



HMAS CRESWELL REDEVELOPMENT

JERVIS BAY TERRITORY

STATEMENT OF EVIDENCE TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

DEPARTMENT OF DEFENCE

CANBERRA, ACT

May 2007

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ATTACHMENTS

1. HMAS CRESWELL and RANSSSS location plan
2. HMAS CRESWELL proposed works site plan
3. RANSSSS proposed works site plan
4. HMAS CRESWELL - Cerberus House and Geelong House partial elevation
5. RANSSSS - building elevations

ACCRONYMS AND ABBREVIATIONS

RAN	Royal Australian Navy
RANSSSS	Royal Australian Navy School of Survivability and Ship Safety

PART A – IDENTIFICATION OF THE NEED

INTRODUCTION

1. This evidence to the Parliamentary Standing Committee on Public Works presents a proposal for the redevelopment of HMAS CRESWELL, Jervis Bay Territory. The proposal will address current facility and infrastructure shortfalls at HMAS CRESWELL in support of Royal Australian Navy (RAN) officer and senior sailor training. The redevelopment will combine adaptive reuse and refurbishment of existing facilities and infrastructure, construction of new buildings, demolitions and engineering services upgrades. The proposed facilities will support RAN capability.

BACKGROUND

2. HMAS CRESWELL is located in the Jervis Bay Territory approximately 180km south of Sydney. The HMAS CRESWELL Redevelopment project will enhance facilities in HMAS CRESWELL, specifically at the:

- a. Royal Australian Naval College; and
- b. Royal Australian Navy School of Survivability and Ship Safety (RANSSSS) Training Facility East, located at the Jervis Bay Range Facility approximately 5km south of HMAS CRESWELL.

3. Attachment 1 highlights the relative locations of HMAS CRESWELL and the RANSSSS.

4. The formation of the RAN in 1911, led to several sites being considered to determine a location for a Naval College to train its officers. Jervis Bay was selected in late 1911 as the location for the College. Construction began at Captain's Point, Jervis Bay, in 1913 and continued through until 1915. The first intake of students at Jervis Bay commenced in January 1915, with training continuing through the First World War.

5. With the end of the war came changes in Defence strategy and the requirement for naval officer training was reduced. The College was affected and in 1930, it was relocated to Flinders Naval Depot in Victoria. By 1937, most of the buildings at Jervis Bay were leased to private individuals and companies and the site was developed as a tourist town. The return of the RAN College to Jervis Bay was the culmination of a successful campaign beginning in 1950. The College was re-opened and commissioned as HMAS CRESWELL in February 1958.

6. The RAN College is the primary function of HMAS CRESWELL and is responsible to the RAN for the provision of initial, leadership, management and personal development training to RAN officers. In support of this primary training function, HMAS CRESWELL provides accommodation, waterfront services and other support including assistance to military activities conducted in the East Australia Exercise Area.

7. The RANSSSS provides training to equip sea-going RAN personnel with combat survivability skills. The RANSSSS provides the bulk of combat survivability training to Fleet Units home ported in Sydney and the majority of instructor and advanced combat survivability training courses.

8. HMAS CRESWELL also provides living in and classroom accommodation and support facilities for RAN, Royal Australian Air Force and Army training courses and operations.

OBJECTIVES

9. During initiation of the project planning, the following seven objectives were identified to drive design development and ensure that training and facility requirements in HMAS CRESWELL were being met:

- a. upgrade, modernise and construct new training facilities;
- b. upgrade the condition and capacity of engineering services and infrastructure;
- c. address current shortfalls in instructional and accommodation facilities capacity to reduce the impact to capability;

- d. upgrade current facilities and infrastructure to meet current building codes and standards;
- e. enhance recruitment, retention and reputation of the RAN;
- f. reduce the maintenance liability arising from an aged Defence estate; and
- g. address Defence's environmental and heritage responsibilities.

NEED FOR THE WORK

10. HMAS CRESWELL is the primary initial and ongoing training facility for RAN officers and provides ongoing training for senior sailors. The current facilities in HMAS CRESWELL do not conform to current standards, which diminishes training efficiency and has an adverse effect on the recruitment and retention of RAN personnel. Improved standards and an increased number of living in accommodation rooms is required to allow the RAN to meet the training throughput requirements.

11. Changes to RAN officer initial entry training arrangements in recent times has seen fluctuating demands on facilities in HMAS CRESWELL. This uncertainty has resulted in minimal investment in facilities and infrastructure on the Base over the past 20 years and a consequential deterioration of the overall condition of the Base. The demand on facilities in HMAS CRESWELL to support the training capability is on the increase, with an approximate annual throughput of 900 trainees.

12. A recent review of Navy training functions and establishments has confirmed the requirement for significant investment at HMAS CRESWELL, to alleviate the current constraints on training imposed through inadequate facilities and infrastructure. The proposed redevelopment will enable HMAS CRESWELL to continue to make an important contribution to Navy capability.

13. The Report of the Board of Inquiry into the fire in the HMAS Westralia engine room, that resulted in the tragic loss of four sailors lives, highlighted deficiencies in the damage control training of the ships crew and the imperative for the RAN to provide realistic and robust combat survivability training at facilities such as the RANSSSS.

14. Combat survivability training has been conducted at the RANSSSS for over 20 years. The facility is regarded as the RAN's most significant combat survivability training capability. The principle combat survivability training facilities at the RANSSSS have been in operation well beyond their design lives and are deficient in capability, safety, maintainability and environmental compliance due to their age and repair.

15. The current condition and capacity of facilities and infrastructure in HMAS CRESWELL and the RANSSSS limit the effective and efficient delivery of the following training capabilities:

- a. the RAN's ability to provide efficient initial, leadership, management and personal development training to RAN officers; and
- b. the RAN's ability to effectively equip sea-going RAN personnel with practical and robust combat survivability training and skills through the provision of modern, realistic equipment and simulation training.

16. The project's focus on redeveloping facilities and services at HMAS CRESWELL will enhance capability and aid in Navy's recruitment and retention.

DESCRIPTION OF THE PROPOSAL

17. The project incorporates a wide range of refurbishment, new construction, demolition work and adaptive re-use of facilities and infrastructure in HMAS CRESWELL and the RANSSSS. The proposal includes:

- a. Project Element 1 – modernisation of the RANSSSS training units, infrastructure and amenities facilities;
- b. Project Element 2 - upgrade of new and existing engineering services and infrastructure, roads and car parking;

- c. Project Element 3 - refurbishment of existing and provision of new living in accommodation and upgrade of messing facilities;
- d. Project Element 4 - refurbishment of existing and provision of new working accommodation and instructional facilities at the RAN College;
- e. Project Element 5 – new physical fitness and training facilities;
- f. Project Element 6 – upgrade of officer cadet recreational facilities;
- g. Project Element 7 – waterfront environmental works and new classroom and amenity facilities;
- h. Project Element 8 - armoury upgrade; and
- i. Project Element 9 - demolition and miscellaneous minor works.

18. Attachments 2 and 3 highlight the extent of proposed works at HMAS CRESWELL and the RANSSSS respectively.

OPTIONS CONSIDERED

19. During the development of the project scope, a number of design options were considered to meet the project requirements within the available funding. The proposed scope balances the training requirements, engineering services capacity and condition, and capacity of living in accommodation requirements at HMAS CRESWELL.

REASON FOR ADOPTING THE PROPOSAL

20. The project scope of works has been developed as elements in a priority order. This order reflects the importance of facilities and infrastructure upgrade requirements to support RAN training at HMAS CRESWELL.

21. Modernisation of the RANSSSS facilities will ensure that best practice integrated emergency response combat survivability training will be conducted effectively through the provision of realistic specialised equipment and simulation. Refurbishment of the RAN College

facilities will provide an improved training environment for initial officer and senior sailor training.

22. The engineering services and infrastructure upgrade project element will address the capacity and condition of the existing engineering services in HMAS CRESWELL and at the RANSSSS. The new works have been designed to meet current and known future base demands. The engineering services element is a high priority within the project and will ensure the viability of the operation of HMAS CRESWELL into the future.

23. The proposed construction of new living in accommodation buildings will meet the projected recruiting targets of the RAN and provide sufficient facilities to support the projected throughput at the RAN College. This is critical to support the RAN's capability to recruit and train officers required to crew the RAN fleet.

ENVIRONMENTAL IMPACTS

24. The proposed redevelopment sites are located within Commonwealth land and as a result are subject to the provisions of the *Environment Protection and Biodiversity Conservation Act 1999*. An Initial Environmental Review identified that the potential construction impacts associated with runoff into the sensitive marine environment of Jervis Bay would need to be monitored during the construction. Additionally the infrastructure provided for the use and treatment of Aqueous Fire Fighting Foam at the RANSSSS would need to be engineered to ensure the containment and safe treatment of the fire fighting foam. Defence will implement controls to ensure these and other environmental issues are properly managed during construction.

25. As no significant environmental impacts have been identified on other Defence sites, as a result of this proposal, the project will be managed in accordance with the local Base Environmental Management Plans and Environmental Management Systems. Environmental Clearance Certificates will be sought prior to any construction activities on site. Each Contractor

will develop and comply with a project specific Construction Environmental Management Plan. Contractor compliance with this plan will be periodically audited during the construction period.

HERITAGE CONSIDERATIONS

26. Defence owned land in HMAS CRESWELL is registered on the Commonwealth Heritage List. The sites have been assessed as possessing a rich combination of natural, Indigenous and historic heritage values.

27. The project has been developed with consideration of the South Jervis Bay Heritage Management Plan and the site specific HMAS CRESWELL Heritage Management Plan. Further design development will be in strict compliance with relevant legislative requirements. A heritage architect has been engaged to ensure that the heritage values of the base are being considered and in many cases enhanced through the HMAS CRESWELL Redevelopment project. This will include:

- a. the refurbishment of a number of heritage buildings for reuse, including the currently dilapidated and unused Cerberus House; and
- b. the design and construction of a new 'Geelong House' in the style of the existing structures to restore the original symmetry of the highly significant Quarterdeck precinct. Drawings at Attachment 4 illustrate the 'Geelong House' proposal.

CONSULTATION

28. The following key stakeholders have been consulted throughout the development of the HMAS CRESWELL Redevelopment project to date:

- a. Royal Australian Navy;
- b. HMAS CRESWELL Base Command;
- c. RANSSSS Command;
- d. Department of Prime Minister and Cabinet;
- e. Department of the Treasury;
- f. Department of Finance and Administration;

- g. Department of Foreign Affairs and Trade;
 - h. Department of Transport and Regional Services;
 - i. Department of Families, Community Services and Indigenous Affairs;
 - j. Department of Environment and Water Resources;
 - k. Department of Employment and Workplace Relations;
 - l. Australian Greenhouse Office;
 - m. Office of Best Practice Regulation; and
 - n. Jervis Bay Territory Administration.
29. Consultation has been held with or is planned to be held with the following organisations:
- a. Federal member for Fraser;
 - b. Federal member for Gilmore;
 - c. Wreck Bay Aboriginal Community Council;
 - d. Booderee National Park;
 - e. Shoalhaven City Council;
 - f. Integral Energy; and
 - g. Shoalhaven Chamber of Commerce.

REVENUE

30. There is no revenue to be derived from this proposal.

PART B - TECHNICAL INFORMATION

PROJECT LOCATION

31. The location of the proposed works is within the existing base boundaries of both HMAS CRESWELL and the Jervis Bay Range Facility. The RANSSSS is located at the Jervis Bay Range Facility approximately 5km south of HMAS CRESWELL. Both are located in the south-western corner of Jervis Bay, approximately 180km south of Sydney. Attachment 1 refers.

PROJECT SCOPE OF WORKS

32. The project will enhance training facilities, upgrade engineering services, provide new and refurbished living in and office accommodation, upgraded physical fitness and waterfront facilities. These works will be delivered across distinct project elements, the scope of these project elements is outlined below.

Project Element 1 - RANSSSS Modernisation

33. The RANSSSS provides a number of combat survivability training courses. Combat survivability skills are developed through the provision of training on specialist equipment in conjunction with simulation and instruction. These courses develop skills to effectively repair stricken vessels including flood mitigation and leak repair, fire fighting mitigation and Chemical, Biological, Radiological and Nuclear Defence.

34. Significant modernisation works will be undertaken at the RANSSSS to provide a state of the art integrated training facility to provide emergency response and combat survivability training. These works will include: a dynamic Leak Stop Repair Training Unit, a Gas Fired Fire Fighting Unit, a Diesel Fire Fighting Unit, a two-storey building to accommodate the Damage Control Centre, Operations Room and Simulator Control Room, supporting engineering services and environmental management infrastructure upgrade.

35. Attachment 5 shows elevations of the dynamic Leak Stop Repair Training Unit, the Gas Fired Fire Fighting Unit, the Damage Control Centre and the Diesel Fire Fighting Unit.

Project Element 2 - Engineering Services Upgrade

36. An upgrade to the engineering services and infrastructure and road works will improve the current poor condition, increase the limited capacity and reduce the related maintenance liabilities. The works will deliver service reticulation upgrades and extensions including electrical, communications, security, sewer, fire and potable water supply, gas, irrigation and stormwater. Road works, car parking and associated street and pedestrian lighting works will also be delivered.

Project Element 3 - Living in Accommodation and Mess Upgrade

37. HMAS CRESWELL is isolated and has a significant requirement for living in accommodation and messing facilities to meet trainee and staff demands. The project will provide medium and minor refurbishments of existing trainee and officer accommodation buildings, as well as the provision of a new officer accommodation building to provide acceptable living in accommodation standards for Defence personnel. This will include bringing aging facilities up to current building codes and fire safety standards.

Project Element 4 - New and Refurbished RAN College Facilities

38. The RAN College provides Single Service training for naval undergraduates of the Australian Defence Force Academy, as well as non-specialist officer training courses. The RAN College offers a variety of courses throughout the year utilising an increasingly diverse range of media and technology. The RAN College has a staff of approximately 50, with an annual training throughput of 900 trainees. Student population numbers in the short to medium term are projected to increase in response to increased RAN officer recruitment targets.

39. Works provided for the RAN College will include the construction of a multi-functional training facility on the site of the previously demolished Geelong House. This new purpose built facility will retain the heritage values of the site through a façade design that represents the aspect of the original building. The works will also include refurbishment of the historic and presently dilapidated and unusable Cerberus House for working accommodation.

Project Element 5 - Physical Fitness Centre

40. The construction of an integrated physical fitness centre will provide adequately sized and functional facilities in support of physical fitness training, rehabilitation and physiotherapy activities. The proposal facilities include a 25 metre indoor swimming pool, weights training room, combined training room and cardio theatre, multi-purpose hall, equipment store, staff working accommodation and change facilities.

Other Project Elements

41. Other works to deliver the remaining project elements of the HMAS CRESWELL Redevelopment project include:

- a. Project Element 6 - restoration of the Officer Cadets Gunroom (Junior Officers recreational facility) on the lower floor of Cerberus House;
- b. Project Element 7 - a new trainees classroom and amenities building and environmental works on the Waterfront;
- c. Project Element 9 - relocation and upgrade of the armoury to meet current building codes and Defence standards; and
- d. Project Element 10 - demolition of a number of redundant demountable, temporary and below standard buildings and receptacles including any associated environmental remediation.

SITE SELECTION AND DESCRIPTION

42. All elements of this project are sited within the existing boundaries of HMAS CRESWELL and the Jervis Bay Range Facility. This property is Commonwealth owned and Defence controlled. Site selection has been successfully undertaken in accordance with Defence estate planning policy requirements. This addressed Australian Defence Force policy, environmental, heritage, operational, cost, ownership and off base civilian considerations.

ZONING AND APPROVALS

43. All sites subject to project works are on Commonwealth owned and Defence controlled land. State and Local Government approvals are not a development requirement, however Defence will comply with the intent of all relevant State and Local Government laws and regulations.

LAND ACQUISITION

44. There is no land acquisition requirement associated with the project.

CODES AND STANDARDS

45. Where relevant, the design of new and refurbished buildings at HMAS CRESWELL will comply with the requirements of:

- a. Building Code of Australia;
- b. Australian Standards and Codes;
- c. Defence Manual of Fire Protection Engineering;
- d. Defence Security Manual;
- e. relevant Commonwealth and State legislation;
- f. Defence Occupational Health and Safety Manual; and
- g. Energy Efficiency in Government Operation policy.

46. A qualified and practising certifier will be required to certify that the design and finished construction of the proposed facilities meet the requirements of the Building Code of Australia, relevant Codes and Standards, the Defence Manual of Fire Protection Engineering and any additional Local, State Government and Defence requirements.

47. Successful tenderers will be required to produce a Project Quality Plan. This plan will clearly show how building codes, Australian standards and any additional Defence requirements in relation to security, fire protection, and fire safety will be met and how the requirements for construction and installation are to be maintained.

PLANNING AND DESIGN CONCEPTS

48. The general philosophy to be adopted in the design of new facilities will incorporate the following considerations:

- a. the provision of cost effective, robust and utilitarian facilities of energy efficient design suitable for the climatic conditions, and of a style sympathetic to other facilities at HMAS CRESWELL;
- b. the achievement of Ecologically Sustainable Development performance targets;
- c. the adoption of conventional construction techniques and materials; and
- d. through life costs during design and in the selection of finishes, plant and materials.

49. The design, structure, servicing and the siting of new buildings and services will ensure that future expansion is possible. This will be considered in the sizing and termination of in-ground services. Where appropriate, maximum flexibility will be provided in internal office design and partitioning. Minimum use is to be made of structural internal walls or columns except where the need for security, noise reduction or compliance with heritage obligations dictates.

Structure

50. Given the historical significance of the site, it is not possible to create one single building type and it is proposed that the new buildings sit well within the existing built and natural landscape and are sympathetic to their surrounds. Where existing buildings are being adaptively re-used, the approach is to retain and conserve as much of the external fabric as possible and to retain internal fabric where practicable.

Materials and Finishes - Existing Buildings (Refurbishment)

51. The early buildings on the site, including both the RAN College and living in accommodation facilities subject to refurbishment are predominantly of lightweight construction and are unified by domestic detailing and a common palette of materials. The later buildings on the site (circa 1970's), including the living in accommodation blocks are all face cavity brick construction, using a pale brown/pink clay.

Materials and Finishes- New Buildings

52. Given the significance of the built fabric and the important cultural landscape, it is proposed that the new buildings should complement the existing built and natural landscape and urban form of the historic layout. The materials proposed are dependant on the location of the new buildings and the proximity and relationship to existing historically significant buildings.

Mechanical Services

53. All building services shall be designed to meet the agreed Ecologically Sustainable Design criteria in terms of utilising low energy consumption systems and by providing adequate measurement and metering so energy usage can be closely monitored and usage controlled.

54. Where possible, passive means of providing heating and cooling will be investigated for all buildings to minimise the environmental impact of this redevelopment and associated

maintenance and energy costs. The use of operable windows for fresh air ventilation also presents the potential to use natural ventilation as a means of passive cooling.

Hydraulic Services

55. Domestic water supplies to the HMAS Creswell buildings will be extended from the infrastructure main for each new and refurbished building. Water supplies will incorporate selective metering to each individual building. The new facilities will be fitted with flow control devices that will reduce the water consumption required by domestic usage. This will in turn reduce the impact on the water supply mains and sewer mains.

56. The valves, hydrants and connections to the in ground water services shall be replaced and made compliant with current standards. The existing water pipes will remain, as they are in very good condition and the capacity is sufficient for domestic supply and fire fighting. The system has over 20% spare capacity for future distribution expansion.

Electrical Services

57. All building services shall be designed to utilise low energy consumption systems and provide adequate measurement and metering so energy usage can be closely monitored and usage controlled. The electrical sub-mains shall be rated to suit the estimated building loads plus a 20% redundancy in capacity. Due to the increase in demand by the installation of new services including air-conditioning in many buildings, it is assumed that most sub-mains will require upgrading.

Gas Services

58. It is proposed to remove the existing isolated Liquid Petroleum Gas tanks in lieu of a centralized Gas repository and deliver the gas to facilities through a new trunk reticulation to service all new and existing facilities requiring gas. The feasibility and site selection of a central Gas repository is still under consideration.

Sewer Services

59. The existing sewer lines will be renewed or replaced as required in the due diligence investigations and Closed Circuit Television analysis. All the original clay pipe sewer lines are failing and are to be replaced.

Landscaping

60. Landscaping will be designed in consideration of the heritage values and sensitivities of the site, and be water and maintenance efficient. Stormwater runoff will be captured where possible for re-use and effluent will be treated on site and utilised for irrigation.

Acoustics

61. Sound attenuation is especially important in living in, office and classroom accommodation and the levels specified within the Australian Standards and the Building Code of Australia will be met in the design and construction of these project elements.

WATER AND ENERGY CONSERVATION MEASURES

62. The Government has set specific energy-efficiency targets that require a reduction in greenhouse gas emissions resulting from Defence facilities operations. Defence reports annually to Parliament on its energy management performance and on its progress in meeting the energy efficiency targets established by the government as part of its commitment to improve Ecologically Sustainable Development. This project has addressed this policy by adopting cost effective Ecologically Sustainable Development, as a key objective in the design development and delivery of new facilities.

63. All buildings included in this project will be designed, constructed, operated and maintained to ensure that they use energy efficiently. To achieve this, as a minimum, the proposed facilities will comply with the following as applicable to the classification of each building.

- a. Section I2 and Section J of Volume One of the Building Code of Australia;
- b. Part 3.12 of Volume Two of the Building Code of Australia;
- c. Energy Efficiency in Government Operations policy;
- d. Defence Green Building Requirement Part 1; and
- e. Commonwealth Guidelines 2006 on Ecologically Sustainable Design.

64. All buildings will comply with the relevant energy efficiency provisions in the Building Code of Australia, except where there are energy efficiency requirements imposed by Defence that are of a higher standard. In this project, each building is subject to the higher standards of the Defence Building Requirements Part 1 which requires a 20% improvement on the Building Code of Australia minimum energy efficiency performance requirements.

65. In addition to the above, all office buildings subject to major refurbishment will comply with the minimum energy performance standards in the Energy Efficiency in Government Operations policy. This will include refurbished buildings of the RAN College project elements.

66. While there are no new office buildings incorporated in the redevelopment project, design of the existing buildings to be refurbished will be in accordance with the principles of the Energy Efficiency in Government Operations policy. Specific design aspects will include:

- a. where functional, internal lighting will not exceed 10 W/m²;
- b. where available, fit for purpose and cost effective appliances will be US EPA 'Energy Star; compliant with power management features; and
- c. installation of separate market status metering.

67. The Defence commitment to the implementation of Ecologically Sustainable Development principles as integral to project delivery, and to subsequent monitoring of facilities performance, means:

- a. to help secure good Ecologically Sustainable Development outcomes, integrated design principles and practices have been applied to the project. Defence has involved project architects, Ecologically Sustainable Development, energy, engineering and landscape consultants, and building and maintenance contractors; and

- b. appropriate contract clauses will bind contractors and consultants to Defence Ecologically Sustainable Development objectives, Key Performance Indicators and targets.

68. Efficient water use is a key aspect of the design. Key water saving measures will include:

- a. all tap ware and fittings compliant with the Water Efficiency Labelling Standards scheme to provide a minimum of a 3 Star water conservation rating;
- b. pressure limiting valves to limit pressure at all appliances;
- c. sub-metering of all major water supplies to each new building;
- d. rainwater harvesting from roof areas complete with storage tanks and pressure pumping to supply localised landscaping and toilet flushing;
- e. grey water recycling and stormwater re-use; and
- f. waterless urinal systems where appropriate.

69. The new multi-purpose training facility 'Geelong House' will target an Australian Building Greenhouse Rating of 4.5 stars. Each new building will be modelled to determine the predicted energy consumption and design targets will be determined for each building. Energy management is a key aspect in the design of the new facilities and the initiatives which will be included are:

- a. maximise use of natural light and control the penetration of direct sunlight through the use of externally fixed sunscreens and internally controlled blinds;
- b. skylights to improve level of natural lighting to interior of buildings;
- c. insulation materials and weatherproof seals;
- d. solar energy and solar hot water systems where considered cost effective;
- e. natural ventilation and mixed mode systems wherever possible;
- f. energy efficient heating and cooling systems such as time switches at air conditioner controls;
- g. energy efficient lighting and lighting control systems such as time switches and after-hours automatic shut-off controls;
- h. energy efficient appliances, plant and equipment; and

- i. electrical and water metering.

70. A key design focus enunciated within Defence policy is improved energy management to ensure Ecologically Sustainable Development and the reduction of greenhouse gas emissions. The design of all power supply, electrical and mechanical equipment will include an assessment of energy use, applying life cycle costing techniques and power demand analysis, energy efficiency being a key objective in Defence facility projects.

71. The Australian Greenhouse Office, in the Department of Environment and Water Resources, has been consulted with respect to these energy efficiency requirements.

MASTER PLANNING

72. While there is no Facilities Master Plan for HMAS CRESWELL, the siting of new buildings and concept design has been developed with consideration of the heritage values and sensitivities of the site. A philosophy of zone / precinct planning supportive of both current and future development opportunities has been adopted.

PROVISION FOR PEOPLE WITH DISABILITIES

73. Provision for people with disabilities will be incorporated into the design in accordance with all current codes and policies. Where specialised training facilities at the RANSSSS are being constructed for the sole use and operation by physically capable Defence Force personnel, necessary Disability Discrimination Act dispensations will be provided.

CHILD CARE PROVISION

74. Child care facilities are provided at Jervis Bay Preschool which is located on the grounds of HMAS CRESWELL. The redevelopment project scope will not impact upon the operation of the childcare centre.

FIRE PROTECTION AND SECURITY

75. The provision of fire protection systems will, as a minimum, be in accordance with the provisions of the Building Code of Australia, the Defence Manual of Fire Protection Engineering and other applicable Codes and Standards and will require certification from a suitably qualified certifier. Any recommended departures from the requirements will be technically assessed by Defence specialist fire protection staff.

76. The facilities will be designed to comply with the requirements of Defence Physical and Information Technology Security Policy.

OCCUPATIONAL HEALTH AND SAFETY MEASURES

77. A number of existing facilities in HMAS Creswell and the RANSSSS are not compliant with industry best practice, the Department of Defence Occupational Health and Safety Manual, or the *Occupational Health and Safety Act (Commonwealth Employment) 1991*. The proposed works will address the shortfalls in occupational health and safety to ensure safe working conditions for Defence personnel and will comply with all legislative and policy requirements.

78. The project has been selected as one of two Commonwealth funded capital works projects as a pilot project for the Office of the Federal Safety Commissioner to assist in establishing the Office's terms of reference for best practice in public sector construction projects.

IMPACT ON THE LOCAL COMMUNITY

79. The HMAS CRESWELL Redevelopment project will employ skilled construction workers in the south-east New South Wales labour market over three years. The project will provide a positive economic benefit to small businesses in the region. Specifically, the project will benefit commercial construction sub-contractors. In addition, it is anticipated that

construction will generate further job opportunities off-site associated with design, supply, manufacture and distribution of components and materials.

80. Construction activity is expected to be conducted between 7am and 5pm Monday through Friday, and between 8am and 5pm Saturdays. It is not expected that any construction activity will take place on Sundays.

PROJECT COSTS

81. The estimated total cost of the project is \$83.6 million out turned which includes design, construction, management, furniture, fittings, equipment, price escalation and contingency.

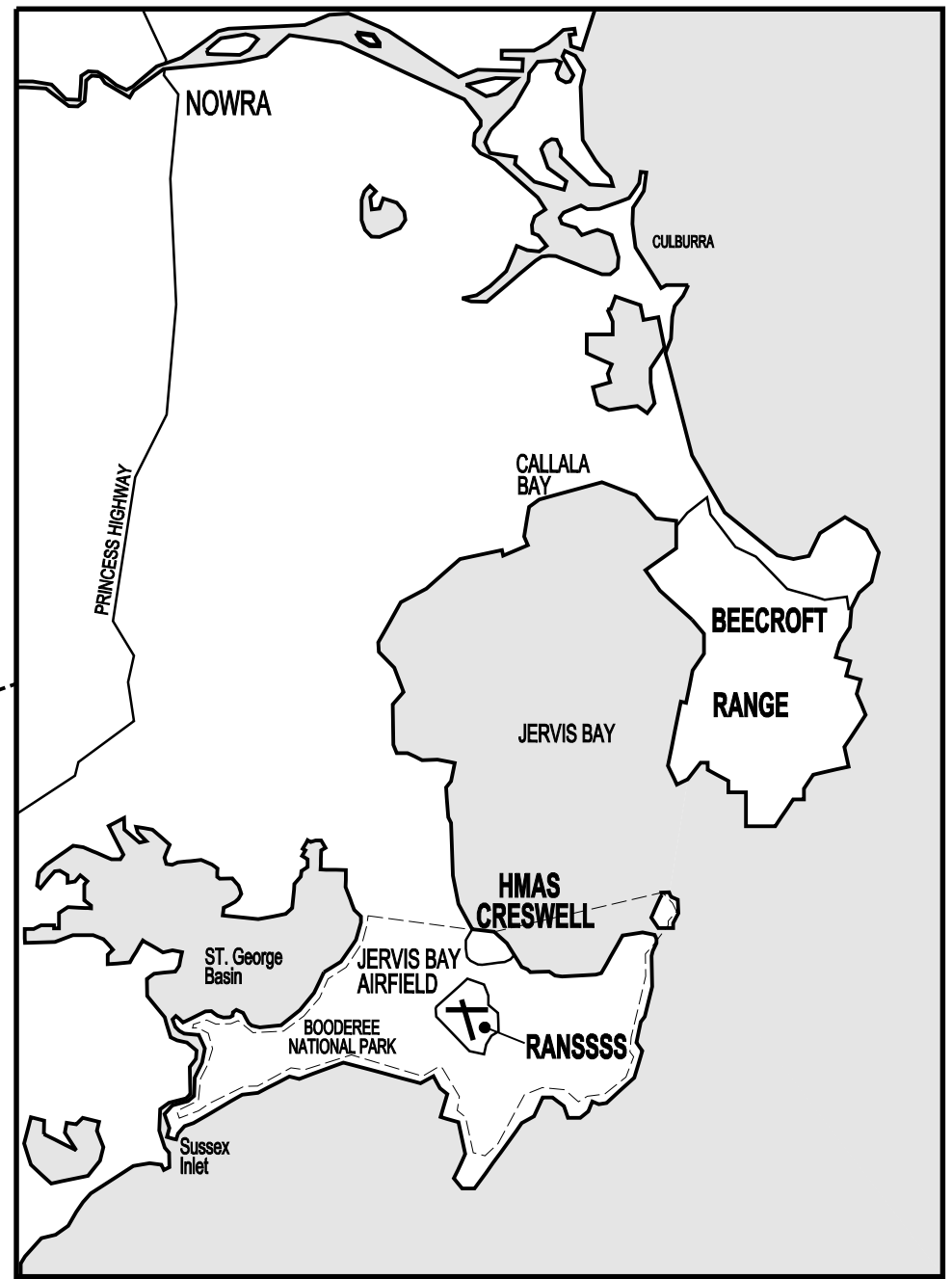
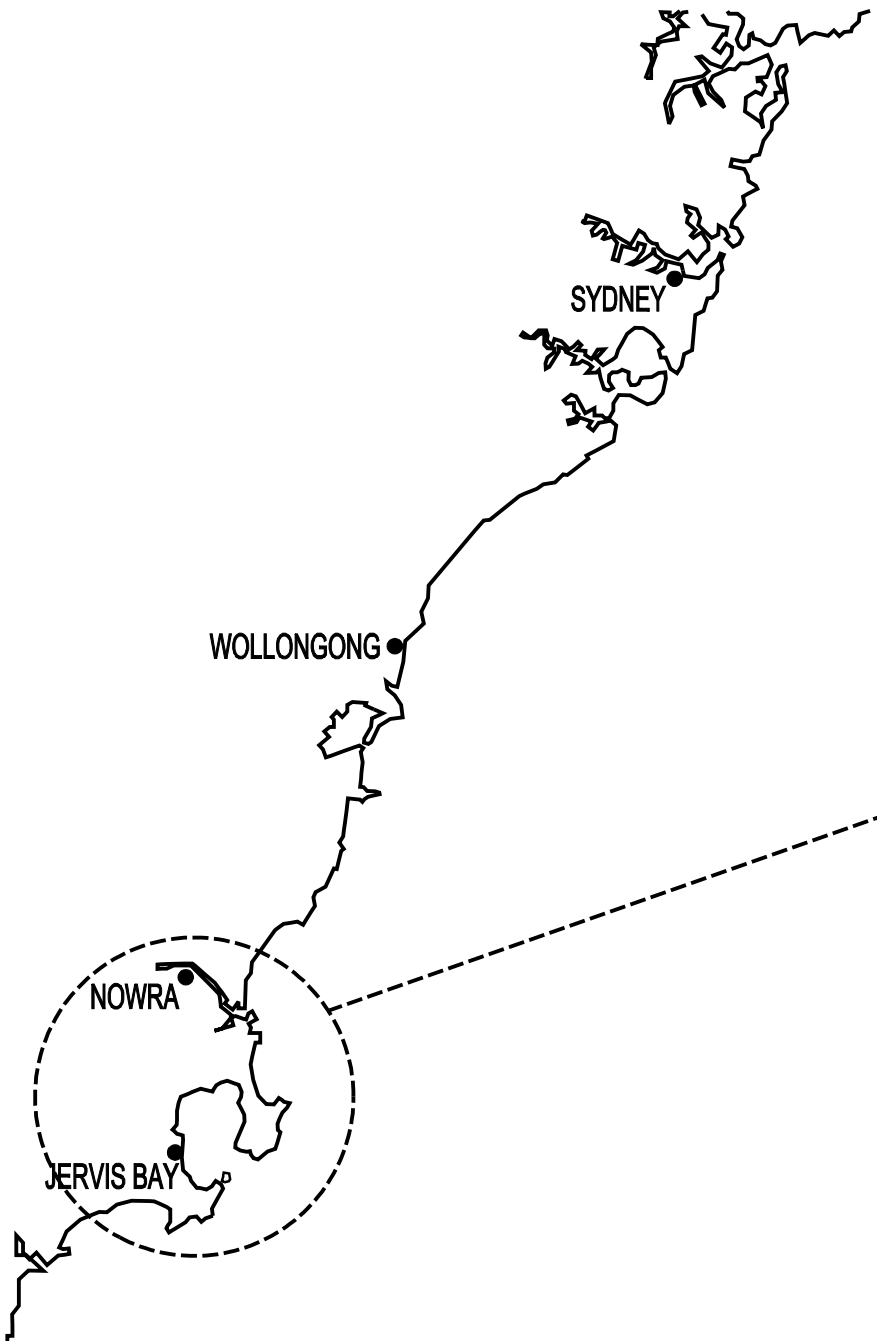
82. This project will result in a net increase in infrastructure maintenance, cleaning and utilities costs. The net operating estimates have been developed by the cost planning consultant in consultation with the Defence Service Group Regional and National Operations Division. These net operating cost increases will be accommodated from within the Defence budget.

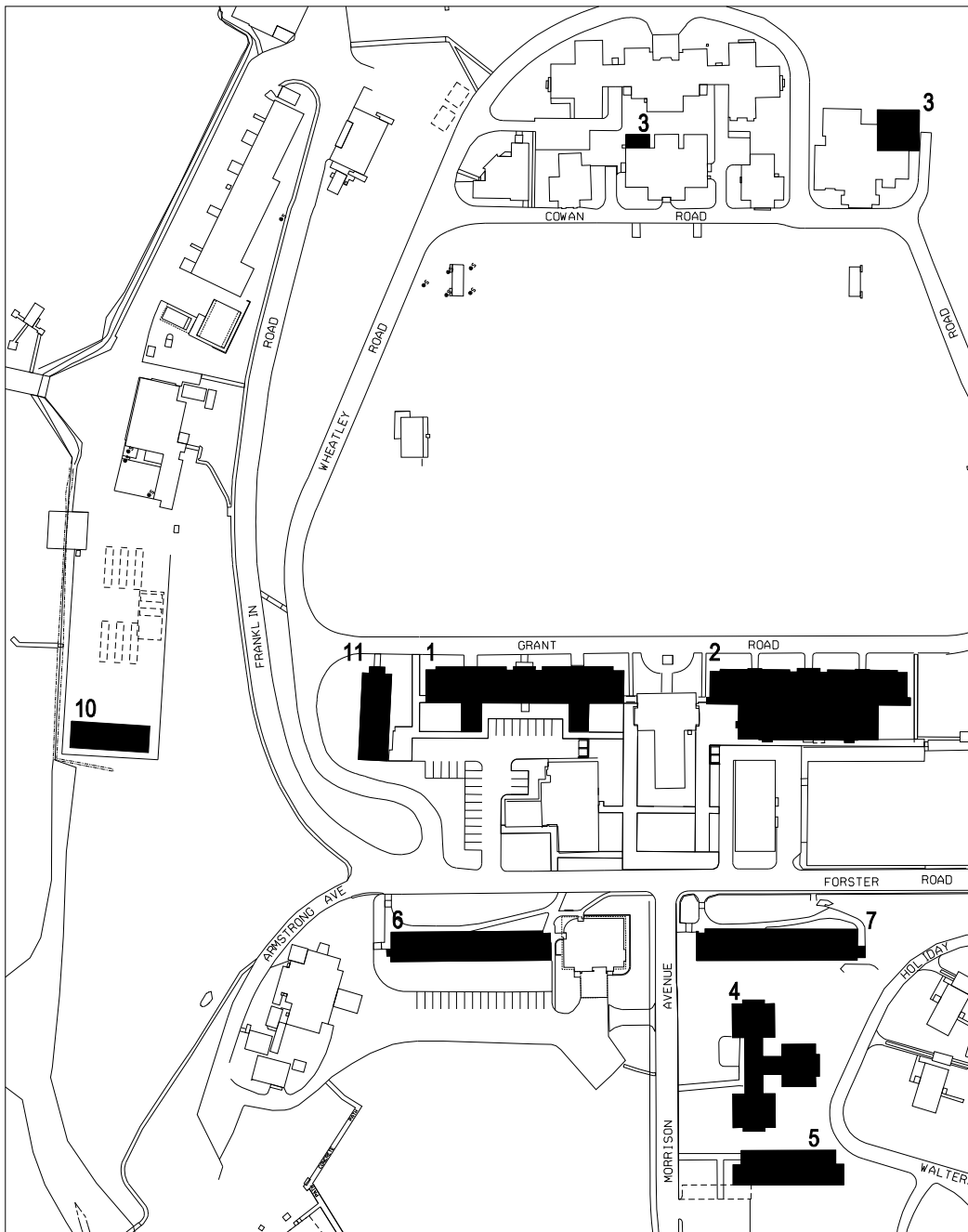
PROJECT DELIVERY

83. Defence has engaged a Managing Contractor to assist with the development and delivery phases of the project. This approach provides a strong on-site management presence that delivers the coordination of all elements of this type of project, and ensures that risks associated with construction can be addressed as they arise. It has proved to be the most appropriate contracting strategy for complicated redevelopment on a training base. In this case, the base training activities and construction activities will be properly synchronised to ensure the quickest possible completion, while continuing to meet the training demands in HMAS CRESWELL.

PROJECT SCHEDULE

84. Subject to Parliamentary clearance of the project, construction is scheduled to commence in 2008, with completion in 2011. Construction will be staged to minimise disruption to ongoing training conducted at HMAS CRESWELL.





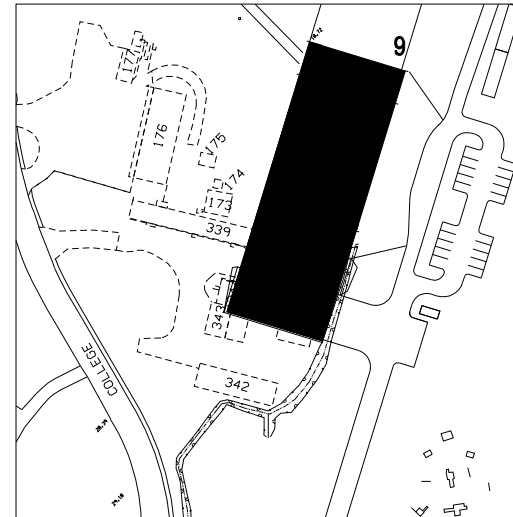
NEW BUILDING AND REFURBISHED WORKS

KEY:

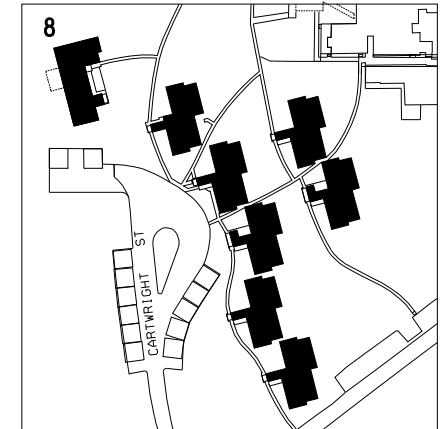
PRINCIPAL PROJECT ELEMENT

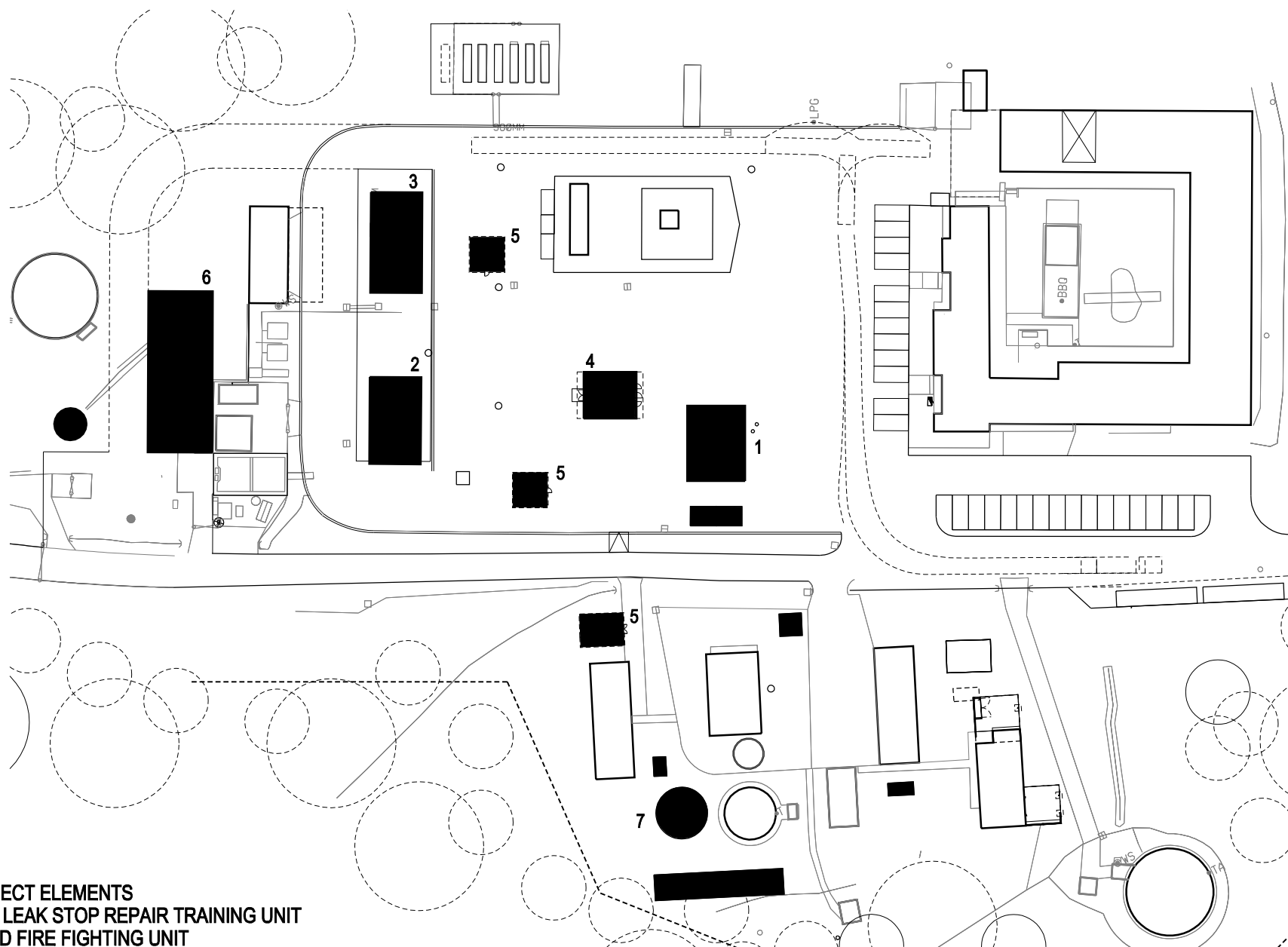
- 1: MAJOR REFURBISHMENT OF CERBERUS HOUSE
- 2: CONSTRUCTION OF "NEW" GEELONG HOUSE
- 3: MINOR REFURBISHMENT FOR RAN COLLEGE WORKING ACCOMMODATION & INSTRUCTIONAL FACILITIES
- 4: MINOR REFURBISHMENT OF DOWLING HOUSE ACCOMMODATION BLOCK
- 5: CONSTRUCTION OF 31 BED ACCOMMODATION BLOCK
- 6: REFURBISHMENT OF FARNCOMB HOUSE ACCOMMODATION BLOCK
- 7: REFURBISHMENT OF DOWLING HOUSE ACCOMMODATION BLOCK
- 8: REFURBISHMENT OF SAILORS ACCOMMODATION BUILDINGS 78 - 85
- 9: CONSTRUCTION OF NEW PHYSICAL FITNESS COMPLEX
- 10: CONSTRUCTION OF NEW CADETS AMENITIES BLOCK AND CLASSROOM
- 11: REFURBISHMENT OF EXISTING BUILDING TO PROVIDE NEW ARMOURY

GYM LOCATION



ACCOMMODATION BUILDINGS 78-85





KEY

PRINCIPAL PROJECT ELEMENTS

- 1: DYNAMIC LEAK STOP REPAIR TRAINING UNIT
- 2: GAS FIRED FIRE FIGHTING UNIT
- 3: DIESEL FIRED FIRE FIGHTING UNIT
- 4: DAMAGE CONTROL CENTRAL / SECURITY CONTROL ROOM
- 5: SECTION REPAIR BASES & FIRST AID
- 6: AQUEOUS FILM FORMING FOAM TREATMENT PLANT
- 7: DYNAMIC LEAK STOP REPAIR TRAINING UNIT FACILITIES

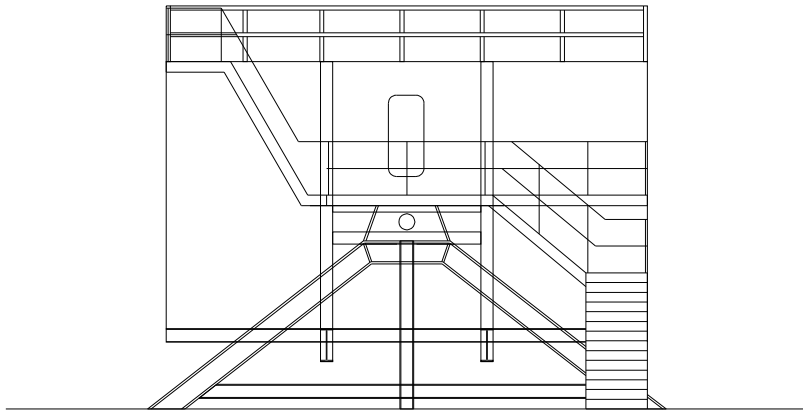
 SITE OF PROPOSED WORKS



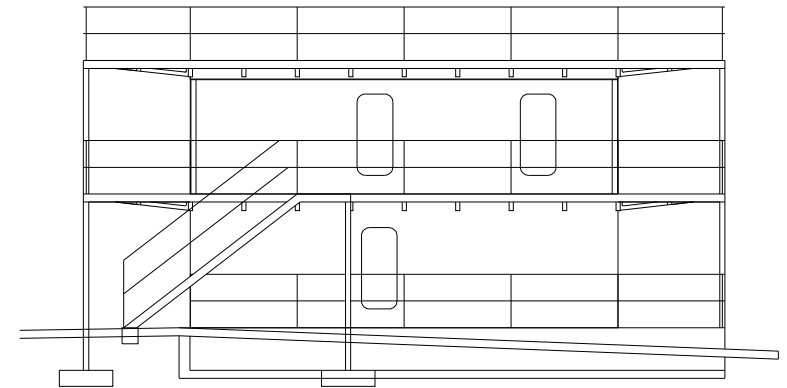
PART ELEVATION OF NEW GEELONG HOUSE



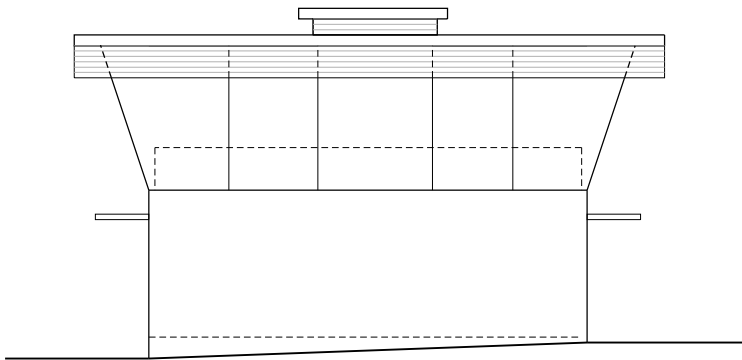
**PART ELEVATION OF EXISTING
REFURBISHED CERBERUS HOUSE**



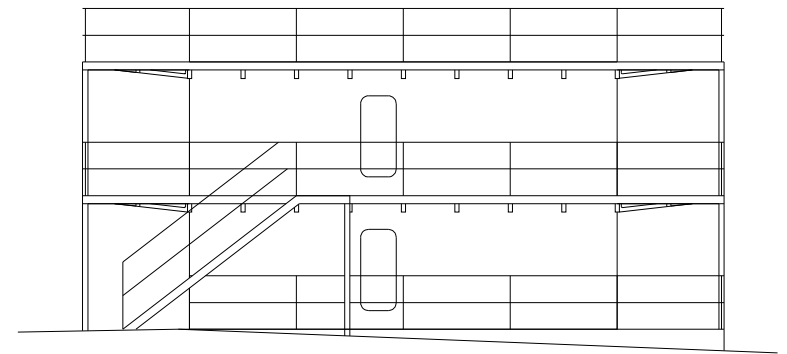
DYNAMIC LEAK STOP REPAIR TRAINING UNIT BUILDING ELEVATION



GAS FIRED FIRE FIGHTING UNIT BUILDING ELEVATION



DAMAGE CONTROL CENTRAL / SECURITY CONTROL ROOM BUILDING ELEVATION



DIESEL FIRED FIRE FIGHTING UNIT BUILDING ELEVATION