



METHOD OF WORKING PLAN 01/23

Aerodrome:	Karratha Airport
Project Title:	2023 Fuel Hydrant Modification Works
Project Description:	Modification of Avtur Fuel Hydrant underground line in five locations on RPT and Woodside Heliport Aprons.
MOWP Serial Number:	01/23
Amendment Number:	REV 00 (Original)
Issue Date:	Thursday 23 rd March 2023
Date of Commencement of Works:	Monday 17 th April 2023
Date of Completion of Works:	Friday 19 th May 2023
Date of Expiry of MOWP:	Friday 2 nd June 2023

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1. WORKS INFORMATION

1.1 Background to Works

Viva Energy (Viva) own and operate the Aviation Fuel Storage Facility and Hydrant System at Karratha Airport. The hydrant system supplies Jet A1 to Aircraft Bays 1, 2, 3 and 4, on the RPT apron as well as three helicopter operating bases at the airport.

With changing aircraft operations at Karratha, the hydrant points at Bays 1, 2, 3 and 4 have previously been made inoperable with the removal of the hydrant valves. The hydrant system is now only used for Jet A1 supply to the helicopter bases, predominantly the Woodside Operating Base.

Following a condition review of the hydrant system, modification works are now required to address integrity issues with the hydrant.

1.2 Description of Works

Management, supply, and construction of modifications to the existing Aviation Turbine Fuel (AvTur) hydrant pipeline including excavation to expose buried hydrant line, mechanical modifications to the pipeline and civil restoration of the apron pavement surface.

The works area consists of one location at Bay 1 on the RPT apron and four locations from east to west across the middle of the Woodside Heliport apron, as described in the following.

RPT Apron:

Hydrant Point HP1 – Excavate/uncover, cut section of hydrant pipeline header, and replace with straight piping to remove tee and disconnect the hydrant lateral pipeline to hydrant point HP1 (Bay 1), slurry fill the redundant lateral pipeline and pit can, and make good excavation/pavement;

Heliport Apron:

Hydrant Point HP5 - Excavate/uncover, cut section of hydrant pipeline, and replace with straight piping to remove tee section and riser hydrant point HP5, remove hydrant pit can, backfill and make good excavation / pavement.

Hydrant Point HP8 – Excavate/uncover, remove existing hydrant pit and valve, cut riser and weld in new flange, install new hydrant pit can and concrete surround, backfill and make good excavation / pavement.

Buried Flange BF1 – Excavate/uncover a buried section of the hydrant containing a horizontal elbow containing an underground flange set; remove elbow and replaced with a welded fitting, backfill, and make good excavation / pavement.

Hydrant Junction Take-Off TO1 – Excavate / uncover, cut section of hydrant pipeline, and replace with straight piping to remove tee section and riser, backfill, and make good excavation.

1.3 Execution of Works

The works are programmed to take four (4) weeks to complete. At each location, the task sequence shall be:

- Civil work to expose pipeline at each required location
- Mechanical work to modify pipeline as required
- Civil reinstatement works
- Demobilisation activities

The detailed sequencing with respect to the *work locations* is:

1. Site setup for excavation works at TO1 & HP8
2. Site setup for excavation works at HP 05 & BF1
3. Site setup for excavation works at HP 01
4. Mechanical Modifications at HP1, BF1, HP5, HP8, TO1
5. Blast, Coat Wrap hydrant pipeline at HP1, HP5, HP8, BF1, T01
6. Backfill and compaction of HP1, Reinstatement Asphalt
7. Backfill and compaction of HP5 & HP 8, Reinstatement concrete
8. Backfill and compaction of BF1, Reinstatement Asphalt
9. Backfill and compaction of TO1, Reinstatement surface with clean fill or select road base.
10. Demobilise from Area TO1, HP1 & BF1
11. Secure work area at HP5 & HP8 - Allow 14 Days for HP5 & HP8 Concrete to cure

1.4 Timing of the Works

Indicative timing and the sequence for each component is:

Excavate: Days 1- 8

- T01 and HP8
- HP5 and BF1
- HP1

Mechanical Modifications: Days 9- 18

- TO1
- HP8
- HP5
- BF1
- HP1

Civil Reinstatement: Days 19- 30

- HP1 – demobilise Day 22
- HP5 and HP8 – demobilise Day 30 after concrete curing is complete
- BF1– demobilise Day 22
- T01– demobilise Day 22

1.4.1 Commencement Date

The works will commence Monday 17th April 2023.

1.4.2 Duration of Works

The works are expected to take thirty-two (32) days. In the event of delays or adverse weather, the duration may extend.

1.4.3 Completion Date

Based on the commencement date of Monday 17th April 2023, the completion date shall be Friday 19th May 2023.

1.4.4 Hours of Work

Hours of Work shall be 06:30 – 18:00 seven days per week. The civil crew will commence the works and prepare for the mechanical crew. Handover to the mechanical crew will provide a shift change ensuring effective fatigue management for the civil crew. The civil crew shall take over again on completion of the mechanical works.

2. RESTRICTIONS TO AIRCRAFT OPERATIONS

2.1 General

Works are contained to Bay 1 on the RPT apron. Excavation and mechanical works are limited to occurring at the northern periphery of the apron where the Bay 1 hydrant lateral line ties into the hydrant header line.

Following the disconnection of this lateral from the hydrant header, the HP1 hydrant pit can is to be abandoned by grouting solid (refer Appendix B). This activity will be limited to half a day and will require possession of the aircraft standing position on Bay 1.

There will be no restriction to helicopter flight schedules arising from the works however varied arrangements for helicopter movements on the ground shall be established regarding:

- Taxiing pathways / routing from / to Runway 26 and 08
- Hold points on Taxiways C and D and approach paths to the passenger hot spot
- Aircraft and refueller standing positions on the southern margin of the apron for refuelling
- Movements across the heliport apron between the taxiways and hangars

2.2 Marking the Unserviceable Area

Unserviceability cone markers will be required to delineate the HP1 works area at the north-eastern periphery of the RPT apron at Bay 1 and when the hydrant pit can is grout filled (Bay 1 aircraft standing position).

Behind the unserviceability cone markers, temporary fence panels will demarcate the works area. Within the works area, water filled barriers shall delineate and protect the perimeter of open excavation.

Unserviceability cone markers will be required to delineate the two works areas on the Woodside / CHC Heliport Apron. Behind the unserviceability cone markers, temporary fence

panels will demarcate the works area. Within the works area, water filled barriers shall delineate and protect the perimeter of open excavation.

2.3 Works Limit Markers

The Contractor shall provide portable markings for all work area limits. The contractor shall provide enough cones and other work limit markers to ensure that the prescribed markings are installed for each stage of the work.

The Contractor shall protect and maintain the works limit markers in good condition throughout their use in the works. Where markers remain in place overnight, red eFlares are to be co-located with cones to ensure visibility in the dark hours.

All works limit cones for the identification of the limits of work areas are to be placed in accordance with the CASA MOS Part 139 as directed by the Works Safety Officer (WSO).

The Contractor shall maintain all works limit markers so that they are clearly visible and are in the required locations.

The Contractor shall ensure that all works limit markings are established at the start of each phase of the works and removed at the completion of each phase as required by the MOWP. The WSO shall ensure that the works limit markings are appropriate and always maintained.

2.4 Emergencies, Adverse Weather and Late Aircraft

Under certain emergency situations or in the event of adverse weather conditions, the works organisation may be denied access to the airside of the airport and to the work areas.

During these events, access will be determined on a case-by-case basis at the discretion of the Airport Operations Coordinator (AOC), and in the absence of the AOC, by the WSO.

2.5 NOTAMS

No NOTAMS will be issued for these works.

3. RESTRICTIONS TO WORKS ORGANISATION

3.1 General

The AOC has absolute authority to direct the Contractor on airfield operational requirements. This authority may be delegated to the Works Safety Officer (WSO) for the day-to-day monitoring and supervision of the works. The contractor shall comply with all instructions from the AOC, WSO, or designated representative, including an Aerodrome Reporting Officer (ARO).

Works in each stage will be confined to the areas shown in the Appendices B and C. The limits of the works areas are to be defined in accordance with MOS part 139.

The Works Organisation's site representative shall contact the WSO at least one (1) hour prior to the start of each working period to ascertain the status for the proposed work with respect to the operational requirements of the airport.

Prior to commencing each works period, the Works Organisation's personnel shall meet with the WSO to ensure that all parties including sub-contractors are aware of the working requirements and the work restrictions for each stage.

Smoking (including the use of vapes and eCigarettes) is not permitted airside, or within any Karratha Airport buildings. Designated smoking areas (if any) will be advised by the WSO at the contractor induction toolbox meetings.

3.2 Foreign Object Debris (FOD)

The Contractor is to ensure that all Foreign Object Debris (FOD) hazards are minimised throughout the works.

On completion of each workday, the Works Supervisor is to ensure the works area is made serviceable, including the removal of all FOD hazards, to the satisfaction of the WSO.

3.3 Prevention of Spills

The Contractor is to take every precaution to prevent any spillage of material on or in the vicinity of aircraft movement areas, or in transit to and from the work site. Any spillage which does occur is to be immediately removed by the Contractor to the satisfaction of the WSO.

3.4 Personnel

Prior to commencement of works, all contracted personnel are to have completed the Airside Safety Awareness Induction package through the AirDAT Passport system to the satisfaction of the AOC. Access to site will be refused for all personnel not completing this requirement.

Access to airside is restricted to personnel holding an Aviation Security Identity Card (ASIC) or a Visitor Identity Card (VIC). Personnel holding a VIC are to be always under the direct supervision of an ASIC holder. Personnel without appropriate airside access qualifications will not be allowed within the airside boundary.

All personnel associated with the work shall be bound by any instructions issued by the WSO, who may refuse access to persons likely, in his/her opinion, to compromise aircraft safety on the airfield.

When personnel and equipment are required to vacate aircraft movement areas, all directions of the WSO are to be followed immediately.

Any breaches of aviation safety by project personnel or airfield users must be reported to the WSO. The WSO is to initiate an immediate response in consultation with Karratha Airport. All incidents are to be reported in writing (preferably via AVCRM) to the AOC within two (2) working days of the incident.

3.5 Vehicles and Plant

No movement of vehicles or plant is to take place outside the works areas or access routes without the consent of the WSO. Only vehicles and plant engaged in the work shall be permitted at the work site. Private vehicles will not be permitted airside.

All vehicles entering the aerodrome must do so only via the allocated Vehicle Access Points (VAP). All vehicles are to be checked for FOD and loose materials prior to entering the airfield.

The vehicles entering the airport are to be in a roadworthy state. All vehicles shall comply with the requirements of MOS part 139.

At the end of each work period, all vehicles, plant, equipment, and materials are to be shut down and made secure within the works area or removed to landside and parked in a designated parking area.

Vehicles and self-propelled items of plant are to have an orange rotating warning light operating whenever they are within the airside movement area. Passenger vehicles not fitted with an orange rotating warning light shall activate hazard lights whenever they are in the airside movement area.

To enable aircraft operations at night, the lights from vehicles and any portable lighting systems engaged in night work must not dazzle or cause confusion to pilots. Vehicle light fittings should be checked to ensure that the lights are not directed unduly upwards and portable lights should be shielded as required. Drivers are to be briefed that, as a matter of course, high beam is not to be used.

Passenger vehicles and vehicles operating plant are to be equipped with a portable fire extinguisher.

3.6 Access to the Works and Security

Specific access routes to and from the works areas are detailed in Appendix C. Movement of vehicles, plant, and equipment must be confined to these routes to minimise tracking of dirt and debris onto aircraft movement area pavements and to prevent damage to airport lighting.

Access to and from the airfield for works on the Woodside heliport apron will be via the Non-Automatic Western Vehicle Gate beside the Woodside hangar (as also shown in Appendix C). Access for work on the RPT apron shall be via the Automatic Eastern Vehicle Gate (as shown in Appendix C). The Works Organisation will provide a suitably-rated padlock for the gate to provide dual access, which will be managed by the WSO. The gates are not to be left open unattended. If a gate is to remain open, a sentry holding a current red Aviation Security Identification Card (ASIC) must control and monitor any movements through the gate.

All personnel are to always display their valid ASIC or Airport issued Visitor Identity Card (VIC) on their person above the waist. Those personnel who only have a VIC are to be always accompanied by a red ASIC-holder while airside.

Personnel are only permitted to move about the designated work areas, and only using the designated access routes. Any person detected on the site outside these limits may be evicted from the site and denied return.

3.7 Works Limits

All works and the Works Organisation's plant, equipment, and personnel shall be confined to the areas directed by the WSO.

3.8 Foreign Object Debris / Damage (FOD) Control

The Contractor is to ensure that aircraft pavements used or crossed during the works are kept clean and free of debris. Any debris is to be immediately removed by the Contractor to the satisfaction of the WSO.

All loose material and equipment are to be secured against movement in strong winds or aircraft blast. The Contractor shall immediately respond to any direction by the WSO or Karratha Airport to eliminate any problem. The Contractor is responsible for implementing appropriate control measures.

On completion of each work period where airfield movement areas are required to be returned to active use, the Works Supervisor is to inspect the works area to ensure potentially affected aerodrome areas are made serviceable, including the removal of all FOD hazards, to the satisfaction of the WSO.

3.9 Protection of Electrical and Underground Services

The Works Organisation shall liaise with Karratha Airport to ensure that no subterranean services are disrupted during works. Where cable location is required, this is to be organised by the Works Organisation directly in consultation with Karratha Airport management.

Underground services such as fuel hydrant lines and fire mains shall be protected from damage by the Works Organisation. The works organisation shall ensure that any underground service is appropriately marked on the surface so that these restrictions may be enforced.

3.10 Other Restrictions

Measures shall be always taken to control dust or other nuisance materials and the Works Organisation shall immediately respond to any direction by the WSO to eliminate any identified problem.

Stockpiles and equipment parking must only be in designated areas as detailed in Appendix C.

Lights for general floodlighting of the area shall be shielded above the horizontal and not directed towards approaching aircraft. No lighting tower shall be located outside the limit of works area unless permitted by the WSO.

If required, Hot Works Permits (HWP) are to be obtained prior to any hot works commencing.

Toilet facilities are available in the Woodside hangar toilets and by arrangement with Karratha Airport for access to Terminal Meeting Room No. 3.

4. ADMINISTRATION

4.1 Works Organisation

The Works Organisation will be Viva Energy Australia. The Works Manager will be Ross Knight, who will be contactable on mobile number +61 419227102.

4.2 Airport Representative

The Airport representative for these works will be the Airport Operations Coordinator, Dan Coe. The AOC can be contacted via mobile phone on +61 417904053.

All questions concerning this MOWP are to be directed to the AOC.

4.3 Works Safety Officer

The Works Safety Officer will be Todd McLaren. The WSO can be contacted via mobile phone on +61 400732535.

A list of the WSOs duties and responsibilities are detailed at Appendix D.

4.4 Completion of Works

The WSO is to advise Karratha Airport when all works are completed.

4.5 Distribution

This MOWP is to be distributed to all outlined in the Distribution List detailed in Appendix A.

5. AUTHORITY

5.1 Issue

This Method of Working Plan is issued in accordance with Section 10.11 of MOS Part 139 – Aerodromes. All works must be carried out in accordance with the MOWP.

5.2 Variations from MOWP

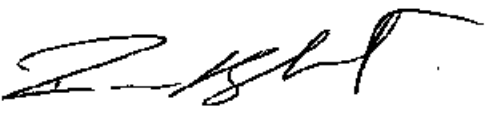
The approval of the Karratha Airport Operations Coordinator is to be obtained before any change is made to the MOWP. Any changes will be promulgated by reissuing the MOWP or by raising of an amendment to this MOWP.

5.3 Expiry Date


This MOWP is to remain in force until the conclusion of the works unless amended or reviewed by an amendment to this MOWP.

5.4 Signatures

5.4.1 Works Manager


Name	Ross Knight	Signature: 
Organisation	Viva Energy	
Date	22/03/2023	

5.4.2 Works Safety Officers

Name	Todd McLaren	Signature: 
Organisation	CPC Engineering Pty Ltd	
Date	22/03/2023	

Name	Luke Chambers	Signature: 
Organisation	CPC Engineering Pty Ltd	
Date	22/03/2023	

5.4.3 Airport Operations Coordinator

Name	Daniel Coe	Signature: 
Organisation	City of Karratha	
Date	22/03/2023	

5.4.4 Manager Airport

Name	Amol Virkar	Signature: 
Organisation	City of Karratha	
Date	22/03/2023	

6. APPENDICES

6.1 Appendix A - Distribution of MOWP

NAME	POSITION	COMPANY	EMAIL
Amol Virkar	Manager Airport	City of Karratha	amol.virkar@karratha.wa.gov.au
Dan Coe	Airport Operations Coordinator		daniel.coe@karratha.wa.gov.au
Sue O'Toole	Airport Terminal and Commercial Coordinator		airportservices@karratha.wa.gov.au
Matthew Bowles	Senior Airport Reporting Officer		matthew.bowles@karratha.wa.gov.au
Phillip Halligan	Airport Safety and Compliance Coordinator		phillip.halligan@karratha.wa.gov.au
Karratha Tower	Duty Controller	AirServices Australia	karratha.tower@airservicesaustralia.com
Duty ARFF	Airport Rescue Fire Fighting		_LG_ARDDS_WEST_KA@AirservicesAustralia.com
Ross Knight	Project Manager WA	Viva Energy	Ross.Knight@vivaenergy.com.au
Kirstie Looke	Project Manager WA – Supply Chain Engineering		Kirstie.Looke@vivaenergy.com.au
Aaron Bruhn	Project Reliability & Integrity Manager		aaron.bruhn@vivaenergy.com.au
Hugh Pearce-Wilson	Project Coordinator		hugh.pearce-wilson@vivaenergy.com.au
Todd McLaren	Works Safety Officer	CPC Engineering Pty Ltd	tmlclaren@cpceng.com.au
Luke Chambers	Works Safety Officer	Woodside	Luke.chambers@woodside.com.au
Karen Anstey	Service Delivery Manager		Karen.Anstey@woodside.com.au
Maria Coutinho	Admin Manager		Maria.Coutinho@chcheli.com

Continued...

NAME	POSITION	COMPANY	EMAIL
Vanessa Larsen	Aviation Coordinator	Woodside	vanessa.larson@woodside.com.au
Judy Andrews	Base Manager	CHC Helicopters	karratha-admin@chcheli.com
Ben Balchin	Operations Coordinator		karratha-bm@chcheli.com
	Base and Contract Manager	PHI International	ka92bcmsbp@phi-int.com
Nadia Bracknell	Operations Manager		nbracknell@phi-int.com
Dianne McKenney	Station Manager – Karratha Airport	Menzies Aviation	dianne.mckenney@menziesaviation.com
Candyce Alvarez	Station Manager – Karratha Airport	Northwest Aviation Services	opsmanager.ktaairport@nwas.net.au
Carl Poultney	Manager	Police Air Wing	carl.poultney@police.wa.gov.au
	Station Manager	Aspen Medical	managerkarratha@aspenmedical.com
	Duty Manager	RFDS WA	westops@rfdswa.com.au
Lauren Garcia	Operations / Admin Manager	Maroomba Aviation	admin@maroomba.com.au
Nadia Somers	Coordinator	Skippers Aviation	nadia.somers@skippers.com.au
Lorraine Cappleman	Base Manager and Operations Co-Ordinator	Aviair	karratha@aviair.com.au
Seb Walker-Magee	Senior Base Pilot		karratha@aviair.com.au
Max Marani	Chief Pilot	Maxem Aviation	max.marani@maxem.com.au
Dean Cash	Airport Security Contractor	MSS Security	karratha.airport@msssecurity.com.au
	Aerodromes Inspector – Karratha Airport Rep	CASA	aerodromes@casa.gov.au

6.2 Appendix B – Project Scopes

The works are to occur at one location on the RPT apron (Bay 1) and four locations on the Heliport apron.



Fig 6.2.1 Aerial View of Woodside Heliport and RPT Aprons at Karratha Airport

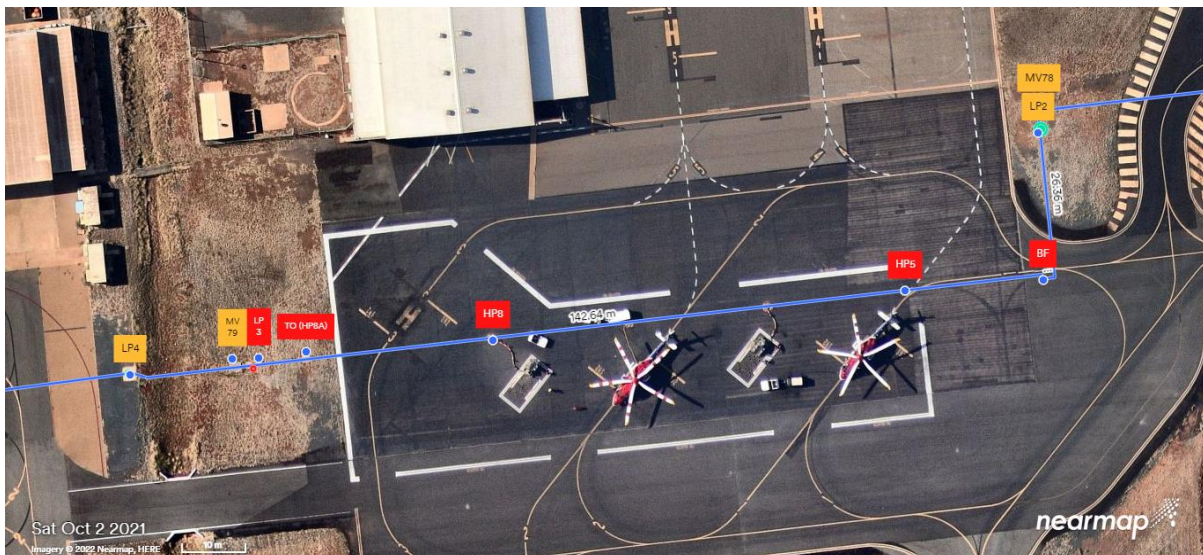


Fig 6.2.2 Heliport Apron Works Areas: Left to Right TO1, HP8, HP5, BF1

Heliport Apron Scope summary:

At each of four locations on the Heliport concrete apron, excavate to approximately 1.5m to expose hydrant pipeline. Apron concrete shall be removed by carrying out a series of wet cuts with a road saw to mitigate dust emissions. Slurry shall be captured with a wet vac; Apron concrete shall be loaded directly on to a truck as it is removed.

The location of BF1 was located by electronic detection and marked on the apron surface on 2nd March 2023. At this location granular pavement material beneath the concrete apron shall be removed by Non-Destructive Digging (i.e., by vacuum tanker “sucking” up the fill straight into the tanker truck) in order to pothole and “daylight” the hydrant line.

Excavation of the granular fill material shall then proceed using a small (e.g., up to 5T) excavator, loading directly into a truck. Spoil will not be stockpiled on the apron area to ensure FOD hazard does not occur.

The size of the excavation at each location shall be approximately 2.45m x 2.45m x 1.5m deep.

TO1: excavate to expose “T” junction fitting; cut “T” from header line and remove redundant *Take Off* point riser pipe; Insert a makeup pipe spool to render the hydrant header continuous. Remove surface pit can and reinstate natural ground.

HP5: excavate to expose “T” junction fitting on the hydrant line beneath HP5 riser; cut “T” from header line and remove riser pipe; Insert a makeup pipe spool to render the hydrant header continuous. Remove pit can and reinstate concrete apron.

HP8: expose riser pipe below existing pit can. Cut and replace riser pipe. Install replacement hydrant pit can and hydrant valve. Reinstate concrete apron. Recommission hydrant point.

BF1: excavate buried hydrant pipeline to expose 90 deg horizontal bend with flanged connections. Remove flanged fitting and replace with welded elbow fitting to remove the hazard of buried flange connections. Reinstate asphalt pavement.

RPT Apron Scope Summary:

HP1 hydrant point and intersection of lateral line with main hydrant header:

Generally:

- The location of HP1 tie into the main header was located by electronic detection and marked on the apron surface on 2nd March 2023.
- Excavate asphalt apron to create a 3.5m x 3.5m x 2m deep access pit to disconnect lateral line from supply header;
- Apron asphalt shall be removed by carrying out a series of wet cuts with a road saw to mitigate dust emissions. Slurry shall be captured with a wet vac; Apron asphalt

shall be loaded directly on to a truck as it is removed.

- Granular pavement material beneath the asphalt apron shall be removed by Non-Destructive Digging (i.e., by vacuum tanker “sucking” up the fill straight into the tanker truck) in order to pothole and “daylight” the hydrant line.
- Excavation of the granular fill material shall then proceed using a small excavator (e.g., up to 5T), loading directly into a truck. Spoil will not be stockpiled on the apron area to ensure FOD hazard does not occur.
- Remove branch “T” fitting and insert a makeup pipe spool to render the hydrant header continuous.
- Reinstate excavation and make good asphalt apron pavement.
- At extremity of the lateral line (aircraft standing position), abandon hydrant pit can by grout filling.



Fig 6.2.3 RPT Apron Works Areas:

Generally:

The work possession areas shall be demarcated with 2.1m high temporary fencing with shade cloth attached. The fencing shall be braced laterally and anchored with concrete mass weights. Within the work possession area, water filled jersey kerb barriers shall be placed interlocked around the perimeter of open excavations.

6.3 Appendix C – Project Work Limit Areas and Access Points

Heliport Apron Works:

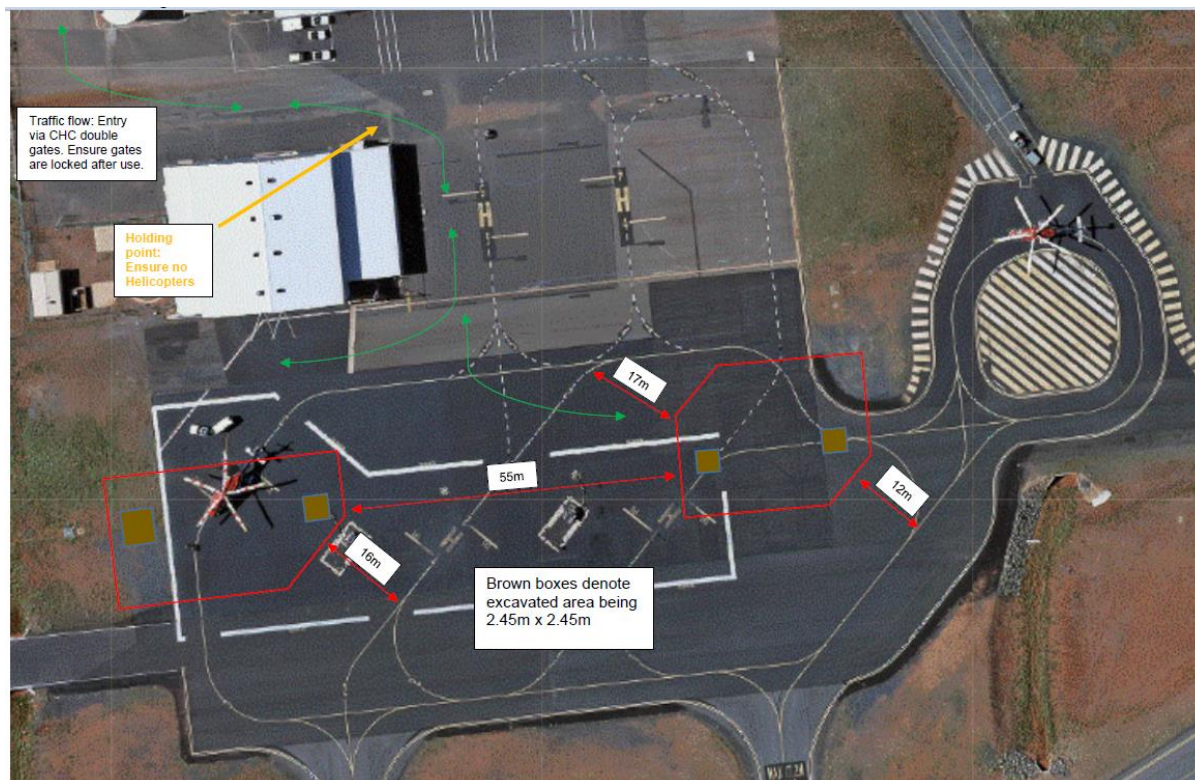


Figure 6.3.1 Heliport Apron Works Possession Area and Access Routes

Figure 6.3.1 indicates the intended work possession areas on the Heliport Apron. The four work locations are bundled in two pairs: TO1 / HP8 and HP5 / BF1.

The distance between the two areas and the separation distance from adjacent aircraft lead in lines is also shown in red.

The access routes to each work possession area from the Non-Automatic Western Vehicle Access Point (behind the CHC hangar) is shown in green.

The brown squares are the actual excavation areas contained within the work possession areas.

All personnel, plant and equipment shall remain contained within the work possession areas except when accessing or exiting the site area from / to landside. Stockpiles shall not be maintained airside – also refer section 6.2 Scope Summary pages 13-14.

The following three figures have been provided by CHC and indicate the proposed operating mode for the helicopters while the works on the Heliport Apron occur.

Start up positions.

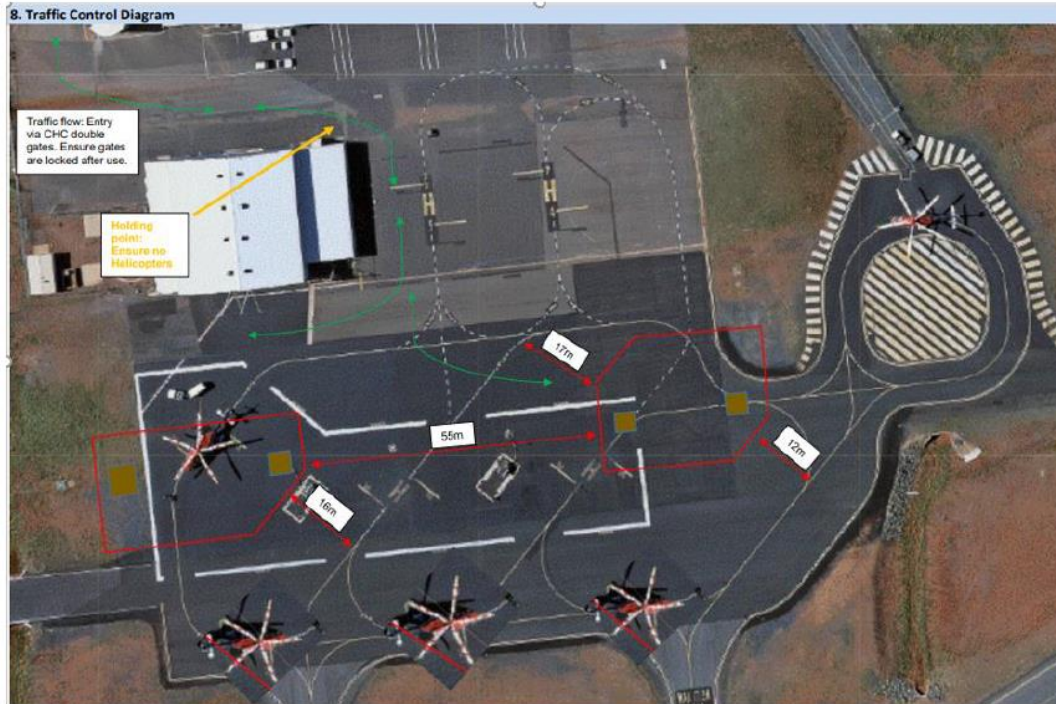


Fig 6.3.2 Helicopter Start Up Positions

Figure 6.3.2 depicts the three Helicopter start up and end of shift positions at the southern side of the Heliport concrete apron.

Helicopters will be towed from the northern hangars at the commencement of the day between the two works possession areas to the start up positions at the southern side of the heliport concrete apron.

They will be fuelled in this location before commencing their scheduled movements.

Once operational they will observe a movements pattern as per either Fig 6.3.3 or 6.3.4 depending on which runway is in use.

RWY 08 in use



Figure 6.3.3 Operations when Runway 08 in use.

Helicopters will wait at a hold point on Taxiway Delta until the refuelling position is available on the southern margin of the concrete apron. They will refuel or taxi to the hotspot for loading / unloading passengers. They will then exit from either the refuelling point or the hotspot via Taxiway Charlie thereby maintaining a clockwise movements direction.

RWY 26 in use

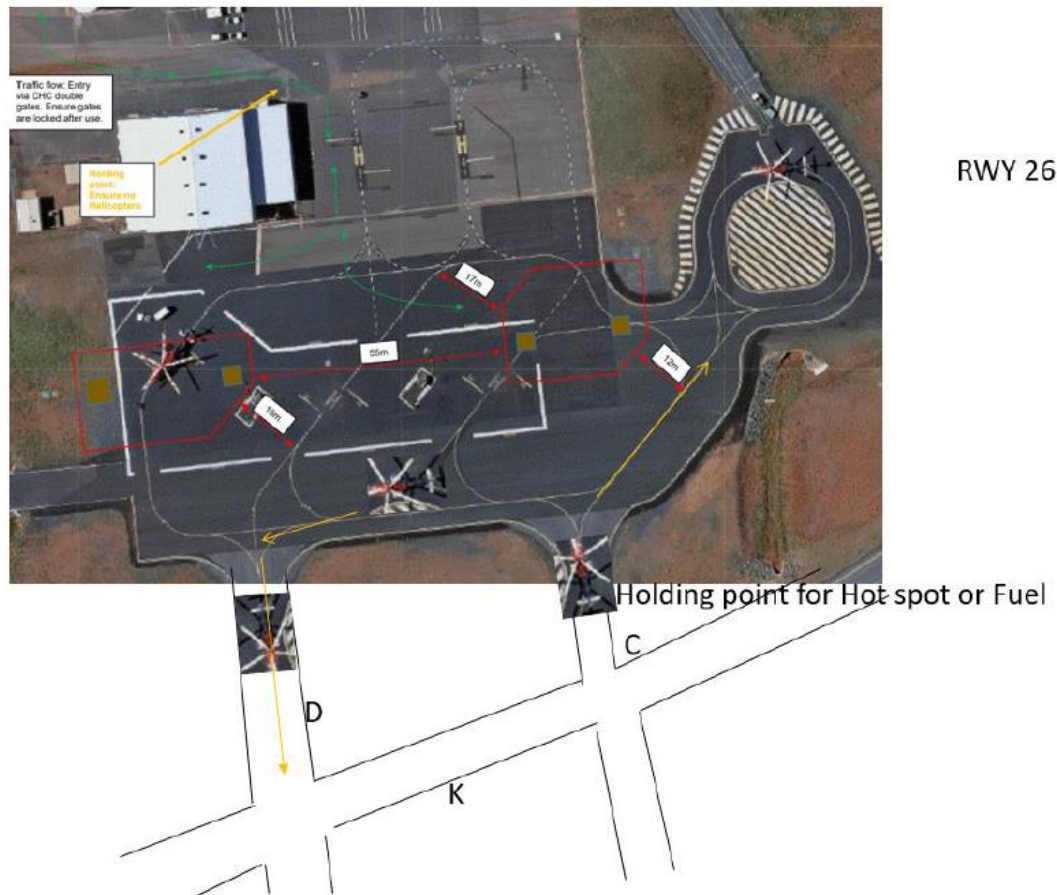


Figure 6.3.4 Operations when Runway 26 in use.

Helicopters will wait at a hold point on Taxiway Charlie until the refuelling position is available on the southern margin of the concrete apron. They will proceed to refuel (turn left) or taxi to the hotspot (turn right) for loading / unloading passengers. They will then exit from either the refuelling point or the hotspot via Taxiway Delta thereby maintaining a counterclockwise movements direction.

Refuelling Truck and Trailer positions

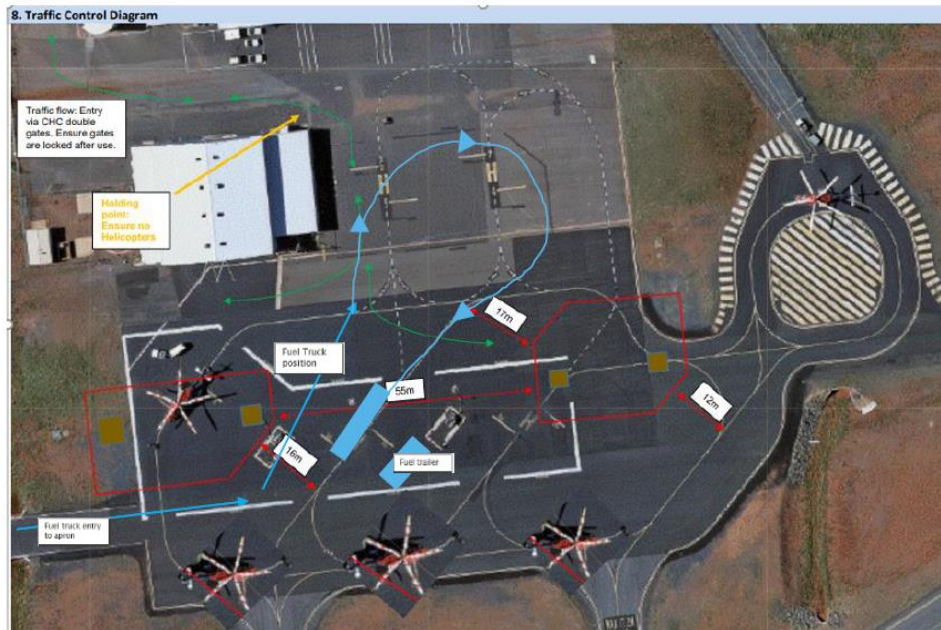


Figure 6.3.5 RPT Refuelling Truck and Trailer Positions and Access Routes

For the duration of the period for which the fuel hydrant is off-line, refuelling of aircraft on the heliport apron will occur directly from an Aviation Refueller Tanker, when "hot fuelling" is required, this will be carried out by the Helicopter operators, drawing fuel from a temporary fuel trailer positioned as shown in the image above. The fuel trailer shall be replenished as required. The blue arrows indicate the access route to be used by the refueller tanker to replenish the fuel trailer.

RPT Apron Works

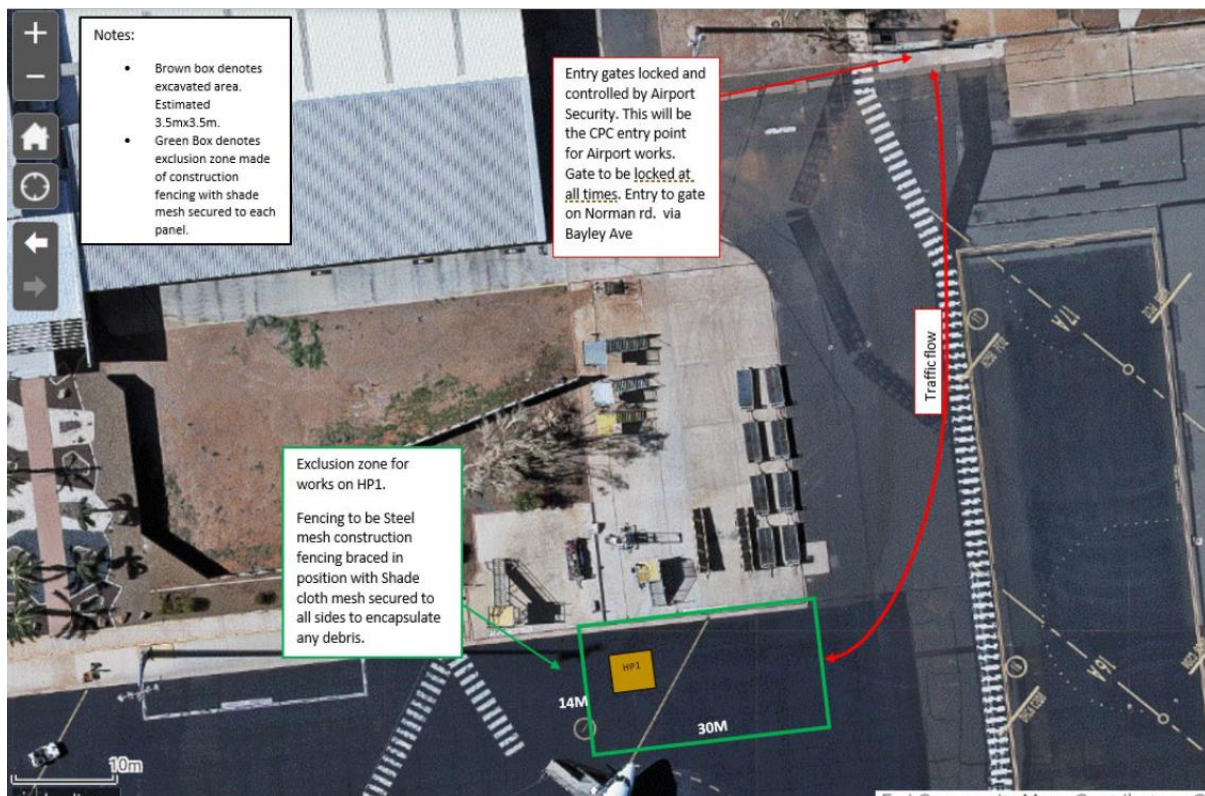


Figure 6.3.6 RPT Apron Works - Possession Area and Access Route

Figure 6.3.6 depicts the works possession area (30m x 14m) for the work on HP1 on the RPT Apron (Bay 1).

6.4 Appendix D – Work Safety Officers (WSO) Responsibilities

The Works Safety Officer is responsible for ensuring that the works, insofar as they affect the safe operation of aircraft, are conducted in accordance with MOS Part 139 - Aerodromes, CASA directions related to aerodrome works, and this MOWP.

In particular, the Works Safety Officer shall:

- Ensure the safety of aircraft operations in accordance with the standards for aerodrome works and this MOWP.
- Ensure that, where applicable, the aerodrome works are notified by issue of a NOTAM and that the text of each NOTAM is as set out in the MOWP prior to works commencing on site.
- Initiating and cancelling work related NOTAMS in consultation with the Airport.
- Discuss with the works organisation daily any matters necessary to ensure the safety of aircraft operations.
- Brief the Contractor's Works Manager, staff and sub-contractors on the safety precautions required during the works. The brief is to include but not limited to conditions likely to affect the conduct of the works such as:
 - weather,
 - other NOTAM airfield activities,
 - work site evacuation procedures including the signal to be employed.
- Ensure that unserviceable portions of the movement area, temporary obstructions and the limits of the works are correctly marked and lit in accordance with MOS 139 and the MOWP.
- Ensure that the vehicles, plant, and equipment carrying out aerodrome works are properly marked and lit or are under WSO supervision or within the properly marked and lit works area.
- Ensure that all other requirements of the directions and MOWP relating to vehicles, plant, equipment, and materials are complied with.
- Ensure that access routes to work areas are in accordance with the MOWP and clearly identified and that access is restricted to these routes.
- Ensure that excavation is carried out in accordance with the MOWP and to avoid damage or loss of calibration to any underground power.
- Report immediately to the Airport any incident, or damage to facilities, likely to affect air traffic control services or the safety of aircraft.

- Remain on duty at the works area while work is in progress.
- Immediately remove vehicles, plant, and personnel from the movement area where necessary to ensure the safety of aircraft operations and/or works personnel at conclusion of daily works.
- Ensure that the movement area is safe for normal aircraft operations on completion of the work following removal of vehicles, plant, equipment, and personnel from the works area.
- Ensure that floodlighting or any other lighting required for carrying out aerodrome works is shielded so as not to represent a hazard to aircraft operations.
- Carrying out WSO duties in accordance with the requirements as stipulated in MOS Part 139 Section 10.12.
- The WSO must be always present while the work is in progress.
- The WSO will be responsible for providing liaison between Works Organisation and all airport authorities including Air Traffic Control and airline operators, and for enforcing the safety requirements of this document.

6.5 Appendix E – Operations Continuation Plan

It is expected that the Hydrant Modification works prioritise heliport operations scheduled by CHC. As the Hydrant works and heliport operations are to be concurrent, this plan outlines how aircraft movements and ground works will be managed and maintained:

1. On notification that aircraft are to be towed to or from the CHC hangars, any intended vehicle, plant or personnel movements between the works area (as delineated by temporary fencing) and a Vehicle Access Point (VAP) is to be deferred until such time as the aircraft has been towed to or from the hangar and the aircraft standing area at the southern edge of the heliport apron (adjacent to the entrances to Taxiways Delta and Charlie) as depicted as the Start Up Positions on Figure 6.3.2.
2. CPC shall maintain communications with CHC to actively ensure that all aircraft movements are not impeded (e.g., by works, plant or vehicle). UNDER NO CIRCUMSTANCES are unsterile personnel to interact with passengers or flight crew on the apron. It is the responsibility of the WSO to actively ensure this.
3. All portable hand tool and power tools are to remain within the demarcated work areas or be secured, within vehicles or within site boxes when moving between the work areas and the VAP.
4. A physical barrier is to be erected and maintained around any active work zones to ensure that no unauthorised individuals may access the works area, and to prevent passengers tripping on the uneven surfaces. Physical barriers and equipment are to be secured and maintained accurately in the approved position so as not to affect the taxi path of the aircraft or become a hazard in jet-wash.
5. All works personnel are to remain within the demarcated work area or remain at the landside areas during proximate aircraft movements.
6. These measures are to remain in force until the aircraft has departed the airfield to ensure that there is no obstruction to the aircraft if it is required to return to the bay.
7. Access between the works area and the VAP will not be released to the Works Organisation until the WSO is satisfied that the movement can resume without operational or safety risk.

6.6 Appendix F – RPT Flight Movements Parking Schedule

Below is the parking allocation for RPT flights during the works period. These parking locations have been agreed to by the station managers for each Ground Handling Agent (GHA). Aircraft are to be parked on the primary bay as indicated. In the event of a conflict / delay, aircraft are to park in the alternate bay as indicated.

All divert aircraft are to be directed to park on bay 6, or bay 5 if bay 6 is occupied.

Any deviations to the below parking plan are to be discussed with the AOC, or in their absence, the Duty ARO.

Note: Bay 4 is not suited to B737 aircraft. The schedule is correct at time of publication but may be subject to change at any time without prior notification.

Flt No	Flt Type	From	Time	Pri Bay	Sec Bay	Flt No	To	Time	A/C Type
MONDAY									
QF1212	RPT	Perth	0715	2		QF1213	Perth	0800	737
QF1826	RPT	Perth	0815	4	8	QF1827	Perth	0900	A320
VA1723	RPT	Perth	0850	3		VA1724	Perth	0940	A320
QF1828	RPT	Perth	0915	2	6	QF1829	Perth	1000	A320
QF1830	RPT	Perth	1245	2		QF1831	Perth	1330	A320
QF1832	RPT	Perth	1515	2		QF1833	Perth	1600	A320
VA1727	RPT	Perth	1550	3		VA1728	Perth	1630	A320
QF1836	RPT	Perth	1815	2		QF1837	Perth	1900	A320

TUESDAY									
QF1212	RPT	Perth	0715	2		QF1213	Perth	0800	737
VA9471	CHRT	Perth	0800	4		VA9470	Perth	0900	A320
QF1214	RPT	Perth	0815	2	6	QF1215	Perth	0915	737
VA1723	RPT	Perth	0850	3	5	VA1724	Perth	0940	737
QF1830	RPT	Perth	1245	2		QF8131	Perth	1330	A320
QF1832	RPT	Perth	1515	2		QF1833	Perth	1555	F100
VA1729	RPT	Perth	1705	3		VA1730	Perth	1745	F100
VA9447	CHRT	Perth	1805	4		VA9446	Perth	1845	F100
QF1836	RPT	Perth	1815	2		QF1837	Perth	1930	A320

Flt No	Flt Type	From	Time	Pri Bay	Sec Bay	Flt No	To	Time	A/C Type
WEDNESDAY									
QF1824	RPT	Perth	0715	2		QF1825	Perth	0800	A320
QF1826	RPT	Perth	0815	2	4	QF1827	Perth	0900	A320
VA1723	RPT	Perth	0850	3		VA1724	Perth	0940	737
QF1828	RPT	Perth	0915	2	4	QF1829	Perth	1000	A320
QF2902	CHRT	Solomon	0930	8		QF2903	Solomon	1005	F100
QF1830	RPT	Perth	1245	2		QF1831	Perth	1330	A320
QF1220	RPT	Perth	1515	2		QF1221	Perth	1600	737
VA1727	RPT	Perth	1550	3		VA1728	Perth	1630	737
QF1836	RPT	Perth	1815	2		QF1837	Perth	1900	A320

THURSDAY									
QF1824	RPT	Perth	0715	2		QF1825	Perth	0800	A320
QF1826	RPT	Perth	0815	2	4	QF1827	Perth	0900	F100
VA1723	RPT	Perth	0850	3		VA1724	Perth	0940	737
QF1830	RPT	Perth	1250	2		QF1831	Perth	1330	A320
QF1832	RPT	Perth	1515	2		QF1833	Perth	1600	F100
VA1727	RPT	Perth	1550	3		VA1728	Perth	1630	F100
QF1836	RPT	Perth	1815	2		QF1837	Perth	1900	A320

FRIDAY									
QF1824	RPT	Perth	0715	2		QF1825	Perth	0800	A320
QF1214	RPT	Perth	0815	2	3	QF1215	Perth	0900	737
VA1723	RPT	Perth	0850	4		VA1724	Perth	0940	A320
QF1830	RPT	Perth	1245	2		QF1831	Perth	1330	A320
QF1832	RPT	Perth	1515	2		QF1833	Perth	1600	A320
VA1727	RPT	Perth	1550	3		VA1728	Perth	1630	F100
QF1834	RPT	Perth	1615	2		QF1835	Perth	1700	A320
QF1836	RPT	Perth	1815	2		QF1837	Perth	1900	F100

SATURDAY									
VA1723	RPT	Perth	0850	3		VA1724	Perth	0940	737
QF1828	RPT	Perth	0915	2		QF1829	Perth	1000	A320
QF1834	RPT	Perth	1615	2		QF1835	Perth	1700	A320

SUNDAY									
QF1832	RPT	Perth	1515	2		QF1833	Perth	1600	A320
VA1727	RPT	Perth	1550	3		VA1728	Perth	1625	A320
QF1836	RPT	Perth	1815	2		QF1837	Perth	1900	A320

6.7 Appendix G – List of Abbreviations

This table details the abbreviations used throughout this document.

AIRDAT	AIRDAT (Company)	HWP	Hot Works Permit
AOC	Airport Operations Coordinator	KTA	Karratha Airport
ARFF	Aviation Rescue Fire Fighting	LTD	Limited
ARO	Aerodrome Reporting Officer	MOS	Manual of Standards
ASIC	Aviation Security Identity Card	MOWP	Method of Working Plan
AVCRM	Aviation Compliance and Risk Management (Software)	MSS	MSS Security (Company)
AvTur	Aviation Turbine Fuel	NOTAM	Notice to Airman
CASA	Civil Aviation Safety Authority	Pri	Primary
CHC	CHC Helicopter (Company)	PTY	Proprietary
CHRT	Charter (Flight)	RFDS	Royal Flying Doctors Service
Flt	Flight	RPT	Regular Passenger Transport
FOD	Foreign Object Debris / Damage	Sec	Secondary
GHA	Ground Handling Agent	VAP	Vehicle Access Point
GSE	Ground Servicing equipment	VIC	Visitor Identity Card
HNZ	Helicopters New Zealand Ltd	WSO	Works Safety Officer