

DETAILS OF PROPOSED WORKS

HOME BASE FACILITIES FOR MULTI ROLE TANKER TRANSPORT

1. This section contains key elements of the proposed home base facilities:
 - a. Project Element 1 – Multi Role Tanker Transport Parking Apron and Airfield Pavements Upgrade.
 - b. Project Element 2 – No 33 Squadron Headquarters, Maintenance Complex and Ground Support Equipment Shelter.
 - c. Project Element 3 – Hydrant Refuelling.
 - d. Project Element 4 – Multi Role Tanker Transport Logistic Management Unit.
 - e. Project Element 5 – Full flight simulator facility (in the Acquisition Contract).

Project Element 1 – Multi Role Tanker Transport Parking Apron and Airfield Pavements Upgrade

2. The area of the aircraft parking apron is capable of accommodating up to four Airbus A330 aircraft parked on-line at any one time. An additional aircraft can be accommodated within the maintenance hangar and/or in the static aircraft wash area. The pavement comprises a main concrete apron area, with pavement shoulders to assist in the prevention of erosion of the flanks and reduction in Foreign Object Damage hazards on the apron. The pavement has been designed to accommodate 10,000 movements by an A330 sized aircraft.
3. The apron incorporates a hydrant aircraft refuelling system, apron floodlighting and apron edge lights. An aircraft wash point has also been provided with power and water supply and is located on the new aircraft pavement apron.
4. The planned area for the apron covers some elements of the existing stormwater drainage system. The proposed works include installing a new gross pollutants trap located in the stormwater drain for the existing No 38 Squadron aircraft wash bay and to service the new Multi Role Tanker Transport aircraft wash bay. The design of the parking apron will maintain the integrity of the stormwater drainage system in the area. New fuel traps and grass covered V-drains will also be provided.
5. Aircraft pavement upgrades will include:
 - a. **Runway 15/33.** The runway will be strengthened to accommodate an A330 sized aircraft. Ramps to taxiways and Runway 04/22, which are needed to cater for any thickening of Runway 15/33 will be provided.
 - b. **Taxiway B.** The taxiway will be widened to 23m for the northern 350m. The shoulders will also be widened to 10.5m.
 - c. **Arrestors and Lighting Fixtures.** Upgrading of the pavements will necessitate the raising of the aircraft hookable arrestors and also the airfield lighting fixtures.

Project Element 2 – No 33 Squadron Headquarters and Maintenance Complex

6. The No 33 Squadron Headquarters facility will be collocated with the Maintenance Complex and consists primarily of office and open plan work areas for the Squadron. Facilities are required for the administration, command, training and operational planning roles for the Multi Role Tanker Transport capability.
7. The Maintenance Complex is required to accommodate the equipment, personnel and facilities for the performance of operational maintenance on the new Multi Role Tanker Transport aircraft. The hangar is able to accommodate one A330 sized aircraft. The Complex also provides offices, open plan areas, store rooms and workshops. The offices have been collocated and the workshops collectively placed away from the office areas.
8. The Maintenance Complex facility includes a covered storage compound for Ground Support Equipment. This compound is located external to the hangar and workshops. The Complex has also been provided with an external hazardous waste collection point. This area has been sited external to the Complex.
9. Two existing No 38 Squadron facilities (Buildings 476 and 478) will be relocated to make way for the new Maintenance Complex.

Project Element 3 – Hydrant Refuelling

10. A new hydrant refuelling system provides the capability to replenish the Multi Role Tanker Transport aircraft. Each of the Multi Role Tanker Transport apron parking positions is provided with two hydrant refuelling points. The hydrant refuelling points are connected by an underground pipe to the existing aircraft hydrant refuelling system. The pipe work will be compatible with the existing system.

Project Element 4 – Multi Role Tanker Transport Logistic Management Unit

11. The Logistic Management Unit accommodates a through life support contractor providing logistic support to the Multi Role Tanker Transport capability and the Commonwealth personnel conducting governance over the contractor support organisation. The facility will accommodate a total about 50 Defence and contractor staff.

Project Element 5 – Simulator Facility

12. This facility will be provided as part of the aircraft acquisition contract as a turn-key project. This facility will accommodate a range of training activities for aircrew training on the Multi Role Tanker Transport. The proposed facility will include space for the simulator equipment, rooms for equipment that control the simulator, training rooms, working accommodation for staff, computer rooms, storage rooms and amenities for staff and trainees.

FACILITIES FOR 9th FORCE SUPPORT BATTALION

13. The key elements of the 9th Force Support Battalion facilities are:
 - a. Project Element 1 – Headquarters 9th Force Support Battalion (including the Logistic Support Company).
 - b. Project Element 2 – 26 Transport Squadron (including the area wash point).

- c. Project Element 3 – Area fuel point.
- d. Project Element 4 – 37 Force Supply Company (less Petrol Platoon).
- e. Project Element 5 – 37 Force Supply Company Petrol Platoon.

Project Element 1 – Headquarters 9th Force Support Battalion

14. The Battalion Headquarters and the Logistic Support Company functions will be accommodated in one single storey building, comprising two wings linked by a central covered breezeway. The northern wing will accommodate command functions and the southern, administration functions and ablutions.

15. The Logistic Support Company building element is a steel portal framed office and stores type building accommodating all functions at ground level. The cross-section reflects the high clearance requirements of the storage, loading and dispatch areas and efficiently accommodates the two levels of associated working accommodation in the one cross section. The store area design will be an “open-plan” layout using different storage media to suit the goods to be stored. The main storage area can be expanded linearly to the west with the addition of bays conforming to the structural grid and the compound can expand to the north. The store entry is at a highly visible point, where unauthorised entry can be readily controlled. Separated pedestrian access is provided to the working accommodation areas.

16. The Logistics Support Company’s compound provides external storage, with undercover loading/unloading at the Receipts and Dispatch area.

Project Element 2 – 26 Transport Squadron

17. The Squadron Headquarters building is proposed as a single storey office type building. The eastern end of the building will accommodate command functions and ablutions, while store areas are located centrally.

18. The three Troop buildings (for 85 Troop, 86 Troop and 87 troop) are proposed as a single storey office type building, with a single block plan form. The eastern end of the building will accommodate command functions and the southern, ablutions and store areas.

19. These collocated facilities are positioned centrally across both the Transport Troop and Technical Support Troop compounds and form part of the northern edge of the compound. Facilities catered for in the building are office and briefing accommodation, ablutions and DPI. These facilities are provided for each Troop and allow concurrent use of the facilities. The Transport Troop office accommodation is located adjacent the vehicular entry/exit point to the compound, affording visual surveillance of the entry/exit for the compound. Controlled vehicular and pedestrian access between the compounds is provided.

20. 26 Transport Squadron’s workshop is proposed as a rectangular braced steel framed building. The roof and external walls are clad with lightweight, colorbond sheeting with fixed ventilation to all working areas and panels of fibreglass sheeting to provide natural lighting in both roof and walls. A durable masonry base wall provides impact resistance at low level. The buildings will be situated allowing major vehicle access from the compound. The following approach to the design of the workshop has been adopted:

- a. eight service bays are provided based on the total servicing requirement;

- b. one bay is to be dedicated to lubrication requirements (oil change, greasing etc) and will be provided with a recessed service pit with hose reel dispensers for lubricants;
- c. the remaining service bays will be used for general servicing needs, predominantly related to “running gear” – i.e. axles, brakes, steering, and the like – with lifting capability in the vehicle servicing bays provided by a crane nominal 5 tonne capacity;
- d. a separate Repair Parts Store/Tools Office is provided, enabling the storage portion to be “sized” to suit requirements;
- e. the General Engineering, Weld and Electrical bays do not have formal divisions providing flexibility to amalgamate spaces to address particular tasks;
- f. storage facilities are included for a number of different hazardous goods - Battery Store, Petrol, Oil and Lubricants (POL) reticulation and Gas Store – with designs providing covered, well ventilated lockable enclosures; and
- g. whilst manned by 26 Transport Squadron staff and used principally by 26 Transport Squadron, this workshop is designed for use by all relocated 9th Force Support Battalion sub-units.

21. 26 Transport Squadron’s compound is located with vehicle access from the Western Link Road. The buildings and shelters are located within a fenced paved compound, with a full external traffic circuit. The widths of the circulation aisles, spaces between and around shelters are determined by the requirements of vehicle movement associated with parking in shelters and movement around the compound. Design features include:

- a. a bunded area for the storage of Petrol Tankers, located at the western end of the compound;
- b. large open areas for trailer storage in the centre of each row of built vehicle shelters, to allow for some occasional rearrangement of trailers, as required by the Squadron; and
- c. shelters which are essentially open, roofed areas, with overhangs to provide sun and weather protection and solid walls at the east and west ends of the buildings to supplement the protection offered by the overhangs.

23. 26 Transport Squadron vehicle and equipment shelters have been developed as a minimum number of generic sizes, to accommodate particular groups of vehicles. The distribution of these shelters across the compound has been arranged to allow full internal traffic circulation within the compound, while optimising compound width. Metal cabinets located at the end of vehicle shelter bays and galvanised pipe equipment/pole supports will provide storage for each of the vehicles. The vehicle shelters are single storey steel portal framed structures, with both skillion and gable roofs.

24. Parking bays for any Fitted for Radio (FFR) Vehicles will incorporate full height chain wire mesh screens and gates to provide a “tamper evident” secure enclosure. A centralised facility is provided adjoining the vehicle shelters for vehicle tyre change, minor servicing and each Troop’s tyre storage and general store activities.

25. The area wash point provides for washing vehicles and equipment for 9th Force Support Battalion and will consist of four wash bays with fixed under-body and manual side

washing equipment. One wash bay will be fitted with a ramp for manual under-body washing of plant.

Project Element 3 – Area Fuel Point

26. The fuel point provides for fuelling vehicles and equipment for 9th Force Support Battalion. The fuel point will consist of a fuel pump house, a fuel interceptor building, two 30,000 litre diesel storage tanks, two 10,000 litre petrol storage tanks, a single truck bowser with canopy, with space for a future bowser.

Project Element 4 – 37 Force Supply Company

27. The 37 Force Supply Company's building is a braced steel framed office and stores type building, with two wings linked by a central courtyard and breezeway. The cross section reflects the high clearance requirements of the storage, loading and dispatch areas and efficiently accommodates the two levels of associated working accommodation in the one cross-section. The store area design will be an "open-plan" layout using different storage media to suit the goods to be stored. The predominant volume of stores will be housed on pallets, or in pallet cages. The main storage area can be expanded linearly to the west, with the addition of bays conforming to the structural grid and the compound can expand to the north. The store entry is at a highly visible point, where entry can be readily controlled. A separate pedestrian access is provided to the working accommodation areas

28. 37 Force Supply Company's compound provides external storage and undercover loading/unloading at the Receipts and Dispatch area.

Project Element 5 – Petrol Platoon

29. The Platoon Headquarters building is proposed as a single storey office type building. The northern wing will accommodate command functions and the southern, ablutions and storage.

30. The platoon's stores building is proposed as a braced steel framed building accommodating all functions at ground level. The cross section reflects the high clearance requirements of the storage, loading and dispatch areas. The roof configuration also facilitates good cross ventilation to the storage areas. The store area design will be an "open-plan" layout using different storage media to suit the goods to be stored. The predominant volume of stores will be housed on pallets, or in pallet cages, on four-high pallet racks.

31. The main storage area can be expanded linearly to the west, with the addition of bays conforming to the structural grid. The compound can expand to the north. The store entry is at a highly visible point, where entry can be readily controlled. A separate pedestrian access is provided direct to the working accommodation areas. A pedestrian type, battery-electric fork lift truck will be provided for all materials handling and stacking functions within the store. The storage yard area design provides external storage and undercover loading/unloading at the Receipts and Dispatch area.

32. The platoon's compound is located with vehicle access from the Western Link Road. The buildings and shelters are located within a fenced paved compound, with a full internal traffic circulation circuit. The widths of the circulation aisles, and spaces between and

around shelters have been determined by the requirements of vehicle movement associated with parking in shelters and movement around the compound.

33. Planning has been arranged so as to provide large open areas for laying out and cleaning large equipment items and covered areas for tank cleaning. Large bunded enclosures provide further cleaning and fuel pumping facilities.

UPGRADING OF BASE ENGINEERING SERVICES INFRASTRUCTURE

34. The key elements in upgrading the Base engineering services infrastructure are:
- a. Project Element 1 – Electrical Reticulation, Central Emergency Power Station (CEPS) and Supervisory Systems.
 - b. Project Element 2 – Water Reticulation.
 - c. Project Element 3 – Sewerage Reticulation and Treatment Plant.
 - d. Project Element 4 – Stormwater Reticulation.
 - e. Project Element 5 – Communications.
 - f. Project Element 6 – Trunk Roads.

Project Element 1 – Electrical Reticulation, Central Power Station and Supervisory Systems

35. The base's electrical reticulation requires upgrading, with the maximum electricity demand increasing from approximately 11 to 15 Megawatts. The proposed works include major upgrading of the high voltage electrical supply and reticulation for the base and a significant upgrading of the major elements of the internal electrical reticulation system, to improve capacity for existing and future power demands and to maintain supply reliability.

36. A significant improvement to the capacity of the central emergency power station is also proposed, with increased generating capacity and major improvements to the control systems and other services.

37. The proposed modifications to the electrical supply system will reduce the unit cost of electricity to the Defence.

Project Element 2 – Water Reticulation

38. Improvements to the water supply and reticulation system works are proposed. On payment of a headworks charge by Defence, a new supply main will be constructed by Ipswich Water to replace the failing second supply line. In addition to the required trunk services extensions to service the new development areas, works are planned to improve the supply capacity and reliability. These works include replacing the existing water main, which traverses the main runway, and connecting this new main to the fire fighting reserve

tanks and an existing near the Cold Proof Load facility, to improve the water supply to the base.

Project Element 3 – Sewerage Reticulation

39. The proposed improvements to the sewerage system include constructing new trunk mains for the Army development site, rationalising existing services to two attached Defence properties and making various improvements to the sewerage treatment plant. A roof will also be installed on the existing trade waste pre-treatment plant to reduce rainwater ingress into the sewerage system.

Project Element 4 – Stormwater Reticulation

40. The proposed stormwater works include upgrading and replacing of the majority of the existing stormwater drainage that is currently draining the sites of the proposed works and will include new pipework, culverts, pits, headwalls, erosion and scour protection. Damaged pavements will be re-instated and redundant drains removed as part of the works. Water quality treatment will be provided to achieve the water quality objectives for the discharge to the receiving environment.

Project Element 5 – Communications

41. The proposed works for upgrading and extending the existing communications infrastructure will significantly improve connectivity on the base, by addressing shortcomings in the existing data and voice networks. The proposed works include a new supply cable to the base, extending the on-base optic fibre cable network, providing new voice network nodes, new nodes for the Defence data systems and a new engineering services network for controlling and monitoring systems such as fire and security.

Project Element 6 – Trunk Roads

42. The proposed road works include the following:

- a. a new Northern Link Road (to a class 1 standard), from F111 Drive to the turn off into the fire training areas;
- b. a new Eastern Link Road (to a class 2 standard), from F111 Drive to the ISS and the north south section to the Northern Link Road junction;
- c. a new Western Link Road (to a class 2 standard), from the junction on Rosewood Road along the frontage of 9 FSB and the east west connection to Walloon Road; and
- d. upgrading Hansen's Farm Road (to a class 2 standard), from the junction of Walloon Road, to the proposed connection point with the Northern Link Road.