Tunnel
- 2. Existing Toilets and Change Room
- 3. Existing Store
- 4. Existing Gymnastics Hall
- 5. Existing Exhaust Ducts
- 6. Existing Air Handling Plant
- 7. Existing Earth Batter
- 8. New Male Gymnastics Hall
- 9. New Air Handling Plant
- 10. New Chiller and Ice Plant Room
- 11. New Switch Room
- 12. New Substation

Existing Building

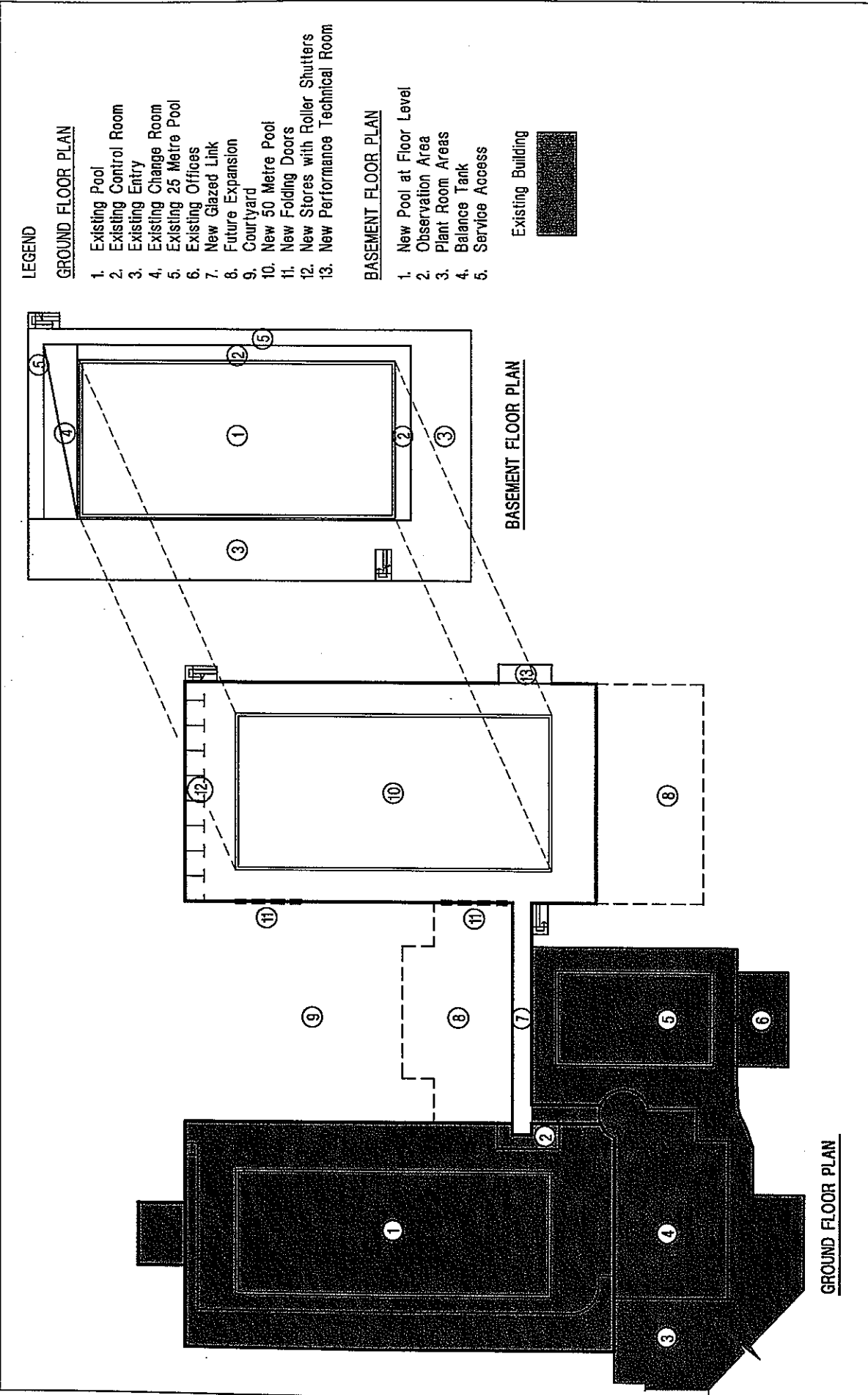
**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**

**GYMNASTICS EXTENSION**



**FIGURE 5.07**





**REDEVELOPMENT OF THE AUSTRALIAN INSTITUTE OF SPORT BRUCE AUSTRALIAN CAPITAL TERRITORY**

**AQUATIC TESTING AND TRAINING CENTRE**

**FIGURE 5.08**

0m 8m 16m 24m

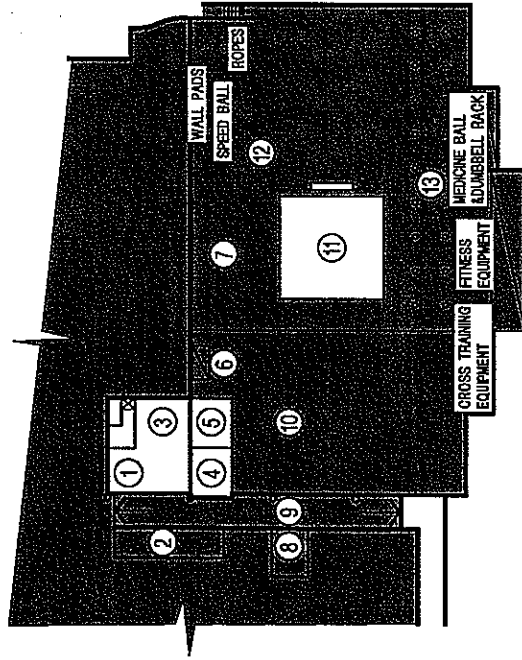
Australian Sports Commission

**LEGEND**

**GROUND FLOOR PLAN**

- 1. Recovery Bar
- 2. Boxing Store
- 3. Meeting Room
- 4. Assistant Coach Room
- 5. Head Coach Room
- 6. Punch Integrator
- 7. Mirrors
- 8. Store Room
- 9. Corridor Space
- 10. Warm Up Space
- 11. Boxing Ring
- 12. Training Space
- 13. Punching Bags

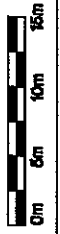
Existing Building



**GROUND FLOOR PLAN**



**FIGURE 5.09**





**FIGURE 5.10**

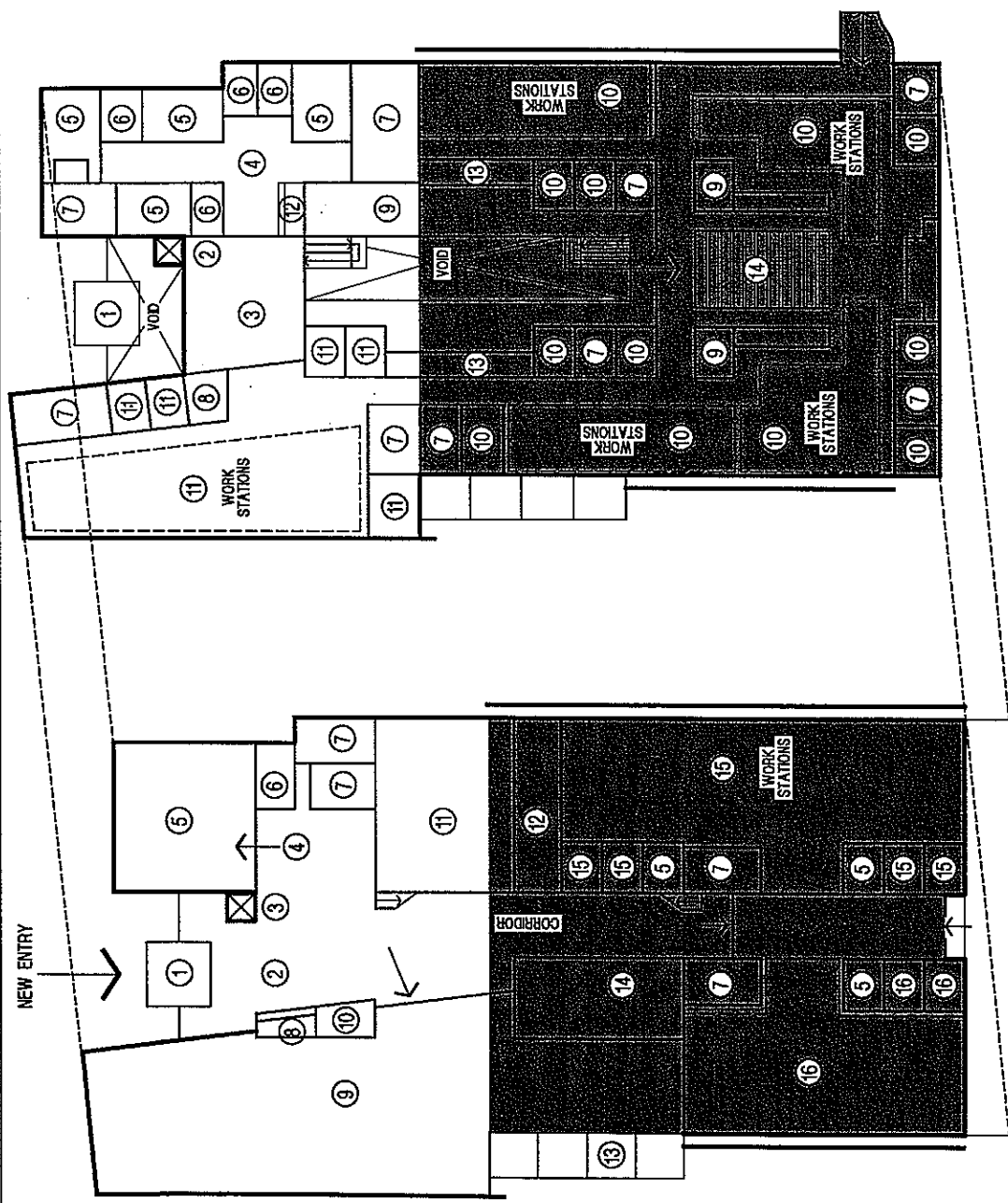


**REDEVELOPMENT OF THE AUSTRALIAN INSTITUTE OF SPORT**  
BRUCE AUSTRALIAN CAPITAL TERRITORY

**SPORTS DEVELOPMENT AND EDUCATION CENTRE**

- LEGEND**
- GROUND FLOOR PLAN**
1. Air Lock to Entry
  2. Double Height at Foyer
  3. Lift
  4. Conference Foyer
  5. Meeting Room
  6. Kitchen/Pantry
  7. Toilets/Showers
  8. Reception
  9. National Sports Information Centre
  10. NSIC Help Desk
  11. Australian Sports Foundation
  12. Records Management
  13. Landscaped Courtyard
  14. Work Areas/Storage/Offices (for NSIC)
  15. Business Operations Staff
  16. Information Technology

- FIRST FLOOR PLAN**
1. Air Lock at Ground Floor
  2. Lift
  3. Foyer
  4. Executive Offices Foyer
  5. Executive Offices
  6. Executive Assistant
  7. Meeting Room
  8. Chief Executive Officer Staff
  9. Toilets/ Showers and Kitchen Services
  10. Sports Performance and Development Staff
  11. Business Operation Staff
  12. Reception
  13. Storage Space
  14. Compactus Store

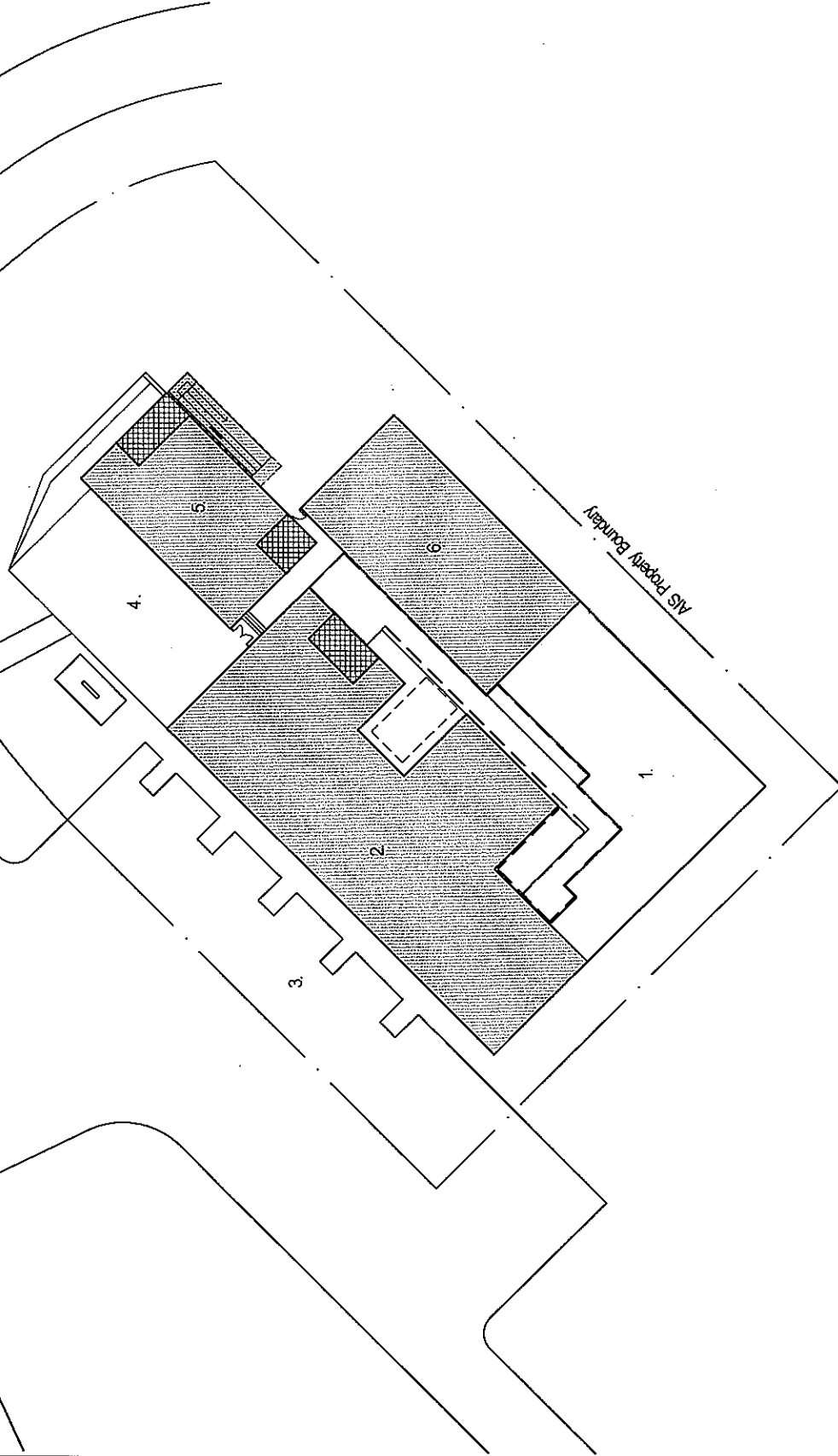


**FIRST FLOOR PLAN**

**GROUND FLOOR PLAN**

LAKE  
BURLEY  
GRIFFIN

ALEXANDRINA DRIVE



LEGEND

- 1. New Proposed Extension
- 2. Boat Storage
- 3. Carpark
- 4. Hardstand Area
- 5. 2 Storey Office/Storage Facility
- 6. Weight Training Hall



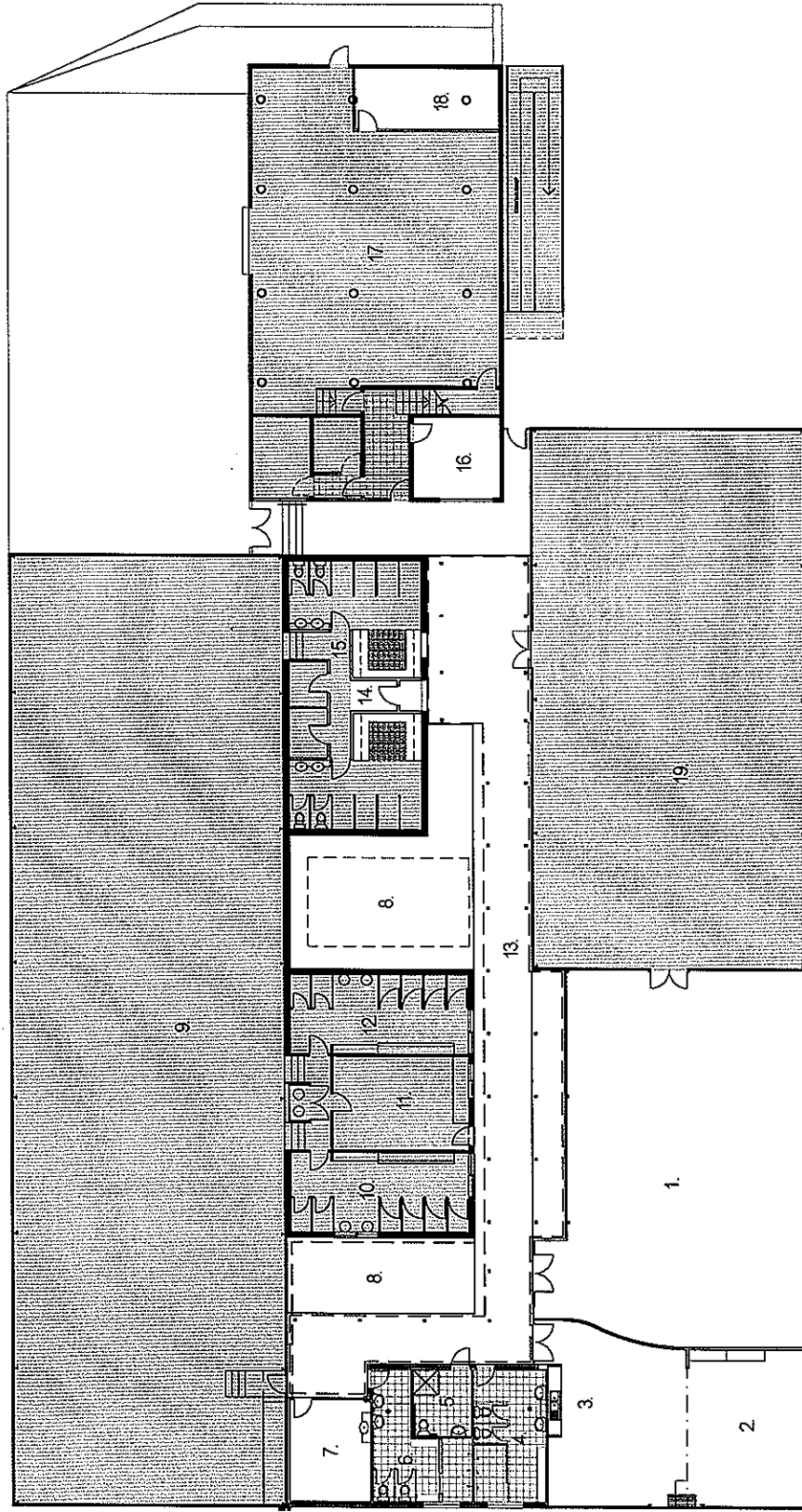
REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY

AIS ROWING CENTRE YARRALUMLA SITE PLAN



FIGURE 5.11





**LEGEND**

**GROUND FLOOR PLAN**

1. Ergo Machine Facility
2. Recovery Room
3. Kitchenette
4. Female Toilets
5. Disabled Toilets
6. Male Toilets
7. Consulting Room
8. Courtyard
9. Boat Storage
10. Female Toilets
11. Male Toilets
12. Kitchen/Lounge
13. New Covered Walkway
14. New Change Area
15. Change Room
16. Video Analysis Room
17. Boat Storage
18. Store Room
19. Weight Training Hall



Existing Buildings



**FIGURE 5.12**



**REDEVELOPMENT OF THE  
AIS ROWING CENTRE YARRALUMLA  
IMPROVEMENTS**

**REDEVELOPMENT OF THE  
AUSTRALIAN INSTITUTE OF SPORT  
BRUCE AUSTRALIAN CAPITAL TERRITORY**