



Australian Government

Department of Defence

Defence Support Group

**ROBERTSON BARRACKS REDEVELOPMENT,
ROBERTSON REPLACEMENT TANK FACILITIES
and
HARDENED & NETWORKED ARMY PROJECTS**

Darwin, Northern Territory

STATEMENT OF EVIDENCE

TO THE

PARLIAMENTARY STANDING COMMITTEE

ON PUBLIC WORKS

**Department of Defence
Canberra, ACT
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LIST OF ABBREVIATIONS

1 Armd Regt	1st Armoured Regiment
1 Avn Regt	1st Aviation Regiment
1 Bde	1st Brigade
1 CSR	1st Combat Signals Regiment
1 CSU	1st Command Support Unit
1 CSSB	1st Combat Service Support Battalion
1 MP Bn	1st Military Police Battalion
1 Tp ERS	1st Troop Emergency Response Squadron
2 Cav Regt	2nd Cavalry Regiment
5 RAR	5th Battalion, Royal Australian Regiment
11 MP Pl	11th Military Police Platoon
AAB-D	Australian Army Band – Darwin
AHQ	Army Headquarters
APIN	Army Presence In the North
B Coy, 1 MP Bn	Bravo Company, 1st Military Police Battalion
Bn	Battalion
Coy	Company
EIA	Environmental Impact Assessment
ESD	Environmentally Sustainable Design
HNA	Hardened & Networked Army
HQ	Headquarter
HTT	Heavy Tank Transporter
LEAP	Living Environment Accommodation Project
LWC-NT	Land Warfare Centre – Northern Territory
MBTA	Mount Bundy Training Area
NPOC	Net personnel & operating costs
OH&S	Occupational health & safety
OR	Other ranks
Pl	Platoon
PWC	Parliamentary Works Committee
Q-store	Quartermaster store
RBR	Robertson Barracks Redevelopment
Regt	Regiment
RHQ	Regimental Headquarters
RPS	Repair parts store
RRTF	Robertson Replacement Tank Facilities
SHQ	Squadron Headquarters
SIB	Special Investigation Branch
Sqn	Squadron
TTF	Truck Tanker Fuel

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PART A – IDENTIFICATION OF THE NEED

INTRODUCTION

1. This evidence to the Parliamentary Joint Standing Committee on Public Works presents a proposal to provide additional facilities and related infrastructure at the Robertson Barracks Army base in Darwin and some minor works at Mount Bunday Training Area, Northern Territory. The proposal comprises new office accommodation, vehicle and equipment storage buildings, new teaching and music rehearsal facilities, additional car parking and other civil works, services works and alterations and additions to some of the existing buildings.
2. This proposal encompasses three separate projects, each proposing capital works investment at Robertson Barracks:
 - a. the Robertson Barracks Redevelopment (RBR) project;
 - b. the Robertson Replacement Tank Facilities (RRTF) to support project Land 907; and
 - c. the facilities requirements at Robertson Barracks required to support the Hardened and Networked Army (HNA) initiative.
3. While these projects have different objectives, they share a common location, user group, sponsor and delivery schedule.

OBJECTIVE

4. The objectives of the projects are:
 - a. **Robertson Barracks Redevelopment.** To rectify deficiencies in working accommodation for the following units:
 - (i) 1st Combat Signals Regiment;
 - (ii) 1st Combat Service Support Battalion;
 - (iii) 1st Troop, Emergency Response Squadron;
 - (iv) Land Warfare Centre; and
 - (v) Army Band in Darwin.
 - b. **Robertson Replacement Tank Facilities.** To provide the required facilities to support the operation and maintenance of the new tank capability in the following units and locations:
 - (i) 1st Armoured Regiment; and
 - (ii) 1st Combat Service Support Battalion.
 - c. A minor works element is also proposed at Mount Bunday Training Area.

- d. **Hardened and Networked Army Darwin.** To provide the required facilities arising from the Government's HNA initiative and its decision to increase the number of personnel, vehicles and equipment in the following 1st Brigade units:
- (i) 1st Combat Signals Regiment;
 - (ii) 1st Combat Service Support Battalion;
 - (iii) 5th Battalion, Royal Australian Regiment;
 - (iv) 2nd Cavalry Regiment;
 - (v) 1st Armoured Regiment;
 - (vi) B Company, 1st Military Police Battalion; and
 - (vii) Headquarters 1st Brigade.

BACKGROUND

Robertson Barracks

5. Robertson Barracks is a relatively new, purpose-designed Army base located approximately 20km east of Darwin city and 5km north of the satellite town of Palmerston (refer to Site Location Plan at Attachment 1). The base was constructed during the 1990s as the Army Presence In the North project and is now the home of Army's 1st Brigade and a number of Defence lodger units (such as the Land Warfare Centre and 1st Troop, Emergency Response Squadron) and other tenants (such as Frontline, Credit Unions and supporting contractors).

6. The barracks comprises an area of around 165 hectares and houses a working population of about 3,500 personnel, both military and civilian.

Robertson Barracks Redevelopment project

7. This project is the amalgamation of the five small projects. These projects separately address the working accommodation needs of the five units listed in paragraph 4.a. Each project was separately developed by Army. In 2004 it was decided to combine them into a single program of works because of their common location and nature and the potential to achieve economies of scale in design and construction.

Robertson Replacement Tank Facilities

8. Project LAND 907 is a capability project which seeks to replace the ADF tank fleet with a more modern, survivable and interoperable tank capability that will be supportable until at least 2020. The new capability comprises the Abrams Main Battle Tank, the Hercules Armoured Recovery Vehicle, Heavy Tank Transporters (HTT), extra Truck Tank Fuels (TTF), and supporting simulation and training equipment.

9. The government decision to purchase the Abrams tank fleet was announced on 10 March 2004 by the Minister for Defence.

10. The Robertson Replacement Tank Facilities (RRTF) project is the facilities project to support of the introduction of the new tank capability at Robertson Barracks, Darwin.

11. On 25 May 2006, the PWC approved delivery of elements of the RRTF project that were essential to support the arrival of the new tanks in Darwin in early 2007 and advised that these works were not required to be subject to a full Committee inquiry. This evidence does not include these works.

Hardened and Networked Army Darwin project

12. HNA is Army's response to the new global security situation and the need to fight on a more complex and lethal battlefield. It will generate greater organisational depth in Army and a greater focus on combined arms battle groups rather than infantry battalion groups. The result of HNA will be increased options for Government in terms of both the combat weight of the force that can be deployed and the duration that forces can be sustained on operations. Implementation of HNA started in 2006 and the necessary force structure changes will be complete by the end of 2015.

13. The HNA initiative, including the facilities works in Darwin, was approved by Government in December 2005 and is focused on four lines of development to meet these requirements:

- a. Army needs to modernise its equipment. In particular, Army must improve its mobility, protection and information networks;
- b. Army needs to adjust its structures and increase readiness to make the most of the new equipment;
- c. Army must adjust its training and education to better prepare its soldiers to work in increasingly complex and uncertain environments; and
- d. Army needs to update the roles, tasks, structure and resourcing of the Army Reserve so that it is prepared to meet contemporary rather than historical needs.

14. In Darwin, the HNA initiative was the catalyst for the decision to allocate approximately 400 additional personnel plus vehicles and equipment across a number of 1st Brigade units, and to grow the current Military Police platoon based at Robertson Barracks into a full company.

15. These changes in structure and equipment holdings led to the following requirements across a number of 1st Brigade units:

- a. additional working accommodation;
- b. additional vehicle and equipment storage facilities;
- c. additional amenities and car parking; and
- d. additional living in accommodation.

16. The requirement for additional living in accommodation is to be met through Project Single LEAP Phase 2, a separate project addressing the Living in Accommodation

requirements of the Australian Defence Force across Australia. This project was separately referred to the PWC in March 2007.

THE PROPOSAL

17. The proposal is presented in three sections, separately presenting elements of the three projects.

ROBERTSON BARRACKS REDEVELOPMENT

18. A Site Reference Plan for Robertson Barracks Redevelopment is shown at Attachment 2.

1st Combat Signal Regiment (1 CSR)

19. **Unit role and structure.** 1 CSR's primary role is to provide signals services for the 1st Brigade Headquarters staff and to assigned units of the Brigade, signals advice to Brigade units and technical control of the Brigade command and control network. The secondary role of the Regiment is the provision of mobility, unit level administration and security to the Brigade Headquarters. It comprises a Regimental Headquarters, an Operational Support Squadron and two Signals Squadrons, and currently has a total complement of 296 personnel.

20. **Requirement.** The Regiment occupies a compound that was originally designed for a single squadron. Currently:

- a. the Regimental Headquarters is housed in a converted portion of the base clothing store building;
- b. three Squadrons are sharing one overcrowded building for their headquarters;
- c. Squadron and Troop Headquarters elements are using demountable buildings and vehicle bays for offices and other working accommodation;
- d. the Quartermaster's store and unit armoury have insufficient capacity to meet the unit's requirements; and
- e. there are insufficient hangars to park all the unit vehicles under cover for protection from tropical storms and extreme ultraviolet radiation.

21. **Proposed scope of work.** To satisfy these requirements, the proposal is to:

- a. construct a new Regimental Headquarters building, comprising:
 - (i) office space for 30 personnel;
 - (ii) briefing room, duty rest rooms, stores, toilets and kitchenette;
- b. construct a new Signals Squadrons Headquarters building for the two Signals Squadrons;
- c. refurbish the existing squadron building for use as the Operational Support Squadron Headquarters;

- d. construct new troop offices;
- e. extend the existing Quartermaster's store by 100 square metres;
- f. construct a new, larger armoury; and
- g. construct additional vehicle hangars, private car parking and a compound for the storage of vehicle trailers.

22. A development plan illustrating the proposed work is contained in Attachment 3.

1st Combat Service Support Battalion (1 CSSB)

23. **Unit role.** The role of 1 CSSB is to support 1st Brigade's operational and exercise commitments, to assist in the integration of new capabilities into the Brigade and to provide effective in-barracks combat service support to the Brigade. The Battalion currently has a total complement of around 628 personnel and comprises four Companies which generally carry out the following functions:

- a. Maintenance – maintenance support to all Brigade units;
- b. Distribution – warehousing support for all Brigade units;
- c. Health – medical support to exercises and operations; and
- d. Transport – transport support to exercises and operations.

24. **Requirement.** The Battalion Signals Cell currently works from an office designed as a pamphlet library for the Battalion Training Cell. The Signals Cell is evolving into a Troop, hence the office space, which is also unsecured, will be far too small for the additional personnel and equipment required. A new, secure facility is required to appropriately house the new Troop.

25. The Establishment Review of 2001 identified the need for a new structure for 1 CSSB and approved the division of Distribution Company into a Transport Company and a Supply Company. To accommodate this division, additional facilities were not available and subsequently the Transport Company HQ has shared working accommodation with Maintenance Company HQ in a building designed as a single company headquarters. Therefore, a new facility is required to appropriately house the Transport Company HQ.

26. **Proposed scope of work.** To satisfy these requirements, the proposal is to:

- a. construct a new Transport Company HQ building for 12 personnel; and
- b. extend the existing unit Q-store building to accommodate the 10-12 additional personnel in the new Signals Troop.

27. A development plan illustrating the proposed work is contained in Attachment 4.

1st Troop Emergency Response Squadron (1 Tp ERS)

28. **Unit role.** 1 Tp ERS is the Darwin element of the Incident Response Regiment, which is based in Sydney. One of the unit's key roles in Darwin is to provide emergency response

services, within two minutes, to the helicopter activities of 1st Aviation Regiment (1 Avn Regt), also based at Robertson Barracks.

29. **Requirement.** Since its establishment in Darwin the unit has been housed in a facility that was designed as general transit working accommodation. Additionally, the unit facilities are currently located outside the allowable two minute response distance from 1 Avn Regt.

30. In addition to modification of their current facility, a new ready-response hangar for two vehicles in or near the 1 Avn Regt compound is also required.

31. To meet the unit's requirements the following options were considered:

- a. Relocation of the unit to a new, purpose built facility within 2 minutes of 1 Avn Regt.
- b. Refurbishment of the existing facility to meet the unit's requirements and the construction of a stand-by shelter at 1 Avn Regt for two emergency response vehicles to utilise during flying activities.

32. **Proposed scope of work.** The Brigade has confirmed that it no longer requires the current 1 Tp ERS facility for transit accommodation. The proposal is to:

- a. refurbish the current facilities to make them more suited to the Troop's operational requirements; and
- b. extend an existing vehicle shelter behind the 1 Avn Regt flight line to accommodate the two emergency response vehicles during flying activities.

33. The refurbishment of the current facilities include a new muster room, office space, equipment and field stores and breathing apparatus maintenance room.

34. A development plan illustrating the proposed work is contained in Attachment 5.

Land Warfare Centre – NT (LWC-NT) and Australian Army Band – Darwin (AAB-D)

35. **LWC and LWC-NT roles.** LWC delivers the full suite of soldier promotion, Reserve officer training, Cadet training and technical and trade courses utilising conventional, technology-based and distance education training applications. Courses for Officer promotion are both full and part time. The primary role of LWC-NT is to train Army personnel and prepare selected personnel for promotion. Courses are conducted using a combination of technology based and traditional face to face training methods.

36. **LWC-NT requirement.** To conduct its courses more effectively and efficiently LWC-NT requires a tiered lecture theatre that can accommodate 120 personnel (a company-sized audience) plus syndicate rooms and some modifications to its existing office and classroom building. There is a requirement for a sealed training parade ground and there is a shortage of car parking for staff and students.

37. **AAB-D role.** AAB-D is a regional Reserve unit consisting predominantly of Reserve soldiers. The unit's role is to provide the ADF with musical support and to promote its public image and operational effectiveness. In addition AAB-D participates in Northern Territory ceremonial events and also supports charitable organisations.

38. **AAB-D Requirement.** The Army Band in Darwin has been occupying unsatisfactory premises near the Darwin CBD for the last 20 years. These premises are now dilapidated, unsafe and provide no security of tenure for the Band. The Band is a significant military and community resource and performs at over 100 events each year. The unit requires a functional rehearsal room with support facilities such as offices, music library, instrument stores and change rooms.

39. **Proposed scope of work.** To satisfy all of the above LWC-NT and AAB-D requirements, the proposal is to:

- a. locate the Army Band on Robertson Barracks in the LWC-NT training precinct;
- b. construct a combined LWC-NT/AAB-D facility with:
 - (i) a tiered lecture theatre for 100 personnel, with flat floor space for an extra 20 personnel;
 - (ii) eight syndicate rooms which are designed to double as sectional rehearsal spaces for the Band;
 - (iii) a main Band rehearsal space behind and below the back of the tiered seating;
 - (iv) Band office space;
 - (v) Band music library;
 - (vi) Band equipment and container storerooms; and
 - (vii) Band personnel toilets and change rooms.
- c. a new sealed parade ground, shared by LWC-NT and AAB-D; and
- d. 163 new car parking spaces, shared by LWC-NT and AAB-D for staff and trainees.

40. A development plan illustrating the proposed work is contained in Attachment 6.

ROBERTSON REPLACEMENT TANK FACILITIES

41. A Site Reference Plan for Robertson Replacement Tank Facilities project is shown at Attachment 7.

1st Armoured Regiment (1 Armd Regt)

42. **Unit role.** The 1st Armoured Regiment provides trained tank force elements that are capable of operating in a Mechanised Battle Group that can consist of elements of Armour, Infantry, Cavalry, Artillery, Engineers and Combat Service Support.

43. The 1st Armoured Regiment consists of a Headquarters Squadron, three Tank Squadrons and an Operations Support Squadron. The Regiment was previously equipped with fifty 42-tonne Leopard AS1 Main Battle Tanks and fifty M113A1 armoured personnel carrier

variants. The new M1A1 Abrams main battle tank is the unit's principal weapon platform. This project will meet the needs of the unit's transition toward the M1A1 Abrams.

44. **Requirement.** 1 Armd Regt is to receive 41 new M1A1 Abrams tanks and four M88 Hercules Armoured Recovery Vehicles under Project Land 907. Some existing facilities at 1 Armd Regt require upgrades to meet the needs of these new vehicles.

45. **Proposed Scope of Work.** To satisfy the unit level maintenance needs of the new vehicles, the proposal is to extend of three existing repair bays to allow for additional length of new tank.

46. A development plan illustrating the proposed work is contained in Attachment 8.

1st Combat Services Support Battalion (1 CSSB)

47. **Unit role.** With respect to the introduction of the new tank capability, 1 CSSB is to continue to provide the same maintenance and logistic support to 1 Armd Regt as with the existing Leopard fleet.

48. **Requirement.** As the Abrams tank is significantly heavier than the Leopard a larger transport vehicle is required and is being provided with the Land 907 project. 1 CSSB is to receive 14 new Heavy Tank Transporters (HTT), including truck body and trailers, as part of the Land 907 project. The existing vehicle shelters do not have sufficient room to house these vehicles.

49. **Proposed Scope of Work.** To satisfy the operation and capability of the new vehicles, the proposal is to provide the following new facility:

- a. HTT Parking – new vehicle shelter, office, ablutions and hardstand for parking and turning circles of 14 new HTT vehicles and associated staff.

50. A development plan illustrating the proposed work is contained in Attachment 9.

Mount Bunday Training Area

51. **Role.** Mount Bunday Training Area is a support facility approximately 150km south of Darwin utilised by 1 Bde for various training exercises. The training area incorporates facilities for live fire training in both static and mobile scenarios.

52. **Requirement.** The Abrams tank will utilise an existing Armoured Fighting Vehicle (AFV) static range for the purpose of training personnel to operate the tank's weapon systems. Due to the new capabilities of the Abrams tank, the existing Range Control Tower is insufficient to meet the training requirements of the Abrams tank during live firing.

53. **Proposed Scope of Work.** To satisfy the training requirements of the new capability, the proposal is to upgrade the Range Tower Control to meet the acoustic and structural requirements of the facility during tank firing.

54. A development plan illustrating the proposed work is contained in Attachment 10.

HARDENED AND NETWORKED ARMY DARWIN

55. A Site Reference Plan for Hardened and Networked Army project is shown at Attachment 11.

1st Combat Signal Regiment (1 CSR)

56. **Requirement.** The HNA Darwin project is providing another 39 personnel and additional vehicles and equipment to 1 CSR.

57. **Proposed scope of work.** To accommodate the additional personnel and equipment, the proposal is to provide:

- a. additional ablutions;
- b. additional working accommodation; and
- c. additional equipment storage facilities.

58. A development plan illustrating the proposed work is contained in Attachment 12.

1st Combat Services Support Battalion (1 CSSB)

59. **Requirement.** Under HNA there is a requirement for the storage of a greater number of inflatable bulk fuel containers. There is currently insufficient space in which to store these containers, hence additional storage space is required for this purpose.

60. **Proposed scope of work.** The proposal is to extend the existing warehouse by 3 bays for the additional bulk fuel containers.

61. A development plan illustrating the proposed work is contained in Attachment 13.

5th Battalion, Royal Australian Regiment (5 RAR)

62. **Unit role.** The role of 5 RAR is to maintain a ready, deployable mechanised infantry capability in order to meet a variety of emerging operational requirements. The Battalion is made up of a Battalion Headquarters (BHQ) and five Companies – B, C and D Coy (A Coy is a Reserve unit) and Support and Admin Companies. B, C and D Companies are equipped with the armoured personnel carrier family of armoured vehicles, while Support and Admin Companies provide logistic support to the Regiment.

63. **Requirement.** 5 RAR is to receive an additional 222 personnel under HNA, together with additional vehicles, weapons and other equipment. The requirement therefore is to accommodate the new personnel and equipment in new or expanded facilities. There are also existing deficiencies which need to be addressed, such as the lack of a unit compound guard post and an overcrowded repair parts store.

64. The recent Government decision to de-link 5 RAR and 7 RAR and relocate 7 RAR to Adelaide has no effect on this project.

65. **Proposed scope of work.** To satisfy these requirements the proposal is to provide the following new and/or upgraded facilities:

- a. new hangar for 54 vehicles and associated offices, stores and armoury;
- b. additional ablutions for the 222 additional personnel;
- c. an enlarged repair parts storage area;
- d. a new guard post at the main compound gate; and
- e. 112 new private car parking spaces.

66. A development plan illustrating the proposed work is contained in Attachment 14.

2nd Cavalry Regiment (2 Cav Regt)

67. **Unit role.** The role of the 2nd Cavalry Regiment is to conduct reconnaissance, process information and perform light offensive actions. The Regiment is made up of a Regimental Headquarters (RHQ), three Sabre Squadrons (A, B and C Sqn) and Support Squadron. Each of the Sabre Squadrons is equipped with the ASLAV family of light armoured vehicles, whilst the Support Squadron provides the combat service support to the Regiment.

68. **Requirement.** 2 Cav Regt is to receive an additional 87 personnel under HNA, together with extra vehicles, weapons and other equipment. The requirement therefore is to accommodate the additional personnel and equipment in new or expanded facilities. There are also existing deficiencies which need to be addressed, such as an overcrowded armoury and a shortage of ablutions and private car parking spaces.

69. **Proposed scope of work.** To satisfy these requirements the proposal is to provide the following new and/or upgraded facilities:

- a. two new hangar buildings for 60 vehicles, with associated working accommodation;
- b. an extension to the western end of the existing Q-store, for new ablutions and a new, larger armoury for all current and new weapons;
- c. an extension to the eastern end of the existing Q-store for additional storage space; and
- d. extension of two existing car parking areas for 40 additional private car parking spaces.

70. A development plan illustrating the proposed work is contained in Attachment 15.

1st Armoured Regiment (1 Armd Regt)

71. **Unit role.** The 1st Armoured Regiment provides trained tank force elements that are capable of operating in a Mechanised Battle Group that can consist of elements of Armour, Infantry, Cavalry, Artillery, Engineers and Combat Service Support.

72. The 1st Armoured Regiment consists of a Headquarters Squadron, three Tank Squadrons and an Operations Support Squadron. The Regiment was previously equipped with fifty 42-tonne Leopard AS1 Main Battle Tanks and fifty M113A1 armoured personnel carrier

variants. The unit is in the process of transition toward the M1A1 Abrams in 2007 and the M113A3 upgraded armoured personnel carrier in 2009.

73. **Requirement.** 1 Armd Regt is to receive an additional 67 personnel under HNA, together with extra vehicles, weapons and other equipment. The requirement therefore is to accommodate the additional personnel and equipment in new or expanded facilities. There are also existing deficiencies which need to be addressed, such as an overcrowded armoury and a shortage of personnel lockers and private car parking spaces.

74. **Proposed scope of work.** To satisfy these requirements the proposal is to provide the following new and/or upgraded facilities:

- a. an extension to the western end of the existing Q-store, for new ablutions and a new, larger armoury for all current and new weapons;
- b. the provision of additional lockers in the existing ablutions blocks; and
- c. extension of an existing car parking area for 40 additional private car parking spaces.

75. A development plan illustrating the proposed work is contained in Attachment 16.

B Company, 1st Military Police Battalion (B Coy, 1 MP Bn)

76. **Unit role.** B Coy, 1 MP Bn contributes to the effective command and management of the Brigade by providing commanders at all levels with a command and control asset supporting operational and training activities and the military discipline and justice system by the provision of quality policing services.

77. **Requirement.** As a result of the HNA initiative, the manning of the current 11th Military Police Platoon at Robertson Barracks is to be increased by 12 additional personnel and their related vehicles and equipment to create a full Military Police Company. The requirement is therefore to properly accommodate these additional people and equipment in a new Company formation.

78. **Proposed scope of work.** To satisfy these requirements the proposal is to provide the following new and/or upgraded facilities:

- a. a new Company HQ building to accommodate 12 full-time MP personnel plus an existing six Special Investigations Branch (SIB) personnel;
- b. alterations and additions to the office and ablutions areas of the current Platoon HQ building to accommodate two Platoons under the new structure;
- c. extension of the current Q-store/hangar building and the surrounding compound to accommodate the additional stores and vehicles;
- d. an extension of the current HQ and visitor parking area by 10 bays.

79. A development plan illustrating the proposed work is contained in Attachment 17.

Headquarters 1st Brigade (HQ 1 Bde)

80. **Unit role.** The role of the 1st Brigade Headquarters is to provide command and control to all units within the 1st Brigade. The headquarters comprises a number of cells with functions including planning, logistics, and operational and personnel support.

81. **Requirement.** As a result of the HNA initiative, the manning of Headquarters 1st Brigade is to be increased by 11 personnel. The requirement therefore is to properly accommodate these additional personnel in new and/or upgraded facilities.

82. **Proposed scope of work.** Examination of the layout and usage of the current Headquarters building showed that under-utilised and poorly planned space exists. To satisfy this requirement therefore the proposal is to re-plan and re-organise the existing HQ building to provide the required additional working space.

83. A development plan illustrating the proposed work is contained in Attachment 18.

OPTIONS CONSIDERED

84. Robertson Barracks is a relatively new base, with most of the facilities being less than 15 years old. The catalyst for all three projects was changes in unit structure, equipment and staffing rather than technical failure or age of existing facilities.

85. Therefore for each project element, options were considered in the following priority:

- a. adaptive reuse or refurbishment of existing facilities;
- b. extension of existing facilities; and
- c. construction of new facilities.

86. Options for each of the projects and their sub-projects were informed by master planning principles and input provided by the consultant currently preparing new master plans for Robertson Barracks, RAAF Base Darwin and Larrakeyah Barracks/HMAS Coonawarra.

Adaptive reuse or refurbishment

87. Adaptive reuse has been adopted wherever feasible to accommodate the new function, structure or equipment with the confines of existing facilities. An example of this is the internal replanning of the 1st Brigade Headquarters building to accommodate 11 additional personnel with the existing work areas.

Extension of existing facilities

88. Many of the requirements of the HNA initiative resulted from the increase in personnel or unit holdings of existing equipment types. Where existing purpose-built facilities could be extended to accommodate this expansion, this option was adopted. An example of this is the extension of the bulk fuel container store within 1 CSSB.

Construction of new facilities

89. Where existing facilities could not be extended to accommodate increases in personnel or equipment, the construction of new facilities using replication of existing, proven facilities was utilised. For example, units across Robertson Barracks utilise a generic vehicle storage hangar design. This design has been validated as functional and effective and has been replicated for new vehicle hangars within the project.

90. Even where exact replication of existing facilities was not used, all new facilities utilise replication of proven design philosophies for Robertson Barracks including:

- a. materials;
- b. functional relationships and spaces; and
- c. allowance for local climatic conditions.

ECONOMIC, ENVIRONMENTAL AND SOCIAL IMPACTS

Establishment population

91. There will be a net increase of around 400 personnel at Robertson Barracks as the result of HNA. Most of these will be within 1st Brigade units and mostly at the soldier, or Other Ranks (OR), level.

92. The increase in personnel will result in an increase in vehicular traffic in and out of the base via the main gate and Thorngate Road. Thorngate Road connects directly to the Stuart Highway through scrubland and a small amount of light industrial development just north of Palmerston, and its primary purpose is for access to Robertson Barracks. It is not a busy road and the potential increase in vehicle numbers will have a minimal impact on overall traffic volume and local residents and businesses.

93. The 400 additional personnel and their families will also contribute to the Darwin area economy, especially the 75% that will be living off base in the Darwin or Palmerston urban areas.

Environmental impact assessment

94. An Environmental Impact Assessment has been undertaken to examine the potential impacts of the project and to establish whether a referral under the Environmental Protection and Biodiversity Conservation Act 1999 (the Act) to the Department of Environment and Water Resources would be required. A referral under the Act is not considered necessary, although the assessment identified certain requirements for the construction work proposed. These will be addressed by the project team, which will formulate tailored design solutions and work to a Construction Environmental Management Plan to manage potential environmental issues.

Heritage impact assessment

95. A Heritage Impact Assessment has been undertaken to examine the potential impacts of the project and to establish whether a referral under the Environmental Protection and Biodiversity Conservation Act 1999 (the Act) to the Department of Environment and Water

Resources would be required. A referral under the Act is not considered necessary as there are no sites or structures of European or Indigenous heritage value on Robertson Barracks.

Revenue

96. This proposal will not generate any revenue for the Commonwealth.

Consultation

97. In the development of the project, consultation has occurred with the users, unit commanders and Headquarters 1st Brigade at Robertson Barracks and with Army Headquarters staff. Additionally, military and civilian staff responsible for the ongoing maintenance and operation of the facilities have been involved the development process and will continue to be involved through the remainder of the project.

98. Consultations will be held with Territory and Local Government representatives and with relevant utilities such as PowerWater and NT Fire & Rescue Service and will continue throughout construction.

99. An industry briefing was conducted in March 2007 to ensure the local construction market was provided with information relating to the scale, schedule and nature of the works required. It is intended to undertake further briefings as the project progresses.

PART B – TECHNICAL INFORMATION

PLANNING AND DESIGN CONSIDERATIONS

Project delivery methodology

100. Given the key risks to be managed, the nature and complexity of the proposed works and the capacity of the local construction industry, the preferred method of delivery is a series of contract packages. These packages will be tailored to suit the available construction market and to create opportunities for small-medium enterprises. The packaging of Works will address the users' priorities and will consider the commercial viability and the capacity of the local market.

101. It is proposed to deliver the RBR and HNA projects as a single program of works in order to achieve efficiencies in project management, administration and coordination. The RRTF project will be given priority in the contracting and construction program to provide the facilities required to fully support the introduction of the new Tank fleet.

Date for completion

102. Subject to Parliamentary clearance of this project, construction is scheduled to commence in early 2008 with completion by late 2009.

Staging and decanting

103. Most of the works can be undertaken without significant disruption to the operations of existing units as they are stand-alone buildings in vacant areas of the base. Staging and decanting requirements will therefore be minimal for most project elements.

104. The work for some units, such as 1 CSR, will require a construction and decanting management plan and may include the need to provide temporary accommodation while the construction works are undertaken. This will be managed by the project team and the relevant head contractor.

105. The re-organisation of the HQ 1st Brigade building will also have to be carefully managed as, even though there is spare space in the building to move personnel around during the re-fit, some areas have high level security requirements that will have to be maintained. This will be managed by the project team and the relevant head contractor.

106. Allowances have been made within the project budget to fund any staging and decanting.

Demolition works

107. The works for all three projects are primarily refurbishment or replication of existing facilities or the construction of new facilities. As such, no demolition of existing facilities will be required.

Master planning and siting

108. This proposal is in accordance with the Robertson Barracks Master Plan, dated June 2000 and is also in accordance with an update to this master plan, due for completion in early 2008.

109. All of the proposed sites of works comprising these projects have been endorsed by the Site Selection Boards and approved by the Defence delegate.

Landscaping

110. Landscaping will be water and maintenance efficient, with a minimum of high maintenance areas. It will conform to the existing landscaping at Robertson Barracks.

Zoning

111. Robertson Barracks is currently zoned for “Community Purposes” in the Litchfield Area Plan. This zoning is “to provide for community services and facilities, whether they be publicly or privately owned or operated, including facilities for civic and government administration. Design is expected to incorporate landscaping that will enhance the visual appearance of the development. The development of residential accommodation should only be in association with and ancillary to the primary use of the land.”

112. This proposal is consistent with this zoning.

Land acquisition

113. This proposal does not require any land acquisition.

Ecologically sustainable development

114. Consultation with the Australian Greenhouse Office (AGO), has established the fact that current specific objective of the Energy Efficiency in Government Operations (EEGO) policy are not readily achievable in the tropical environment of Darwin. The AGO has advised that this deficiency is currently being examined. Noting this, AGO has noted that this proposal meets the intent of the EEGO policy.

115. 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 buildings will comply with:

- a. Part I2 and Section J of Volume One of the Building Code of Australia (BCA);
- b. Part 3.12 of Volume Two of the BCA;
- c. the intent of the Energy Efficiency in Government Operations policy; and
- d. Defence Green Building Requirements.

116. All buildings will comply with the relevant energy efficiency provisions in the BCA, except where there are energy efficiency requirements imposed by Defence Green Building Requirements - Part 1 that are of a higher standard.

117. For those buildings that have office accommodation with a floor area of less than 2000 m², separate digital on market status metering will be installed and office lighting will not exceed 10 W/m². An energy management plan will be developed for implementation by Defence. Where available, fit for purpose and cost-effective, appliances will be US EPA 'Energy Star' compliant with power management features enabled at the time of supply.

118. Ecologically sustainable design principles have been applied to the mechanical, electrical and hydraulic systems that will be installed in new buildings and in any buildings undergoing substantial refurbishment.

Provision for child care

119. A child care facility for Australian Defence Force personnel is located within 5km of Robertson Barracks, in the Darwin satellite city of Palmerston. The facility is appropriate for its purpose and no work to it is proposed under this project.

Provision for people with disabilities

120. Facilities for people with disabilities will be provided in accordance with relevant Australian standards and design codes. A new passenger lift will be provided in the 1 CSR project to facilitate access to an upper floor. Toilet facilities for the disabled will be provided where required.

Occupational health and safety

121. The facilities to be provided will comply with Department of Defence Occupational Health and Safety policy, the Occupational Health and Safety (Commonwealth Employment) Act 1991, Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations and the Defence Occupational Health and Safety Manual.

122. **Noise and acoustics.** The facilities to be provided will comply with the BCA and all applicable Australian Standards for noise and acoustics. 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.

Design codes and standards

123. Where relevant the design of new and substantially refurbished existing facilities will comply with:

- a. Building Code of Australia (BCA);
- b. Australian Standards and Codes;
- c. Occupational Health and Safety and Welfare legislation;
- d. Defence Manual of Fire Protection Engineering (MFPE);
- e. Defence Security Manual;
- f. Environment Protection and Biodiversity Conservation Act 1999;

- g. Workplace Health and Safety Regulations;
- h. Commonwealth Government Employment Code of Practice (Office & Amenities Guidelines);
- i. National Environment Protection Council (NEPC) Standards;
- j. National Quality Water Management Strategy, Australian & New Zealand Environment & Conservation Council;
- k. Energy Efficiency Guidelines and Protocols in accordance with the Australian Greenhouse Office;
- l. National Code of Practice for the Construction Industry and the Industry Guidelines for the Industrial Relations and Occupational Health and Safety Components of the National Code; and
- m. Disability Discrimination Act (DDA).

Design principles

124. The general principles adopted with respect to the design of the proposed facilities include the following:

- a. Provision of functional, operationally focused and cost effective facilities that are compatible with the existing Barracks style.
- b. Orientation of long axis of buildings east-west to minimise heat gain and sun penetration.
- c. Generous roof overhangs to maximise protection from the sun and tropical rain and storms.
- d. Landscaping to meet existing styles.
- e. Designed to withstand tropical cyclones.
- f. Designed to be flexible and able to accommodate future changes.
- g. Using durable, low maintenance materials and conventional construction techniques and detailing suited to the local environment.

Engineering services

125. Base engineering services and infrastructure at Robertson Barracks were largely constructed during the 1990s and so are generally relatively new. Some, however, including power and sewer services, are nearing capacity. An allowance has been included in the project to augment and expand these services.

126. Each of the building projects has, to varying degrees, elements of civil, structural, mechanical, electrical, hydraulic, fire protection and communications services. These will all comply with the relevant Australian and Defence codes and standards.

Fire protection and security

127. All construction and fire protection requirements will, as a minimum, be in accordance with the provisions of the BCA, the Defence MFPE and all other applicable Codes and Standards. The MFPE details Defence fire protection policy for asset protection and building function protection. The levels of fire protection specified are above BCA requirements and have been determined by a risk assessment and risk management approach to fire protection.

128. Defence will require certification from a suitably qualified and accredited building surveyor, that the design and construction meet the requirements of the BCA, the MFPE, relevant Codes and Standards and any additional State, Local Government and Defence requirements.

129. Security to a commensurate level will be designed and when constructed will be integrated into the existing Base security system. Design will be undertaken in close liaison with the Defence Security Agency and other external agencies as may be required.

COSTS

130. The total estimated out-turn costs for this program of works is \$72.126m (excl GST) and the three projects have been separately estimated at the following costs:

- a. Robertson Barracks Redevelopment - \$30.198m (excl GST);
- b. Robertson Replacement Tank Facilities - \$6.715m (excl GST); and
- c. Hardened and Networked Army - \$35.213m (excl GST)

131. As a result of the three projects, the net personnel and operating costs will increase by approximately \$1.8m per annum, with the majority of this increase attributed to the HNA facilities project.

132. By combining the delivery of both the RBR and HNA projects efficiencies can be achieved through:

- a. eliminating duplicate project management and administration costs;
- b. packaging similar works together; and
- c. packaging HNA and RBR works within specific unit areas together.

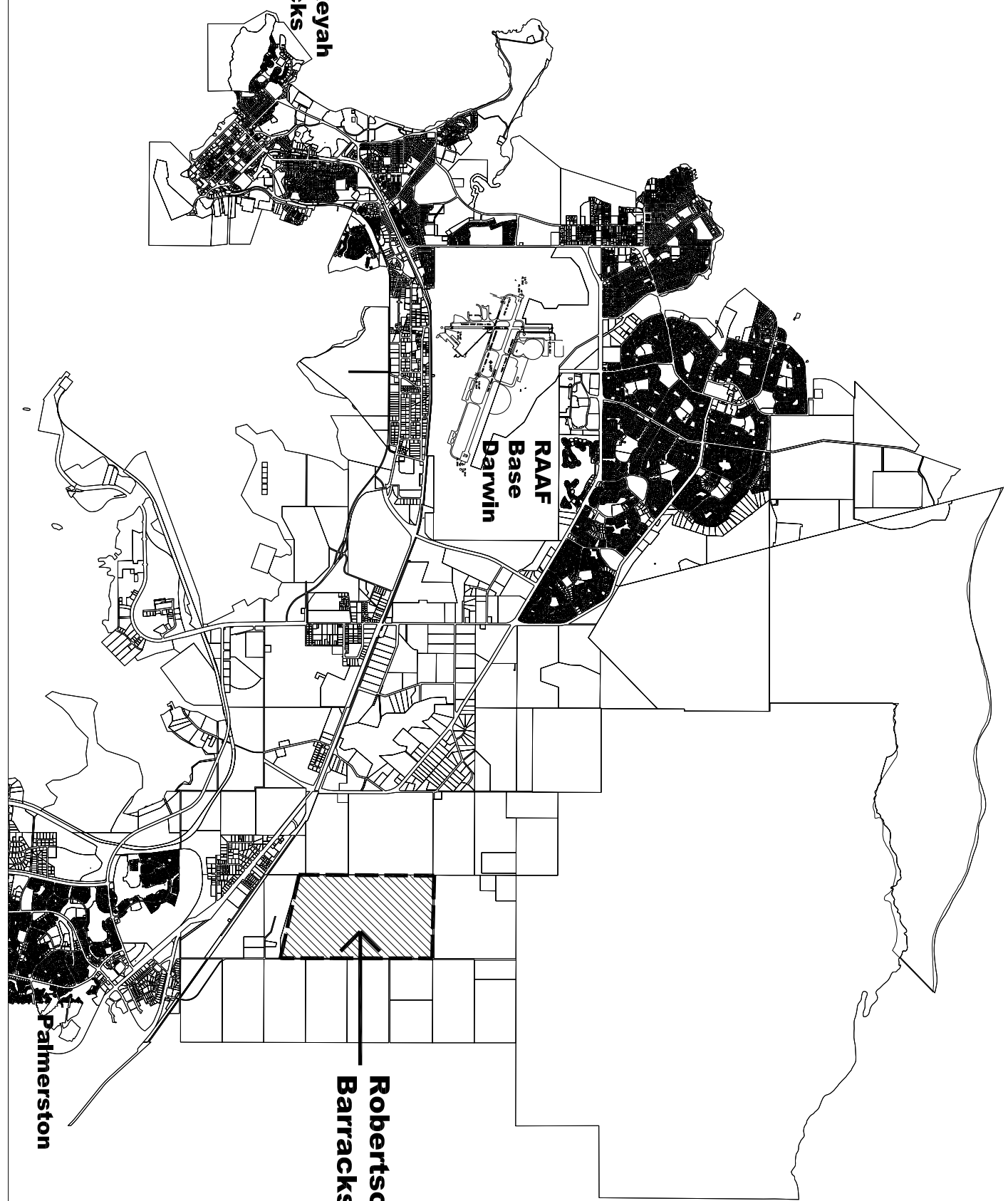
CONCLUSION

133. Together, the Robertson Barracks Redevelopment, Robertson Replacement Tank Facilities and Hardened and Networked Army projects seek to deliver enhanced facilities to meet the operational and training requirements of the 1st Brigade in Darwin. With the exception of minor works at Mount Bunday Training Area, all elements of the projects are contained within the existing confines of Robertson Barracks and will be packaged to enable local, small to medium enterprise significant opportunity to become involved in the projects.

134. With the majority of the work being refurbishment or expansion of existing facilities within an existing barracks, the risk of adverse consequences socially, economically or technically is considered to be relatively low.

ATTACHMENTS

1. Site Location Plan
2. Robertson Barracks Redevelopment - Site Reference Plan
3. Robertson Barracks Redevelopment – 1 Combat Signals Regiment
4. Robertson Barracks Redevelopment – 1 Combat Service Support Battalion
5. Robertson Barracks Redevelopment – 1 Troop Emergency Response Squadron
6. Robertson Barracks Redevelopment – Land Warfare Centre-NT & Band
7. Robertson Replacement Tanks Facilities - Site Reference Plan
8. Robertson Replacement Tanks Facilities – 1 Armoured Regiment
9. Robertson Replacement Tanks Facilities – 1 Combat Service Support Battalion
10. Robertson Replacement Tanks Facilities – Mount Bunday Training Area
11. Hardened and Networked Army - Site Reference Plan
12. Hardened and Networked Army – 1 Combat Signals Regiment
13. Hardened and Networked Army – 1 Combat Service Support Battalion
14. Hardened and Networked Army – 5 Battalion Royal Australian Regiment
15. Hardened and Networked Army – 2 Cavalry Regiment
16. Hardened and Networked Army – 1 Armoured Regiment
17. Hardened and Networked Army – B Company, 1 Military Police Battalion
18. Hardened and Networked Army – Headquarters 1 Bde



Attachment 5
1 Troop
Emergency
Response
Squadron

Attachment 6
Land Warfare
Centre-NT &
Band

Attachment 4
1 Combat
Service
Support
Battalion

Attachment 5
1 Troop
Emergency
Response
Squadron

Attachment 3
1 Combat
Signals
Regiment

ROBERTSON BARRACKS

STATEMENT OF EVIDENCE TO THE PWC Attachment 2
Robertson Barracks Redevelopment - Site Reference Plan

Rev A: Feb 2007
 Rev B: 23 Feb 2007
 Rev C: 28 Feb 2007
 Rev D: 28 Feb 2007
 Rev E: 16 May 2007

1-18-0454
 NTS (A4)
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d) Proportion of new troop offices for 104 and 105 Signals Sqn under Robertson Barracks Redevelopment on level 1

e) Proportion of Q-store extension under Robertson Barracks Redevelopment on ground level

f) Proportion of new armoury under Robertson Barracks Redevelopment on ground level

c) Refurbish existing squadron HQ for the OSS Sqn HQ

g) Proportion of vehicle hangars under Robertson Barracks Redevelopment

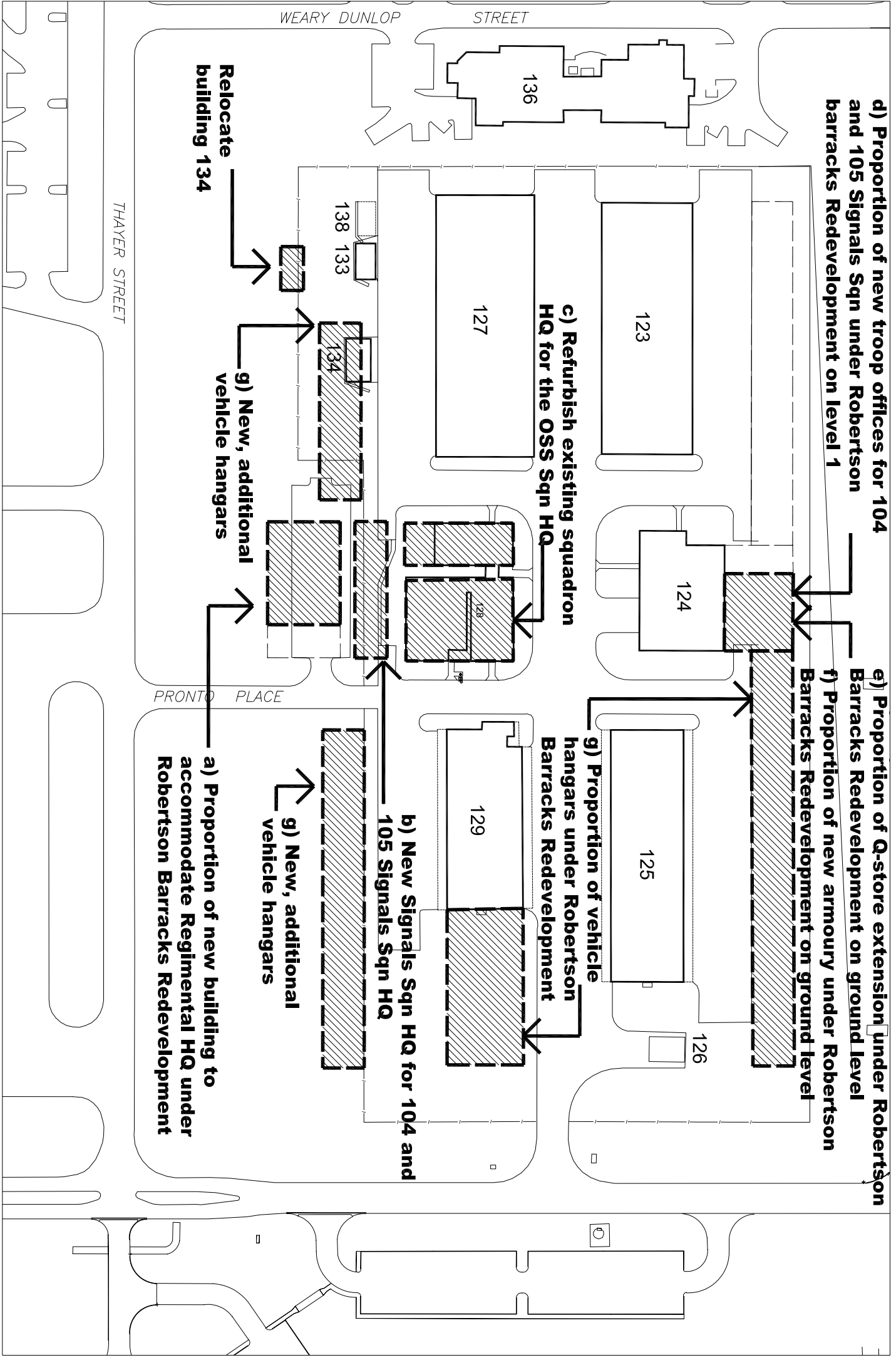
b) New Signals Sqn HQ for 104 and 105 Signals Sqn HQ

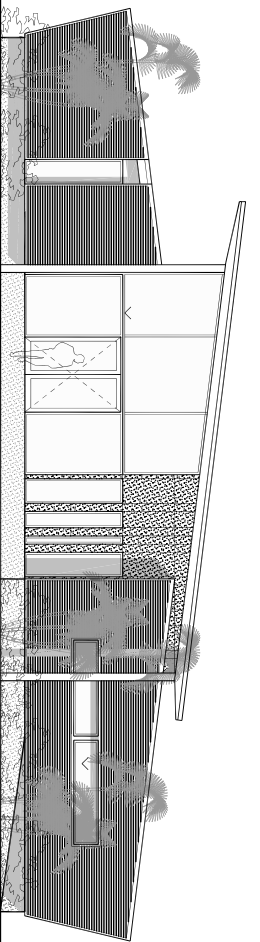
a) Proportion of new building to accommodate Regimental HQ under Robertson Barracks Redevelopment

Relocate building 134

g) New, additional vehicle hangars

g) New, additional vehicle hangars

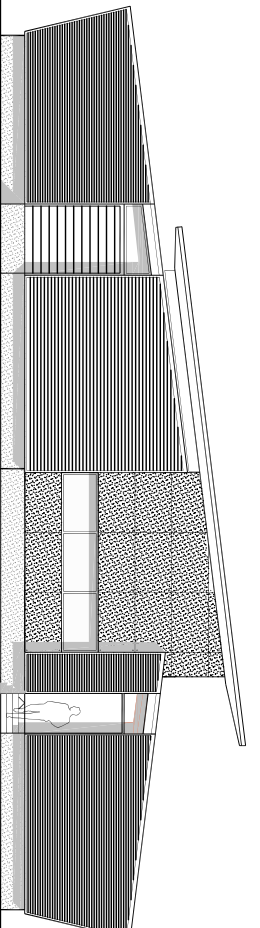




5.90 ROOF RIDGE

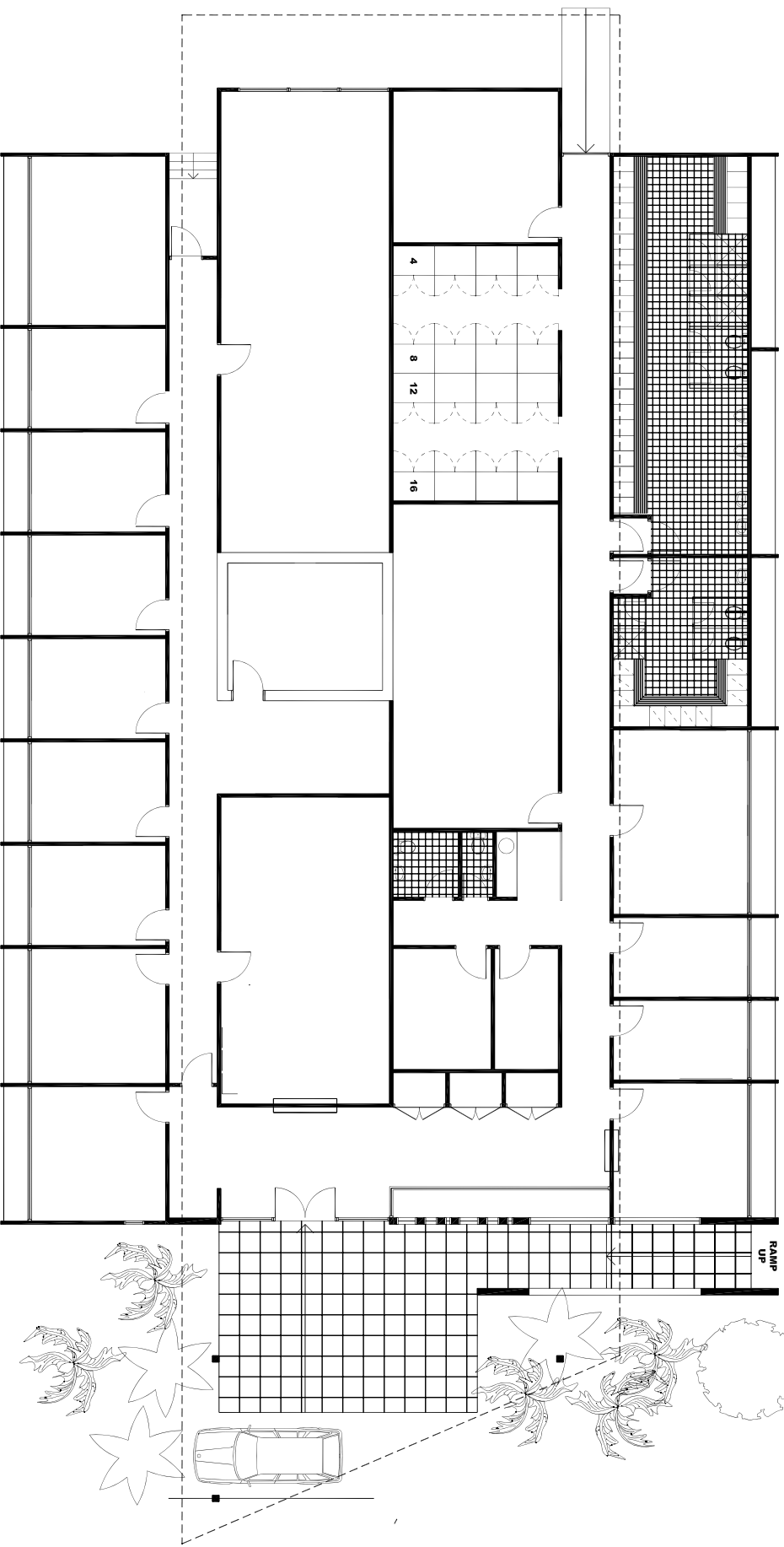
2.70 CL

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Proposed Regimental HQ - Eastern Elevation

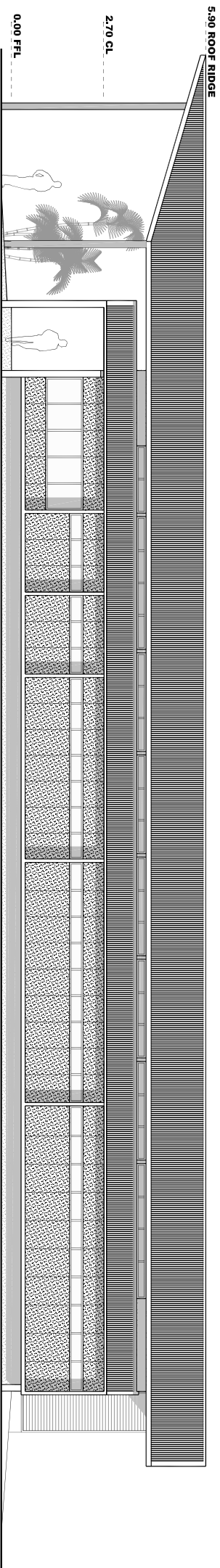
Proposed Regimental HQ - Western Elevation



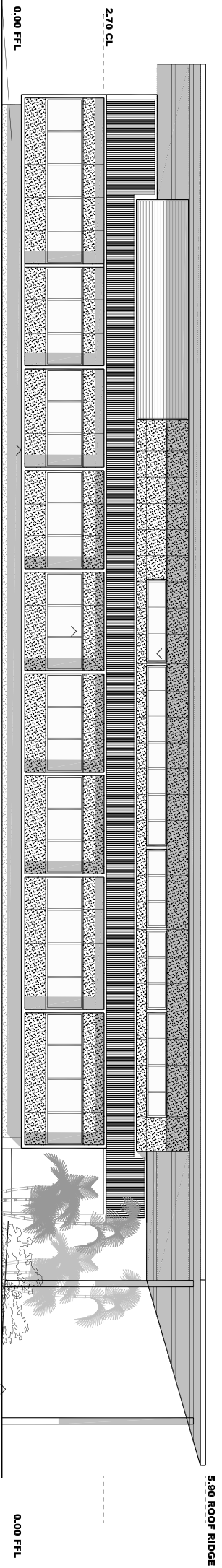
Proposed Regimental Headquarters - Plan

STATEMENT OF EVIDENCE TO THE PWC Attachment 3(ii)

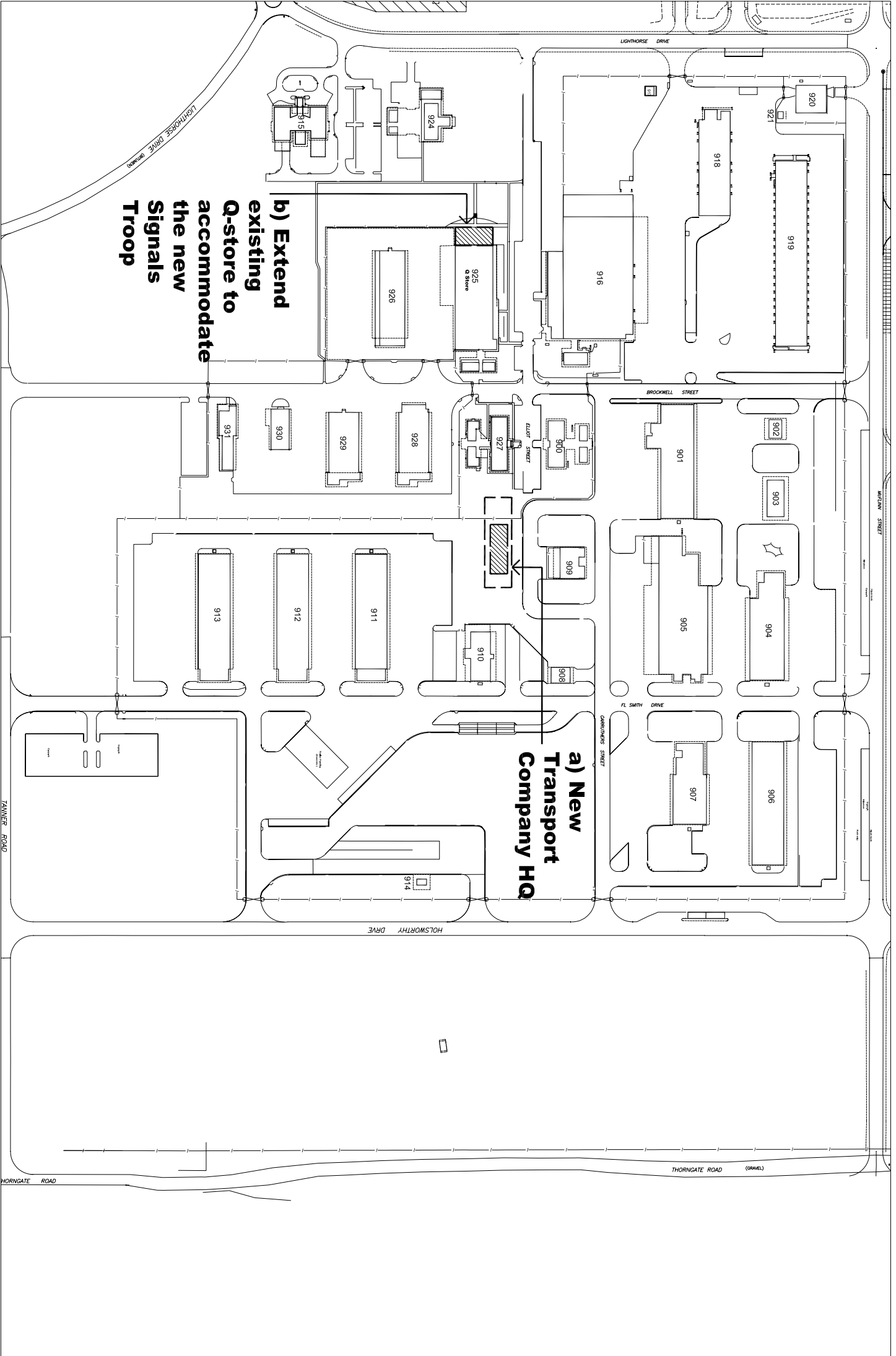
Robertson Barracks Redevelopment - 1 Combat Signals Regiment



Proposed Regimental Headquarters - Northern Elevation



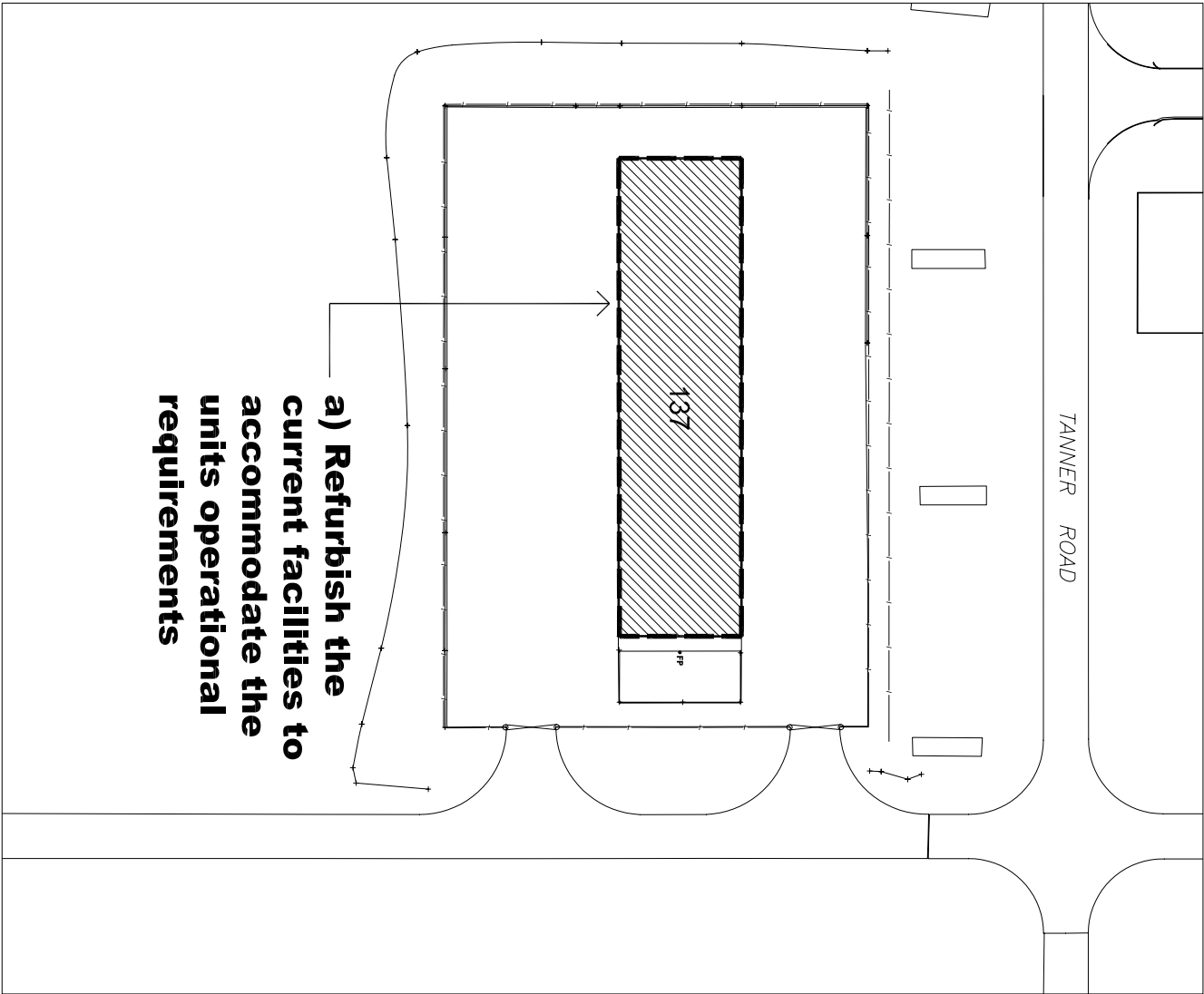
Proposed Regimental Headquarters - Southern Elevation



Rev. A: 15 Feb 2007
Rev. B: 23 Feb 2007
Rev. C: 28 Feb 2007
Rev. D: 18 Mar 2007

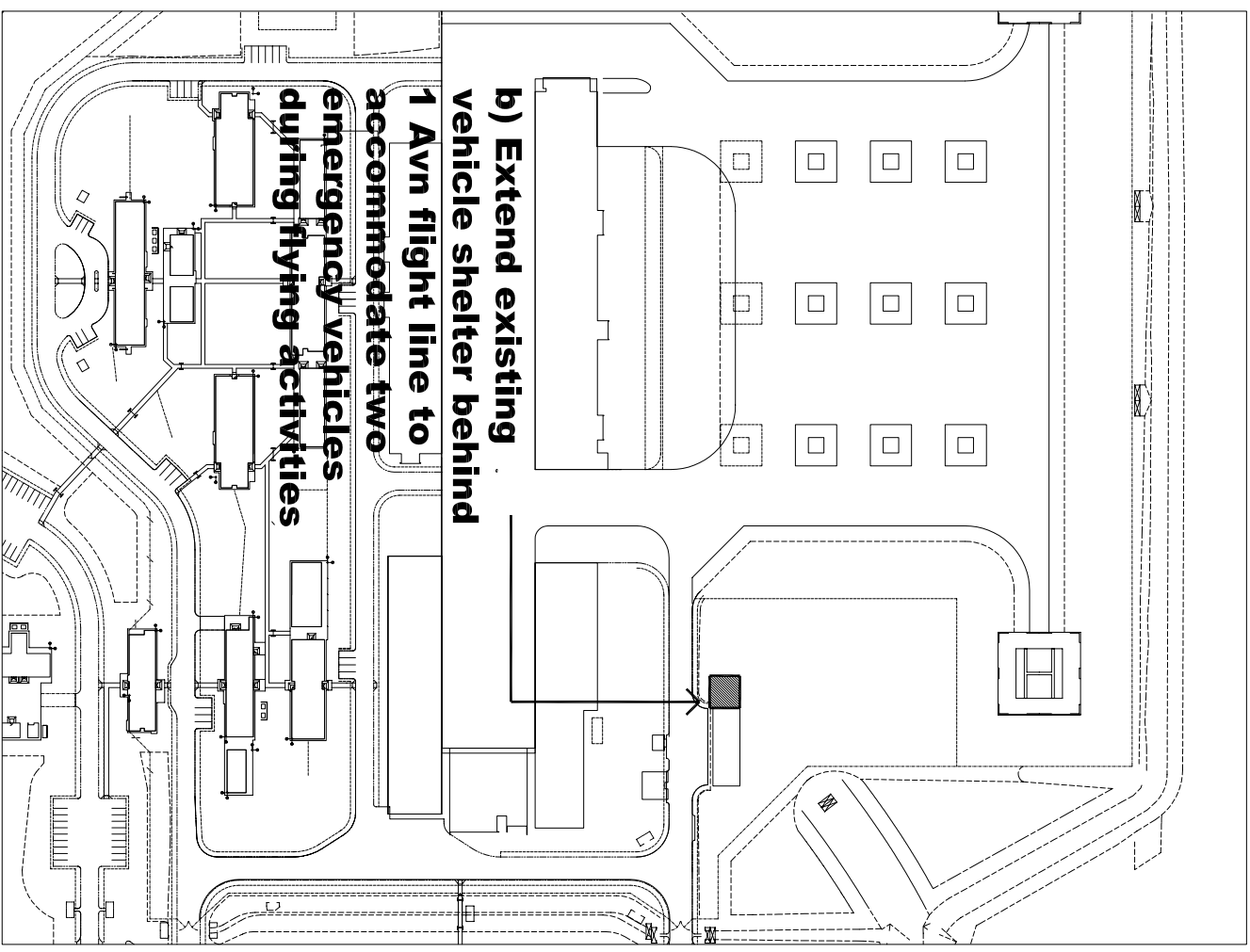
1:1 (A4) 11:000
1:1 (A3) 11:000
1:1 (A2) 11:000





a) Refurbish the current facilities to accommodate the units operational requirements

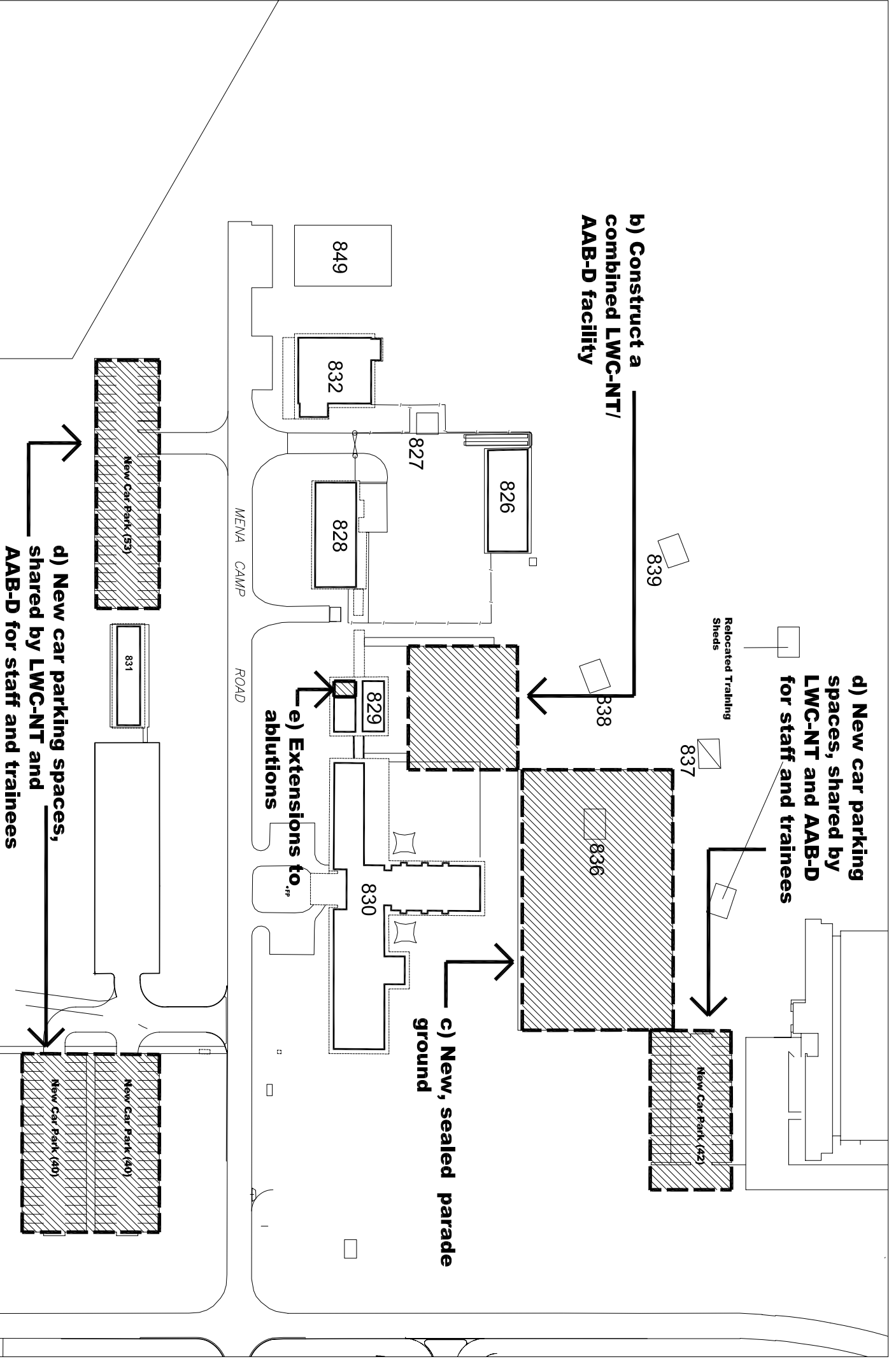
Site a) Existing 1 Tp ERS Building 137



b) Extend existing vehicle shelter behind 1 Avn flight line to accommodate two emergency vehicles during flying activities

Site b) 1 Avn vehicle shelter

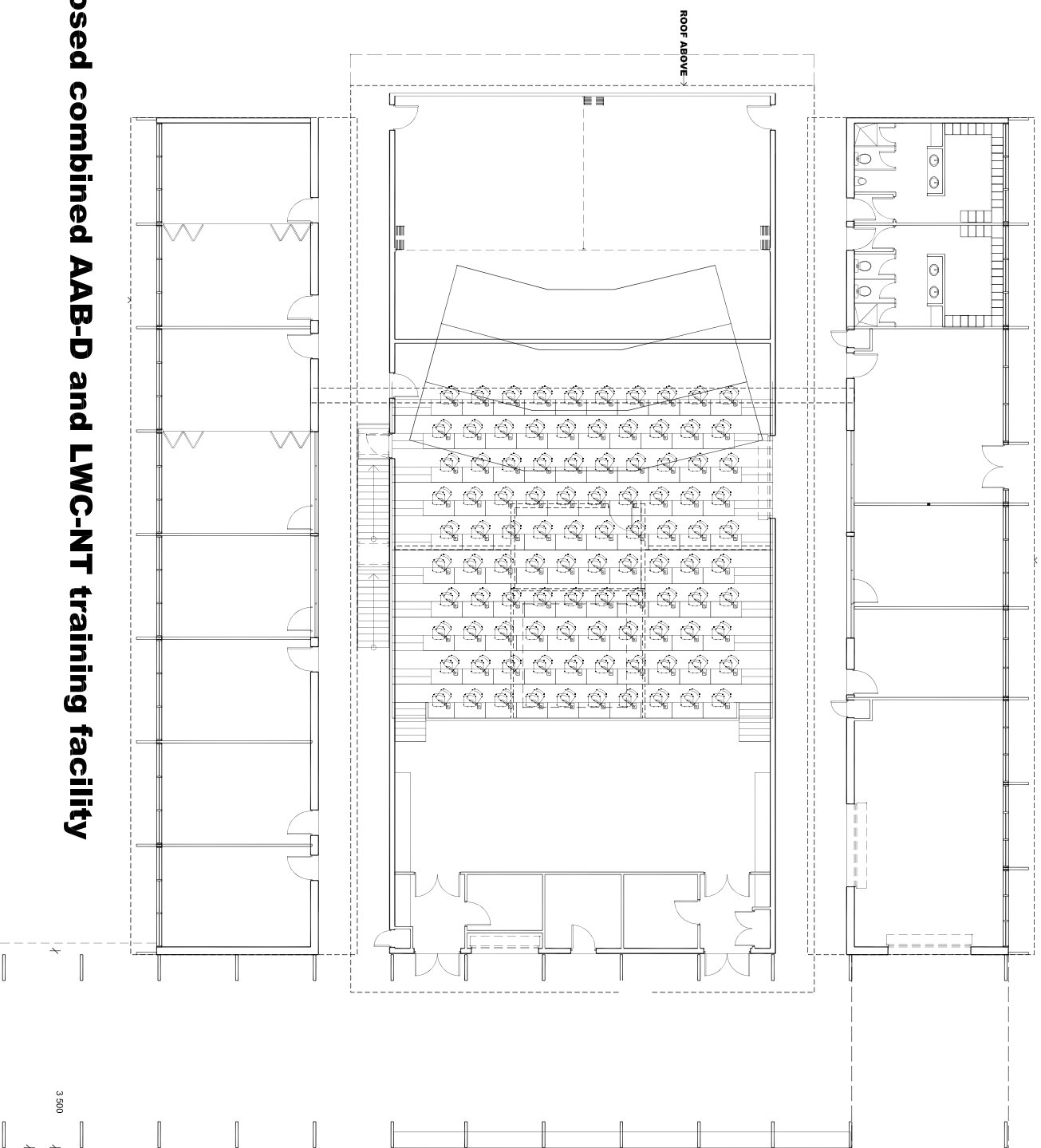
**STATEMENT OF EVIDENCE TO THE PWC Attachment 6(i)
Robertson Barracks Redevelopment - Land Warfare Centre -NT & Band**



Rev A: 14 Feb 2007
Rev B: 28 Feb 2007
Rev C: 28 Feb 2007
Rev D: 15 May 2007

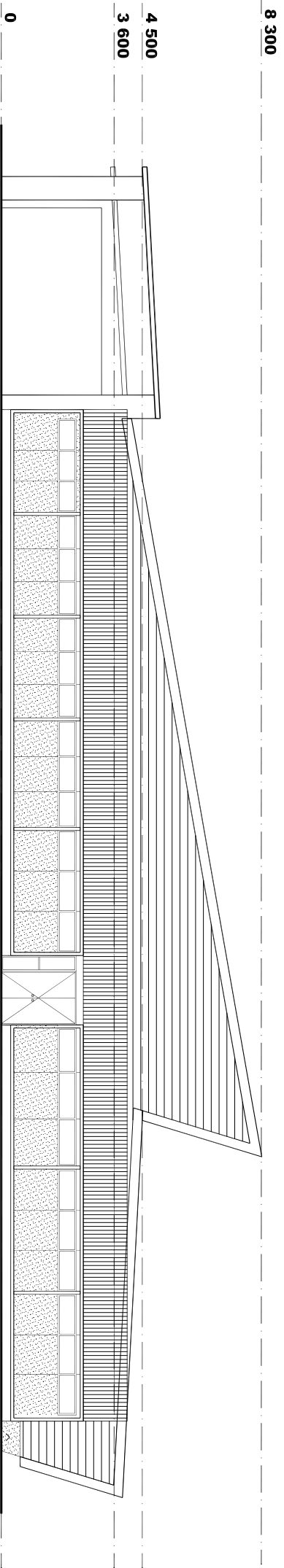
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N/S 1448
SMP/348

Plan - proposed combined AAB-D and LWC-NT training facility

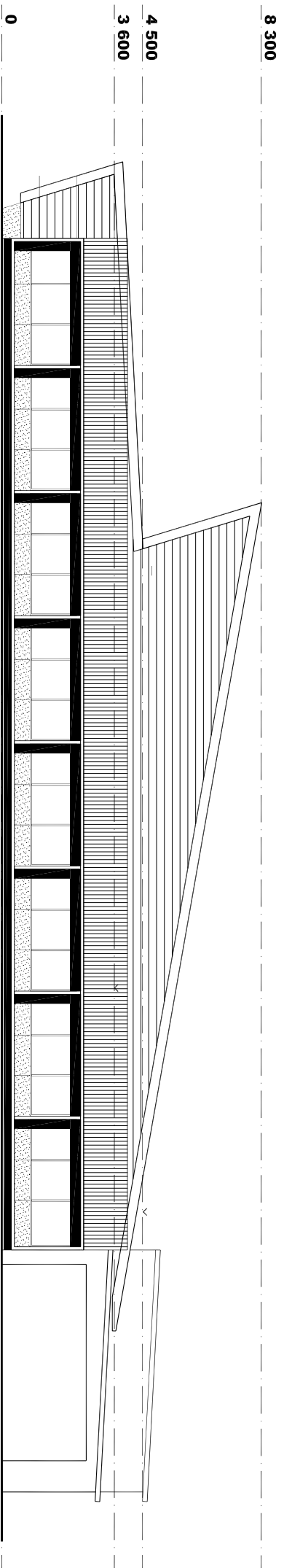


STATEMENT OF EVIDENCE TO THE PWC Attachment 6(ii)

Robertson Barracks Redevelopment - Land Warfare centre - NT & Band



Northern Elevation - proposed combined AAB-D and LWC-NT training facility



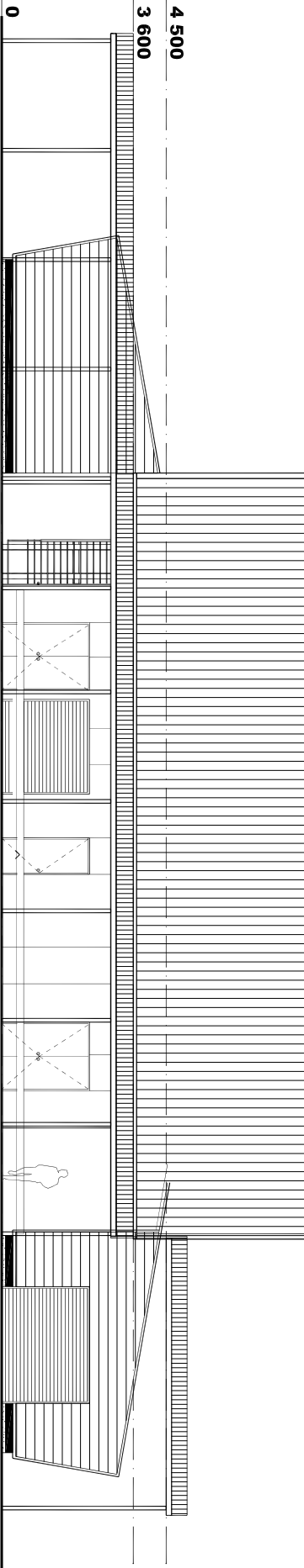
Southern Elevation - proposed combined AAB-D and LWC-NT training facility

8 300

4 500

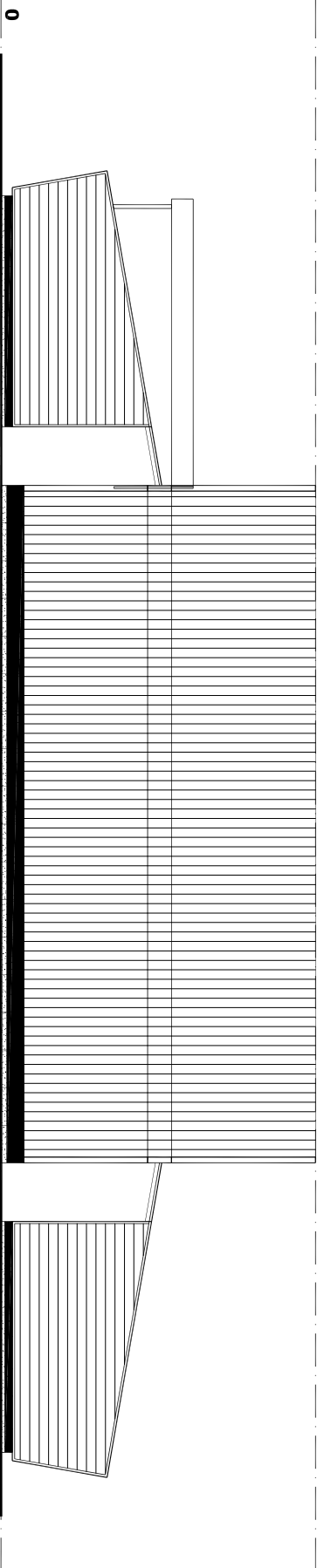
3 600

0



Eastern Elevation - proposed combined AAB-D and LWC-NT training facility

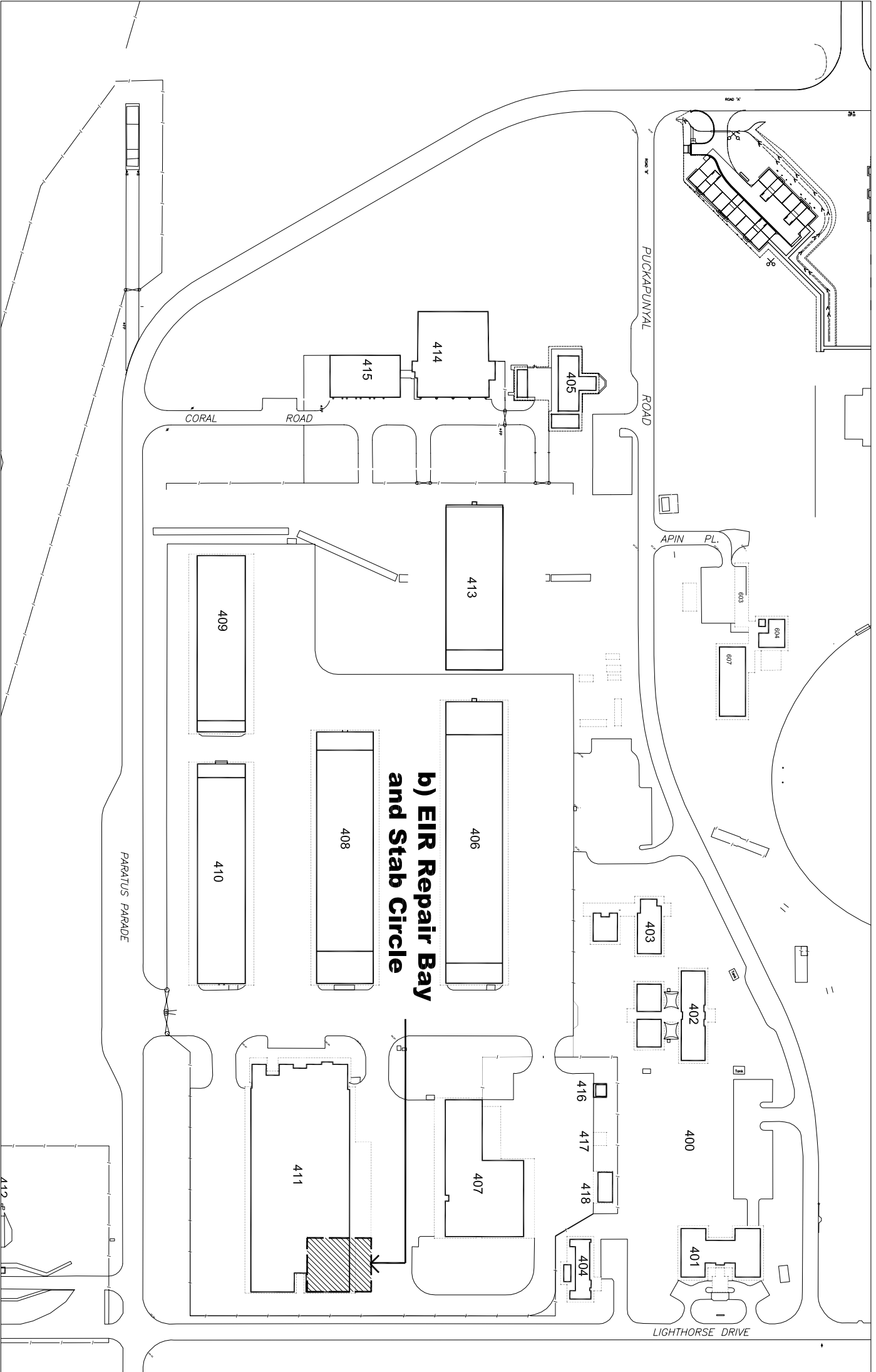
8 300



Western Elevation - proposed combined AAB-D and LWC-NT training facility

STATEMENT OF EVIDENCE TO THE PWC Attachment 6 (iv)

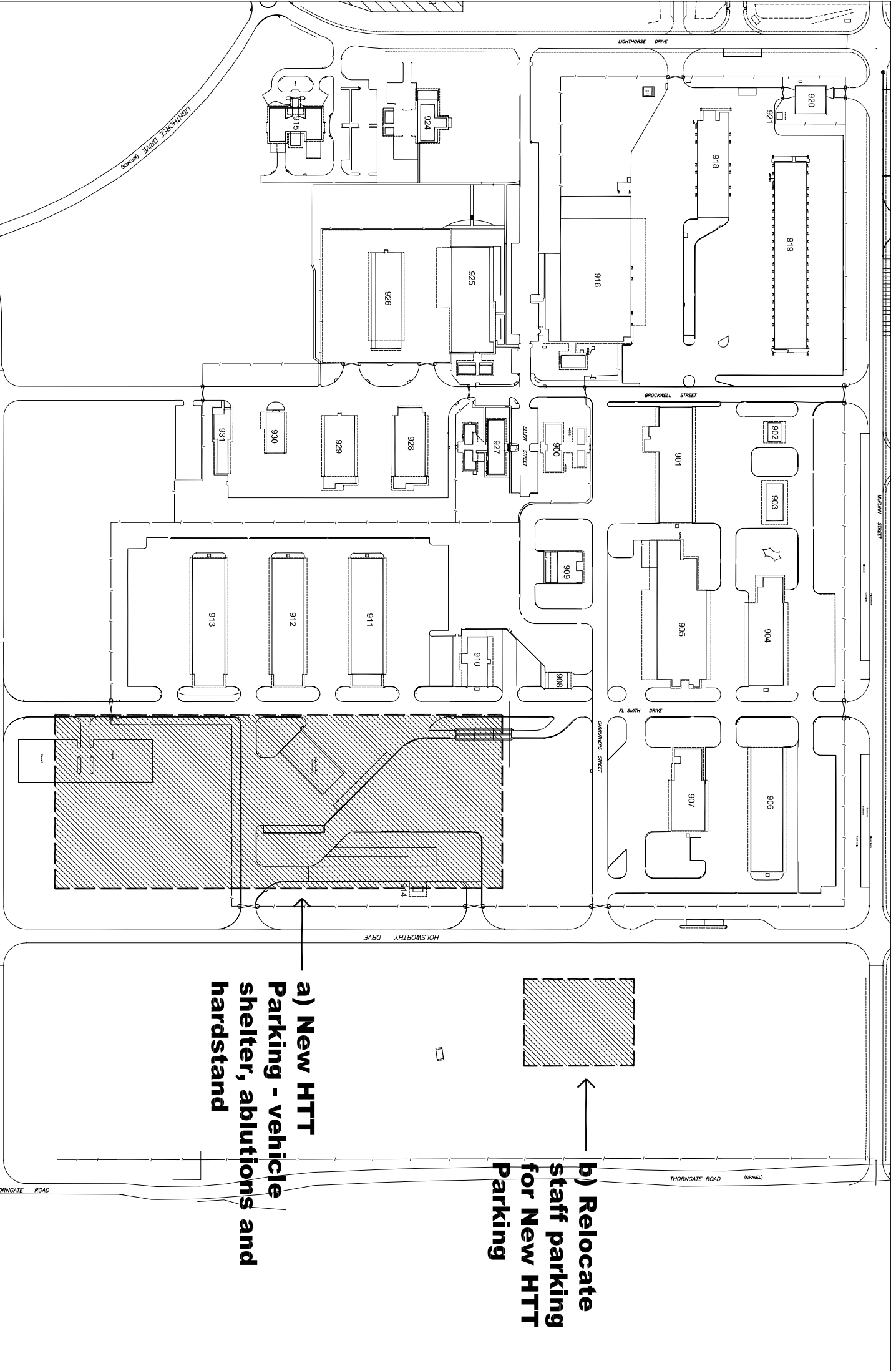
Robertson Barracks Redevelopment - Land Warfare Centre - NT & Band



Rev. A: 28 Feb 2007 1:15:04 PM
Rev. C: 28 Feb 2007 WTS (as)
Rev. E: 28 Mar 2007 Copyright



**STATEMENT OF EVIDENCE TO THE PWC Attachment 9
Robertson Replacement Tank Facilities - 1 Combat Service Support Battalion**

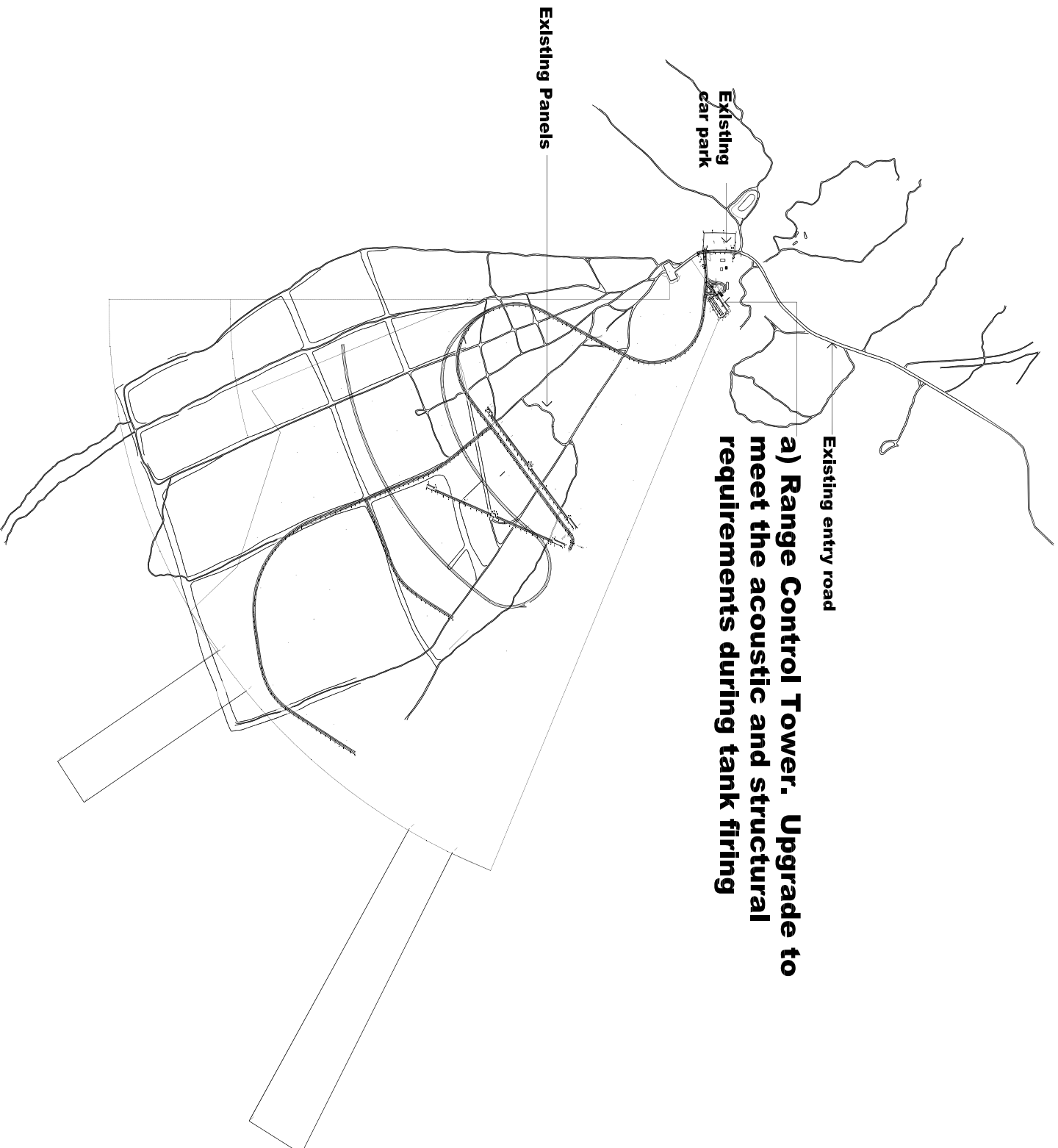


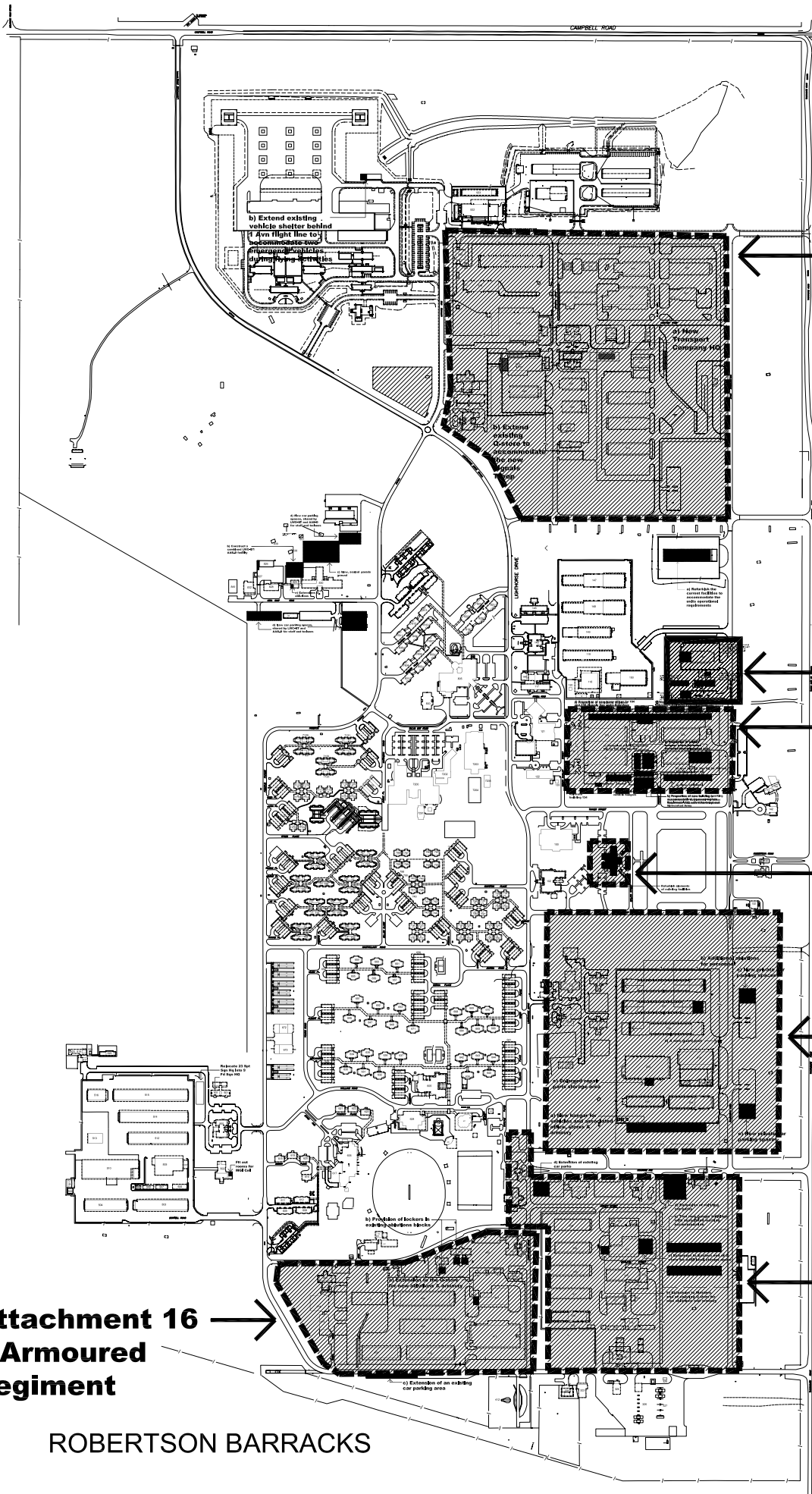
**a) New HTT
Parking - vehicle
shelter, ablutions and
hardstand**

**b) Relocate
staff parking
for New HTT
Parking**

Rev. A: 23 Feb 2007
Rev. B: 28 Feb 2007
Rev. C: 18 Mar 2007
Rev. E: 22 Mar 2007
1-1-00-0000
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Attachment 13
1 Combat
Service Support
Battalion

Attachment 17
B Coy, 1 MP
Btn

Attachment 12
1 Combat
Signals
Regiment

Attachment 18
Headquarters 1
Brigade

Attachment 14
5 Battalion
Royal
Australian
Regiment

Attachment 15
2 Cavalry
Regiment

Attachment 16
1 Armoured
Regiment

ROBERTSON BARRACKS



STATEMENT OF EVIDENCE TO THE PWC Attachment 11
Hardened and Networked Army - Site Reference Plan

Rev A: 15 May 2007 1-16-0484
NTS (A4) © Copyright



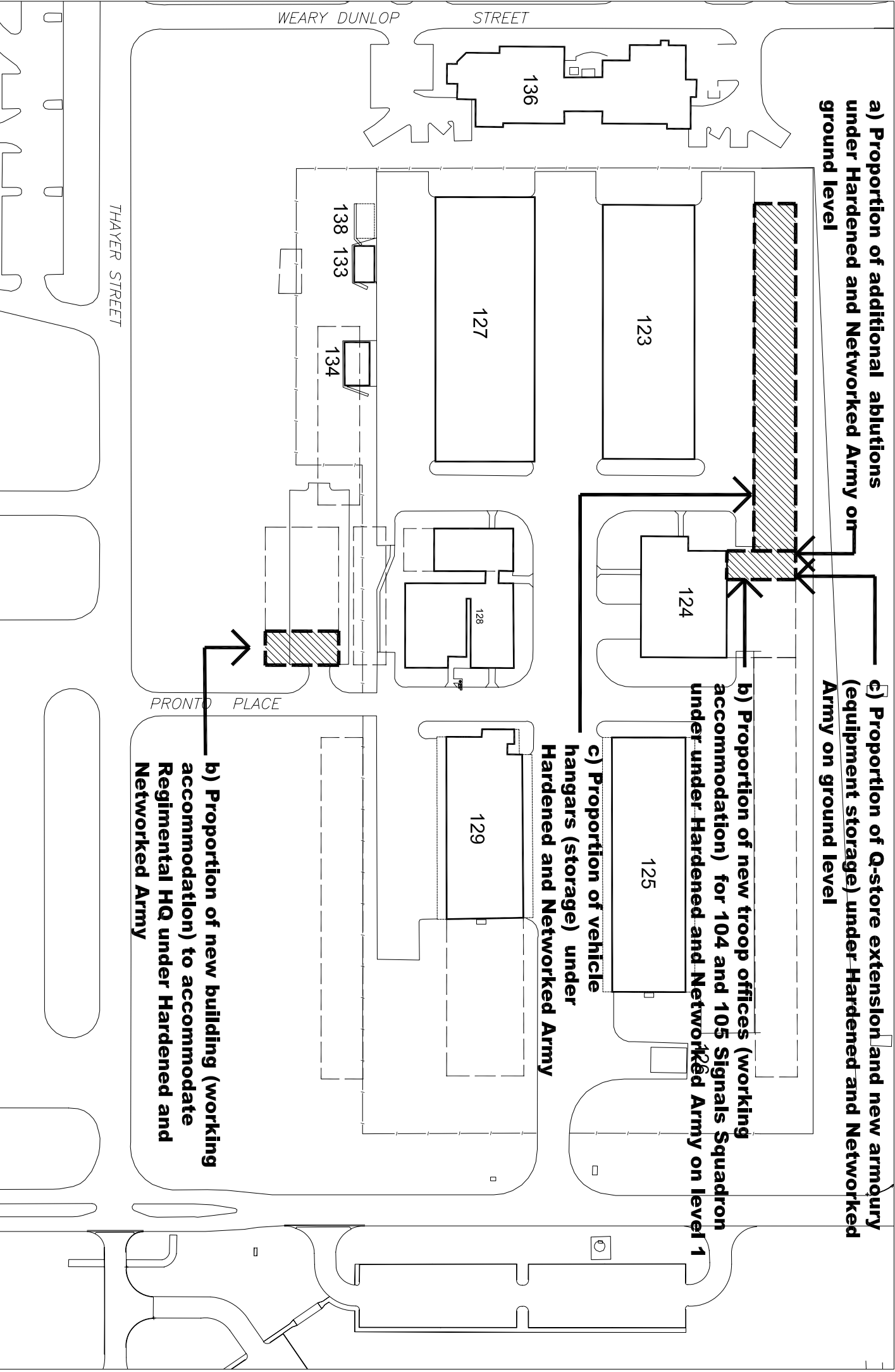
a) Proportion of additional ablutions under Hardened and Networked Army on ground level

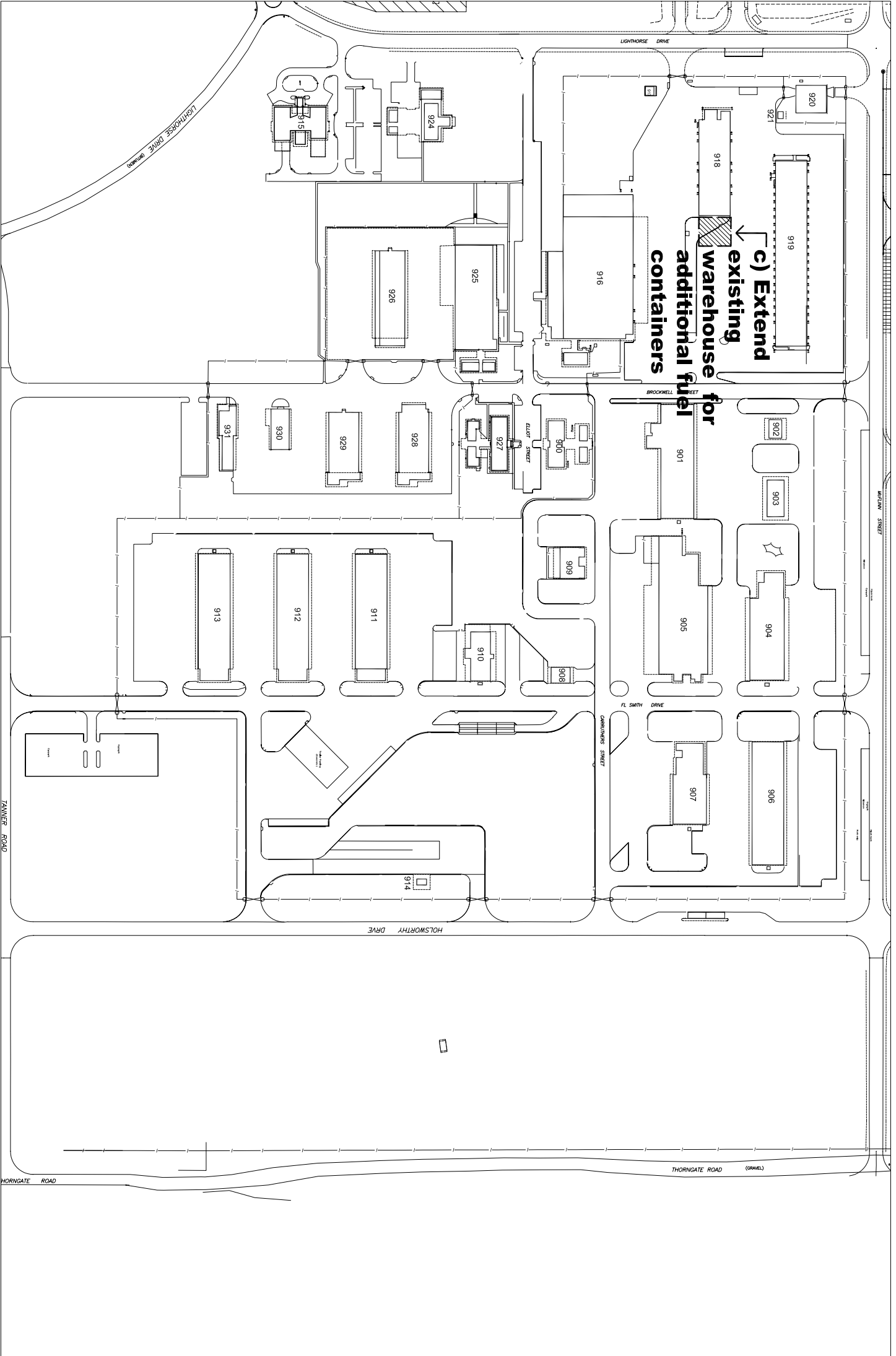
c) Proportion of Q-store extension and new armory (equipment storage) under Hardened and Networked Army on ground level

b) Proportion of new troop offices (working accommodation) for 104 and 105 Signals Squadron under under Hardened and Networked Army on level 1

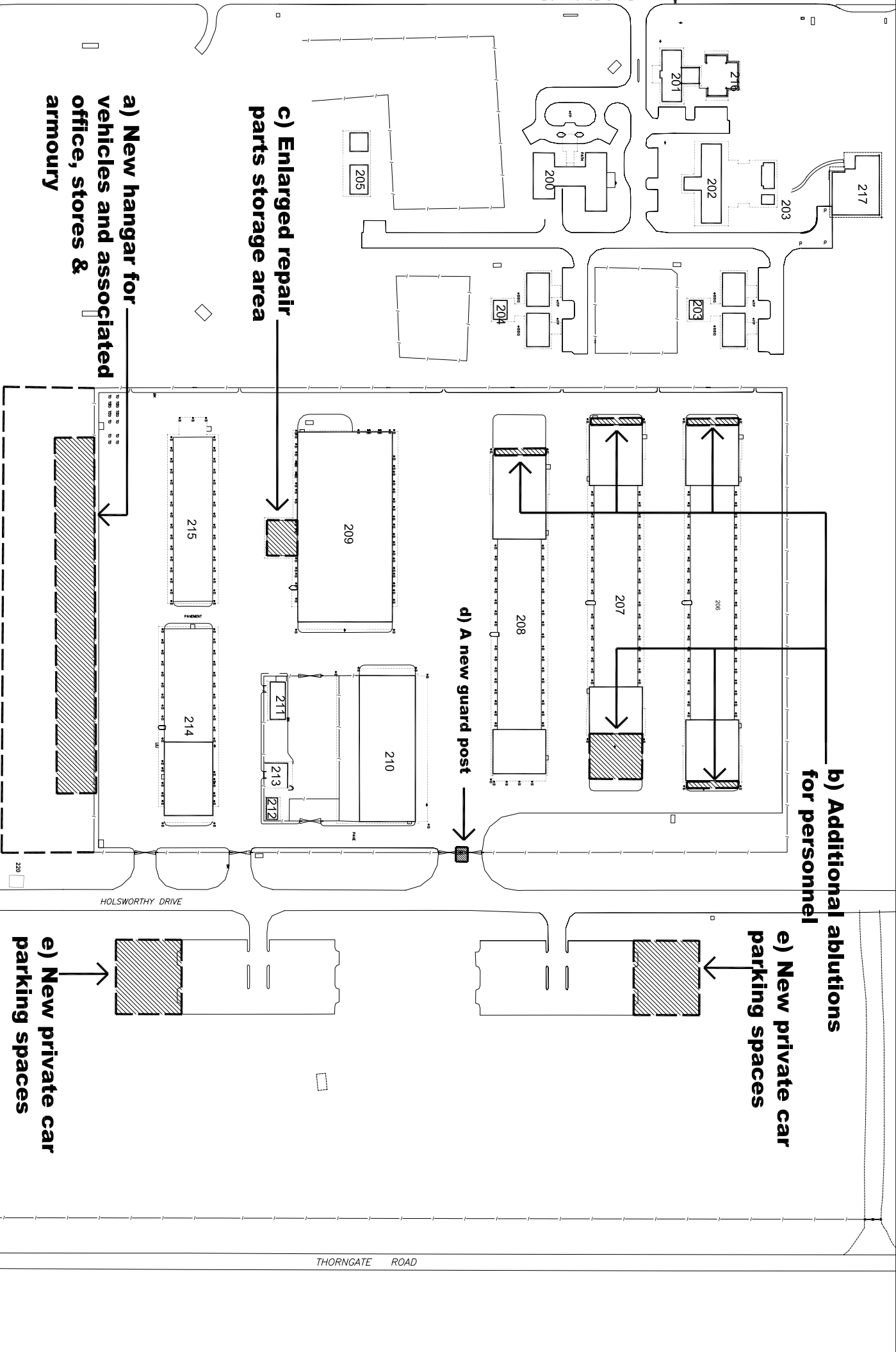
c) Proportion of vehicle hangars (storage) under Hardened and Networked Army

b) Proportion of new building (working accommodation) to accommodate Regimental HQ under Hardened and Networked Army





LIGHTHORSE DRIVE



a) New hangar for vehicles and associated office, stores & armoury

c) Enlarged repair parts storage area

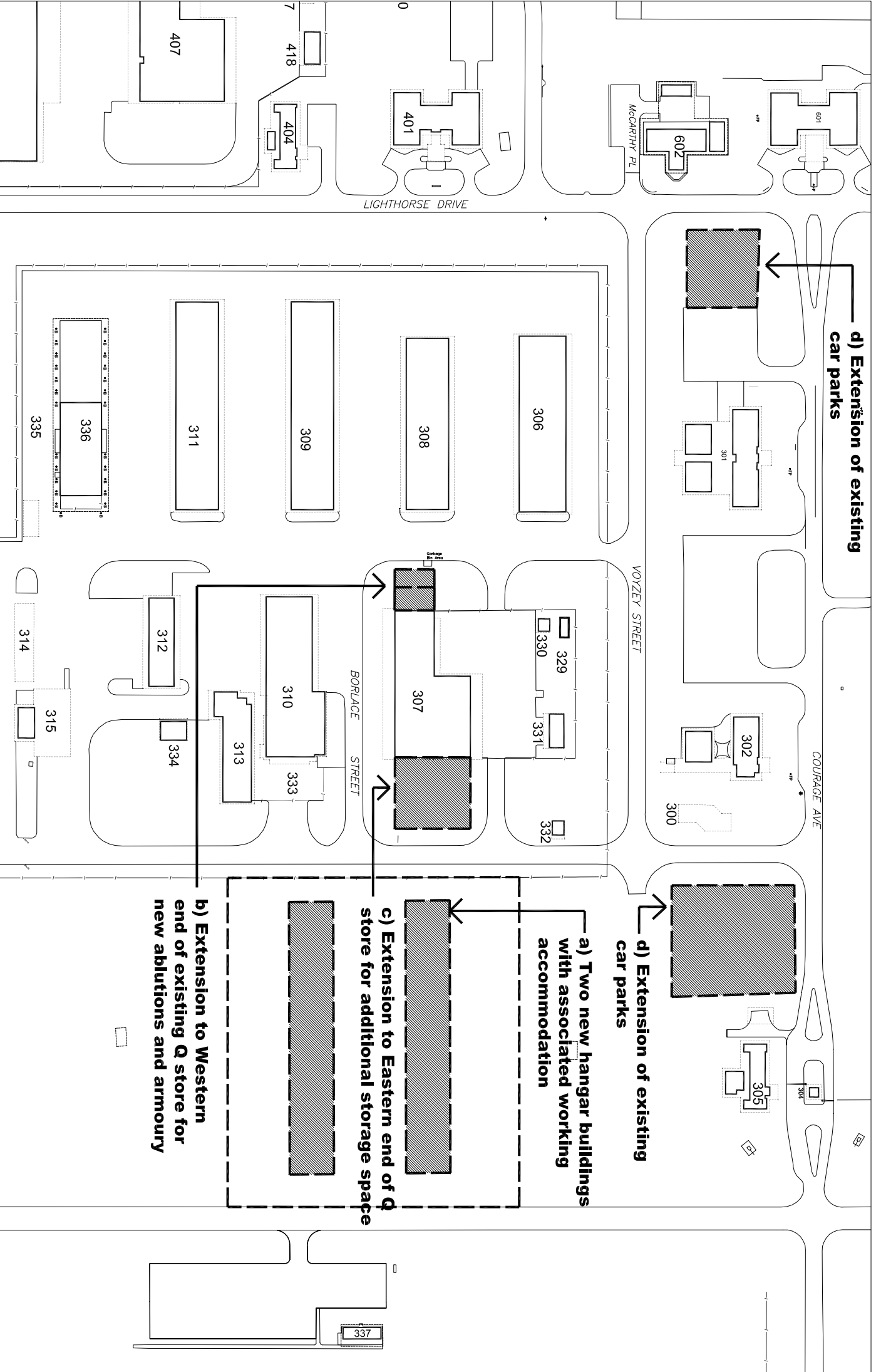
d) A new guard post

b) Additional ablutions for personnel

e) New private car parking spaces

e) New private car parking spaces





d) Extension of existing car parks

d) Extension of existing car parks

a) Two new hangar buildings with associated working accommodation

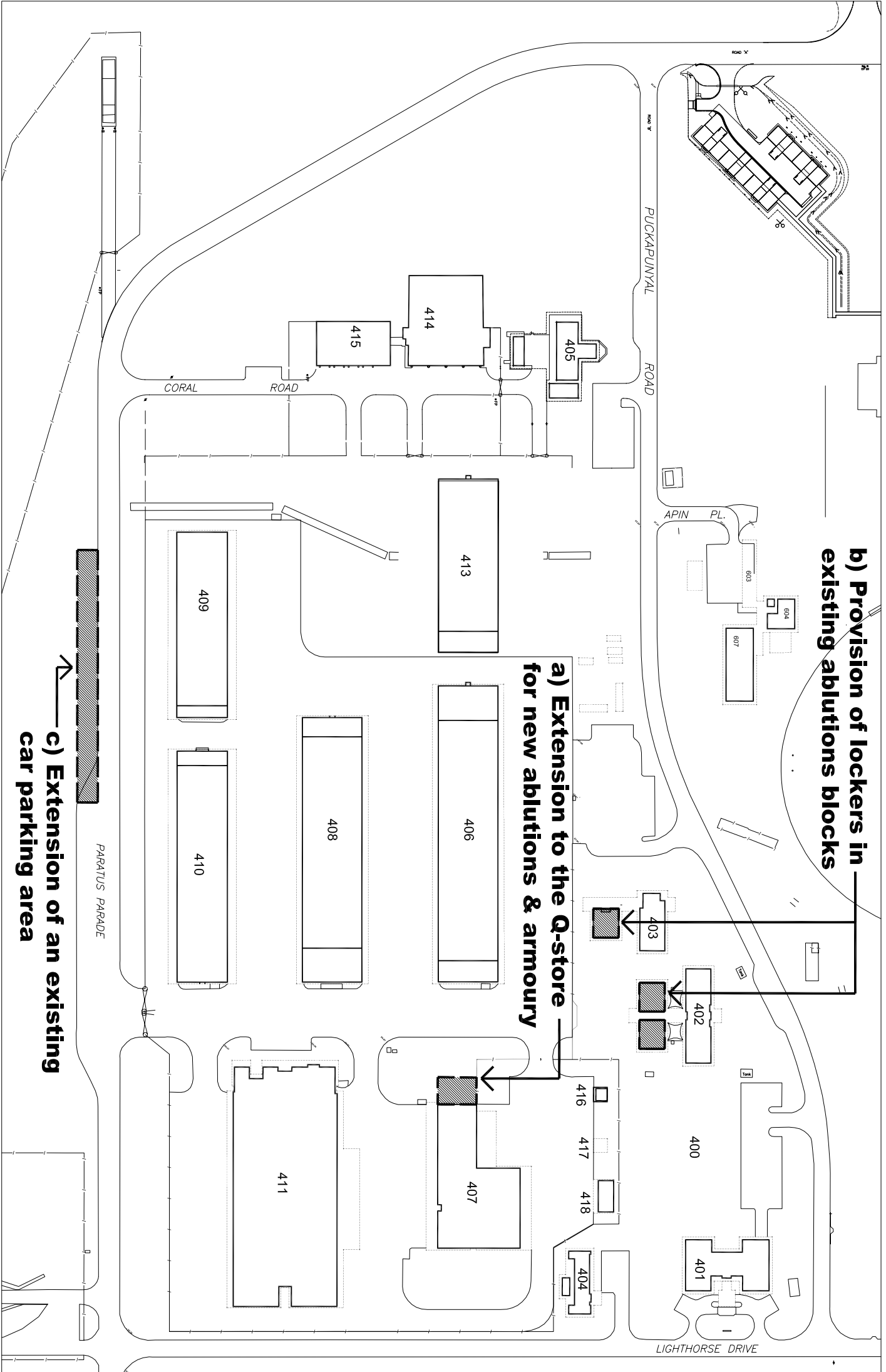
c) Extension to Eastern end of Q store for additional storage space

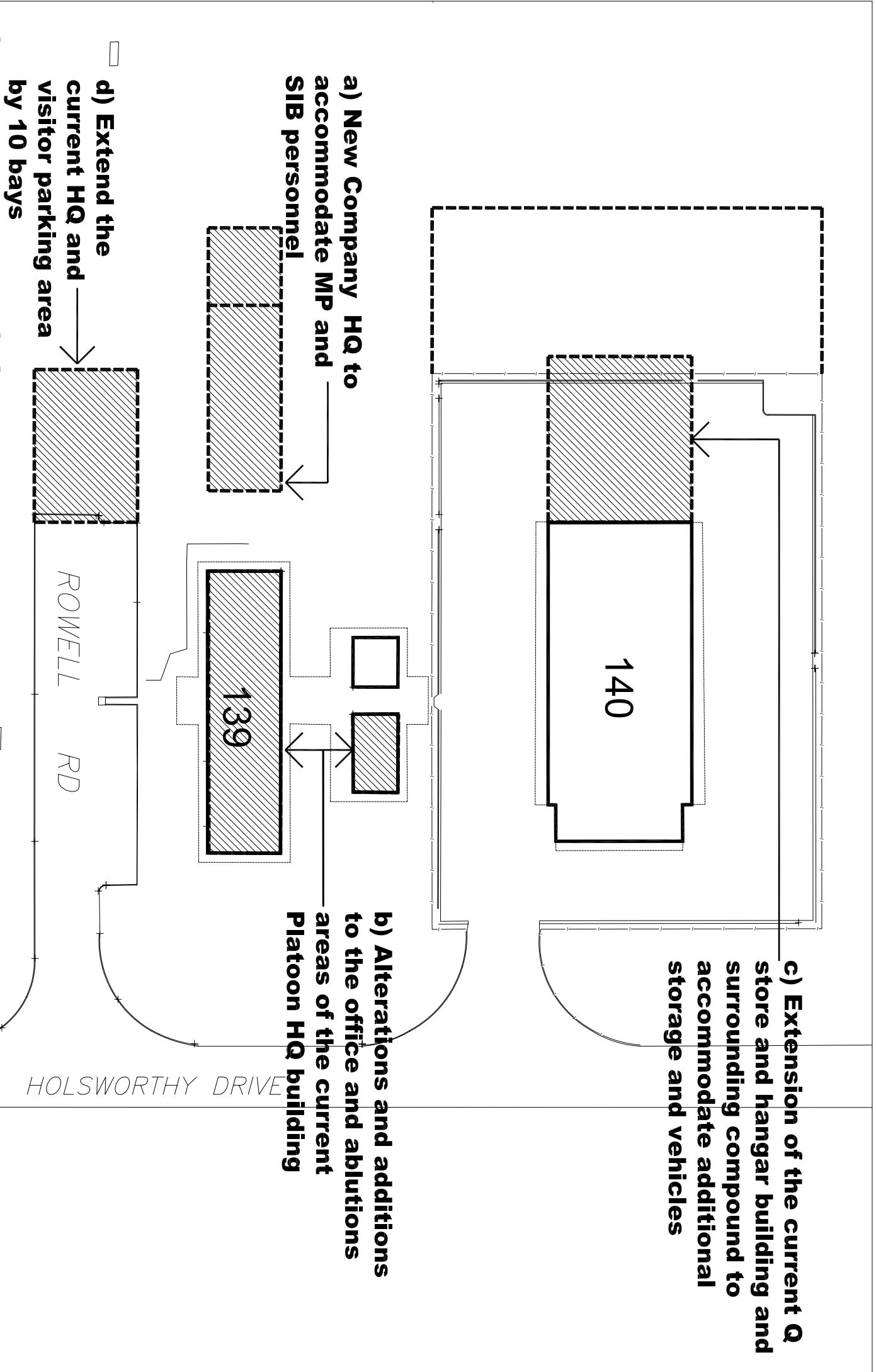
b) Extension to Western end of existing Q store for new ablutions and armoury

b) Provision of lockers in existing ablutions blocks

a) Extension to the Q-store for new ablutions & armoury

c) Extension of an existing car parking area



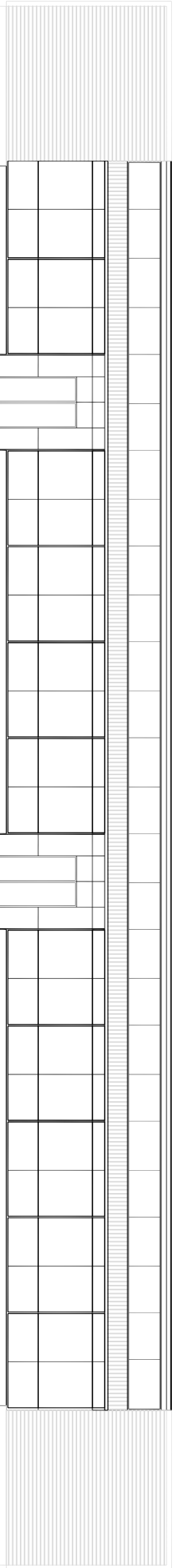


c) Extension of the current Q store and hangar building and surrounding compound to accommodate additional storage and vehicles

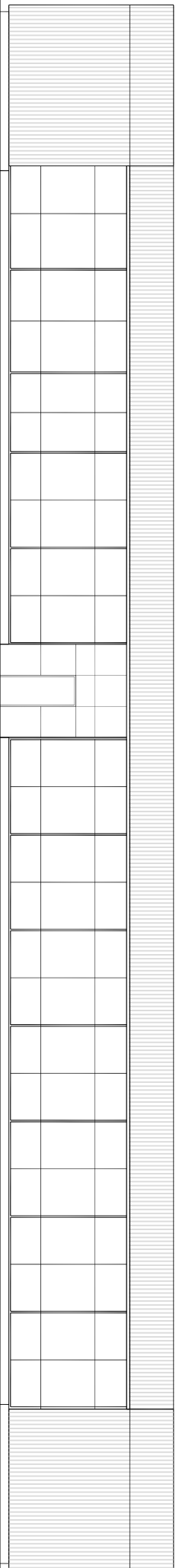
b) Alterations and additions to the office and ablutions areas of the current Platoon HQ building

a) New Company HQ to accommodate MP and SIB personnel

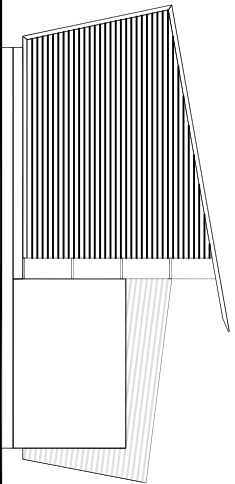
d) Extend the current HQ and visitor parking area by 10 bays



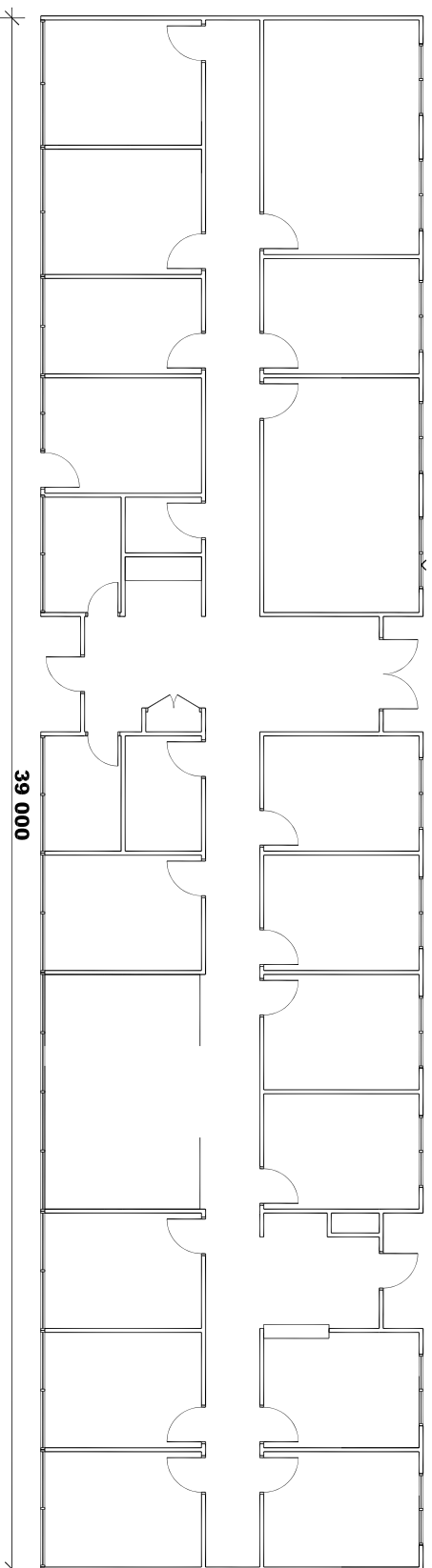
Northern Elevation - Proposed Company Headquarters



Southern Elevation - Proposed Company Headquarters



End Elevation - Proposed Company Headquarters



Plan - proposed Company Headquarters

STATEMENT OF EVIDENCE TO THE PWC Attachment 17(ii)

Hardened and Networked Army - B Company, 1 Military Police Battalion

**STATEMENT OF EVIDENCE TO THE PWC Attachment 18
Hardened and Networked Army - Headquarters 1 Bde**

