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DEPARTMENT OF DEFENCE

AERODROME METHOD OF WORKING PLAN (MOWP)

AERODROME

RAAF BASE RICHMOND (YSRI)

**PROJECT
DESCRIPTION**

**P0010 - National Airfield Works at RAAF RICHMOND - RWY
10/28 - Main Project Works - Return to Service (Night Shift)**

IMPORTANT DATES

Approval of MOWP

Commencement of Works

Completion of Works

Expiry of MOWP

28/10/2024

15/10/2025

28/10/2025

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1. WORKS INFORMATION

1.1 Description of Works

The works to be completed under this Method of Working Plan (MOWP) comprises of the following key construction activities:

- Setup survey controls;
- Service locating and potholing;
- Treat service clashes;
- Profile inlay patch and place asphalt base layer to the existing levels;
- Place asphalt reinforcing grid;
- Profile RWY 10/28 and place base layers and wearing course to the full width;
- Texturing and tacking existing layer on RWY10/28 wearing course;
- Removing and reinstating of existing RWY 10/28 elevated edge lights and lead in/lead out inset lighting;
- Removing and reinstating of existing TWYC and TWYD inset lights
- Construct new drainage line across TWYC and TWYD, including laying pipes and installation of pits;
- Construct new pavement on TWYC and TWYD;
- Demolish existing AGL footings and redundant signage;
- Install pit and duct network for new AGL lighting;
- Install new MAG, TACAN Signs and IWDI's;
- Demolish redundant concrete footings and reinstate with fill along Airfield.
- Asphalt profiling and placement of new asphalt on RWY10 and RWY28 blast pavement
- Removing existing payment on TWYC and TWYD RWY strip;
- Grooving of RWY 10/28;
- Pavement line marking;
- Flank works on RWY 10/28, TWYD and TWYX - OLA;

1.2 Scope of works

The works will be carried out in the following sequence:

- **Phase 1 - CH 2342 to 391.4 for the runway inlay works.** This work will advance generally from east to west with some staging works for TWYC and TWYD AGL. This phase is now complete
- **Phase 2 - CH 2342 to 391.4 for corrector course .** This work will advance generally from east to west with some staging works required for TWYC
- **Phase 3 - CH 2342 to 391.4 for wearing course.** This work will advance generally from east to west with some staging works required for TWYD.

1.2.1 Staging of the Construction works

Figure 1 outlines the area and scope of works to be undertaken on Phase 1 of the construction works (asphalt inlay works).

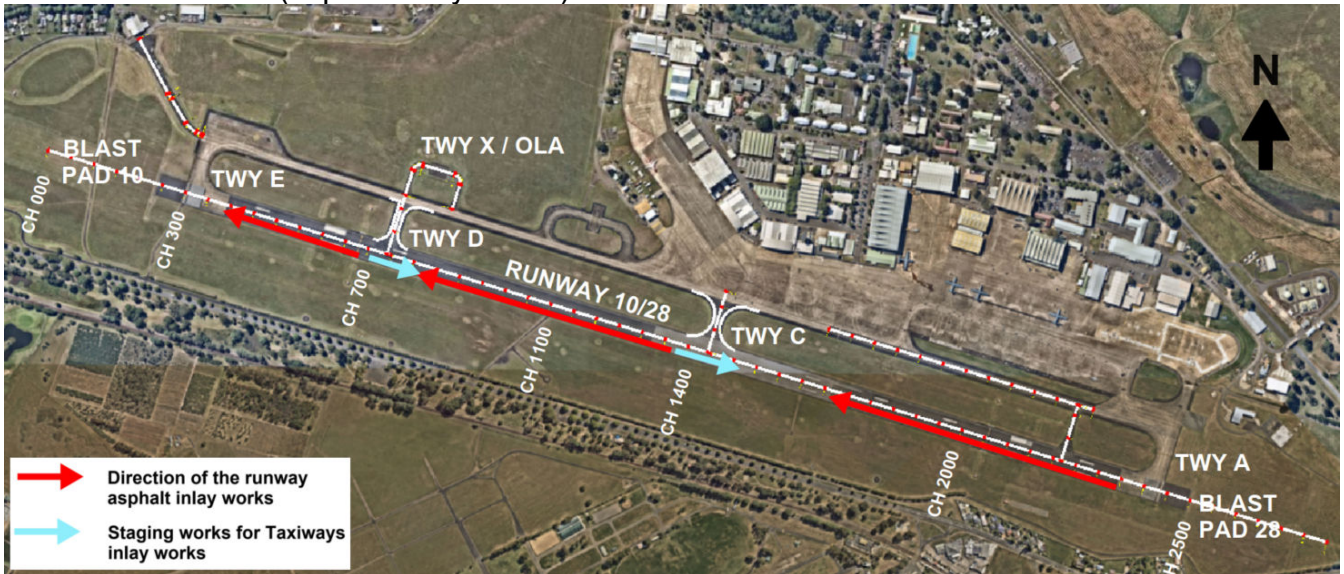


Figure 1 - Phase 1 works

Figure 2 outlines the area and scope of works to be undertaken on Phase 2 (Corrector Course) and Phase 3 (Wearing Course) of the construction works. Directions are general only and may be changed due to operational requirements.

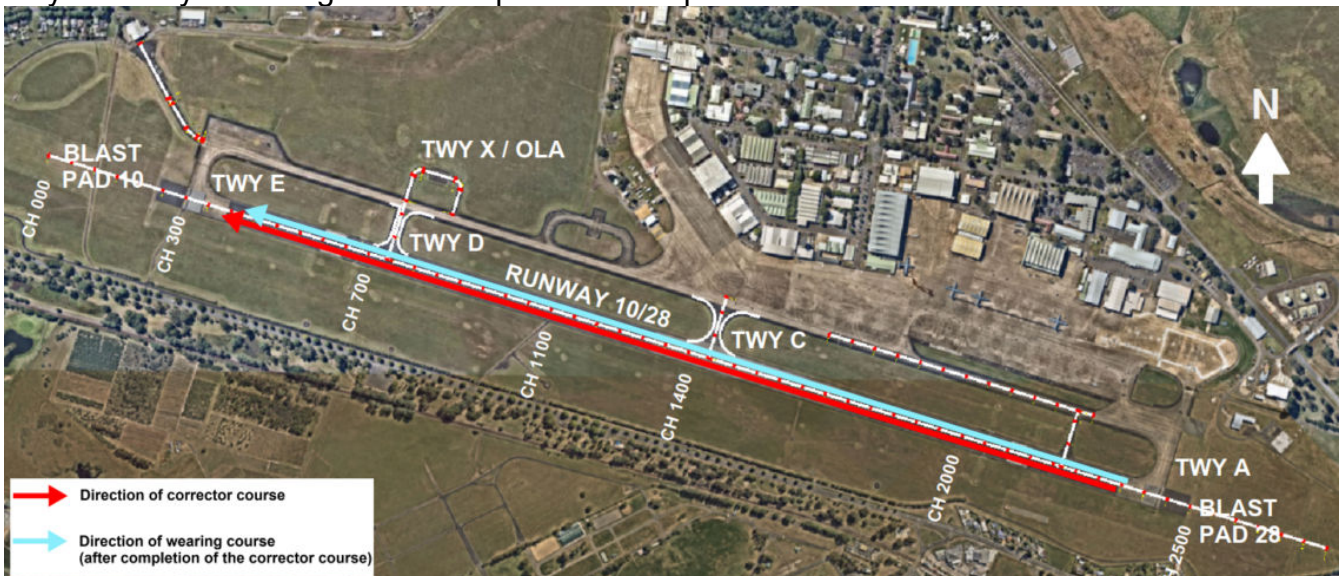


Figure 2 - Phase 2 (red) (Corrector Course) and Phase 3 (blue) (Wearing Course) works

1.2.2 Sequence of Phase 1 Construction works

Enabling works

- Services Investigation
- Placement/removal of aerodrome markers including unserviceability cones
- Decommissioning and removal of inset runway lead in / lead out light, centreline lights and hold point lights at both TWYC and TWYD
- Placement of suitable temporary lights where required including temporary elevated blue edge lights on TWYD.
- Conversion of existing Elevated Runway edge lights on RWY10/28 to be on a temporary base to enable them to be moved out of the way of profiling and paving activities during Phases 2 and 3

Pavement works - Runway 10/28

The following works will be completed as part of the pavement works:

- Profile and remove existing asphalt to the existing cement treated base layer for the inlay patch type 1 pavement profile on RWY 10/28 (central half) from chainage 391.4 to 1600 and from 2100 to 2342.2;
- Prepare surface and place multiple layers of asphalt base layer to match existing asphalt levels including installation of asphalt reinforcing grid from chainage 391.4 to 1600 and from 2100 to 2342.2;
- Restore impacted white line marking

1.2.3 Location and Duration of Work Stages from Phase 1

Works are completed.

If required due to programme slippage, super weekends can be made available subject to 2 weeks' prior notice and SADFO approval.

Phase 1 - Durations

Item	Work Activity	Start	Finish	Aircraft Restrictions
1	RWY 10/28 Asphalt works	12-Nov-24	31-Jan-25	*RWY 10/28 unavailable between 2000 - 0800, Sunday to Thursday, No recall.
2	AGL Works	6-Jan-25	25-Jan-25	
3	TWYC Closure	12-Jan-25	21-Apr-25	*TWY C unavailable

1.2.4 Sequence of Phase 2 Construction works

Enabling works

- Services Investigation
- Relocate elevated runway edge lights affected by the shift into the grass. (Made temporary in Phase 1)

Pavement works - Runway 10/28

The following works will be completed as part of the pavement works:

- Profile and texture asphalt for the wearing course (full width of the pavement);
- Place intermediate layer of asphalt at full runway width, including transverse ramps at the end of the shift at 1% gradient to ensure MOS139 Compliance.

End of Shift

- Reinstate temporary white pavement marking at the end of each shift;
- Reinstate and re-aim elevated runway edge lights affected by the shift. Fix with screws into asphalt.

Taxiway C

The following works will be completed as part of the pavement works:

- Demolish Taxiway Pavement
- Replace existing stormwater drainage
- Prepare surface and place multiple layers of granular pavement materials
- Place asphalt base layer / wearing course to match existing asphalt levels including installation of asphalt reinforcing grid

Further Detail is provided in Annex D.

1.2.5 Location and Duration of Work Stages from Phase 2

All works will be conducted between 2000 and 0800 Sunday to Thursday (shift commencing) unless prior approval is obtained from Defence to suit operational requirements.

The BAEO will provide 2 weeks' notice for any night flying (nominally Wednesday or Thursday nights for No. 37 SQN), for which a temporary displacement may be installed in order to recover aircraft prior to 2200 (by exception and prior arrangement only). Unscheduled late arrivals may be accommodated at the discretion of the Contractor.

An extension of a shift finishing time could occur on a case-by-case basis with prior agreement and approval by Base and depending on operational requirements.

Further negotiations required with Base to deconflict with Base Operations (including military exercises and night flying) for the specified dates within the MOWP.

If required due to programme slippage, super weekends can be made available subject to 2 weeks' prior notice and SADFO approval.

Dates shown below assume an allowance for effects of inclement weather based on historical weather data and our experience at the base so far, as well as negligible affects on shifts due to exercises.

Item	Work Activity	Start	Finish	Restrictions to Aircraft Operations
1	RWY 10/28 Asphalt works (Corrector)	1 Feb-25	17 Mar-25	RWY 10/28 unavailable between 2000 - 0800 Sunday to Thursday, no recall.
2	TWY C Drainage Works	4 Mar-25	11 Apr-25	
3	TWY C Asphalt works	4 Apr-25	7 Apr-25	TWY C unavailable 12/01/25 - 22/4/25
4	TWY C Line marking and reinstate AGL	8 Apr-25	22 Apr - 25	
				Runway shutdown 2000 14 March 2025 to 2000 16 March 2025 for TWYC drainage works
				Runway Shutdown 2000 4 April 2025 to 2000 6 April 2025 for TWY Pavement works (RWY Strip)

1.2.6 Sequence of Phase 3 Construction works

Enabling Works

- Services Investigation
- Relocate elevated runway edge lights affected by the shift into the grass. (Made temporary in Phase 1)

Pavement works - Runway 10/28

- Texture asphalt for the wearing course to full width of the pavement;
- Place final layer of asphalt at full runway width, including transverse ramps at the end of the shift at 1% gradient to ensure M0S139 Compliance;
- Profile existing and place new asphalt for the asphalt shoulders from chainage 2342.20 to 2433.60 (28THR) and chainage 391.4 - 300 (10THR);
- Reinstate permanent pavement marking at the end of each shift (Coat 1);

End of Shift

- Flanking works on the shoulders each shift as per design - raising soil to match new asphalt levels;
- Reinstate permanent white pavement marking at the end of each shift (Coat 2);
- Reinstate and re-aim elevated runway edge lights affected by the shift. Fix with screws into asphalt.

Finishing Works

- Pavement grooving and clean up
- Reinstate final pavement marking (Yellow and White)

Aeronautical Ground Lighting (AGL)

Post asphalt works:

- Inset lead in / lead out lights to be reinstalled
- Elevated runway edge lights to be mounted onto permanent footings once constructed
- MAGs and TACAN foundations to be constructed
- MAGs and TACAN signs to be installed

Taxiway D

The following works will be completed as part of the pavement works, similar to TWYC details provided in Annex D:

- Demolish Taxiway Pavement



- Replace existing stormwater drainage (Line 3 and 4)
- Prepare surface and place multiple layers of granular pavement materials
- Place asphalt base layer / wearing course to match existing asphalt levels including installation of asphalt reinforcing grid

1.2.7 Location and Duration of Work Stages from Phase 3

All works will be conducted between 2000 and 0800 Sunday to Thursday (shift commencing) unless prior approval is obtained from Defence to suit operational requirements.

The BAEO will provide 2 weeks' notice for any night flying (nominally Wednesday or Thursday nights for No. 37 SQN), for which a temporary displacement may be installed in order to retrieve aircraft prior to 2200 (by exception and prior arrangement only). Unscheduled late arrivals may be accommodated at the discretion of the Contractor.

An extension of a shift finishing time could occur on a case-by-case basis with prior agreement and approval by Base and depending on operational requirements.

Further negotiations required with Base to deconflict with Base Operations (including military exercises and night flying) for the specified dates within the MOWP.

If required due to programme slippage, super weekends can be made available subject to 2 weeks' prior notice and SADFO approval.

Dates shown below assume an allowance for effects of inclement weather based on historical weather data and our experience at the base so far, as well as negligible affects on shifts due to exercises

Item	Work Activity	Start	Finish	Restrictions to Aircraft Operations
1	RWY 10/28 Asphalt works (Wearing Course)	18-Mar-25	16-Apr-25	RWY 10/28 unavailable between 2000 - 0800, Sunday to Thursday. No recall during wearing course works.
2	TWY D Drainage Works	27-Apr-25	30-May-25	
3	TWY D Asphalt works	7-May-25	30-Jun-25	TWY C unavailable 12/01/2025 - 22/4/25
5	AGL Works	9-Jun-25	22-Aug-25	
6	Flank works	18-Mar-25	24-Apr-25	TWY D unavailable 22/04/25 - 7/7/25 TWY D to be reconstructed under one of four options: 1. RWY10 Displacement, 2. Two RWY shut down "super" weekends, (similar to TWYC drainage works), 3. One RWY Shut down "super" weekend with partial TWYZ west of TWYD closure, or
7	Finishing works	11-Jun-25	8-Aug-25	

				<p>4. Hybrid of these solutions</p> <p>Grooving to commence 56days post wearing course asphalt. Smooth runway surface until completion (approx. 40No shifts)</p> <p>Final pavement marking over grooved surface</p>
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Timing

Time of Completion

The specific work activities are commenced on **28/10/2024** and be substantially completed by **15/10/2025** for a total construction period of approximately **50** weeks with allowance for inclement weather. The actual date and time of commencement will be advised by a NOTAM, to be issued not less than 48 hours before work commences. The WSO will be present at all times during work on airside locations.

Dates assume negligible impact from exercises. This needs to be re-assessed when further information is available and flight programs confirmed.

Activities will occur mainly during night shifts (Sunday to Thursday). Typically, 5 night shifts per week. A six week look ahead program will be distributed weekly to the BAEO / BASO.

Co-ordination and liaising with other Subcontractors carrying out work on the Base is to be communicated daily to minimise clashing of work activities and respective closures. The Contractor will assign a resource dedicated to directly manage coordination and subsequent security applications to ensure Defence have a single point of contact throughout the works.

Stand down periods

The following stand down periods are expected on the project:

- 28 Feb 2025 to 3 Mar 2025 (Inclusive)
- 18 Apr 2025 to 25 Apr 2025 (inclusive - To be Confirmed and based on progress)

The Contractor point of contact for the stand down period will be as noted on Table 4.7 for the Contractor Works Manager.

2. RESTRICTIONS TO AIRCRAFT OPERATIONS

2.0 General

The works have been planned to minimise the impacts to Defence and Rural Fire Service (RFS) operations. The Contractor will install adequately secured, temporary aerodrome markers and lighting where required IAW MOS 139 requirements for movement surface closures to ensure works and aerodrome user safety as per section 3.5.

2.1 Affected Aircraft Types

All aircraft affected during night works and weekend shutdown works.

2.2. Work Stages

The works will be split into three phases.

1. Phase 1 - Structural repairs
 - a. RWY 10/28 unavailable between 2000 - 0800, Sunday to Thursday, No recall.
 - b. TWY C unavailable
2. Phase 2 - Corrector Course
 - a. RWY 10/28 unavailable between 2000 - 0800 Sunday to Thursday, no recall.
 - b. TWY C unavailable 12/01/25 - 22/4/25
 - c. Runway shutdown 2000 14 March 2025 to 2000 16 March 2025 for TWYC drainage works. High Priority flights can land with prior approval from ABOC and 60 minutes prior notice.
 - d. Runway Shutdown 2000 4 April 2025 to 2000 6 April 2025 for TWY Pavement works (RWY Strip) - no landings will be permitted.
3. Phase 3 - Wearing Course
 - a. RWY 10/28 unavailable between 2000 - 0800, Sunday to Thursday. No recall during wearing course works.
 - b. TWY C unavailable 12/01/2025 - 22/4/25
 - c. TWY D unavailable 22/04/25 - 7/7/25
 - i. TWY D to be reconstructed under one of four options:
 1. RWY10 Displacement,
 2. Two RWY shut down "super" weekends, (similar to TWYC drainage works),
 3. One RWY Shut down "super" weekend with partial TWYZ west of TWYD closure, or
 4. Hybrid of these solutions
 - d. Grooving to commence 56days post wearing course asphalt. Smooth runway surface until completion of grooving (approx. 40No shifts)
 - e. Final pavement marking will occur over grooved surface

2.3 Restrictions to Project Operations During Foreign Military Exercises

2.3.1 Foreign Military 1 Night Flying

Due to Military flying, works start will commence at 2200 local time on:

- a. Sunday 30 March 2025
- b. Monday 31 March 2025
- c. Tuesday 1 April 2025
- d. Wednesday 2 April 2025
- e. Thursday 3 April 2025
- f. Monday 7 April 2025
- g. Tuesday 8 April 2025

2.3.2 Foreign Military 2 Night Flying

Due to Military flying, works start will commence at 2100 local time on:

- a. Wednesday 30 April 2025
- b. Thursday 1 May 2025
- c. Monday 5 May 2025
- d. Tuesday 6 May 2025
- e. Wednesday 7 May 2025
- f. Tuesday 20 May 2025
- g. Thursday 22 May 2025
- h. *Friday 23 May 2025*
- i. Tuesday 27 May 2025
- j. Wednesday 28 May 2025
- k. Thursday 29 May 2025

Military flying is scheduled, but is not anticipated to impact works commencement at 2000 local time, on:

- a. *Friday 2 May 2025*
- b. Monday 12 May 2025
- c. Tuesday 13 May 2025
- d. Wednesday 14 May 2025
- e. Monday 19 May 2025
- f. Wednesday 21 May 2025

2.4 Declared Emergencies and Adverse Weather

Under the direction of Air Traffic Control (ATC), Fire Controller or the RAAF Base Richmond Airbase Operations Centre (ABOC), the Works Safety Officer (WSO) is responsible for instructing the works contractor to vacate the work in the event of a declared emergency.

If time permits, ATC will advise the WSO the minimum time allowable to restore the airfield movement areas to operational condition. The WSO, in consultation with the Works Contractor, will then advise ATC whether restoration of the airfield movement areas is *possible or not possible*

Outside ATC hours, the WSO will contact Richmond Base 22SQN Fire Section (through contact at Section 4.7) and advise the status of the works area and the ability for it to be made available for declared aircraft emergencies.

In the event of an emergency all personnel and equipment will vacate the airfield movement areas under the direction of ATC or the Fire Controller on SMCV 121.65 MHz or CTAF 135.5MHz. The Primary Assembly Area will be located at the Former Army radar site between the 2 glider strips (Figure 4) with personnel first meeting at the shift muster point (mobile with shifts). This will be communicated to personnel via pre-start briefings and sign in for each shift. The estimated time to vacate personnel and equipment from the work site is 30min.



Figure 3 -Primary Assembly Area - Perimeter Rd between TWY C and TWYD

2.5 NOTAMs

NOTAM's will be required for this work.

BAEO / BASO will be responsible for issuing NOTAMs for each stage of the works. The Contractor is to liaise with the BAEO regarding NOTAM requirements in the first instance.

The full planned NOTAM text for each stage of work is attached at Annex B. Dates and times are to be confirmed 48 hours before submission of any NOTAM and the commencement of works.

Any proposed changes to the works detail is to be carried out in consultation with the relevant stakeholders. Modification to the works information must be detailed in an amendment to this MOWP and the planned NOTAM text. All modifications must be reviewed and approved by the relevant authorities prior to the commencement of the works.

The final NOTAM text is to be released at least 48 hours prior to the commencement of the works.

Works are not to commence until the WSO has, on the day of the works, confirmed that the correct NOTAM is current for the planned works. The WSO is also to be in possession of hard copy of the published NOTAMs and MOWP relevant to their area of works.

3. RESTRICTIONS ON THE WORKS CONTRACTOR

3.1 General

The Contractor shall comply with the requirements of the Contract Documents produced for this project, Manual of Standards 139, RAAF Base Richmond Aerodrome Manual and this MOWP.

The WSO has absolute authority to direct the Contractor on airfield operational requirements.

Refer to Section 5.2 for information on procedures relating to variations to this MOWP.

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 and BAEO and to be immediately reported to the Base Aviation Safety Office (BASO) for consideration of effective clean up.

The Contractor is to prevent material from being blown onto aircraft movement areas or spillage of Hot Mix Asphalt (HMA) from delivering trucks by watering or other appropriate control measures. Spoil is to not to be left for prolonged periods; at a minimum secured in skips, trucks or removed after each work shift.

On completion of each work period and on each occasion the movement area is returned to active use, the Contractor is to ensure the works area is made serviceable, including the removal of all FOD hazards, to the satisfaction of the WSO. In order to achieve this consistently, the following process has been developed and implemented by the Contractor:

1. One WSO is to commence their shift between 2000 and 2100. This same WSO will stay back until sun up to conduct a secondary FOD check in the daylight hours.
2. In addition, the Contractor (BMD) will have either a supervisor or engineer commence their shift at 0300. This person will
 - a. Accompany the WSO for the secondary FOD check with a utility equipped with shovel, broom and spill kit. BMD's FOD Boss is also available depending on extent of any FOD found.
 - b. Complete any cleanup FOD or Spills found associated with the works
3. The WSO and BMD Representative will complete a checklist (new) including indication of who the airfield has been handed over to (Attached at Annex E).
4. The checklist, once completed is to be emailed / texted to the BAEO for his information along with;
 - a. The Light Inspection Checklist (Annex F)
 - b. (if implemented) the Displacement Checklist (Annex G)

We are also keeping a record of lights that are not working. We have done this since Tuesday morning 14/01/25 i.e. end of shift that commenced Monday 13/01/25.

The WSO is to advise the BAEO / BASO when the work area has been declared suitable for aircraft operations to enable an independent inspection to be conducted.

Smoking/vaping is not permitted on the airside movement area.

3.2 Personnel

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.

Any breaches of aviation safety must be reported to the WSO. The WSO is to initiate an immediate response in consultation with ATC and the BASO. The BASO will provide guidance when an Aviation Safety Report (ASR) needs to be raised.

All personnel and equipment will, when directed by the WSO, vacate the Runway and all taxiways and Aprons where works may conflict with aircraft movements.

All persons appointed to the project will undergo a site-specific induction on works safety and security requirements prior to commencing any works on site.

Additionally, the following provisions will apply to the Contractor:

- All personnel must remain within the boundaries of the work site at all times;
- All Contractors and personnel must comply with any additional security provisions, which may be imposed by the Department of Defence;
- Unauthorised sightseers or persons without a Defence Common Access Card (DCAC) or Visitor Identification Cards (VIC) must not enter the Security Restricted Area to visit the site;
- Persons and vehicles may be subject to search at any time;
- Personnel shall not take photographs unless a BSECI 09 – PHOTOGRAPHY & IMAGERY form has been authorised and they are in compliance with the requirements of that form.

Personnel working airside must have completed Airside Awareness Training as a minimum in accordance with the Aerodrome Manual, Part 2 Section 5. This training can be provided by a WSO who has been approved to operate at RAAF Richmond by the BASO. This, however, does not supersede the requirement where site personnel with a Base Visitor's pass will still need to be escorted around the base by the WSO or other suitably privileged escort.

All personnel must remain under supervision/escort of Level 3 Airside Access qualified personnel when in the vicinity of any area situated between the Eastern/Western Tarmacs

and the outer Perimeter Road (i.e.: anywhere in the vicinity of Taxiways, Runways and grassed Airfield areas).

3.3 Vehicles and Plant

The highest vehicle or item of plant and equipment being utilised for these works is 6 metres in height. No vehicle or item of plant which extends higher than 6 metres will be used unless prior approval has been received by the BAEO or BASO. Contact RAAF Richmond Air Base Operations Centre (RIC.ABOC@defence.gov.au) via submission of a RAAF Base Richmond 'Tall Structures and Cranes Reporting Form'.

If any person and/or vehicle and/or plant equipment is required to be escorted to/from the work area beyond a reasonable distance for the WSO to maintain full view and control of the work area, then a secondary WSO will be engaged for the purpose of providing such escorting duties.

Only vehicles and plant engaged in the work activities shall be permitted at the work site. Private vehicles will not be permitted airside.

At the end of each work period, all vehicles, plant, equipment, and material are to be moved clear of the works area and parked in the designated parking area if feasible to do so, as shown at Annex A.

Vehicles and self-propelled items of plant are to have vehicle illuminated / flashing warning lights as detailed in CASA MoS Part 139 Section 9.19: Other Lights on an Aerodrome whenever they are operating within the airside movement area.

All vehicles and plant are to be clean prior to entering the airside active areas. All vehicles will undertake a FOD inspection prior to any entry airside. Sweepers will be used during and after completion of each shift to clean up FOD.

3.4 Access to the Works and Security

Access to and from the works site is to be via the designated route shown at Annex A and as directed by the WSO. Movement of vehicles, plant and equipment must be confined to these routes. Generally works west of TWYC will gain access from The main gate, Gate 10 and then via TWYW. Asphalt plant will be stored landside near Gate 10. For works east of TWYC, the works will gain access from Gate 6 and TWYH, at the project's cost. Asphalt plant will be stored outside of Gate 1/Duratech compound. In this way, FOD risks are minimised.

Personnel are only permitted to move about the airside work areas under the direct and constant supervision of the WSO. 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.

Security is paramount at all times. All personnel are to have on their person, and visible at all times, a valid security pass issued by the RAAF Richmond Security Pass Office. All personnel working Airside must have a bare minimum of 'Airside Awareness Training' qualification completed. If personnel do not have Airside access, they must not access Airside without a WSO.

3.5 Aerodrome Markers, Markings and Lights

The Contractor is to provide all temporary markings, markers and lighting. Markings, markers and lighting are not to be installed, altered or removed without the approval of the WSO. The Contractor shall place aerodrome markers, markings and lights including, but not limited to orange cones / witches' hats, US cones and temporary lights in vicinity of the work zone demarking the extent of works in accordance with MOS Part 139 standards. Markers will comprise red steady lights (Night) and red banded white cones (Day) to define the limits of the available movement area and are depicted.

There will not be any temporarily displaced thresholds during the return to service works. However, the Contractor will communicate with the BAEO / BASO the intention to have displaced thresholds if this creates an opportunity for the works. If so, any agreed introduction of a temporary displaced threshold and those parts of the Aircraft Movement Area that are unserviceable due to the works will be marked and lit in accordance with the requirements of ICAO Annex 14 and MOS 139.

The layout for the installation, alteration and removal of aerodrome markers, markings and lights in the works area and other areas affected by the aerodrome works will be at the discretion of the WSO but will be in accordance with the requirements of MOS Part 139 (specifically Section 8).

The Contractor shall place unserviceability cone markers and temporary lights at the designated locations and as directed by the WSO in order to mark the unserviceable areas of the movement area so that entry to the works areas by aircraft is prohibited.

Unserviceability cones shall be placed by the Contractor to delineate the limits of the Aircraft Movement Area.

Red omni-directional lights shall be placed by the Contractor to delineate the limits of the Aircraft Movement Area. The lights shall be located at all locations where unserviceability cones are in place.

The Contractor shall maintain all cone markers and temporary lights so that they are clearly visible and are in the required locations. Temporary lights should also be activated and visible during periods of low visibility such as FOG.

The Contractor shall maintain all temporary lights in good working order and in the required locations and shall have sufficient spare new batteries in store on the airfield to ensure all temporary lighting is operational throughout its installation on the airfield.

The Contractor shall ensure that all cone markers and temporary lights are established at the start of each Stage of the works and removed at the completion of each Stage as detailed in the relevant NOTAM.

The WSO shall ensure the cone markers and temporary lights are appropriate and maintained at all times.

The WSO is to ensure that all markings are established and removed at the start and end of each work period, as detailed in the relevant NOTAM.

The WSO is to liaise with the BAEO/BASO to ensure that markings are appropriate and that they are properly maintained at all times.

All visual ground aids are to be protected from sprayed bitumen by appropriate covering prior to the commencement of the work and uncovering after the completion of the works.

3.6 Protection of Electrical Services

A qualified service locator will be used to determine the location of any underground services using Ground Penetrating Radar (GPR) and other appropriate methods.

The Contractor will undertake a thorough visual inspection of the work area to determine if any AGL lights and associated secondary cabling is located in the vicinity of the work area. Services should be marked on GFIS and Project drawings. If service locations are detected within the work area, they are to be marked with a PVC conduit with a maximum height above ground of 500mm and painted red for identification purposes. These service markers will be removed and affected areas remediated after completion of works.

The Works Contractor Works Supervisor is to complete the Contractor's Permit to Work prior to performing any excavation on any site (excluding surface milling).

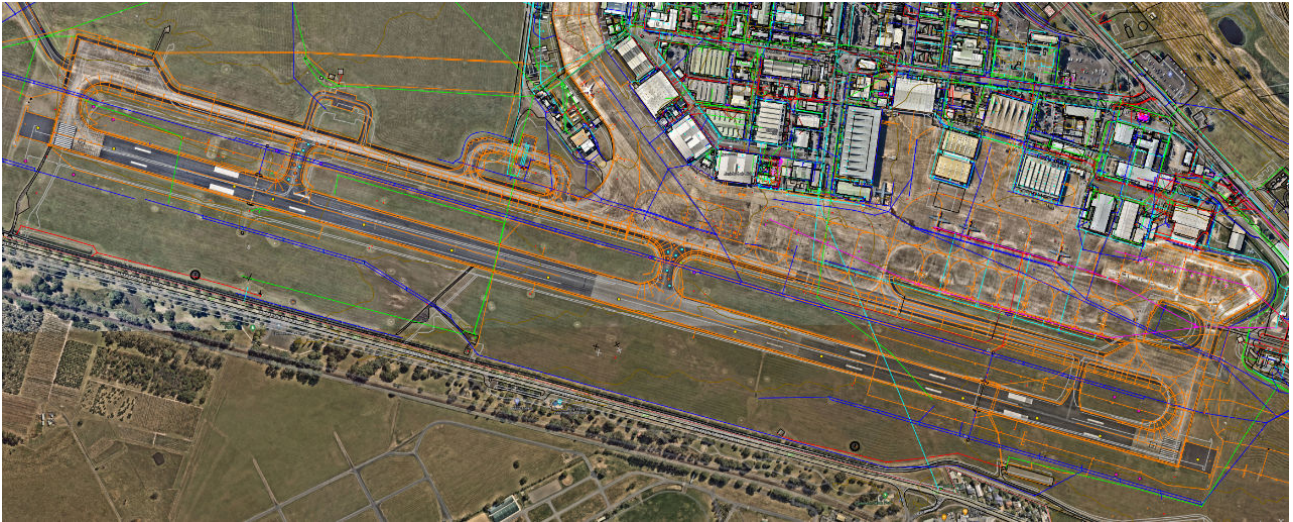


Figure 4 -GFIS Utility Information overlaid on a Satellite Photograph of the Airfield

3.7 Instrument Landing System (ILS) Critical and Sensitive Areas

ILS Critical and Sensitive Areas have been considered and are not impacted by this project, given that the runway will be unavailable generally during works. If however work within the path is required, the relevant authorities will be notified (NOTAMS) by the WSO and works will not take place until approved.

Vehicles utilising the perimeter road to obey the red / green signals that ensure operation of the ILS to landing aircraft.

3.8 Special Requirements

Any damage to the airfield or its equipment will be reported immediately to the WSO who will advise the BAEO / BASO immediately of any unserviceability to the airfield or its equipment.

Prior to performing any excavation work, the Contractor's Works Supervisor is to obtain an Excavation Permit.

The return to service works are assumed as occupation of the runway from 20:00hrs to 06:00hrs. For any other time limited works (TLW), the Contractor acknowledges that some ground operations may require the Works Contractor to cease work in particular areas at short notice. All efforts will be made to give prior notice to key stakeholders if this is required. Personnel and equipment may need to partially withdraw from a work area to avoid propeller wash or jet blast from a passing aircraft. The WSO shall direct any such withdrawal.

Personal protective equipment (PPE) is to be worn at all times. Hearing protection will be worn in areas of close proximity to aircraft. The WSO is to ensure that all personnel wears the correct PPE.

3.8.1 Military Exercises and Operations

The Contractor has been made aware of the following upcoming military exercises that may impact the works in terms of when work can and cannot occur. Details of any restrictions on the project are to be advised.

- Exercise 1 - 30 Mar - 8 Apr 2025 (Additional Foreign Training Exercise - night flying)
- Exercise 2 - 25 Apr - 31 May 2025 (Foreign Training Exercise - includes night flying)
- Exercise 3 - 10 - 25 June 2025 (Details TBA)
- Exercise 4 - 07 - 28 July 2025 (Details TBA)

These activities may impact the works but do not necessarily reflect no work periods. Restrictions to works during these exercises are provided in Section 2 Restrictions to Aircraft Operations. When known, details of restrictions to works relating to these exercises will be published in later revisions of this MOWP.

3.8.2 Construction Lighting

Where required, lights for general floodlighting of the area shall be shielded above the horizontal. No lighting tower shall be located outside the limit of works area unless permitted by the Works Safety Officer.

3.8.3 Protection of Above Ground Aids

The Contractor must protect all runway, taxiway and apron edge lights in each work area through the installation of approved barriers. The barriers must be placed prior to the commencement of work and must remain in place for the duration of the work period.

3.9 Dust and Foreign Object Debris (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 or propeller wash. Measures shall be always taken for control of dust or other nuisance materials and the Contractor shall immediately respond to any direction by the WSO or the BASO to eliminate any problem. The Works Contractor is responsible for implementing appropriate control measures.

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 shall be removed by the Contractor to the satisfaction of the WSO. On completion of each work period where airfield movement areas are required to be returned to active use, 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.

To consistently achieve this outcome, the Contractor has developed and implemented the following procedure:

1. One WSO is to commence their shift between 2000 and 2100. This same WSO will stay back until sun up to conduct a secondary FOD check in the daylight hours.
2. In addition, the Contractor (BMD) will have either a supervisor or engineer commence their shift at 0300. This person will
 - a. Accompany the WSO for the secondary FOD check with a utility equipped with shovel, broom and spill kit. BMD's FOD Boss is also available depending on extent of any FOD found.
 - b. Complete any cleanup required of FOD or spills



3. The WSO and BMD Representative will complete a checklist (new) including indication of who the airfield has been handed over to (attached at Annex E).
4. The checklist, once completed is to be emailed / texted to the BAEO for his information along with;
 - a. The Light Inspection Checklist (Annex F)
 - b. (if implemented) the Displacement Checklist (Annex G)

4 ADMINISTRATION

4.1 Project Manager

The Project Manager / Contract Administrators (PMCA) are BECA, represented by Richie Hicks.

The Project Manager's contact details are at section 4.6.

4.2 Works Contractor

The works will be carried out by BMD Constructions and their respective Subcontractors. All contact with the Base by the Works Contractor, in relation to the work, is to be made through the Project Manager.

4.3 Works Contractor Manager

The Works Contractor Manager will be BMD, represented by Matthew Calleja. The Works Contractor Manager or representative must be present on site during all work periods.

The Works Contractor Manager is responsible, on behalf of the Works Contractor, for complying with the requirements of this MOWP.

The Works Contractor Works Manager's contact details are at section 4.6.

4.4 Works Safety Officer

Works Safety Officers (WSOs) will be supplied by *Wilco Airfield Safety Services Pty Ltd*. The Works Safety Officer contact details are at section 4.6.

They will be present on site with the construction crew at all time during the works related to this project. The duties of the WSO are to escort the works crew and to monitor and control their movements to ensure the airside safety is maintained.

WSOs will have complete authority to direct the Contractor on airport operational requirements.

The WSO is responsible for ensuring that the works are conducted in accordance with CASA Manual of Standards (MOS) - Part 139 Aerodromes, CASA directions related to aerodrome works, directions from the aerodrome operator and this MOWP.

WSOs are to be approved to level 3 Airfield Access at RAAF Base Richmond.

The WSO is responsible for the following:

- 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 BAEO;
- Supply ATC, on a daily basis, with information necessary to ensure the safety of aircraft operations;
- Maintain positive radio communications with ATC;
- Discuss with the Contractor, on a daily basis, any matters necessary to ensure the safety of aircraft operations;
- Brief the Contractor, 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:
 - a. Weather.
 - b. Other NOTAM airfield activities.
 - c. 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 this MOWP.
- Ensure that the vehicles, plant and equipment carrying out aerodrome works are properly marked and lit and are under works safety officer supervision and 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.
 - a. Ensure that excavation is carried out in accordance with the MOWP and, in particular, so as to avoid damage or loss of calibration to any underground power or control cable associated with a precision approach and landing system or any other navigational aid.
- Report immediately to ATC and the BASO 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.
- Ensure that ATC is kept informed of the radio call signs of the vehicles used by the works safety officer.
- Immediately remove vehicles, plant and personnel from the movement area where necessary to ensure the safety of aircraft operations and/or works personnel.
- 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.
- In the case of any time-limited works (TLW) which may arise, ensure that the TLW area is restored to normal safety standards before the time scheduled or notified for an aircraft movement unless varied by ATC.
- 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.

4.5 Aviation Safety

The WSO is responsible for Aviation Safety matters affecting the works site, as well as every contractor's employee present on site.

4.6 Base Aviation Safety Officer

The BASO will conduct inductions, if required. Base induction includes airside awareness which is to be completed as a minimum and WSOs are to be approved to level 3 Airfield Access at RAAF Base Richmond.

4.7 Contact Details

Appointment	Agency	Contact Details
Senior Australian Defence Force Officer (SADFO)	22SQN	WGCDR Andrew Burke 02 5128 9876, 0459 840 386 andrew.burke@defence.gov.au
Base Manager	SEG	Mr Dean Bradshaw 02 4587 2500, 0477 340 691 dean.bradshaw@defence.gov.au
Base Airfield Engineering Office (BAEO)	22SQN	FLT LT Paolo Cellini 0415 082 958 Paolo.cellini@defence.gov.au Ric.baao@defence.gov.au
Base Aviation Safety Officer (BASO)	22SQN	FLT LT Pius Lam 0498 670 467 ric.baso@defence.gov.au
FLTCDR 453SQN (SATCO)	453SQN	SQNLDR Matthew Wadsworth 02 4077 8694, 0432 648 987
ATC Tower Supervisor	453SQN	02 4587 1201
Duty Security Controller	SECFOR	02 4587 1757
Fire Watch Room Attendant	22SQN Fire Section	02 4587 2655
Regional Environmental Officer	SEG	Andrew Maxwell 0427 416 560 Andrew.Maxwell@defence.gov.au
Airfield Lighting Electrician	BGIS TS	Richard Turner 0437 530 297
EMOS Manager – Richmond BSA	BGIS	Steven Mazic 0421 273 816 steven.mazic@apac.bgis.com
Project Manager	BECA	Richie Hicks 0444 531 535 Richie.Hicks@beca.com
Contractor Works Manager	BMD Constructions	Matt Calleja 0400 263 466 Matt.Calleja@bmd.com.au
Work Safety Officer	Wilco Airfield Safety Services	Robert Williams 0466 824 352 ops@wilcosafety.com.au
Work Safety Officer	Wilco Airfield Safety Services	Arielle Barley 0435 377 539 ops@wilcosafety.com.au
RAAF RIC Pass Office		4579 2118

5 AUTHORITY

5.1 Issue

This MOWP is issued in accordance with CASA Manual of Standards Part 139. All works will be carried out in accordance with the MOWP.

5.2 Variation

This MOWP is a live document and is subject to change in the future to support RAAF Base Richmond's operational requirements.

Minor variations to this MOWP can be issued by the Project Manager after liaising with the BAEO. However, no variation to this MOWP of a substantial nature is to be issued without the approval of the signatories. These variations will be authorised and distributed as an amendment.

Requests or proposals to amend or vary the MOWP, as well as queries on its content or meaning, are to be directed to the BAEO.

Approval

Under the authority of the following signatures, this MOWP is approved for release.

Operating Agent	Estate Agent	Works Contractor
Joshua Buggy	Dean Bradshaw	Matthew Calleja
WGCDR	Mr	Mr
Temporary / Senior Australian Defence Officer	Base Manager	Project Manager
22SQN	SEG	BMD Constructions
RAAF Base Richmond	RAAF Base Richmond	
Date:	Date:	Date: 10/04/2025



Annexes:

- A. Stockpile locations, Heavy vehicle route
- B. NOTAM Text
- C. Distribution List
- D. Taxiway C Methodology for Drainage Works
- E. Taxiway C Methodology for Pavement Works in Runway Strip
- F. Shift Handover Checklist
- G. Light Checklist
- H. Displacement Checklist

ANNEX A - Stock pile locations, Heavy vehicle route

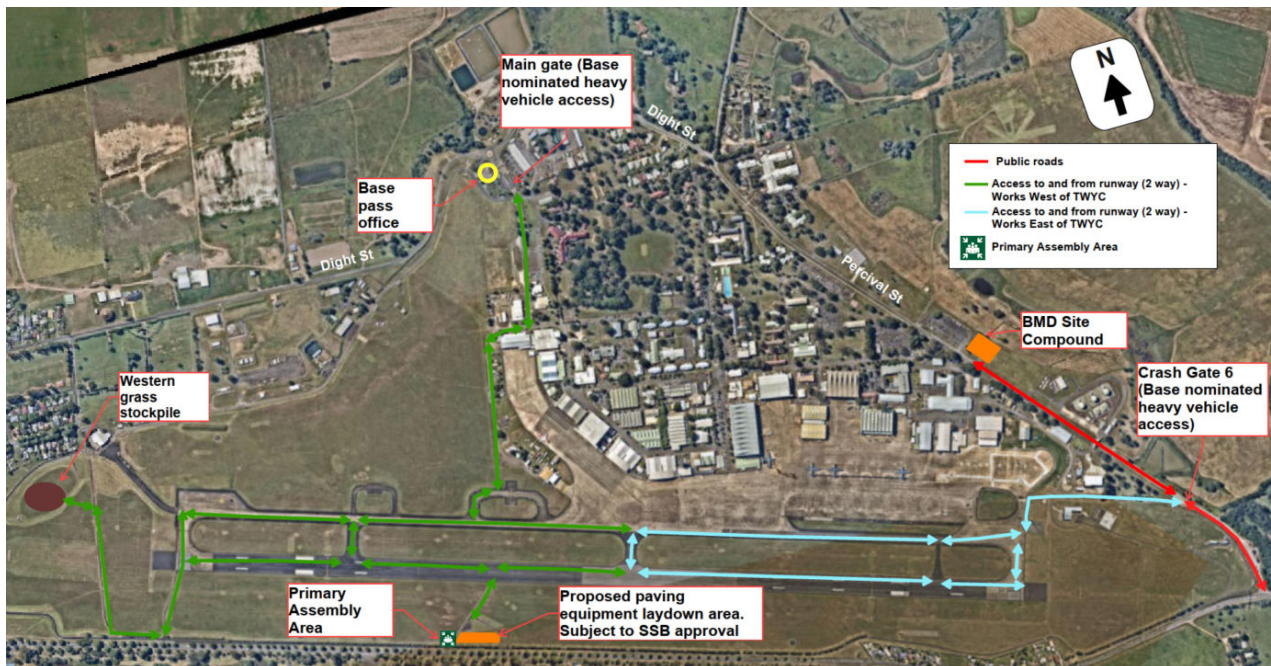


Figure 5 - Project stockpile/beneficial reuse locations and access general view.

ANNEX B – NOTAM Text (Suggested Only)

NOTAM ONE	UTC/Zulu	
A) Location	YSRI AD	
B) Start	28/10/24	0900
C) Finish	18/10/2025	2100
D) Period of Activity	SUN-THURS	0900/2100
E) NOTAM Text	RWY 10/28 CLSD DUE WIP AIRFIELD LGT OFF TWY CL LIGHTING ON FOR STATUS OF WORKS AREA CTC: WORK SAFETY OFFICER CS 'SAFETY 03' ON COMMON TFC ADVISORY FREQ (CTAF) 135.5 OR TEL: 0466 824 352 REFER AIP SUP H61/24 AND METHOD OF WORKING PLAN (MOWP) RIC 02/25 FROM 03 100900 TO 06 252100 SUN-THU 0900-2100	

H0732/25 NOTAMR H8841/24

Q) YMMM/QMXLC/IV/BO/A/000/999/3336S15047E005

A) YSRI

B) 2502240650

C) 2504242100 EST

E) TWY C CLSD DUE WIP CAUTION: STEEP EXCAVATION MARKED WITH U/S CONES U/S CONES 6.3M FM TWY Z CL FOR STATUS OF WORKS AREA CTC: WORK SAFETY OFFICER CS 'SAFETY 03' ON COMMON TFC ADVISORY FREQ (CTAF) 135.5 OR TEL: 0466 824 352 REFER AIP SUP H61/24 METHOD OF WORKS PLAN (MOWP) RIC 06/24 CREATED: 30 Jan 2025 10:34:00 SOURCE: YBBBZEZX

H0731/25 NOTAMR H8842/24

Q) YMMM/QLXAS/IV/M/A/000/999/3336S15047E005

A) YSRI

B) 25 03052048

C) 2506052100 EST

E) TWY D CL LGT AND RLLS U/S DUE WIP TWY D TEMPO EDGE LIGHT AVBL FOR STATUS OF WORKS AREA CTC: WORK SAFETY OFFICER CS 'SAFETY 03' ON COMMON TFC ADVISORY FREQ (CTAF) 135.5 OR TEL: 0466 824 352 REFER AIP SUP H61/24 METHOD OF WORKS PLAN (MOWP) RIC 06/24 CREATED: 30 Jan 2025 10:33:00 SOURCE: YBBBZEZX



H0348/25 NOTAMR H8974/24

Q) YMMM/QMRLC/IV/NBO/A/000/999/3336S15047E005

A) YSRI

B) 25 03100900

C) 25 06 252100

D) SUN-THU 0900-2100

E) RWY 10/28 CLSD DUE WIP AIRFIELD LGT OFF TWY CL LIGHTING ON FOR STATUS OF WORKS AREA CTC: WORK SAFETY OFFICER CS 'SAFETY 03' ON COMMON TFC ADVISORY FREQ (CTAF) 135.5 OR TEL: 0466 824 352 REFER AIP SUP H61/24 AND METHOD OF WORKING PLAN (MOWP) RIC 06/24 CREATED: 16 Jan 2025 02:57:00 SOURCE: YBBBZEXX

H8287/24 NOTAMN

Q) YMMM/QMRHW/IV/BO/A/000/999/3336S15047E005

A) YSRI

B) 25 02 270516

C) 05 272000 EST

E) RWY 10/28 UNGROOVED DUE WIP REFER AIP SUP H61/24 CREATED: 25 Nov 2024 23:38:00 SOURCE: YBBBZEXX

Active: Permanent: H5405/24 NOTAMN

Q) YMMM/QLGXX/IV/BO/A/000/999/3336S15047E005

A) YSRI

B) 2408150415

C) PERM

E) AERODROME AND APPROACH LIGHTING AMD AMD NOTE 4: 4. PAL OVERRIDE/MANUAL ACTIVATION: FOR MANUAL ACTIVATION OR CHANGE OF AD LGT INTST, CTC 'RICHMOND BASE FIRE' FREQ 135.5 AND REQ 'PAL OVERRIDE'. AMD EN ROUTE SUPPLEMENT AUSTRALIA (ERSA CREATED: 15 Aug 2024 04:15:00 SOURCE: YBBBZEXX

C92/25

A) YSRI

B) 25 03 130900

C) 25 04 292100 EST

E) TWY V CL INTO TWY Z AND LEAD IN LGT WESTBOUND AND EASTBOUND U/S DUE WIP



C93/25

A) YSRI

B) 25 03 130900

C) 25 04 292100 EST

E) TWY Z ADJ TWY C 4 CONSECUTIVE CL LGT U/S DUE WIP

C94/25 REVIEW C70/25

A) YSRI

B) 25 03 140900

C) 25 03 160900

E) RWY 10/28 CLSD DUE WIP

EXC APPROVED MOVEMENTS. FOR APPROVAL TO OPR CTC RIC AIR BASE
OPERATION CENTRE (ABOC) VIA TEL: 02 4587 2888

APPROVED MOVEMENTS PROVIDE 60MIN PN TO RICHMOND TWR DRG HR OF
ATC OR WORKS SAFETY OFFICER (WSO) DRG HR OF COMMON TRAFFIC
ADVISORY FREQ (CTAF) AND TAXI VIA TWY A, TWY G, TWY H OR TWY Z1 ONLY
FOR FURTHER INFO CTC: WORKS SAFETY OFFICER TEL: 0466 824 352
REFER AIP SUP H61/24 AND METHOD OF WORKS PLAN (MOWP) RIC 06/24

A) YSRI

B) 2504040900

C) 2504062200

E) RWY 10/28 CLSD DUE WIP

U/S RWY NOT AVBL

ANNEX C - DISTRIBUTION LIST

Organisation/ Unit	Email
SADFO	andrew.burke@defence.gov.au
BM	dean.bradshaw@defence.gov.au
BAEO	ric.baeo@defence.gov.au
BASO	ric.baso@defence.gov.au
ABOC	ric.aboc@defence.gov.au
SATCO – 453 SQN FLTCDR	453sqn.ric-fltcd@defence.gov.au
453SQN RIC FLT ATC	ric.atc@defence.gov.au
BAM	glen.solomon@defence.gov.au
BSECO	secflt.ops.ric@defence.gov.au
A10 AMG	Gilbert.gonthier@defence.gov.au
PROJECT MANAGER	Richie.Hicks@beca.com
WORKS CONTRACTOR	Matt.Calleja@bmd.com.au
WORKS SAFETY OFFICER	ops@wilcosafety.com.au
EMOS Manager	Steve.mazic@apac.bgis.com
OIC MEOMS	andrew.king10@defence.gov.au
OIC ARFF	ric22sqnfiretrssncos@dpe.protected.mil.au
OIC AMS	ric22sqnams.ops@defence.gov.au
Relevant RAAF Wings and Squadrons	
37 SQN	ricc130.operations@defence.gov.au 37sqn.maintcoord@defence.gov.au
AMCC	amcc.ops@defence.gov.au
35SQN	amb35sqn.operations@defence.gov.au
36SQN	36sqn.ops@defence.gov.au
USAF Det	RIC.USAFDet1735AMS@defence.gov.au
81Wing	81wg.operations@defence.gov.au

ANNEX D - TAXIWAY C METHODOLOGY

4. WORKS INFORMATION

1.1 Description of Works

The works to be completed under this Method of Working Plan (MOWP) comprises of the following key construction activities for Taxiway Charlie (TWY C)

- Setup survey controls;
- Service locating and potholing;
- Treat service clashes;
- Removing and reinstating of existing TWYC inset lights
- Construct new drainage line across TWYC, including laying pipes and installation of pits;
- Profile Taxiway C;
- Construct new payment;
- Remove and reinstate existing AGL infrastructure;
- Install pit and duct network for new AGL lighting;
- Install new MAG Signs;
- Pavement line marking;
- Flank works on TWYC

Enabling works

- Services Investigation
- Placement/removal of aerodrome markers including unserviceability cones
- Placement of E-Flares or other suitable temporary lights where required.
- Placement of temporary elevated blue edge lights on Taxiways where required.

Pavement works

Taxiway C

The following works will be completed as part of the pavement works:

- Demolish Taxiway Pavement
- Replace existing stormwater drainage
- Prepare surface and place multiple layers of granular pavement materials
- Place asphalt base layer / wearing course to match existing asphalt levels including installation of asphalt reinforcing grid

Drainage works

The following drain works will be completed for TWYC for Line 1 and 2:

- Physical identification of existing services and isolate/protect/relocate;
- Establish dewatering where required;
- Excavate and remove existing drainage pipe where required;
- Installation of Drainage Line DR03 and DR04 backfilling to underside of pavement;
- Place Pits for DR03 and DR04
- Regrade and revegetate impacted area outside of pavement.
- Excavate trench and lay slotted sub soil drain over a lean mix bedding
- Form Reo Pour drainage slabs

Flanking and seeding works

- Removal of 100mm topsoil, regrade runway strip to part 139 MOS compliant grades
- Place 100mm topsoil and hydromulch in accordance with the specification.
- Coordinate with lowering of AGL conduit as per AGL drawings.

1.2 Taxiway C Works Staging

The following sequence of works will be carried out for TWY C:

Temporary Light Setup

1. Survey, isolate and remove inset lights by coring each base. Each coring hole will be filled with asphalt mix.



Figure 6 - Survey, isolate inset lighting, removal of lights/cans & temporary lighting install

2. Temporary solar operated lights installed on the taxiway as well as US markers to set taxiway closure set up.



Figure 7 - Temporary Light Setup – Taxiway C

Removal of asphalt

3. Profile 100mm of existing asphalt from the hold position lights as shown in Figure 3. All millings will be removed off site with 12t bogies.



Figure 8 - Profile 100mm Asphalt from Hold Position lights to Taxiway Z (plan view)

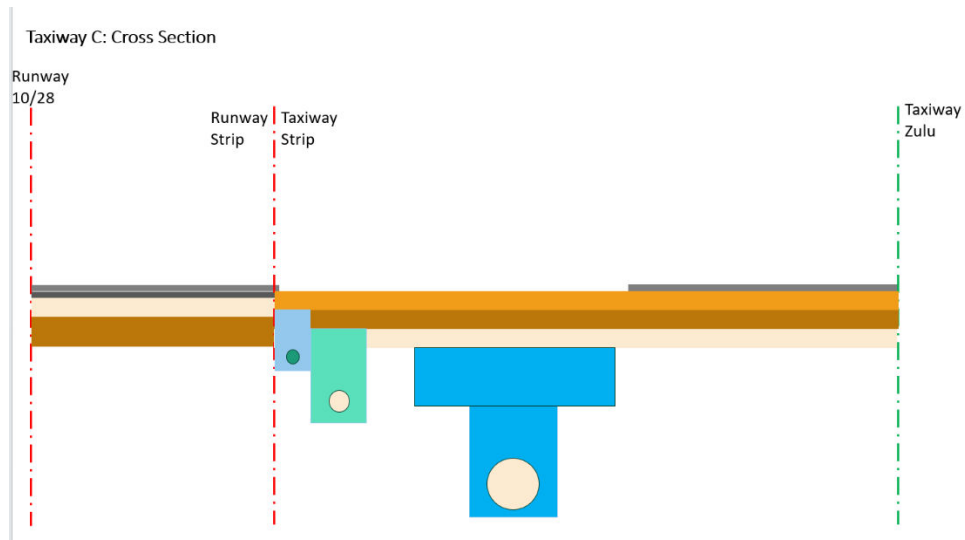


Figure 9 - Profile 100mm Asphalt from Hold Position lights to Taxiway Z (cross section)

Removal of rock base

4. 800mm of top crushed rock base will be excavated from the hold position lights as shown in Figure 5. All the excavated material will be transferred to the western grass stockpile area.

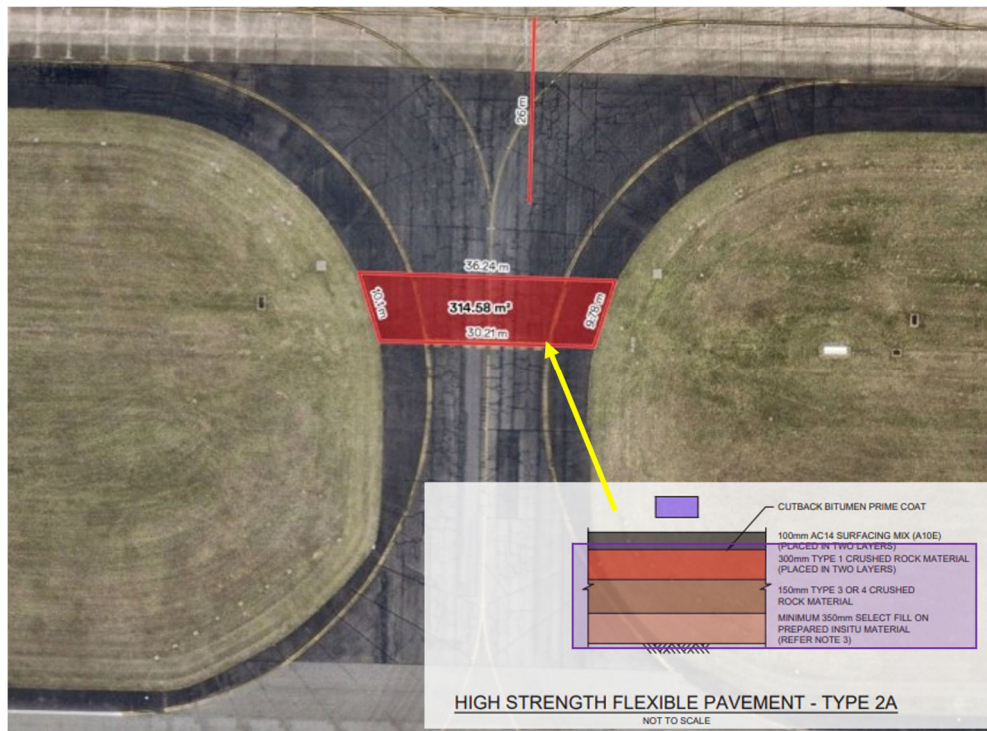
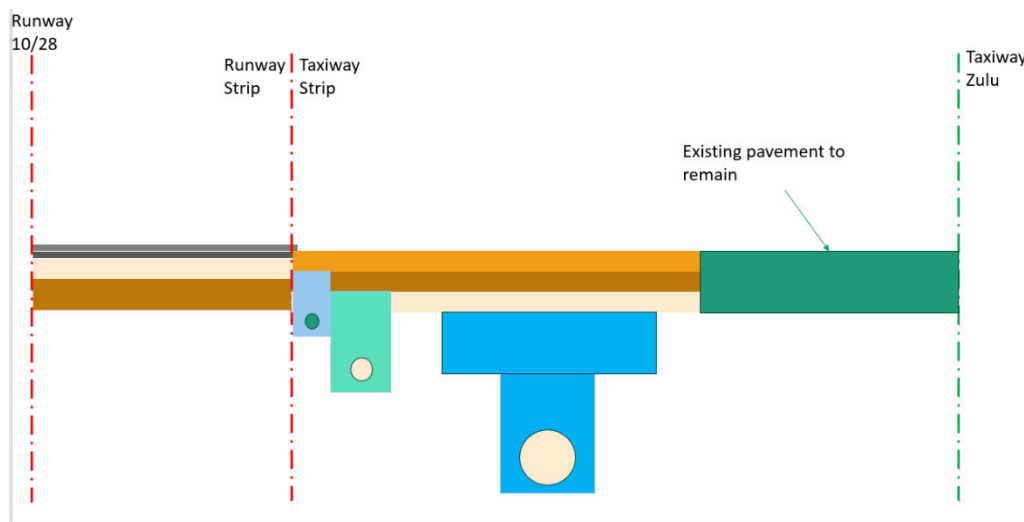


Figure 10 - Excavate 800mm crushed rock subbase from the Hold Position lights (plan view)



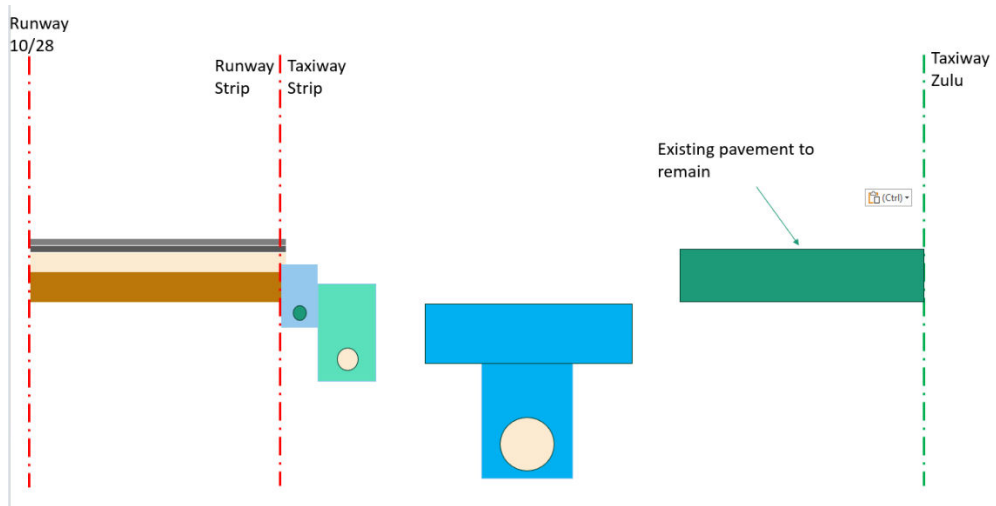


Figure 11 - Excavate 800mm crushed rock subbase from the Hold Position lights to Taxiway Z (cross section)

Drainage works

5. Installation of subsoil drain under pavement. The drain will be place over a 5Mpa concrete bedding layer and backfill using lean mix concrete.

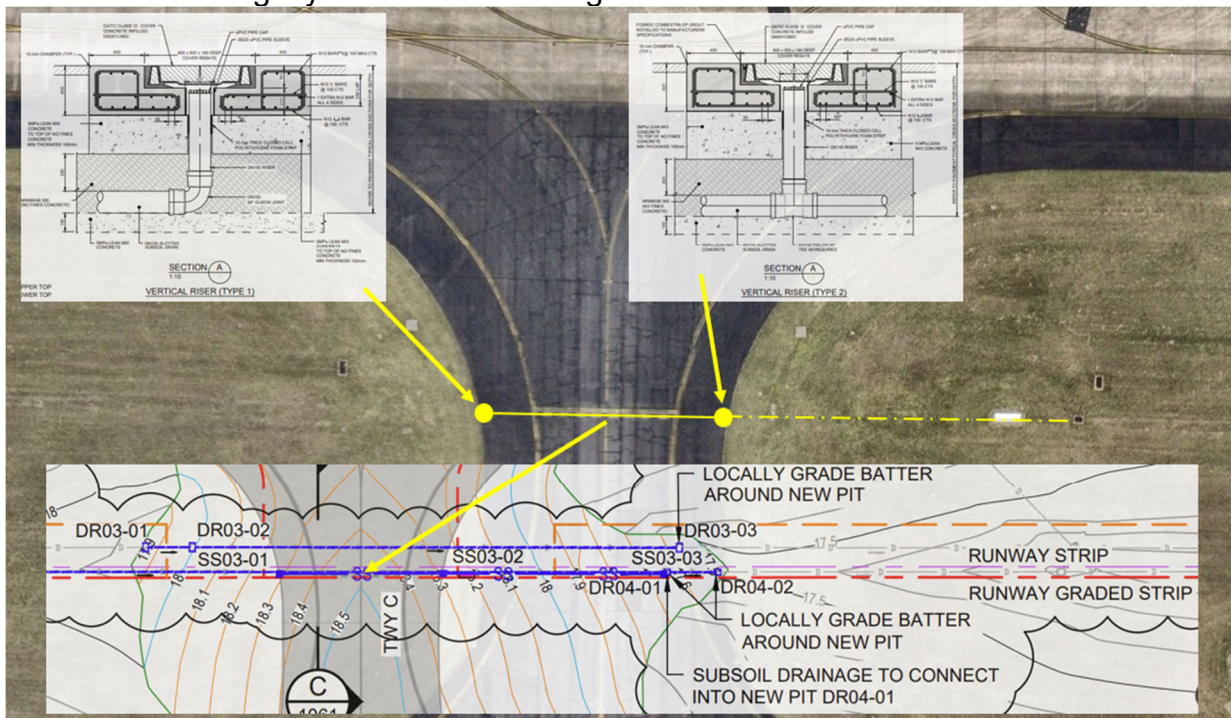


Figure 12 - Install Subsoil drain under pavement (plan view)

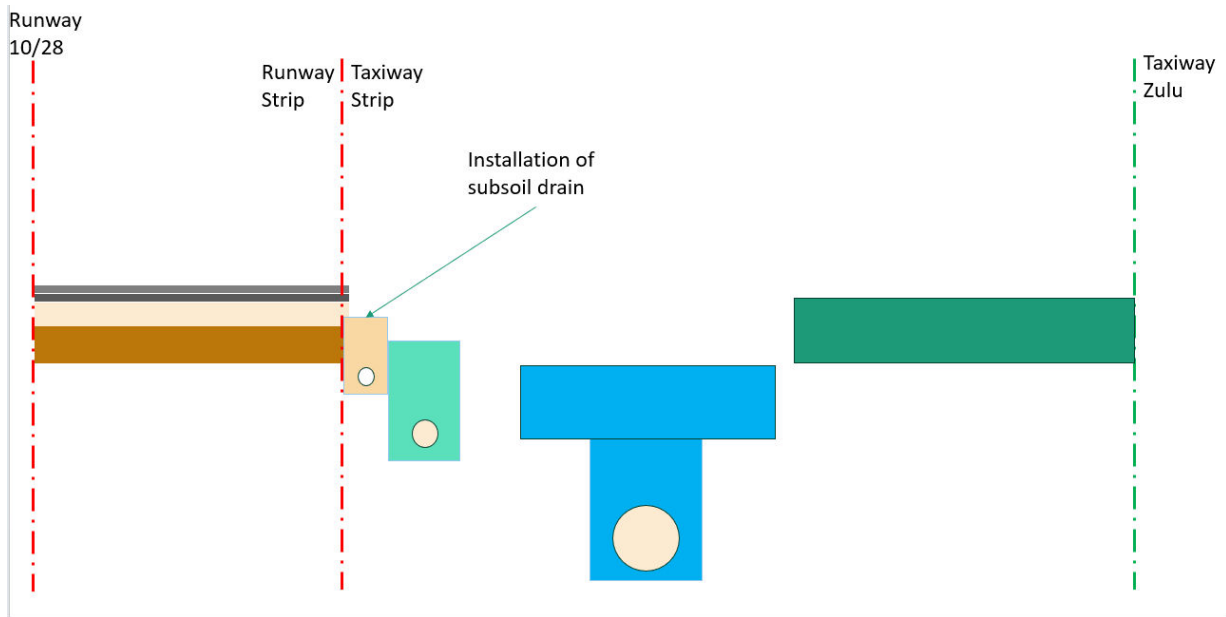


Figure 13 - Install Subsoil drain under pavement (cross section)

6. Installation of 300OD pipe under pavement. The drain will be place over a 5Mpa concrete bedding layer and backfill using lean mix concrete

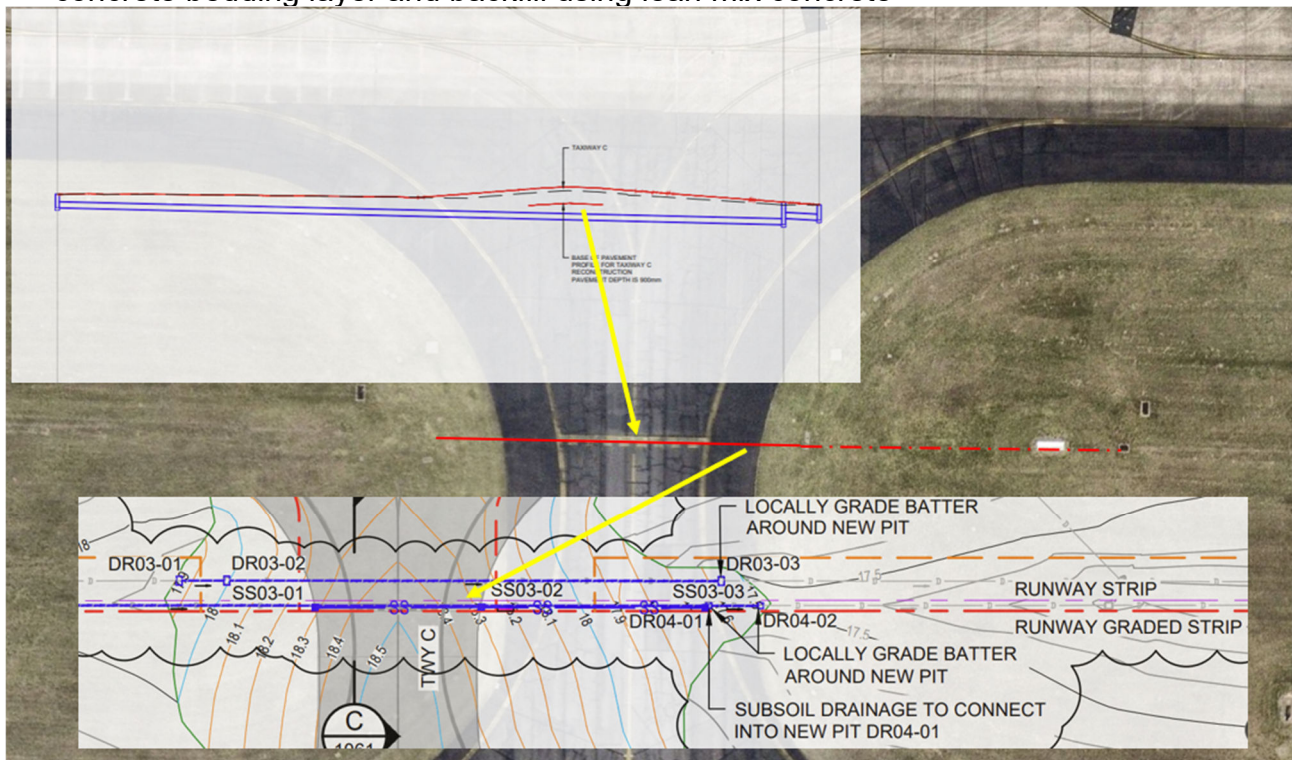


Figure 14 - Install DN300 pipe under pavement (plan view)

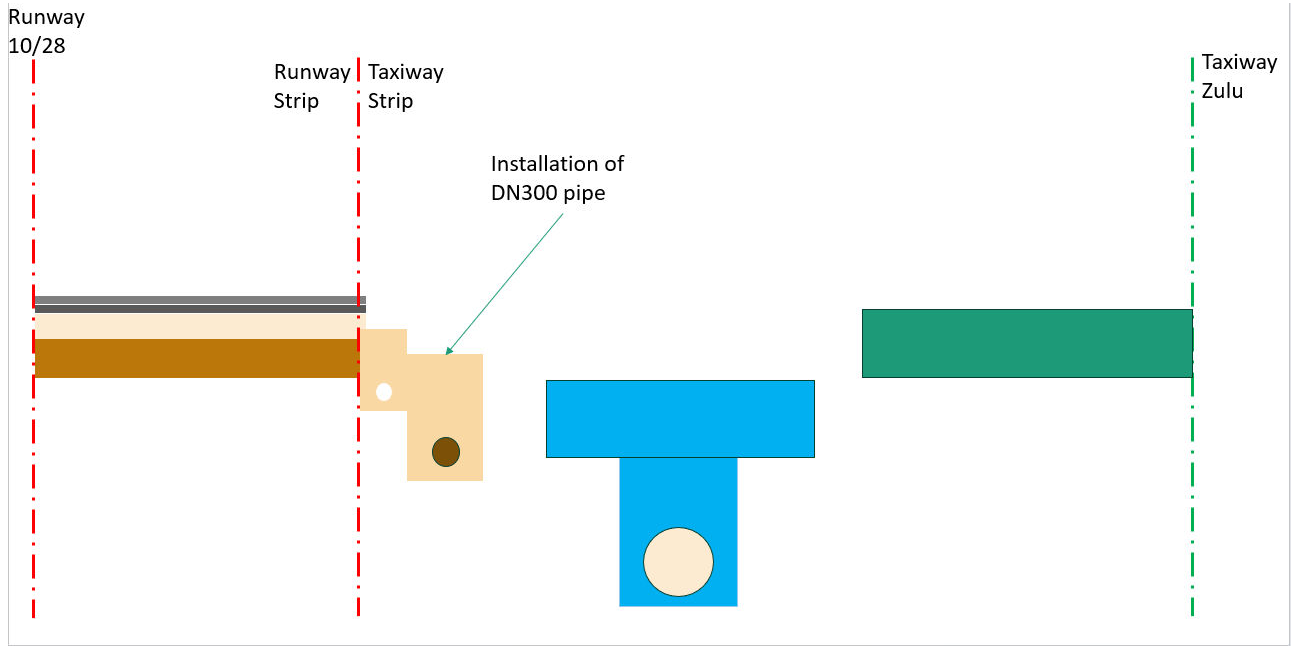


Figure 15 - Install 300 OD pipe under pavement (cross section)

7. Installation of DN900 pipe under pavement. The drain will be place over a 5Mpa concrete bedding layer and backfill using lean mix concrete

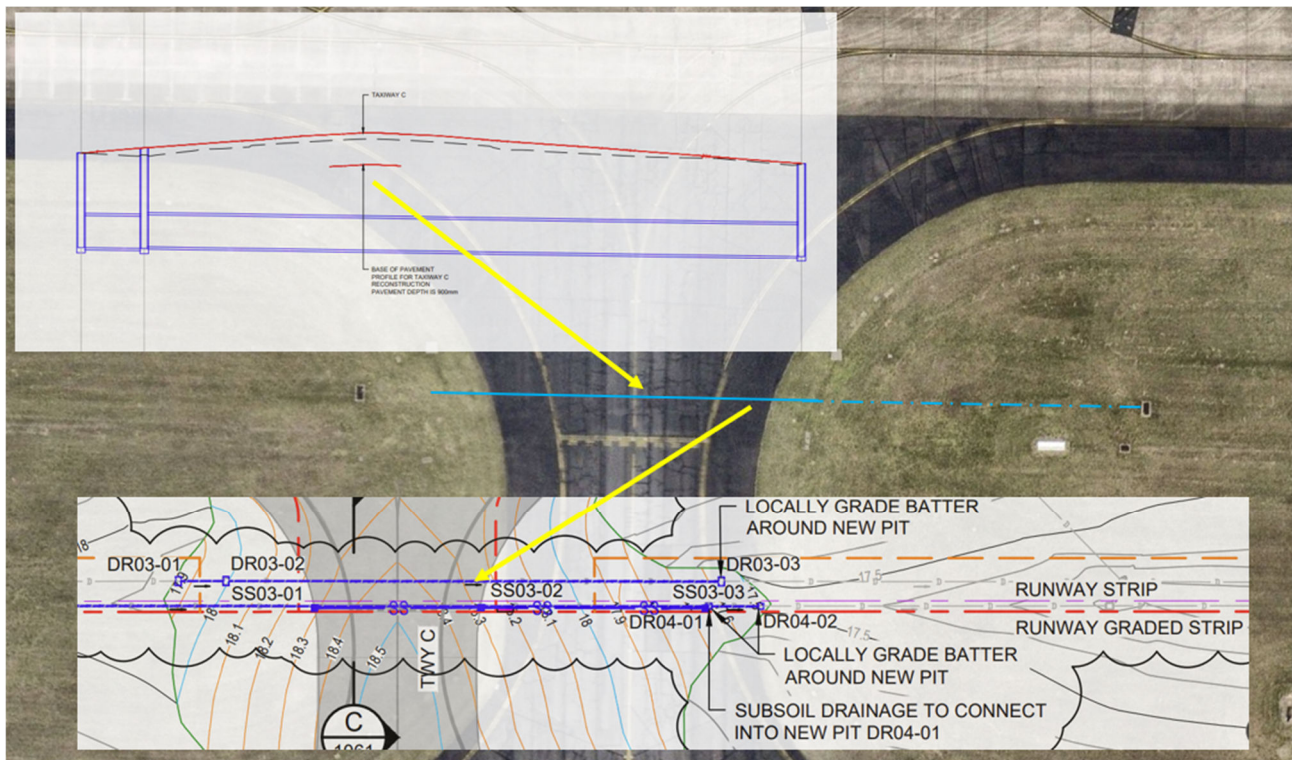


Figure 16 - Install DN900 pipe under pavement (plan view)

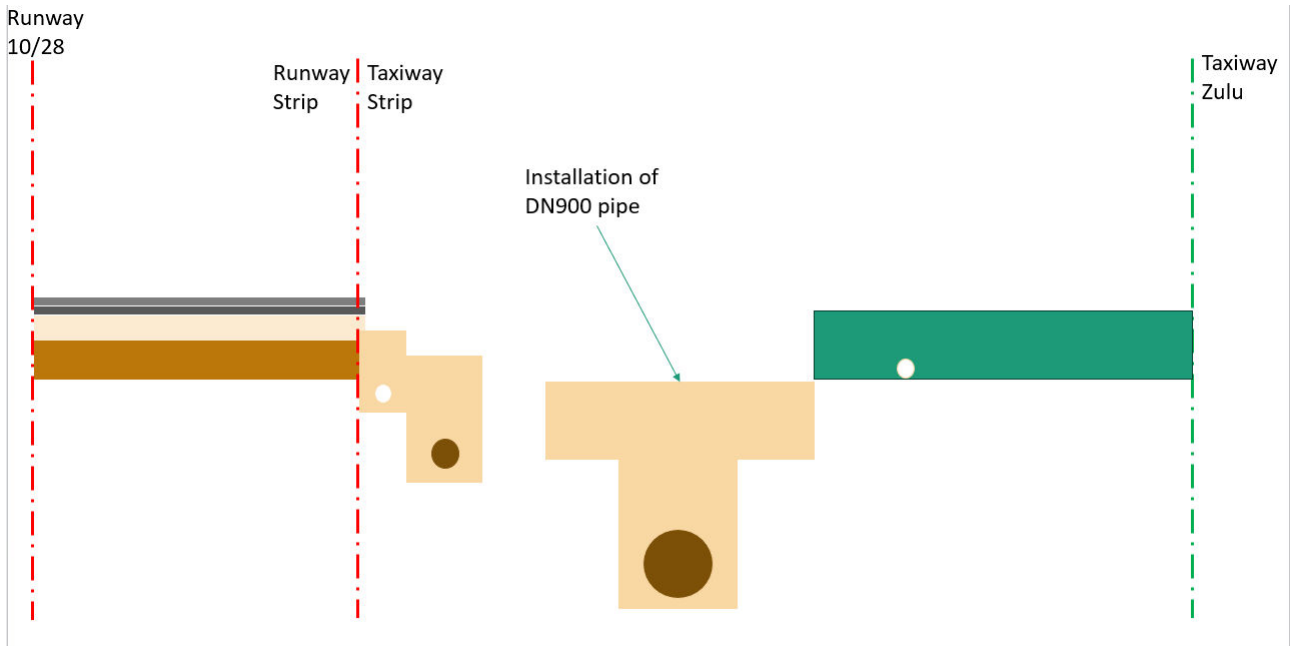


Figure 17 - Install DN900 pipe under pavement (cross section)

Replacement of pavement

8. Replace High Strength Flexible Pavement – Type 2A

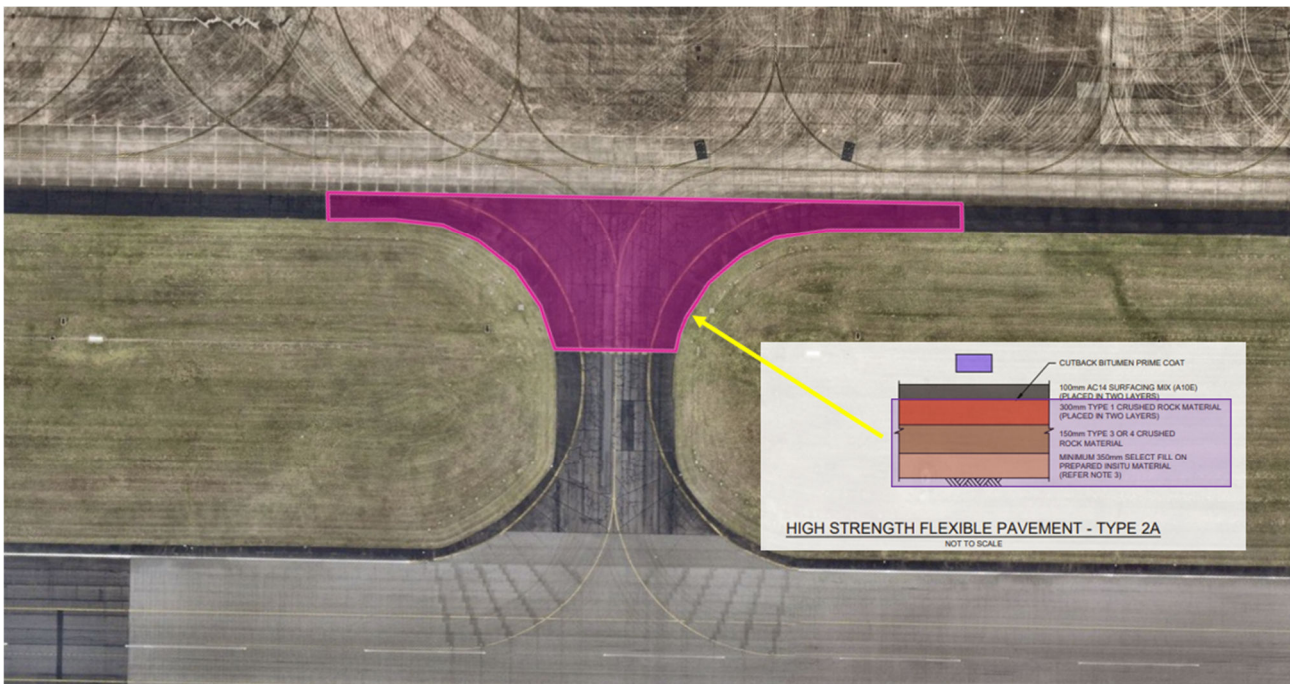
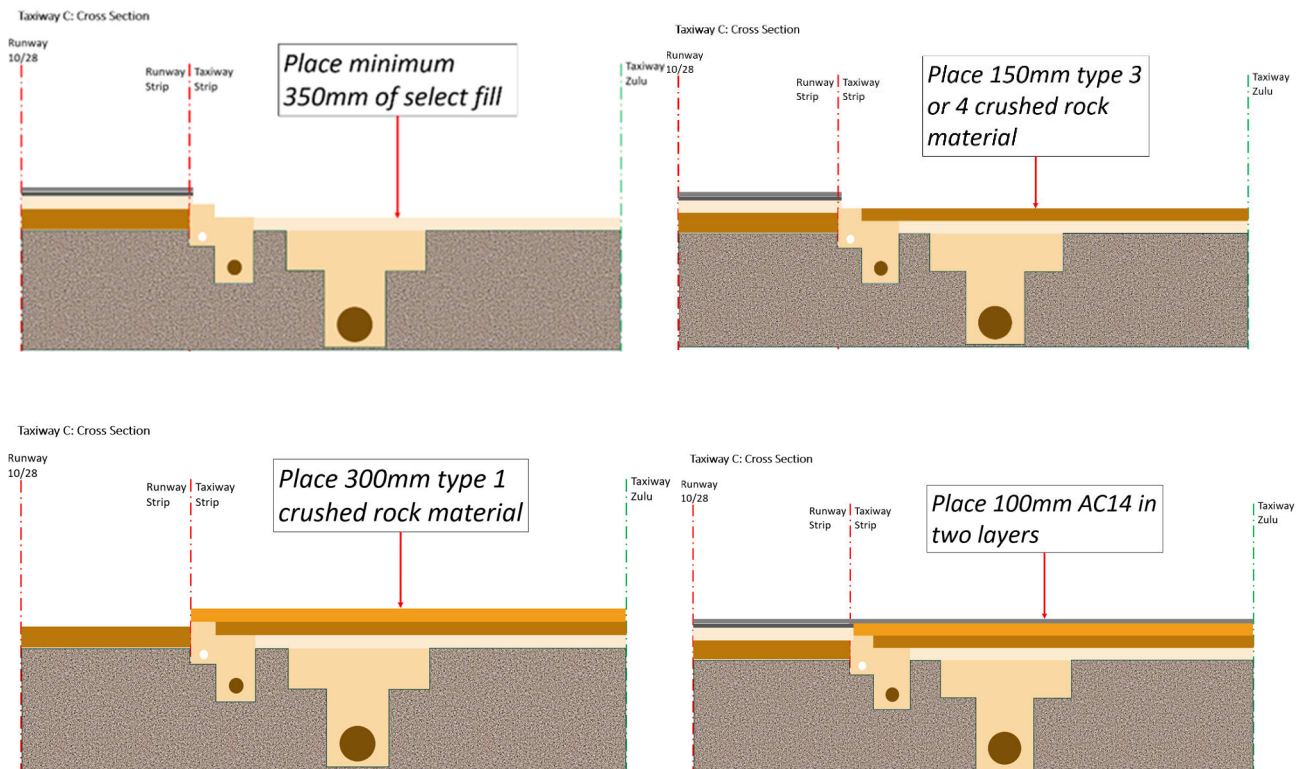


Figure 18 - Replace high strength flexible pavement



AGL works

The AGL installer will co-ordinate with EMOS to isolate relevant AGL circuits to safely enable construction activities on Taxiway C.

- Lift and Reinstall Taxiway Centreline and Holding Position Lights
- Supply and Installation of 1x20mm Secondary Conduit(s) as shown on the Project Drawings
- Supply and Installation of 1x100mm Primary Conduit as shown on the Project Drawings
- Supply and Installation of Primary and Secondary Cables as shown on the Project Drawings
- Supply and installation of SIT Pits as shown on the Project Drawings.
- Supply and installation 2 x Illuminated MAG Signs
- Testing, Commissioning and Handover in compliance with the HOTO (Handover / Takeover) checklist

1.2.2 Location and duration of TWY C works

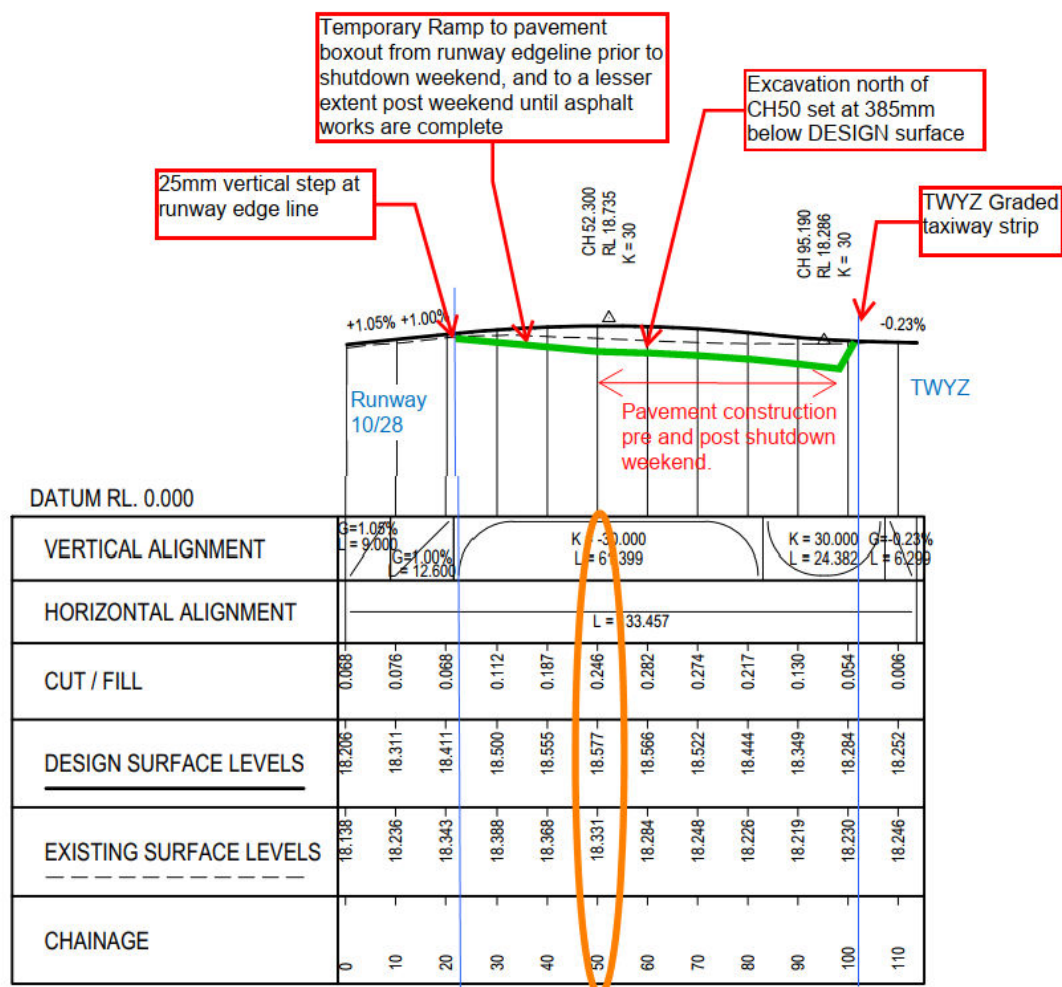
All works will be conducted between 2000 and 0800 Sunday to Thursday (shift commencing) unless prior approval is obtained from Defence to suit operational requirements. Two shutdown weekends are planned in order to rebuild Taxiway Graded Strip Pavement and advance drainage installation (14-16 March 2025) and rebuild Runway Graded Strip Pavement (04-06 April 2025).

ANNEX E - TAXIWAY C - METHODOLOGY FOR PAVEMENT WORKS IN RUNWAY STRIP

Stage 1

Prior to Weekend Shutdown, trim down:

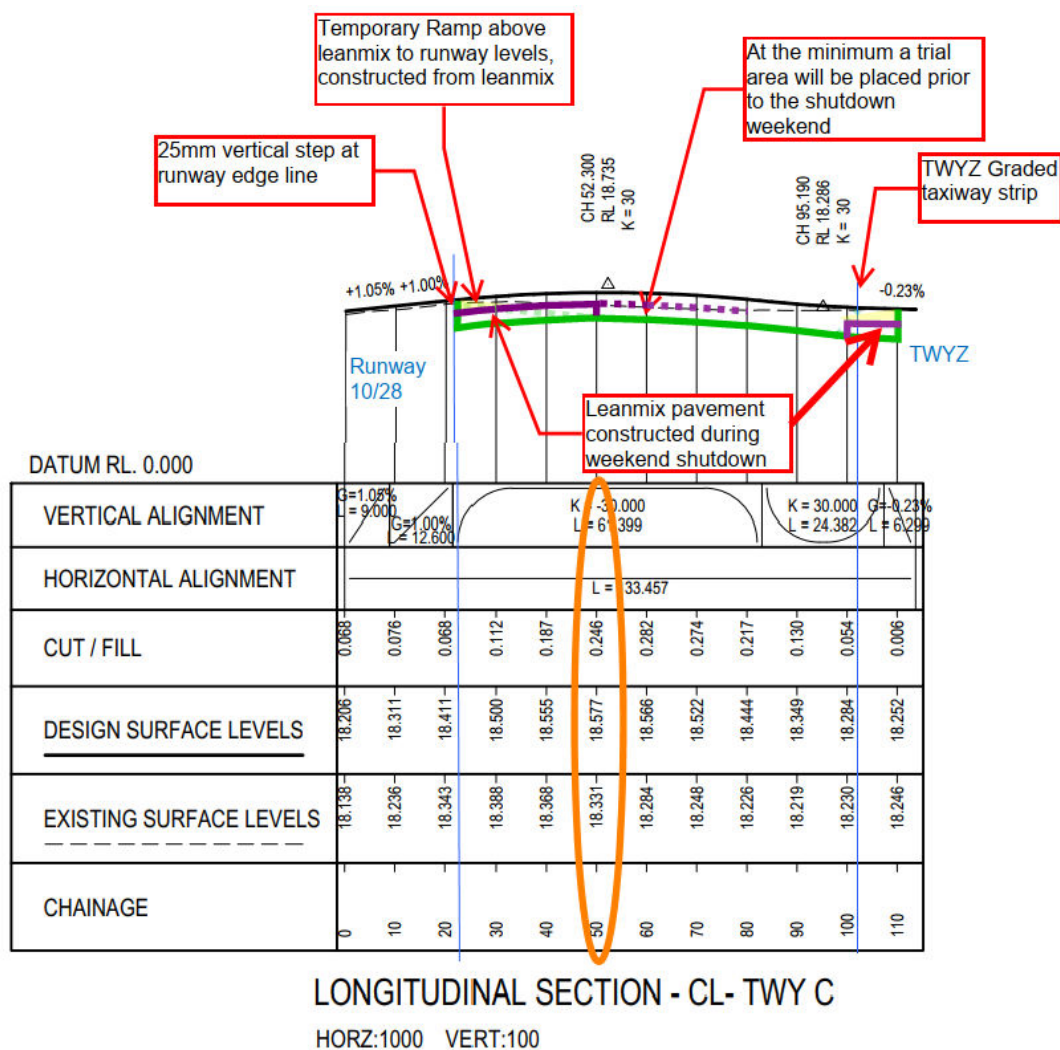
- 25mm vertical step at runway edge line
- Ramp at nominal maximum 1% grade to the point 50m north of the runway centre line
- From this point trim subgrade to a 385mm vertical offset from design surface
- In consideration of delethalisation, batters will be cut into the grass at a 12.5% gradient or flatter to the east and west of TWYC from the excavated floor
- Pavement works can proceed as normal from the point 50m north of the runway centre line to the southern edge of the Taxiway Graded strip of TWYZ. Where concrete is poured, it is to poured into the adjacent earth batter or ramped down to address delethalisation requirements



Stage 2

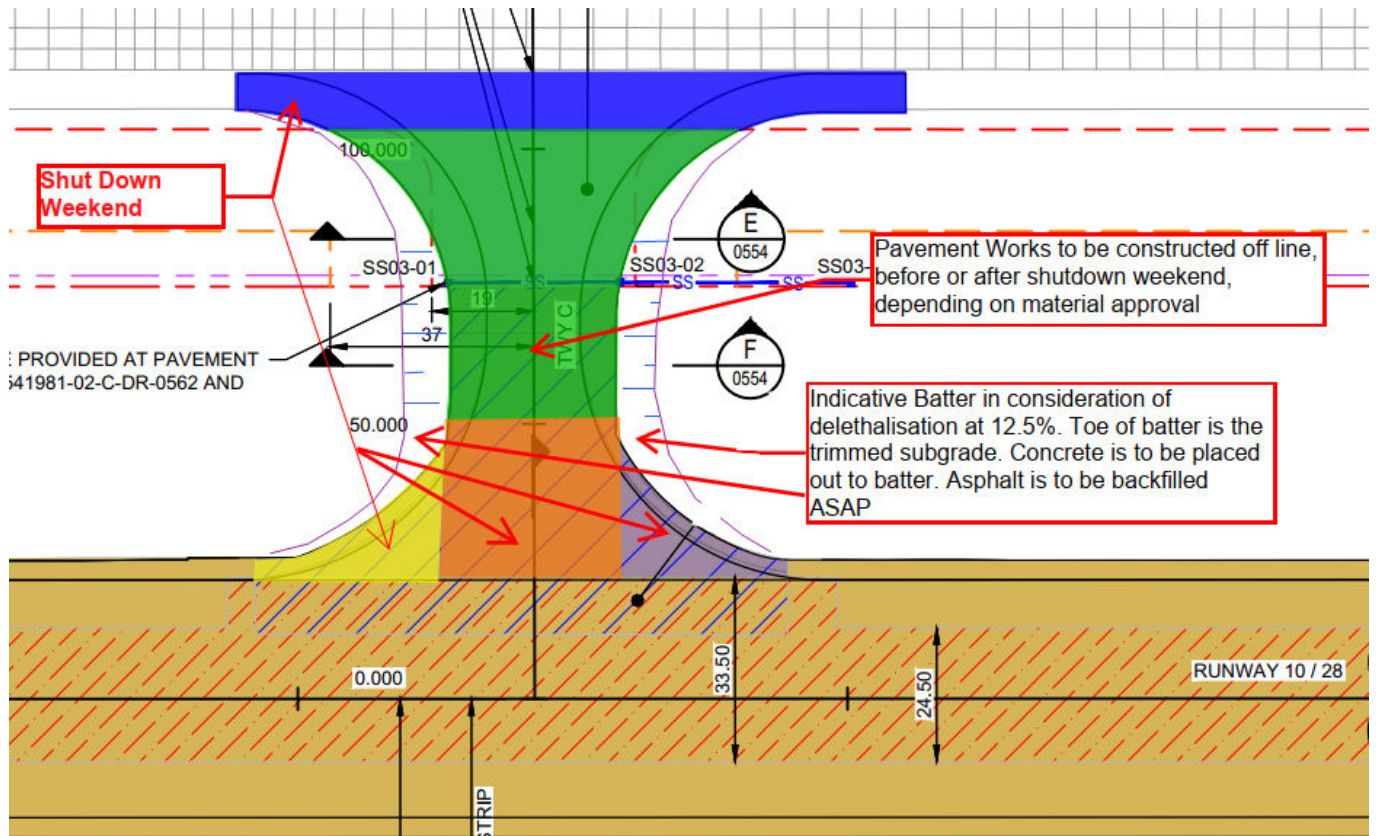
Weekend Shutdown

- Northern and southern ramps are removed and subgrade is proof rolled
- 185mm of lean mix concrete is placed above trimmed levels. Where this abuts live aircraft pavements it is to be ramped (using leanmix concrete) at 1% between finished layer level and live aircraft pavement
- Where concrete is poured, it is to be poured into the adjacent earth batter or ramped down at 12.5% gradient to address delethalisation requirements



Stage 3

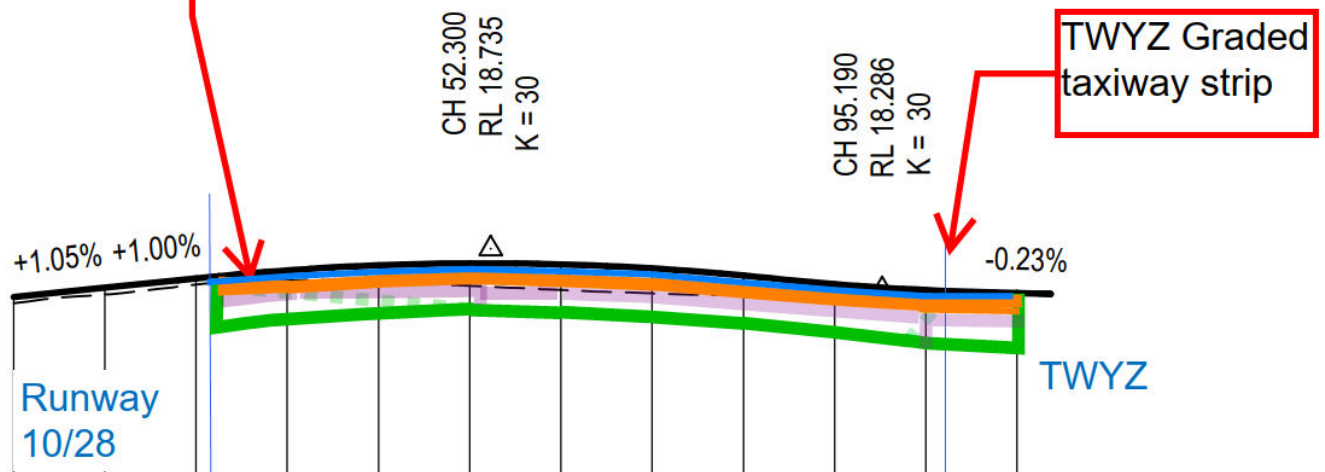
- Completion of any slabs outstanding
- Curing of all slabs
- Lean mix ramps to live aircraft pavement remain



Stage 4

- Mill Leanmix concrete ramp and Asphalt - 100mm AC 20 - 2 nights - once leanmix cures (3-7 days after pouring last pour). Place asphalt ramp. [orange]
- Mill Asphalt ramp - Asphalt - Hatellit + 1 50mm layer of AC14 - 1 night. Place asphalt ramp [blue]
- Mill asphalt ramp Asphalt - 50mm layer of AC14 - 1 night - now at tie in levels to Runway 10/28 and TWY Z [black]

Leanmix Temporary Ramp milled away and replaced by asphalt in the orange and blue layers.





ANNEX F - SHIFT HANDOVER CHECKLIST



RAAF BASE RICHMOND

Checklist - Worksite End of Shift

Shift start Date:

Shift End Date:

Conducted by:

RUNWAY	COMPLETE (ROUTE - REFER TO MAP attached)
METHOD	
SWEEPER 1	
SWEEPER 2	
FOOBOSS	
FOD TEAM	

TAXIWAY	COMPLETE (ROUTE - REFER TO MAP attached)
A	
B	
C	
D	
E	
W	
Z	

TAXIWAY LIGHTING	COMPLETE
Refer Attached Report	
Rubber Mat Protection	
Rubber Mat Pick Up	

NOTES A	
NOTES B	
NOTES C	

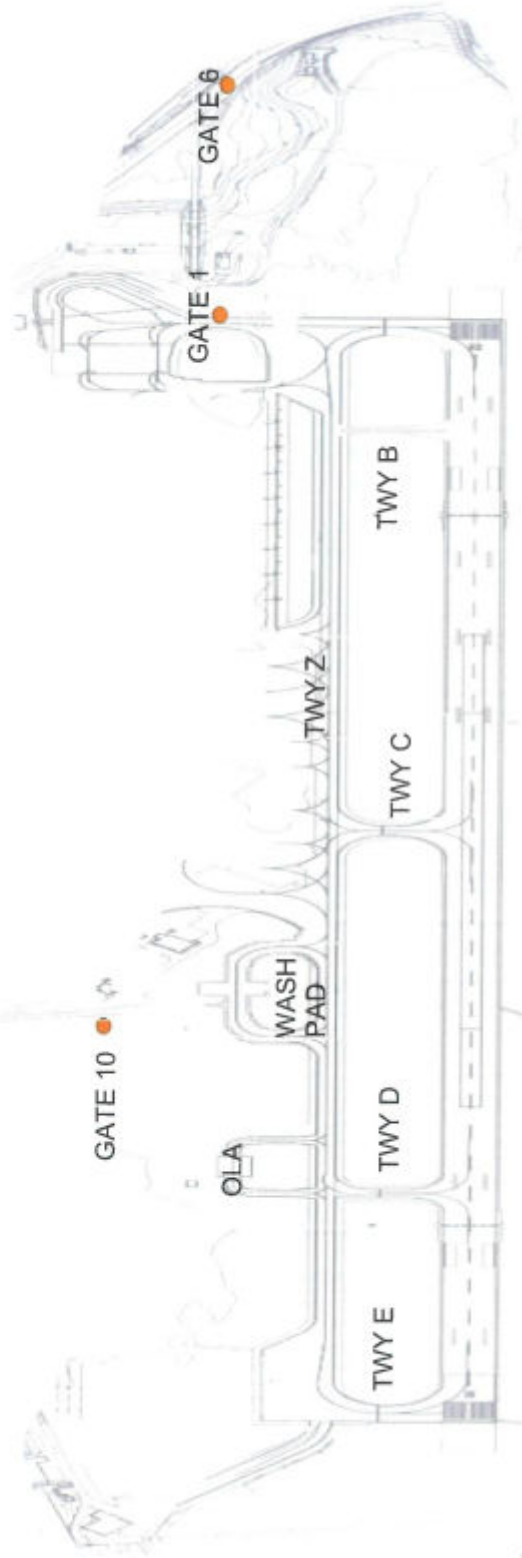
LINEMARKING	COMPLETE
Reinstated as per required	

AIRFIELD HANDED OVER:	TIME
BAEO	

BMD REPRESENTATIVE	WILCO REPRESENTATIVE
Name:	Signature:
Name:	Signature:

RAAF Richmond BMD Work Completion Checklist

Date: _____ Gates used for access: _____
Start Time: _____ Finish Time: _____





ANNEX G - RUNWAY and TAXIWAY LIGHT CHECKLIST



RAAF Richmond

RAAF BASE RICHMOND

Checklist - Runway and Taxiway Lights

Register of Lights observed as not working

Shift start Date: Mon 24 Feb 25

Shift End Date: Tues 25 Feb 25

Conducted by: W.S. Anacle

Taxiway / Runway	Description of Location	Light Label	Date Found Not Working	Date Fixed / Still Out
TWYW	Western Half	BB-10-08 ✓	29/01/2025	Still Out
TWYG	Eastern Lead in/out Centreline	TXE-Z1-12-10 ✓	20/02/2025	Still Out
	& Omnilight	EA-13-26 ✓	20/02/2025	Still Out
TWYZ	East of TWYC	TXE-Z2-12-28 ✓		Still Out
TWYZ	Between TWYH and TWYF	TXE-Z1-11-17	14/01/2025	Still Out
		TXE-Z1-12-18	24-2-25	
TWYC	Eastern Lead in/out Centreline	TXE-D-12-31	All still out, switched off by AOB Safegate.	
	Western Lead in/out Centreline	TXE-D-12-27		
TWYD	Centreline lights East to West on TWYZ	TXE-D-12-32		
		TXE-D-11-03		
		TXE-D-12-33		
		TXE-D-12-37		
		TXE-D-11-32		
		TXE-D-11-01		
FLY10				
RWY 28	Orange lead out light	TXE-A-12-12	24-2-25	
TWYH & Eastern Apron	Omnilights	TXE-Z1-11-27	19/02/2025	Still Out
	2 out, 1 unlabelled	EA-13-13	19-2-25	Still Out



ANNEX H - DISPLACEMENT CHECKLIST



RAAF BASE RICHMOND Checklist - Displacement

DESCRIPTION	REQUIREMENTS	NOTES	BMD	WSO
Survey Set Out	SRQ on CivilPro Survey Markup			
Material Inspection	Confirm required quantity of materials Available and accessible for shift Confirm acceptable condition for use			
V Bars	Survey Confirmation WSO Sign Off			
US Cones	Survey Confirmation WSO Sign Off			
X markers	Survey Confirmation WSO Sign Off			
Works Limit Markers	Survey Confirmation WSO Sign Off			
Temporary Lights	Survey Confirmation WSO Sign Off			

BMD REPRESENTATIVE	WILCO REPRESENTATIVE
Name:	Signature: