



## PROPOSED NEW FORENSIC FACILITY AT MAJURA, ACT

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



AUSTRALIAN FEDERAL POLICE CANBERRA, ACT NOVEMBER 2012

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## ATTACHMENTS

- 1. Site Location
- 2. AFP Majura Master Plan
- 3. FDC Facility Site Plan
- 4. FDC Facility Ground, Level 1 and Roof Plans
- 5. FDC Facility Elevations
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- 7. FDC Facility 3D Images

#### **NEED FOR WORKS**

#### Introduction

1. The Australian Federal Police (AFP) enforces Commonwealth Criminal Law, contributes to combating organised crime and protects Commonwealth and National interests from criminal activity in Australia and overseas. The AFP is Australia's International law enforcement and policing representative and the Australian Government's chief source of advice on policing issues. Amongst the Australian Government's key strategic priorities and expectations is a commitment to "ensuring the AFP is adequately positioned and appropriately resourced to deal with a complex and shifting law enforcement environment."

2. The forensic science and technical intelligence capability of the AFP is provided by the Forensic and Data Centres (FDC) portfolio. The FDC comprises a large number of specialist forensic services as well as the Australian Bomb Data Centre and the Australian Chemical Biological Radiological and Nuclear Data Centre.

3. The FDC capability is integral to the successful investigation and prosecution of all crime types and contributes to national security and regional capability development outcomes. FDC is the sole provider of this capability to the Commonwealth, and one of only two fully integrated forensic capabilities in Australia.

4. FDC is currently located at a leased facility at Weston in the Australian Capital Territory (ACT). This facility no longer provides the necessary accommodation to support AFP forensic and technical intelligence activities and requirements. As such, the AFP is seeking to build a new FDC facility at the AFP's Majura Complex. The objective is to deliver a fit-for-purpose facility that will be fully operational by the end of 2015, assuring AFP forensic and technical intelligence operations and projected growth of specialist disciplines over the next 20 years.

#### Background

5. The lease arrangements associated with the current FDC facility at Weston expires 1 July - 2016, with capacity for a two year extension. The facility was established in 1980, was refurbished in 2000 and extended in 2007. It has now exceeded capacity and can no longer effectively meet current or future FDC standards and requirements. The current facility is poorly designed for its current purpose and recent property audits have identified important areas of risk regarding fire safety,

occupational health and safety and compliance with the National Construction Code which are currently being managed through appropriate mitigation strategies.

6. The level of background contamination at the facility prevents the use of a number of contemporary forensic practices, including specialist DNA analysis such as Low Copy Number, culturing of micro-organisms, and trace element profiling requiring clean rooms. It has been necessary on occasions for certain forensic procedures to be carried out for the AFP in New Zealand with resultant impacts on time and cost of analysis. Internal modifications to the current facility will not rectify these contamination challenges.

7. Ongoing operations at the current facility will progressively increase the risks and vulnerability of the AFP's evidence management systems. This situation will be exacerbated by the anticipated growth in forensic services and staff numbers. The volume and complexity of FDC's workload has been growing rapidly over the last decade and this trend is expected to continue.

8. In the face of rapidly increasing demand for forensic services and inadequate facilities that do not have the capacity to house efficient modern techniques and processes, it is inevitable that delays in evidence processing will occur as well as instances where there is a risk through loss or contamination of forensic evidence. In the absence of investment in an enhanced forensic facility, experience from Victoria and overseas suggests that it is not a question as to whether those problems would emerge for the AFP, but rather when those problems would emerge and the magnitude of the costs that they would impose on the community.

#### The Need

9. The AFP's ability to perform its role in forensic science and technical intelligence, both now and in the future, is constrained by a number of key problems and challenges with the current facility at Weston.

10. **Anticipated growth in forensic requirements.** The existing facility does not have sufficient capacity to cater for current utilisation levels or the projected growth in the AFP's forensic activity. Anticipated growth in forensic requirements is driven by:

a) Increasing complexity of forensic assessment resulting from significant growth in the complexity of some crime scenes and the capacity of new technologies to detect certain activities;

- b) Increasing volume of forensic exhibits, doubling over the last three years;
- c) Advances in technology requiring additional space and infrastructure to accommodate new techniques and equipment including the associated staff;
- d) Changes to the criminal environment including increased number and proportion of more complex crimes, international events and increased seizure of electronic devices requiring significant forensic involvement in both crime scenes and laboratories;
- e) Increasing judicial requirements such that there is an increasing degree of confidence and reliability required that forensic evidence and the procedures surrounding its collection storage, handling and analysis are free from compromise or doubt; and
- f) Changes to Government policy including increased volume of police checks, contribution and involvement in international strategic activities and increased requirements related to external accreditation.

11. **Functional design problems.** The Weston facility no longer has the capacity to house a best practice forensic and technical intelligence capability and can no longer effectively meet current or future standards and requirements. The current facility presents the following issues:

- a) Highly inefficient layout and functional deficiencies resulting in core functions not being readily accessible to each other, limiting best practice evidence management and access controls;
- b) Inadequate laboratory standards that while currently meet the minimum standards required to be accredited to the relevant international standard ISO/IEC 1725:2005, preclude best practice in the critical areas of evidence handling, triage management and access control;
- Poor facilities prevent use of a number of contemporary forensic techniques due to the level of background contamination (e.g. Low Copy Number and preventing the culturing of micro-organisms); and
- d) Inadequate capacity for specialist functions, equipment and storage relating specifically to the introduction of new techniques and equipment, vehicle examination and storage

and the associated space and functions of the Firearms Identification and Armoury section.

12. **Site planning and tenure constraints.** The existing premises at Weston is leased from the private sector and the land is zoned for multiple purposes including medium density residential, which are issues that could impact on the AFP's tenancy or plans for the site in the future. Consideration of any significant investment in the Weston facility would effectively require the review and renegotiation of the lease provisions beyond 2018 noting that the current lease expires on 1 July 2016 with an option to extend for an additional two years.

13. **Vulnerable forensic systems and processes.** The reliability of forensic evidence (particularly DNA) is reduced as the risk or perceived risk of contamination (e.g. through secondary transfer) is present. The design and process of the forensic system is currently adversely impacted by the physical restrictions the design of the leased facility presents. To adequately address this issue, a new facility is required to achieve the quality, control and functionality that enables processes to support the reliability of evidence.

#### **Options Considered**

- 14. The following four options were considered:
  - a) Option 1 Do minimum at the existing Weston facility;
  - b) Option 2 Refurbish and upgrade the existing Weston facility;
  - c) Option 3 Lease a new purpose built facility; and
  - d) Option 4 Construct a new purpose built facility at AFP's Majura Complex.

15. **Option 1 – Do minimum.** This option provided for an upgrade of 20% of the existing floor space to target areas of most immediate need. However, this option would not cater for future growth requirements. Analysis of this option identified significant constraints in the existing building that the scope of upgrade works would not overcome. Underlying infrastructure including sewerage, power and water are failing or require major repairs and maintenance. There are risks over long-term security of tenure, increased lease costs, and existing building constraints that inhibit an optimal outcome for evidence management. In addition, there would be disruption to forensic activities associated with the upgrade, for limited short term benefit before a new facility would be required. It

was concluded that this capital investment is extremely high risk with a poor value-for-money outcome in terms of forensic and technical intelligence capability.

16. **Option 2 – Upgrade existing facility.** This option involved a major refurbishment and refit of the existing facility, partial demolition and addition of a new wing at the Weston site to cater for functional requirements. This has inherent limitations due to constraints of the current site and the complex nature of the proposed redevelopment. With encroaching urban development, the current land use will become increasingly incompatible with the adjoining community, given the immediate proximity to potentially hazardous material and processes. There are also similar risks to Option 1 regarding long-term security of tenure, increased leased costs, and in which existing building constraints are going to inhibit a truly optimal outcome for evidence management. The findings of the cost benefit analysis for this option determined that it was not favoured.

17. **Option 3 – New leased facility.** This option involved AFP leasing a newly constructed purpose built facility on a privately owned site. This option has the potential to satisfy key functional and operational objectives for the AFP; however this option would have a significant impact on the operating budget of the AFP and would not enable the AFP to realise the benefits of co-locating its forensic and technical intelligence services with other key AFP activities at its Majura Complex. This option considered three potential sites located in Weston, Fairbairn and Hume and identified a range of costs and benefits for comparison. This option is dependent on the availability of a lessor with appropriate experience and interest in the development and financing of the specialised facility. This Option exposed the AFP to higher risks and had higher whole of life costs compared to Option 4.

18. **Option 4 – New purpose built facility.** This option involved the AFP constructing a new purpose built facility at the AFP owned Majura Complex. This option is in line with the AFP's strategic intention to consolidate activities in the ACT into two key sites: a national headquarters and specialist and training operations at the Majura Complex. This option offers similar favourable facility outcomes to Option 3 however, Option 4 involves the co-location of the new forensic facility within the AFP's Majura Complex which has the potential to generate greater external and wider economic benefits than Option 3.

#### **Reason for Adopting Proposed Course of Action**

19. Evaluation of the options initially identified that Options 1 and 2 were not acceptable due to the risks and constraints inherent with the existing site. Cost benefit analysis also identified these options as unfavourable. Further detailed analysis was therefore focused on Options 3 and 4.

20. The results of the analysis of options indicated that Option 4 is likely to generate the greatest quantified and unquantified net benefits for the community. Option 4 generates the greatest economic benefit over the life of the facility including the lowest Whole of Life Cost.

21. As a purpose built facility with efficient layout that supports collaborative forensics and seamlessly integrates with the surrounding AFP campus, Option 4 would provide the greatest scope to improve the efficiency of forensic services and technical intelligence. Analysis has clearly identified the extensive potential for significant improvement in efficiency of forensic services through the use of the triage methodology, emerging technologies and innovative improvements such as the Rapid Lab process. These improvements are expected to translate into a five fold increase in case processing capacity over the life of the facility, with similar inputs of capital and labour. The new facility will provide FDC with the capacity for several complex examinations to occur simultaneously, or a complex examination to occur in parallel with more routine casework. The new facility also makes it far more efficient for FDC to comply with the rigorous anti-contamination processes that would follow a large-scale post-blast incident in Australia or the neighbouring region. Facilitating the AFP's response to the Bali Bombings in 2002 required a significant allocation of resources and a drop in efficiency and productivity throughout the existing facility occurred, in order to ensure those standards were met.

22. The new facility would enable and support important reforms to work processes established through the collaborative forensics model. Important economies of scale and scope have also been identified through co-location of the new forensic facility on the AFP's existing and future state of the Majura site. Access to the training facilities, the International Deployment Group, and other associated functions such as the firing range would provide operational benefits for the wider AFP organisation.

23. Major stakeholders who have provided strong statements of support for the proposed facility and its potential benefits include:

a) Australian Academy of Forensic Sciences Inc;

- b) Ambassador for Counter-Terrorism, Department of Foreign Affairs and Trade (DFAT); and
- c) National Measurement Institute.

#### **Key Legislation**

- 24. The following key legislation is relevant to this project:
  - a) Environmental Protection and Biodiversity Conservation Act 1999;
  - b) Building and Construction Industry Improvement Act 2005;
  - c) Federal Disability Discrimination Act 1992;
  - d) Work Health and Safety Act 2011 (Cwlth);
  - e) Work Health and Safety Act 2011 (ACT);
  - f) Financial Management and Accountability Act 1997; and
  - g) Fair Work Act 2009 (Cwlth).

25. Relevant Australian Standards and the National Construction Code are applicable to all design, fabrication and installation works.

#### PURPOSE OF THE WORKS

#### **The Proposal**

26. The AFP proposes to deliver a modern, purpose-built facility that supports the AFP's FDC business and operational needs by accommodating the following specialist forensic and technical intelligence disciplines:

- a) Australian Bomb Data Centre;
- b) Australian Chemical, Biological, Radiological and Nuclear Data Centre;
- c) Crime Scene Sciences;

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- d) Forensic Intelligence;
- e) Search Precinct (combining Exhibit Management and Rapid Laboratory);
- f) Facial Identification, Imagery and Geometrics;
- g) Firearms Identification and Armoury Team (FIAT);
- h) Fingerprint Identification;
- i) Biological Criminalistics;
- j) Chemical Criminalistics;
- k) Electronic Evidence (Computer Forensics and Audio & Video Signal Processing);
- 1) Document Sciences;
- m) Planning, Deployment and Systems (combining Operational Planning and Deployment and Operational Systems);
- n) Policy Projects and Planning;
- o) Capability Development and Training; and
- p) Executive, Chief Scientist and Quality Management.

27. The new FDC facility is to be constructed to a high standard of quality, within budget and operational by the end of 2015.

#### Objectives

28. The aim of the AFP Forensic Facility Project is to:

- a) Meet current and future business needs associated with continued growth in forensic requirements for the next 20 years;
- b) Overcome increasing risks associated with poor design and non-compliance with contemporary building standards of the currently leased facility;

- c) Resolve potential problems associated with expiry of the current lease at Weston or decisions of the landlord which may affect the future use and intent of the property;
- Enable important productivity gains through system and business process reforms, based on fundamental redesign of the workplace and application of the collaborative forensic model; and
- e) Overcome constraints that inhibit the implementation of new and future forensic and technical intelligence capabilities.

#### Location

29. A site location map of the Majura Complex and location of the facility is shown in Attachment1.

#### Site Selection and Master Planning

30. The AFP Property Plan details the broad consolidation of AFP principle activities in the ACT to two sites; a National Headquarters for national leadership, management and enabling functions, and the progressive consolidation of specialist and other operational and training functions at Block 622, Majura.

31. The AFP acquired the Majura site in 2003 and has since developed the site to include the International Deployment Training Village, accommodation for the International Deployment Group, driver training and vehicle manoeuvring area, national canine training and kennelling facility, high ropes training facility and a 25m nine lane indoor firing range.

32. In line with the AFP's strategic intentions and continued consolidation of sites detailed in the AFP Property Plan, the Majura Master Plan (endorsed by the NCA in May 2012) identified a location for the proposed AFP FDC facility. A copy of the master plan is included at Attachment 2.

#### **Site Description**

33. Block 622, Majura, is an approximately 199 ha parcel of land located 8 km northeast of central Canberra. It comprises an essentially rural landscape of alluvial flats and fringing basal slopes situated in the western fall and middle portion of the Woolshed Creek Valley.

34. The site for the proposed FDC is currently utilised as a driver training facility comprising of an asphalt track and vehicle manoeuvring area. The driver training facility is to be re-located prior to construction commencing.

#### **Zoning and Approvals**

35. The National Capital Plan identifies the objective of the land use policy regarding crown land within the ACT, which is detailed within the site specific NCA Development Control Plan. The Development Control Plan was approved and amended in May 2012 to accommodate the revised location for the proposed facility.

#### **Planning and Design Concepts**

36. In translating the AFPs Forensic vision and objectives into the built form, the following project principles were adopted to inform and drive the design concept:

- a) Optimise adjacencies between key capabilities to maximise service delivery, knowledge sharing and interaction;
- b) Establish a flexible, adaptable, functional and efficient facility;
- c) Establish a facility capable of growth to meet expansion;
- d) Provide auditable access control to laboratory examination areas;
- e) Provide a triage-based approach to evidence management; and
- f) Share similar rooms/spaces between capabilities wherever practical to optimise interaction and maximise equipment utilisation.

37. The project will provide a safe, functional and cost effective facility of energy efficient design suitable for the local climate, and of a style that is responsive to the Majura landscape.

38. The building has been planned in such a manner as to allow ease of adaptability of internal spaces over time to accommodate new and emerging technologies and techniques. The building has also been designed and sited to allow for future expansion if required.

39. The design has adopted construction techniques and materials that are sustainable, robust, and address whole of life costs, and which are consistent with the capacity and capability of the local construction industry.

40. Siting has considered site constraints, security requirements, the approved Development Control Plan, functional relationships to existing and future facilities and operational requirements.

41. The Facility will incorporate a Building Management System, metering and other provisions to measure and monitor energy usage and to allow regular energy audits to comply with the Energy Efficiency in Government Operations (EEGO) Policy's annual energy reporting requirements. The facility will be capable of integration with future site-wide Building Management System(s).

#### **Scope of Works**

42. The scope of the proposed works is to construct a purpose built FDC facility including infrastructure and site works within the defined site identified in the site master plan. The facility will comprise the following functional spaces:

- a) **Office spaces** (~2265m<sup>2</sup>). Office spaces are largely open plan to encourage interaction, knowledge sharing and transparency.
- b) **Conferencing and training laboratory facilities** (~407m<sup>2</sup>). These areas will facilitate internal and external training and presentations.
- c) Meeting rooms (~370m<sup>2</sup>). A suite of large 12 person meeting rooms and small 2 person meeting rooms distributed throughout the open office space facilitate both formal and informal meeting as well as contemplative personnel work. The facility also provides a security rated conference room for 20 people and a classified Reading Room to be shared by building occupants.
- d) Laboratories (~1645m<sup>2</sup>). Biological, Chemistry and Document Sciences have been collocated in the facility within the level 1 Science Wing to facilitate collegiate collaboration and sharing of facilities between the scientific disciplines. The laboratories are directly adjacent the ground floor Search Precinct. Ballistics and Fingerprint Laboratories are adjacent to the Search Precinct on ground level and are positioned directly adjacent support workshops and technical spaces. Specialist Laboratories

accommodating hazardous procedures such as Chemical Biological and Radiological and Synthesis are remotely located from the central facility and laboratory areas.

- e) **Search Precinct** (~830m<sup>2</sup>). The Search Precinct is a centralised and shared assembly of Examination Rooms (of varying types, sizes and levels of cleanliness) collocated with Exhibit Management accommodation and Exhibit Storage. The assembly of these spaces into a centralised facility allows for efficient processing of exhibits and physically supports the implementation of the Rapid Lab Process allowing the capability to triage the exhibits received. The centralised and shared Search Precinct is supported with adjacent and visually connected Meeting Facilities.
- f) Exhibit storage (~145m<sup>2</sup>). Secured Exhibit Storage has been located to adjoin the Exhibit Management Office and Overnight Temporary Exhibit Store to provide a key role in the management of evidence brought into the facility. A vaulted Ballistics Exhibit store has also been provided within the FIAT area.
- g) Fire Arms Identification and Armoury Team Industrial Areas (~507m<sup>2</sup>). This area includes specialist areas for FIAT including Gun Issue, firearms storage, firearms reference collections, bullet recovery room and a 20m internal firing range to enable testing of firearms and scenario testing for forensic investigations.
- h) Central Store and Logistics General Storage (~442m<sup>2</sup>). Storage has been rationalised into a dedicated managed central store for deployment kits, bulk storage including consumables as well as specialised Archive Storage. Supporting specialised storage rooms for frequently accessed deployment kits (Crime Scenes) and delicate instruments have been provided throughout the facility for this purpose.
- Central Store and Logistics Garaging / Vehicle Store (~883m<sup>2</sup>). A Vehicle Examination Garage facilitates the examination of vehicles to source evidence in a controlled manner. Additional covered and secure vehicle storage areas allow for the storage of operational and deployment vehicles.
- j) Central Store and Logistics Workshops (~235 m<sup>2</sup>). Shared industrial workshop areas enable deconstruction, welding and light industrial functions. Workshop areas accommodate specialist instruments and machinery to carry out repairs and modifications to AFP assets.

- Mechanical Plant Rooms (~2225m<sup>2</sup>). Enclosed plant room spaces provide secure and weatherproof enclosures for specialised equipment servicing the functional demands of the building.
- 1) **Staff facilities** ( $\sim$ 733m<sup>2</sup>). Staff facilities include:
  - i) shared centralised collaboration space throughout the building;
  - ii) a first aid room;
  - iii) prayer room;
  - iv) parent room;
  - v) kitchen facilities and tea making stations;
  - vi) utility rooms and workplace storage;
  - vii) change room facilities and amenities; and
  - viii) parking.
- m) Circulation (~2695m2). In addition to the areas detailed above, the building incorporates circulation and travel space including shared corridors, communication stairs, fire escape stairs and maintenance access ways.

43. The total gross floor area of the building is approximately  $13,300m^2$ . Floor plans and rendered diagrams of the proposed design are included at Attachments 3 - 7.

#### **Codes and Standards**

44. The new FDC building will comply with all relevant requirements of the National Construction Code - Building Code of Australia (BCA) 2012 including Disability Access, ACT Planning and Land Management and relevant Australian Standards. It will also comply with the Protective Security Policy Framework and agency security requirements.

45. An accredited Building Certifier will be engaged to certify compliance of the building works.

46. Construction contractors will be compliant with the National Code of Practice for the Construction Industry.

47. Forensic Operations will be accredited to International Standard ISO/IEC 17025:2005 through the National Association of Testing Authorities (NATA) Australia.

#### Structure

48. The structural design has accounted for the existing soil and weather conditions encountered at the site. The proposed facility is a steel framed structure with concrete floor slabs.

#### **Materials and Finishes**

49. Materials and finishes will be selected from those readily available locally for their functionality, durability, low maintenance and for their ecologically sustainable design properties.

50. The external façade and fabric materials consists of exposed precast concrete, commercial aluminium framed glazing, painted steel edges, perforated aluminium panels and timber in the central protected locations. Material selection is informed by low maintenance and high durability to extend the buildings life in keeping with Commonwealth Government requirements and sustainability objectives.

51. Plasterboard and glass partitioning is used to form individual offices, meeting rooms, reception areas, utility and store rooms, training rooms, communications equipment rooms, general laboratory spaces and staff facilities.

52. Prefinished sandwich panel wall and ceiling systems will be installed into the examination rooms requiring the highest level of cleanliness and containment for examination of exhibits to facilitate highly repetitive chemical clean down of all of the surfaces within these spaces.

53. Firearms and ammunition stores, unloading bays and live fire areas will be constructed to meet AFP standards and comply with AS 2343:1997 Bullet Resistant Panels and Elements. Materials will generally be of reinforced concrete, core filled concrete block and plated Hebel construction depending on the specific room function.

#### **Technical Services**

54. The design includes electrical and data points at the entry points to the Search Precinct and Laboratory areas of the facility for the future incorporation of a radio-frequency identification (RFID) evidence management and tracking system. The AFP are investigating various RFID system options appropriate for FDC purposes to be added to the facility in the future.

55. Laboratory supplies of specialist gases will be stored in a central dedicated area, with automatic isolation of gas supplies to laboratories in emergency situations within isolation areas. Supply of inert and fuel gases will be segregated as required by codes.

#### **Mechanical Services**

56. Building services and associated equipment have been selected to achieve an economic balance between capital cost and operation/maintenance costs as well as consideration of energy efficient design. Selection has been based on life cycle costing analysis with air-conditioning provided to areas where usage dictates.

57. The office areas will be served by low temperature Variable Air Volume systems. Air handling units will be zoned between the office wings and general areas, to maximise ability to shut down areas not in use and save energy.

58. Mechanical services to the laboratory and workshop areas have been customised to suit the operational requirements of each area, with consideration to cross-contamination, temperature, humidity and ventilation.

59. A central thermal plant will supply heating and cooling to the office, laboratory and workshop areas. This central thermal plant will provide heating and cooling using chilled water and heating hot water circuits respectively. The system selection has considered the expansion of the facility, should that be required in the future, and reasonable allowances have been made for future increases in capacity.

#### **Hydraulic Services**

60. A combined gas and preheat solar hot water system will be provided to balance energy efficiency with reliability. Cold water supply is provided for general potable water, laboratory systems

and rainwater harvesting with re-use for toilet flushing and irrigation. General waste handling will include grease interception from the kitchen facilities waste and stormwater drainage.

61. Laboratories will be serviced by a dedicated water supply, with higher levels of purity where required. Laboratory waste will be processed through neutralisation pits before discharging to sewers.

#### **Electrical Services**

62. The electrical services incorporate the supply and distribution of power. Power will be supplied from two new kiosk substations and distributed through new switchboards and meters. This will be combined with a standby generation system and an Uninterruptible Power Supply (UPS) for redundancy in power provision to critical services in laboratories and offices. Capacity for future expansion is provided for with space identified for a third kiosk substation and sizing of switchboards and cables to accommodate future expansion allowances. Lighting design facilitates the requirements for specific functions and tasks within office, laboratory and industrial areas. Lighting design will facilitate the energy efficiency targets established for the facility. Emergency and exit lighting has been included in the design.

#### Information and Communications Technology (ICT) Services

63. The ICT systems incorporate the supply and distribution of communications services. The building shall incorporate a new carrier entry room and main Campus Communications Centre (CCC) for the AFP campus. Fibre-optic cables will be deployed directly from the CCC to the work area points. All cabling associated with secure networks will be installed in accordance with the Australian Government Information Security Manual. ICT infrastructure will be designed to accommodate future expansion including a future wireless network.

#### **Fixed Furniture and Joinery**

64. Fixed furniture and joinery items include fixed shelving, pigeon holes, utility room cupboards and benching, Meeting Room / Interview Room consoles, benching, kitchen facilities, interaction benching and kitchenettes, laboratory benching, shelving, sink units, service droppers, storage cupboards, pass throughs, under-bench storage, workshop benching, audio laboratory console and built in speakers and diffusers.

65. Specific proprietary fixed items have been identified including whiteboards, pin boards, brownout blinds, bike racks, shower fittings, gas manifolds, drainage racks, maxi bin racks, coat hooks and dispensers.

#### Loose Furniture and Equipment

66. Loose furniture to offices, open work points and office support spaces including meeting rooms will be modular and flexible.

67. Specialist forensic equipment will be relocated from the existing Weston Facility to the new Facility. The specific spatial requirements, service connections and optimal operating environmental conditions have been included in the design to facilitate the efficient and safe use of the instruments capability in the analysis of evidence.

68. Specific proprietary loose items, including pallet racking, compactus, open metal shelving, lockers, cabinets and acid and solvent cabinets, will be procured and installed by the project.

#### Acoustics

69. Noise and reverberation criteria for internal spaces have been specified in accordance with Australian Standards AS2107:2000 Acoustics and AS1469 Acoustics – Methods for the Determination of Noise Rating Numbers.

70. Internal sound insulation criteria for partitions have been nominated for the distinct areas of the FDC building utilising industry standard approaches. These have been used as the basis for developing appropriate acoustic insulation constructions between the various internal spaces. Specific acoustic insulation will be provided for Audio and Video laboratories as well as the firing range.

71. Aircraft noise assessments have been conducted for the proposed facility noting that the site is located under the Canberra International Airport flight path. These assessments have been incorporated into the design of acoustic insulation for the building envelope through the design of the façade to control noise levels in accordance with AS 2021-2000 Acoustics –Aircraft Noise Intrusion – Building Siting and Construction.

72. Road traffic noise, both current and future, has also been assessed. Current design inclusions to accommodate for aircraft noise is sufficient to reduce road traffic noise to within the recommended internal criteria of AS/NZS 2107:2000.

73. Some technical forensic equipment items such as the scanning electron microscope require specified low levels of vibration in order to operate and produce reliable results. These vibration levels are defined by the ASHRAE Vibration industry guideline as well as AS 2670.2. Background vibration levels have been assessed at various positions around the site and discovered to be sufficiently low that specialist equipment will not require vibration isolation against ground-borne vibration.

#### Landscaping

74. The landscape plan has been developed to reflect the existing environmental features and character of the Majura landscape. The design responds to the proposed facility and the approved Majura Master Plan providing context to soften and moderate the visual impact of development, as well as providing useable external spaces.

#### **Environmental Sustainability**

75. The AFP is committed to Ecologically Sustainable Development (ESD) and the reduction of greenhouse gas emissions. The building's objective is to achieve best practice in sustainable design in accordance with the Environmental Efficiency in Government Operations (EEGO) policy. This will include designing to meet the EEGO energy intensity targets for office areas, and an equivalent energy intensity to meet a 4.5 Star NABERS Energy benchmark in office areas. The NABERS rating system benchmarks the energy performance of Australian buildings against other similar building types. There is currently no NABERS energy rating tool to rate a mixed use building such as this proposed new forensic facility. As such, non-office areas will be designed in accordance with industry best practice energy performance within the functional and operational constraints of the mixed use building form. The Department of Climate Change and Energy Efficiency has endorsed this approach as consistent with the EEGO policy.

76. The Green Star rating scheme, a voluntary holistic sustainable building rating tool managed by the Green Building Council of Australia, has been used to guide the design process. As the Green Star rating tool is not applicable to laboratory type buildings, the tool has been used as a guide only, and no formal or "in principle" rating will be targeted. However, a set of Environmental Principles has been developed considering Green Star as applicable to the AFP and this project.

77. The specific features that help achieve sustainability for the design are:

- a) Recycling of construction and demolition waste;
- b) Detailed building tuning and commissioning to ensure efficient building operation;
- c) Building orientation to maximise energy efficiency while allowing maximum daylight penetration and external views;
- d) Use of paints, flooring, carpets, adhesives and sealants with low Volatile Organic Compound emissions;
- e) Inclusion of engineered timber products with low or zero formaldehyde emissions;
- f) Selection of environmentally certified fit-out products;
- g) Use of thermal insulation and refrigerant products with zero Ozone Depletion Potential;
- h) Use of water efficient fixtures, toilets and appliances;
- i) Supply of all toilets and urinals with rainwater for flushing;
- j) Capture of fire system test water for re-use;
- k) Solar hot water systems with gas boost to provide domestic hot water;
- Use of economy cycle when outdoor ambient temperatures are suitable to minimise energy consumption;
- m) Recovery of waste heat from exhaust air to temper outdoor supply air;
- n) Lighting controls with time clocks, motion sensors and daylight sensors to minimise wasted energy, and energy efficient lighting design including consideration of LED lighting options;
- o) External lighting designed to minimise light pollution;
- p) Possible treatment of stormwater runoff from site via a bio retention basin;
- q) Plant species to be low water use, indigenous and drought resistant. Preference given to plant species that are native to the Majura area;

- r) Use of recycled rainwater for landscape irrigation; and
- s) Provision of metering and sub metering to capture the energy and water consumption of each area within the building including server rooms.

## **Energy Targets**

- 78. The facility will be designed to meet the following EEGO target for office areas:
  - a) < 7,500 MJ/person/annum for light and power including office space lighting, office equipment, supplementary air conditioning, kitchen hot water units, etc.
  - b) < 400 MJ/m<sup>2</sup>/annum for office central services including open plan air conditioning, lifts, security and lobby lights, domestic hot water, etc.

79. A minimum 4.5 Star equivalent NABERS Energy Base Building performance will be targeted for office areas of the facility. Non-office areas of the building will be designed in accordance with industry best practice.

#### Measures to Reduce Energy and Water Use

80. The following passive design features have been integrated into the design to reduce the energy and water demand of the new facility:

- a) Orientation of buildings, shading, thermal mass, insulation and glazing have been optimised to reduce energy consumed by active heating and cooling through appropriate use of solar gains throughout the year;
- b) Natural light has been maximised and artificial lights are linked with daylight sensors to limit energy use;
- c) Incorporating water sensitive urban design strategy to maximise water retention and reuse on site from the building and car park areas, reducing on site demand on potable water supplies;
- All taps and toilets will be water efficient and rated as at least 4 Star Water Efficiency Labelling and Standards (WELS) and showerheads rated as 3 Star WELS;

- e) "Energy Star" compliant appliances and equipment will be installed where available and fit-for-purpose; and
- f) Artificial lighting in the building will utilise low energy lamps and incorporate lighting control systems such as daylight sensing, occupancy sensors and time switches to minimise energy usage.

# Details of Compliance with Local, State/Territory and Commonwealth Water and Energy Policies

81. The facility will be designed, constructed, operated and maintained in order to use energy and water as efficiently as possible and comply with the following statutory requirements:

- a) Parts J1 J8 of Section J of the National Construction Code Building Code of Australia 2012; and
- b) The EEGO policy.

#### Security System

82. The security design will be developed from the AFP's security risk assessment of the business functions and will meet the requirements of the Protective Security Policy Framework, Australian Government Information Security Manual and ASIO T4. The site will be secured with access control at the front gate entrance to the Majura Complex via a vehicle and pedestrian access control point. AFP security requirements will be implemented across the new proposed facility and include an access control system, speed gates, security cameras, intruder alarm and intercom system.

83. All AFP staff will use photo identification security passes to access the premises. The passes will interface with proximity card readers at specified locations around the perimeter. Electronic access control features include:

- a) Electronic speed gates at controlled entry points to the facility;
- b) Vehicle and bicycle access control to parking areas;
- c) Loading dock and after-hours access control doors; and
- d) External doors, including emergency exit doors, will be electronically monitored.

84. Internal areas with higher than normal security requirements, such as server rooms, spaces where evidence will be potentially located including laboratories, examination rooms and stores will also have electronic access control installed to restrict access to authorised staff only.

85. The foyer area has been designed to facilitate those functions of forensics that interface often with the public and uncleared personnel.

86. A security risk assessment has been conducted in line with the requirements of the Protective Security Policy Framework and recommendations implemented as appropriate.

#### **Fire Protection**

87. Fire services within the facility have been designed in accordance with the National Construction Code and local Fire Brigade Authority requirements, including:

- a) Fire detection system throughout including Fire Indicator Panel (FIP) at the main building entry point;
- b) Sound System for emergency purposes including speakers and visual alarms throughout connected to Master Emergency Control Panel (MECP) at main building entry;
- c) Pre-action automatic sprinkler system with dedicated valve set to communications rooms;
- d) Multi-point aspirating smoke detection (MASD) to communications rooms;
- e) Portable fire extinguishers for specific hazards required throughout building;
- Alternative fire suppression systems will be investigated to critical areas such as exhibit stores and archive stores;
- g) Fire brigade booster assembly adjacent to hydrant booster at the site entry point.
- h) Smoke hazard management and egress systems including required non-fire isolated stairs and emergency exit lights connected to an automatic testing system; and
- i) Materials with fire resistance in accordance with Type C construction required under the National Construction Code.

88. Bush fire protection has been assessed against the requirements of AS 3959 – 2009 'Construction of buildings in bushfire prone areas'. A Bushfire Attack Level (BAL) Assessment Report identified the BAL to be LOW therefore, there is insufficient risk to warrant specific construction requirements in addition to adherence of the design to the National Construction Code.

#### **Provision for People with Disabilities**

89. Access and facilities for people with disabilities will be provided where required in accordance with the Disability Discrimination Act (DDA), the relevant technical requirements of the National Construction Code - Building Code of Australia, Access to Premises Standard (2010) and associated Australian Standards. Accordingly, the following facilities will be provided:

- a) The appropriate number of self contained accessible toilets per floor;
- b) Accessible shower facilities;
- c) All lifts accessible and facilities provided in accordance with AS1735.12;
- d) Accessible parking; and
- e) Lifts, access-ways, doorways and accessible toilets and showers will be sized to conform to National Construction Code Building Code of Australia.

90. In addition, where possible joinery and furniture items such as kitchenettes, reception desks, external seating and vending machines will be provided in accordance with the enhanced design requirements of AS1428.2.

#### **Child Care Provisions**

91. No childcare provisions are being provided under this project.

#### Work Health and Safety

92. The proposed facility will comply with the requirements of the Work Health and Safety Act 2011 (Commonwealth), Work Health and Safety Act 2011 (ACT) and the National Guideline to AFP Health Safety Management Arrangements 2007 - 2012.

93. The AFP is committed to improving occupational health and safety outcomes in the building and construction industry. In accordance with Section 35(4) of the Building and Construction Industry Improvement Act 2005 (Commonwealth), contractors will be required to hold full occupational health and safety accreditation from the Office of the Federal Safety Commissioner under the Australian Government Building Construction Occupational Health and Safety Accreditation Scheme.

94. The construction site is within the AFP Majura Complex secure site, therefore no special or unusual public safety risks have been identified.

95. Safety in design workshops will be undertaken during the design phases of the project.

#### **Environmental Considerations**

96. An environmental impact assessment has been conducted; confirming that the impact on the natural environment during construction and operation will be minimal, given the selected site has already been developed and is currently a driver training vehicle manoeuvring area. A Referral under the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) is not required for this proposal. A project Environmental Management Plan will ensure that construction activities are undertaken with the appropriate precautions in order to comply with the EPBC Act and the existing Conservation Management Plans for the AFP Majura Complex.

#### **Heritage Considerations**

97. A heritage impact assessment has been conducted in accordance with both the ACT Heritage Act 2004 and the EPBC Act. During the assessment, two sites of heritage significance were identified within close proximity to the project as follows:

- a) An aboriginal artefact scatter consisting of three artefacts was found, and
- b) A European site complex consisting of a house ruin and a European grave was confirmed.

98. These sites will be nominated to the Commonwealth Heritage List and included on the ACT Heritage management system based on their heritage significance. Consultation with the ACT Registered Aboriginal Organisations has occurred and it is agreed that the Aboriginal artefacts will be relocated prior to any impact so that they will be protected while maintaining their connection with the land.

99. Due to the likelihood of further discoveries of Aboriginal artefacts on the site, an archaeologist will be present during the removal of top soil at the commencement of construction to oversee the site establishment and identify any artefacts within the construction area. Further, procedures will be included within the environmental and heritage management plan should artefacts be discovered during construction.

100. While the European site complex is located outside the construction area of the project, it will be protected by fencing during construction. Future protection of these identified historic sites including integration into the Majura Complex Site Master Plan and site management plan with interpretive signage and protective fencing to designated artefacts will be a key consideration for all future works on the site.

#### COST EFFECTIVENESS AND PUBLIC VALUE

#### **Project Budget**

101. The estimated total out-turned cost of this project is \$106 million (excluding GST) which is an internally funded New Policy Proposal of the AFP. This cost estimate includes the construction costs, site preparation, infrastructure services costs, management and design fees, furniture, fittings and equipment, contingencies and an escalation allowance.

#### **Details of Project Delivery System**

102. A Client Side Project Manager has been appointed to manage the proposed works and administration of the contracts for construction. A traditional construct-only delivery methodology will be adopted to engage a head contractor via a two stage procurement strategy (Request for Expression of Interest followed by Request for Tender) culminating in a lump sum contract.

#### **Governance Structure**

103. The AFP's Forensic Capability Program includes the Forensics Facility Project and the Business Process Review Project. This program management approach facilitates an informed and coordinated approach to delivering transformational change for FDC and provides a structure and process for the management of change over time, delivering benefits before, during and after the establishment of the facility.

104. The Forensic Capability Program Board meets on a monthly basis to coordinate and drive the constituent projects in order to deliver the program outcome. The Forensic Capability Program Board reports to the Sponsoring Group which is responsible for setting the broad project direction, communicating with the Minister on the project scope, status and issues, resolving issues affecting more than one portfolio of the AFP and performing a high level review of project cost and time parameters.

105. A Project Control Group has been established for the project which convenes monthly to control and coordinate the project deliverables. This group reports to the Forensic Capability Program Board.

106. A diagrammatic representation of the governance structure of the project is provided below.



#### **Gateway Review Process**

107. The project is subject to the Gateway Review Process and has completed Gates 0 and 1. The project will continue to be subject to this project assurance methodology through procurement, delivery, occupation and benefits realisation phases as they align to the remaining four gates.

#### **Construction Program**

108. Subject to Parliamentary approval of the proposed project, construction is expected to commence in late 2013 and be completed by mid 2015.

#### Impact on local communities

109. The proposal will have a positive economical impact on the Canberra community. The project will generate significant employment opportunities for local businesses. It will lead to the anticipated continual employment from July 2013 to September 2015 in the following sectors:

- a) Professionals/Consultants: A significant number of companies will be engaged to provide consultancy services during the project delivery.
- b) Contractors: There is likely to be a need for up to approximately 60 trade companies and 800 personnel on site (and off site including manufacturers and suppliers) during the project delivery. This will assist in keeping staff and contractors gainfully employed.
- c) Other businesses within the Capital region including hospitality and other services industries will also benefit from the construction works and eventual full occupation of Majura.

110. There will be minimal disruption to local community activities either during or post construction. Construction traffic will have minimal impact on local traffic networks with project activities to be coordinated with the Majura Parkway Project through scheduled coordination meetings throughout the duration of the project.

## **Consultation with Relevant Authorities and Stakeholders**

111. During the development of the project, extensive consultation has occurred with the FDC and other AFP stakeholders. In addition, consultation has or will occur, with the following key external stakeholders:

- a) Dr Andrew Leigh MP, Federal Member for Fraser;
- b) Senator the Hon Kate Lundy, Senator for Australian Capital Territory;
- c) Senator Gary Humphries, Senator for Australian Capital Territory;

- d) Attorney-General's Department;
- e) Australian Capital Territory Department of Territory and Municipal Services;
- f) Australian Capital Territory Planning and Land Authority;
- g) Australian Capital Territory Fire Brigade;
- h) Australian Capital Territory gas, electricity, water and wastewater services provider (ActewAGL);
- i) Air Services Australia;
- j) Canberra Airport Group;
- k) Civil Aviation Safety Authority;
- 1) Department of Defence;
- m) Department of Finance and Deregulation;
- n) Department of Sustainability, Environment, Water, Population and Communities;
- o) Department of Climate Change and Energy Efficiency;
- p) Department of Infrastructure and Transport High Speed Rail Project;
- q) Jemena Gas Network;
- r) Majura Parkway Project;
- s) National Capital Authority;
- t) Representative Aboriginal Organisations; and
- u) Supreme Court of the Australian Capital Territory.

112. Consultation with the following Members of the Australian Capital Territory Legislative Assembly will also occur:

- a) Ms Katy Gallagher;
- b) Mr Shane Rattenbury;
- c) Mr Simon Corbell; and
- d) Mr Zed Seselja.

#### **Staff Consultation**

113. Extensive staff consultation has been undertaken during the design phase of the project. This has facilitated a thorough and comprehensive understanding of the facility's functional and technical requirements to align with the business process reforms which the proposed facility will accommodate and enable.

114. The AFP is a major employer and thus amenities have an impact on staff satisfaction and retention. The ability for the AFP to provide a reasonable level of office accommodation is an important factor in maintaining staff satisfaction and attracting skilled and experienced staff.

#### **Public Value**

115. A purpose built FDC facility will be an investment in the assurance of AFP evidence provided to the judicial system by enabling the AFP to continue to provide necessary forensic science and technical intelligence capability to meet the demands of the current complex and shifting law enforcement environment. Public value associated with this proposal is realised through the ability of the FDC to adequately continue to support the AFP in combating organised crime and protecting the Commonwealth and its National interests from criminal activity in Australia and overseas.

#### Revenue

116. There will be no revenue derived from the project.







Proposed new AFP Forensic Facility at Majura, ACT





200m

50 100

0

## ATTACHMENT 3\_ FDC FACILITY SITE PLAN


200m

0 50 100

ATTACHMENT 4\_ FDC FACILITY PLANS GROUND LEVEL





0 50 100 200m

ATTACHMENT 4\_ FDC FACILITY PLANS LEVEL 1



MECHANICAL PLANT CIRCULATION 

200m

0 50 100

## ATTACHMENT 4\_ FDC FACILITY PLANS ROOF LEVEL



Northen Elevation



Eastern Elevation



Western Elevation



Southern Elevation

ATTACHMENT 5\_ FDC FACILITY ELEVATIONS EXTERNAL ELEVATIONS

AFP Forensic and Data Centre Facility at Majura, ACT

0 50 100 200m



Internal Elevation\_Interaction Space



50 100 200m

Internal Elevation\_ Case Conference Space

ATTACHMENT 5\_ FDC FACILITY ELEVATIONS INTERNAL ELEVATIONS



ATTACHMENT 6\_ FDC FACILITY CROSS SECTIONS











